

Hazlux®

Hazlux® Hazardous Location Lighting



Hazlux® Hazardous Location Lighting

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Made in Canada at the Thomas & Betts Production Facility

Hazlux® products are assembled in Canada to meet strict Thomas & Betts quality standards and shipped quickly. We produce what you need when you need it—no waiting for large production runs or shipments from overseas. All units are inspected on site and then professionally packed so that your order will arrive intact at your installation site. When you need speed and service without sacrificing quality or reliability, you can count on the Thomas & Betts Hazlux® production team.



Speed

Thomas & Betts offers a lead time advantage thanks to the dedicated Hazlux® production operation in Canada. When you need an order fulfilled right away, we have everything we need in house to meet your requirements. The flexible capacity of our assembly operation can easily accommodate both large and small production runs with a fast turnaround. All units are made to order and assembled by our efficient, experienced in-house Hazlux® team. Your complete order is sent out the door as quickly as possible.



Excellence

Our skilled professionals build quality into every product at every step of the process, from design to final assembly. Each product is inspected and tested to ensure that it meets strict Thomas & Betts quality standards.

Dependability

The reliability and high standards of the Thomas & Betts brand stand behind all Hazlux® products. We take extra steps to ensure that each unit is protected all the way from our production facility to your installation. Special expandable foam packaging is used on all units to prevent shifting in transport so that your order arrives safely.

To reduce the carbon footprint and minimize the environmental impact of operations, a Sustainable Development policy is in effect at the Thomas & Betts production facility. Through a series of initiatives, reductions in usage of water, water bottles, electricity and natural gas, packaging, and pallets have already been realized. Forward-looking initiatives include reductions in paper, further recycling of pallets, and implementation of an eco-delivery schedule.

The Thomas & Betts production facility has been ISO 9001 compliant since 2001.

Quality Products

Thomas & Betts® is committed to delivering high quality industrial lighting fixtures designed, tested and certified for use in hazardous locations and adverse environment conditions. You can rely on Hazlux® to safely provide light where you need it — even under the harshest indoor and outdoor conditions. If safety, labor reduction, quality and reliability are your priorities, consider Hazlux® lighting products to reduce maintenance and prevent downtimes.



- Nameplate displays third party certification for all electrical ratings and hazardous location ratings as required by the Canadian Electrical Code, OSHA regulations and CSA, allows for peace of mind, confirming the right lighting fixture is installed in a certified condition
- Cast, copper-free aluminum construction for high strength, light weight and corrosion resistance meeting the highest life expectancy you can expect from a lighting fixture in a particular application
- The paint used in our standard finish is baked, electro-deposited, pure epoxy powder for maximum corrosion protection. Additional paint finishes are available, offering increased protection against harsh environment
- All exposed hardware is corrosion-resistant stainless steel will limit and ease all maintenance required on the lighting fixture
- Faster and easier installation with simple hinge arrangement that permits “hands-free” wiring

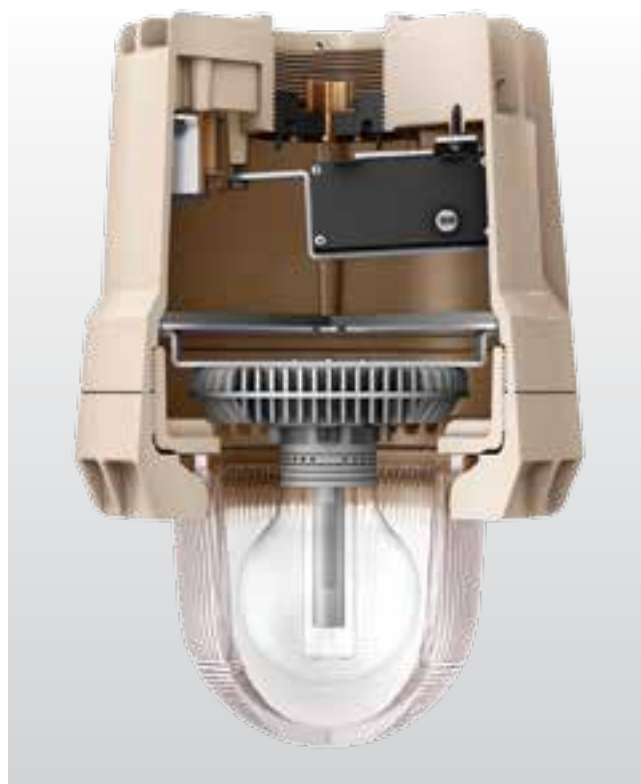




- Hazlux® 5 fixtures feature electromechanical connect block for quick, safe fixture removal for bench relamping and/or maintenance
- High strength mechanical mounting, robust design and components to withstand ice, strong wind loads or heavy vibrations
- Heat tempered glass for greater strength and thermal shock resistance to selection of refractors to meet your application and lighting requirements

- Seizure-resistant threads make installation and maintenance easy over years, and Hazlux® 5, Dual pitch acme threads for easier, faster assembly
- Heat-sunk internal components results in cooler operation for extended ballast life, higher lamp wattage and a broader range of hazardous locations

- Hazlux® products are designed with top and bottom fins to provide maximum heat dissipation.
- In order to use the whole luminaire as a heat sink, the ballast/generator is installed so that it transfers heat to the luminaire body.
- Select induction lamp options feature an additional inner heat sink to provide the coolest possible design for maximum luminaire efficiency.
- A metal plate provides two separate compartments for the ballast/generator and lamp source to maximize life expectancy.



Overview

Hazardous Locations

Hazardous Location — An area where the possibility of explosion and fire is created by the presence of flammable gases, vapors, dust, fibers or flyings.

Class I — Gas

Class I — Class I locations are those in which flammable gases, flammable liquid-produced vapors or combustible liquid-produced vapors are or may be present in the air in quantities sufficient to produce explosive or ignitable mixtures.

Typical Class I Locations:

- Petroleum refineries and gasoline storage and dispensing areas
- Industrial firms that use flammable liquids in dip tanks for parts cleaning or other operations
- Petrochemical companies that manufacture chemicals from gas and oil
- Dry cleaning plants where vapors from cleaning fluids can be present
- Companies that have spraying areas where they coat products with paint or plastics
- Aircraft hangars and fuel serving areas
- Utility gas plants and operations involving storage and handling of liquified petroleum gas or natural gas

Class II — Dust

Class II — Class II locations are those that are hazardous because of the presence of combustible dust.

Typical Class II Locations:

- Grain elevators, flour and feed mills
- Plants that manufacture, use or store magnesium or aluminum powders
- Plants that have chemical or metallurgical processes: producers of plastics, medicines and fireworks, etc.
- Producers of starch or candies
- Spice-grinding plants, sugar plants and cocoa plants
- Coal preparation plants and other carbon handling or processing areas

Class III — Fibers

Class III — Class III locations are those that are hazardous because of the presence of easily ignitable fibers or where materials producing combustible flyings are handled, manufactured or used, but in which such fibers/flyings are not likely to be in suspension in the air in quantities sufficient to produce ignitable mixtures.

Typical Class III Locations:

- Textile mills, cotton gins, cotton seed mills and flax processing plants
- Any plant that shapes, pulverizes or cuts wood and creates sawdust or flyings

Note: Fibers and flyings are not likely to be suspended in the air but can collect around machinery or on lighting fixtures and where heat, a spark or hot metal can ignite them.



Division 1 — Normally Hazardous

Division 1 — Hazardous gases or dusts are present under normal operation conditions or during frequent repair and maintenance activity.

Groups A, B, C, D

Groups A, B, C and D — The gases and vapors of Class I locations are broken into four groups by the code A, B, C and D. These materials are grouped according to the ignition temperature of the substance, its explosion pressure and other flammable characteristics.

Groups E, F, G

Groups E, F, G — Class II dust locations groups E, F and G are classified according to the ignition temperature and the conductivity of the hazardous substance.

Division 2 — Not Normally Hazardous

Division 2 — Hazardous gases or dusts are not present under normal operating conditions.

Area Classification—Divisions vs. Zones		
Continuous Hazard	Intermittent Hazard	Hazard under Abnormal Conditions
Zone 0	Zone 1	Zone 2
Division 1		Division 2

Note: These are simplified definitions — complete data is in the Canadian Electrical Code (C.E.C)

Overview

Four-Step Method for Selecting Lighting Fixtures for Hazardous Locations

1. Select a fixture that meets your Class, Division and Group requirements.

Examples: Class I, Division 2, Group D
 Class II, Division 1, Group G

2. Determine the T-Number for your selected fixture. Be sure it is for the specific wattage, ballast housing, optical assembly and ambient temperature.

- Use the published information in this catalog or in Hazlux® product brochures

3. Determine the Maximum Allowable Temperature for the hazardous materials involved.

- Class I Gas: Ignition Temperature for the Specific Gas (from pp. I-4–I-7 of this catalog or from NFPA497M)
- Class II Dust:
 - Group E.....200° C
 - Group F.....200° C
 - Group G.....165° C
 - Or ignition temperature of dust if lower
 - Above from NEC® Table 500-3(F)

4. Compare T-Number (from Step 2) to Maximum Allowable Temperature (from Step 3).

- If T-Number is cooler than the Maximum Allowable Temperature, the selected fixture is suitable.
- If T-Number is hotter than the Maximum Allowable Temperature, the selected fixture is not suitable.

CLASS I, II, DIV. 1, 2 T-NUMBER	MAX. TEMP. (IN °C)
T1	450
T2	300
T2A	280
T2B	260
T2C	230
T2D	215
T3	200
T3A	180
T3B	165
T3C	160
T4	135
T4A	120
T5	100
T6	85

Overview

Hazlux® Applications



Hose Down



Vibration



High Ambient



Dust



Corrosion



Marine



Ice



Wind

From an offshore oil rig in the Atlantic Ocean to the factory floor, there's a Hazlux® lighting fixture to stand up to virtually every hazardous location.

Here are some of the places you'll find Hazlux® fixtures:

- Chemical manufacturing and processing plants
- Oil refineries
- Oil drilling rigs
- Offshore platforms
- Pipeline pumping stations
- Pulp and paper plants
- Aluminum and copper smelting
- Steel mills and foundries
- Mining operations
- Grain handling facilities
- Flour, sugar and starch processing
- Food processing plants
- Paint and rubber manufacturing facilities
- Marine and coastal facilities
- Shipyards and shipbuilding plants
- Power generation plants
- Waste treatment facilities
- Paint, chemical and plastic mixing/storage areas
- Bulk truck terminals
- Solvent/cleaning areas

Hazlux® lighting fixtures are built to withstand the harsh environmental conditions that exist in real settings.

Overview

Hazlux® Applications

Hose-Down and Wet Locations

- Certified for wet locations — NEMA 4X, IP66 (indoor and outdoor); UL1598A (marine) and CSA Listed
- Superior gasketing system — both tank and globe gasketing systems withstand hose-down pressures
- Uninterrupted globe thread — assures positive seal
- Baked-on, dry epoxy coating — not paint but 100% dry solids
- Globes, refractors and finish designed to withstand thermal shock during hose down

High-Ambient Temperature Areas

- All standard fixtures are tested and listed for at least 40° C ambient — even under heavy dust blanket and no air flow
- Exclusive heat sink design results in a cool operating fixture, extended ballast/lamp life and lower maintenance costs
- Unmatched selection of high-ambient, temperature rated fixtures — contact factory for fixtures certified for 55° C and 65° C applications
- Steam spray and thermal shock resistant

Corrosion and Abrasion

- Baked-on, dry epoxy coating — not paint but 100% dry solids
- Stainless steel external hardware
- Sand-blast resistant finish
- Superior silicone gasketing system on both tank and globe. Other gasketing systems available for special corrosive applications such as phosphates
- Aluminum components contain less than 0.4% copper — maximum corrosion resistance
- Special HazCote® corrosion fighter finish available for extremely corrosive areas; consult Thomas & Betts for details

Ice and Arctic Conditions

- Gasketing system and finish allow for expansion and contraction through wide temperature variations
- Metal halide ballasts start at -29° C; high-pressure sodium ballasts start as low as -51° C (consult Thomas & Betts for details)
- High-strength mechanical mountings withstand extra ice loading
- Tempered glassware available for extra thermal shock safety margin

Vibration, Seismic Shock and Vandalism

- Vibration tested by UL and CSA
- Vibration-resistant hardware throughout fixture
- Screw retainers on guard ensure retention even if screws are not completely tightened
- Vibration-resistant globe thread and sealing system
- Optional refractors, high-strength tempered glass and Tuff-Skin® globes for protection from vandalism

Dust Blanket

- Tested and listed by UL and CSA
- Thermal performance is at 40° C ambient; optional thermal performance to 55° C and 65° C ambient available (consult factory)
- Cone pendant mount available (45° sloped sides) for areas where dust or other residue buildup is a problem
- Exclusive heat sink design — results in a cool operating fixture, extended ballast/lamp life and lower maintenance costs

Marine-Duty Option

- UL1598A Marine listed
- This feature is supplied as standard on most Hazlux® 3 fixtures; consult Thomas & Betts for details
- Designed for abuse — hose down, arctic, hurricane, vibration and shock, high temperature, corrosion and other environmental conditions typical of adverse marine locations
- Exclusive combination of marine and hazardous location approvals on the same fixture line

Wind

- Wind-tunnel tested at McDonnell Douglas Corporation at air flow speeds in excess of 198 mph (320 km/h)
- Guard specially designed to secure reflector during high wind loading
- All fasteners are stainless steel
- High-strength mechanical mountings withstand strong wind loads

Note: Tuff-Skin is a registered trademark of Thomas Manufacturing Corp.



Designed, Tested and Certified for Use in Hazardous Locations and Adverse Environments

New Labor-Saving Features for Hazlux® 3 Fixtures

Induction Lighting

Long life for reduced maintenance

Hazlux® 3 induction lighting provides a 60,000+ hour lamp life, drastically reducing expensive maintenance costs of industrial lighting in hazardous locations. For complete details, see **pages 34-35**.

HazVertor™ Adapter Ring

Replace other brand fixtures without removing the top hat

The HazVertor™ adapter ring gives you the freedom to replace Crouse-Hinds Champ® series lighting fixtures (VMV, DMV or LMV types) with Hazlux® 3 lighting fixtures without removing the Crouse-Hinds top hat from the conduit system, eliminating the need to replace conduit and wiring.

Save time and increase efficiency. The HazVertor™ can be ordered as a separate item or as part of a Hazlux® 3 fixture assembly. Look for the HV1 or HV2 mounting style options and switch to increased efficiency, wider suitability for hazardous locations, improved light distribution and improved T-numbers.

Hazlux® UNIPAK™ Packaging

- UNIPAK™ is the Hazlux customized packaging system that is designed to save money for all concerned
 - UNIPAK™ fixtures are normally assembled and can include globes, guards, reflectors, lamps, fuses and other options
 - Outlet boxes are normally shipped separately; consult factory regarding outlet boxes to be assembled to UNIPAK™ fixtures
 - Assembled UNIPAK™ fixtures are shipped in one carton with the fixture foam packed in place
 - Refer to the “Catalog Numbering System” for each individual Hazlux® fixture series for ordering information
- UNIPAK™ saves seven ways:
 - Fewer cartons to receive, count, move, open and dispose
 - Fewer storage problems
 - Reduces inventory expense
 - Eliminates lost or back-ordered parts
 - Eliminates mismatched fixtures or lamps
 - Significantly reduces labor costs
 - Reduces total installed cost per fixture



Please note that Hazlux may use lamps from the manufacturer of its choice, unless customer specified.

Fixtures for Class I, Division 2; Class II; Wet and Marine Locations



Applications

- Chemical Plants
- Oil Refineries
- Paint, Rubber Manufacturing
- Offshore Platforms
- Oil Drilling Rigs
- Oil, Gas Transmission
- Waste Treatment Facilities
- Airplane, Aerospace Facilities
- Electronics Manufacturing
- Pharmaceutical Plants
- Aircraft Manufacturing
- Vehicle Maintenance Facilities
- Grain Handling, Food Processing
- Coal Handling and Processing
- Flour, Sugar, Starch Processing
- Ammunition Manufacturing
- Coal, Gold and Copper Mining
- Pulp and Paper Manufacturing
- Copper, Aluminum Smelting
- Breweries, Malt Plants
- Shipyards, Shipbuilding Facilities
- Automobile Manufacturing
- Marine and Coastal Facilities
- Utility Power Plants
- Steel Mills, Foundries
- General Manufacturing Plants

Fixtures for Class I, Division 2; Class II; Wet and Marine Locations

Features

- Modular fixture components enable hundreds of easy-to-assemble combinations
- Cast copper-free aluminum housings and mounting covers are lightweight and resist corrosion
- Electrostatically applied powder-coat finish for added corrosion resistance
- Thermal shock-resistant glass globes and refractors protect lamps in wet, marine and outdoor applications
- All glass globes and refractors are fully threaded and provide a dust-tight, watertight seal with silicone rubber gaskets
- Standard globe guards are made from rugged polycarbonate plastic or cast aluminum with keyhole slots for ease of installation and do not interfere with globe threads
- All exposed hardware is stainless steel for corrosion resistance and screws are slotted, hex-head style to further ease installation
- Comprehensive UL Listings for Class I, Division 2; Class I, Zone 2; and Class II
- Available for use with high-pressure sodium and metal halide lamps up to 400 watts
- Eight different mounting styles — rigid pendant, flexible pendant, cone pendant, ceiling, wall, 25° angle stanchion, straight stanchion and HazVektor™ Adapter Ring
- Three ballast housing choices — standard housing, R-housing and large housing
- Heat sinks in ballast housings enable ballasts to operate cooler, provide longer life and improve temperature performance
- Bright white FRP (fiberglass-reinforced polyester) angle or dome reflectors resist corrosion while maximizing lighting effectiveness
- Many optical choices — standard globes, threaded refractor globes, 7¾" globes, 12" refractors, enclosed high-bay reflectors and more
- All mounting covers provided with dual-lead ground wire for connection to field and fixture grounds
- Optional HazCote® coating for extremely corrosive applications
- Optional stainless steel inserts for guard screws and ballast tank closure screw for enhanced corrosion resistance
- Optional Tuff-Skin® silicone coating on glass optics contains fragments if glass is broken (for food processing)
- Optional instant restrike starter for HPS lamps up to 150 watts restarts hot HPS lamp after momentary power failure



Materials and Finishes

- Ballast Housings — Copper-free aluminum, powder finish
- Mounting Covers — Copper-free aluminum, powder finish
- Guards — Polycarbonate, copper-free aluminum or steel
- Globes — Tempered glass or borosilicate glass
- Refractor Globes — Borosilicate glass
- Refractors (12") — Borosilicate glass
- Hardware — Stainless steel
- Reflectors — Fiberglass-reinforced polyester (standard dome, angle); anodized aluminum (deep dome, high bay enclosed)
- Gaskets — High-temperature silicone rubber

Certifications/Compliances



- UL® Listed (UL844) and CSA certified (csa C22.2 no. 137) for:
 - Class I, Division 2, Groups A, B, C, D*
 - Class I, Zone 2, Groups IIA, IIB, IIC
 - Class II, Divisions 1 & 2, Groups E, F, G
 - Class III†
 - Wet locations
- UL® Listed (UL1598A) for:
 - Marine Locations
 - NEMA 4X, IP66

* See **page 7** for T-Code Rating.

† See **pages 14-15** for ratings on specific wattages.

Tuff-Skin is a registered trademark of Thomas Manufacturing Corp.

Hazlux® 3 Certification Guide (40° C Ambient) Standard Housing, 5½" Thread



LAMP TYPE	WATTS	AMBIENT TEMP (DEG. C)	CLASS I, DIVISION 2 GROUPS A, B, C, D TEMPERATURE CODE		CLASS II DIVISION 1 & 2 GROUPS		UL 1598A MARINE	NEMA 4X*	SUPPLY WIRE TEMP. RATING (DEG. C)
			VGT/VGL22 5½" GLOBE, GUARD & REFLECTOR	VRF22C5 12" DIA. REFRACTOR	VGT/VGL22 5½" GLOBE, GUARD & REFLECTOR	VRF22C5 12" DIA. REFRACTOR			
High-Pressure Sodium	50	40	T3C	T4	EFG	EFG	Yes	Yes	90
	70	40	T3A	T3C	EFG	EFG	Yes	Yes	90
	100	40	T2C	T2D	EFG	EFG	Yes	Yes	90
	150	40	T2A	T2B	—	EFG	Yes	Yes	90
Metal Halide	70	40	T3C	T2C	EFG	EFG	Yes	Yes	90
	100	40	T3A	T2C	EFG	EFG	Yes	Yes	90
	175	40	T2A	T2C	—	EFG	Yes	Yes	90
	250	40	T2	T2	—	EFG	—	Yes	125

- Notes:**
1. Simultaneous presence applications: Some Hazlux® 3 fixtures are UL® Listed for simultaneous presence of gas and dust. Contact Hazlux® for specific information.
 2. Tuff-Skin® Coated Optics: Many Hazlux® 3 fixtures are UL® Listed with Tuff-Skin® (silicone) coating on glass optics. Contact Hazlux® for specific information.
 3. For UL® and CSA Certification Information on other ambient temperatures and fixture configurations, consult the factory or refer to the Hazlux® Application Guide (Order Number: H7027).

Hazlux® 3 Certification Guide (40° C Ambient) R Housing, 7¾" Thread



LAMP TYPE	WATTS	AMBIENT TEMP (DEG. C)	CLASS I, DIVISION 2 GROUPS A, B, C, D TEMPERATURE CODE		CLASS II DIVISION 1 & 2 GROUPS		UL 1598A MARINE	NEMA 4X*	SUPPLY WIRE TEMP. RATING (DEG. C)
			VGT31S 7¾" GLOBE, GUARD & REFLECTOR	VGL31R5 7¾" DIA. REFRACTOR GLOBE	VGT31S 7¾" GLOBE, GUARD & REFLECTOR	VGL31R5 7¾" DIA. REFRACTOR GLOBE			
High-Pressure Sodium	50	40	T3C	T3C	EFG	EFG	Yes	Yes	90
	70	40	T3A	T3A	EFG	EFG	Yes	Yes	90
	100	40	T2D	T3	EFG	EFG	Yes	Yes	90
	150	40	T2B	T2B	EFG	EFG	Yes	Yes	90
Metal Halide	70	40	T3	T3	EFG	EFG	Yes	Yes	90
	100	40	T3	T3	EFG	EFG	Yes	Yes	90
	175	40	T2B	T2B	EFG	EFG	Yes	Yes	90
	250	25	T2	T2	EF	EFG	—	Yes	90

- Notes:**
1. Simultaneous presence applications: Many Hazlux® 3 fixtures are UL® Listed for simultaneous presence of gas and dust. Contact Hazlux® for specific information.
 2. Tuff-Skin® Coated Optics: Many Hazlux® 3 fixtures are UL® Listed with Tuff-Skin® (silicone) coating on glass optics. Contact Hazlux® for specific information.
 3. For UL® and CSA Certification Information on other ambient temperatures and fixture configurations, consult the factory or refer to the Hazlux® Application Guide (Order Number: H7027).

* All Hazlux® fixture assemblies shown in this Buyers Guide as UL® Listed or CSA Certified for marine applications are suitable for hosedown when fixture is off and glass has been allowed to cool. Tempered glass globes and refractors have better thermal-resistance properties than non-tempered globes and refractors and should be considered whenever fixtures are subject to being splashed with significantly cooler liquids while illuminated (hot). Consult factory for more information.

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Hazlux® 3 Certification Guide (40° C Ambient) Large Housing, 7³/₄" Thread



LAMP TYPE	WATTS	CLASS I, DIVISION 2 GROUPS A, B, C, D TEMPERATURE CODE				CLASS II DIVISION 1 & 2 GROUPS				UL 1598A MARINE	NEMA 4X*	SUPPLY WIRE TEMP. RATING (DEG. C)
		AMBIENT TEMP (DEG. C)	VGT31 GLOBE WITH GUARD & REFLECTOR	VRF31C5 12" DIA. REFRACTOR	REFLECTOR WITH LENS	VGT31 GLOBE WITH GUARD & REFLECTOR	VRF31C5 12" DIA. REFRACTOR	REFLECTOR WITH LENS				
High- Pressure Sodium	200	40	T2	T2A	T2A	EF	EFG	EFG	Yes	Yes	90	
	250	40	325° C	325° C	325° C	EF	EFG	EFG	Yes	Yes	90	
Metal Halide	400	40	T2A	T2B	T2B	—	EFG	EF	—	Yes	110	
	250	40	T2	T2A	T2A	—	EFG	EFG	—	Yes	90	
PSMH	400	40	350° C	325° C	325° C	—	EFG	EF	—	Yes	110	
	320	40	350° C	325° C	325° C	—	EFG	EF	—	Yes	125	
	400	40	350° C	325° C	325° C	—	EFG	EF	—	Yes	125	

- Notes:**
1. 400-Watt HPS T-numbers based on BT/E/ED 37 diffuse coated lamp. Contact Hazlux® for certification information when using other lamps.
 2. Simultaneous presence applications: Some Hazlux® 3 fixtures are UL® Listed for simultaneous presence of gas and dust. Contact Hazlux® for specific information.
 3. Tuff-Skin® Coated Optics: Many Hazlux® 3 fixtures are UL® Listed with Tuff-Skin® (silicone) coating on glass optics. Contact Hazlux® for specific information.
 4. For UL® and CSA Certification Information on other ambient temperatures and fixture configurations, consult the factory or refer to the Hazlux® Application Guide (Order Number: H7027).

Hazlite™ M3 Certification Guide (40° C Ambient)



FIXTURE TYPE	WATTS	SERIES	CLASS I, DIVISION 2 GROUPS A, B, C, D TEMPERATURE CODE		CLASS II DIVISION 1 & 2 GROUPS		CLASS III DIVISION 1 & 2		NEMA 4X (SUITABLE FOR HOSEDOWN)*	MARINE LISTED (UL 1598A)*
			GLOBE & GUARD WITH OR WITHOUT REFLECTOR	8" REFRACTOR	GLOBE & GUARD WITH OR WITHOUT REFLECTOR	8" REFRACTOR	GLOBE & GUARD WITH OR WITHOUT REFLECTOR	8" REFRACTOR		
High- Pressure Sodium	35	DSM	T3A	T3A	EF&G	EF&G	Yes	Yes	Yes	Yes
	50	DSM	T3	T3	EF&G	EF&G	Yes	Yes	Yes	Yes
	70	DSM	T2B	T2B	EF&G	EF&G	Yes	Yes	Yes	Yes
	100	DSM	T2A	T2A	E&F	EF&G	—	Yes	Yes	Yes
Metal halide	150	DSM	325° C	325° C	E&F	EF&G	—	Yes	Yes	—
	70	DHM	T2A	—	E&F	—	—	—	Yes	Yes
	100	DHM	T2A	—	E&F	—	—	—	Yes	Yes

* All Hazlux® fixture assemblies shown in this Buyers Guide as UL® Listed or CSA Certified for marine applications are suitable for hosedown when fixture is off and glass has been allowed to cool. Tempered glass globes and refractors have better thermal-resistance properties than non-tempered globes and refractors and should be considered whenever fixtures are subject to being splashed with significantly cooler liquids while illuminated (hot). Consult factory for more information.

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Hazlux® 3 Standard Housing

Assembly Guide

Complete luminaire consists of :

A MOUNTING STYLE

+ BALLAST TANK

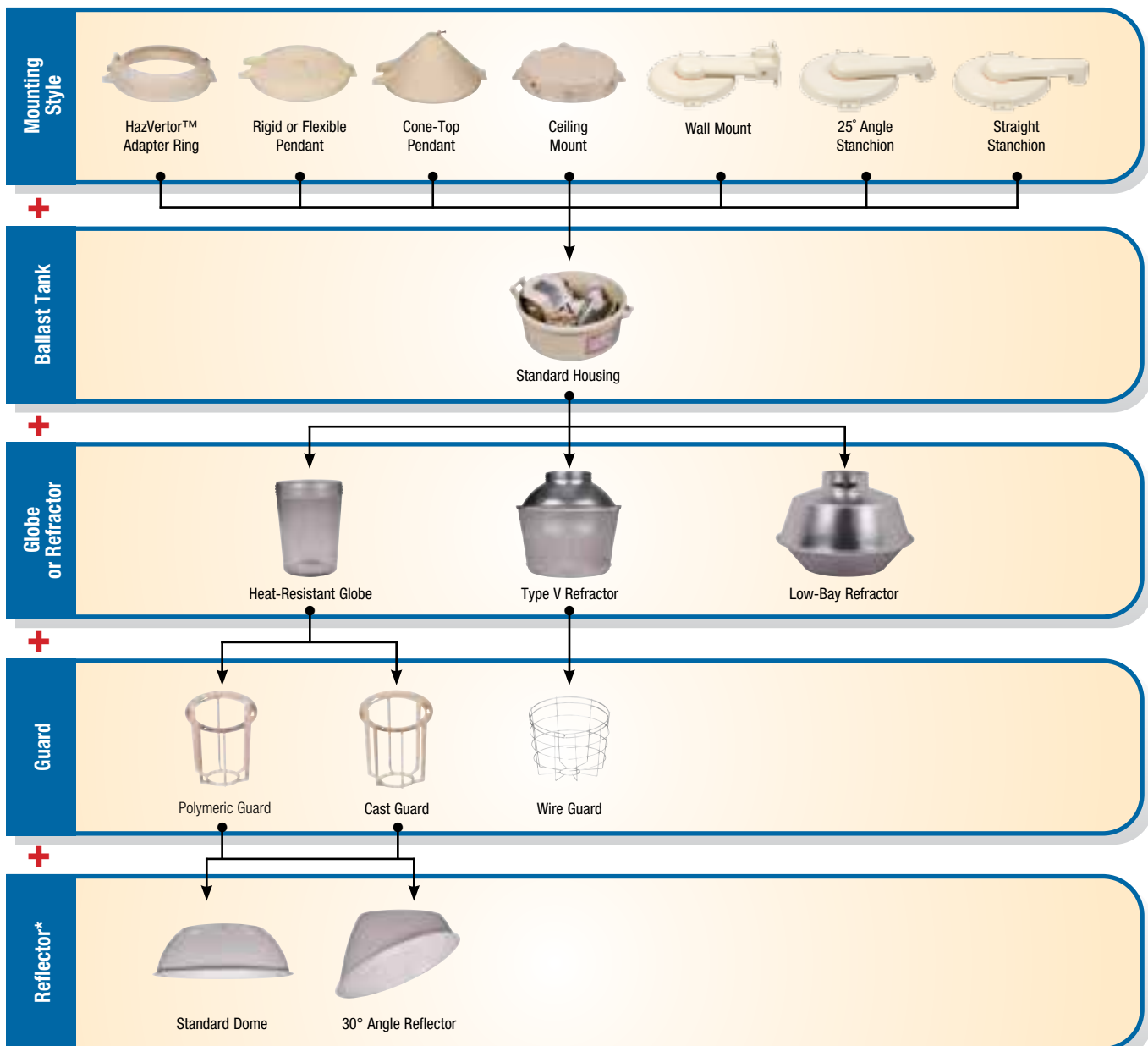
+ GLOBE OR REFRACTOR

+ OPTIONAL GUARD AND/OR REFLECTOR



To order a **UNIPAK™** fixture, see [page 17](#).

To order **separate components**, order **BALLAST TANK** on [page 17](#) and **INDIVIDUAL COMPONENTS** on [page 18](#).



* Reflectors are sold separately. See page 18 for ordering number.

Hazlux® 3 Standard Housing

Catalog Numbering System

Class I	— Zone 2, Groups IIC, IIB, IIA	
	— Division 2, Groups A, B, C and D	
Class II	— Division 1 and 2, Groups E, F and G	
Class III		
	• UL® Listed (UL1598A) for Marine Locations	
	• UL844	
	• NEMA 4X, IP66	
	• CSA C22.2 No. 137	
Contact your Thomas & Betts sales representative to verify classification.		



UNIPAK™ =

Ballast Tank +
Optics & Mountings +
Options (if necessary)

Ballast Tank							Optics & Mountings			Options		
D	S	Ø	15	H	04	Ø	TGL	P2	E	T	F	C
1	2	3	4	5	6	7	8	9	10	11	12	13

BALLAST TANK	
1	FIXTURE SERIES D = Hazlux® 3 Fixture
2	LAMP TYPE S = High-Pressure Sodium H = Metal Halide C = 150-Watt HPS 100V Only
3	STARTER CIRCUIT/QUARTZ OPTIONS Ø = Standard Fixture (without options) P = Pulse Start (MH only)* Q = Quartz Auxiliary Option (not hazardous rated) R = Instant Restart (50 - 150W HPS) J = Auto Shutoff Starter (HPS only) Y = Auto Shutoff Starter with Quartz Restrike (HPS only, non-UL)
4	LAMP WATTAGE Metal Halide Lamps 07 = 70W ED28 10 = 100W ED28 17 = 175W ED28 20 = 200W ED28PS 25 = 250W ED28 High Pressure Sodium Lamps 05 = 50W ED23 1/2 07 = 70W ED23 1/2 10 = 100W ED23 1/2 15 = 150W ED23 1/2
5	BALLAST CIRCUIT H = High Reactance C = Constant Wattage Autotransformer (CWA) I = CWI P = Reactor (all ballasts high power factor)
6	VOLTAGE/FREQUENCY 03 = 120/277V, 60 Hz 04 = 120/208/240/277V, 60 Hz 09 = 120/277/347V, 60 Hz (CSA) 12 = 120V, 60 Hz 20 = 208V, 60 Hz 24 = 240V, 60 Hz 27 = 277V, 60 Hz 34 = 347V, 60 Hz 48 = 480V, 60 Hz 225 = 220V, 50 Hz 245 = 240V, 50 Hz
7	BALLAST HOUSING STYLE Ø = Standard Housing S = Standard Housing with Stainless Steel Inserts

OPTICS AND MOUNTINGS	
8	OPTICAL ASSEMBLY OPTIONS TG = Thermal Shock-Resistant Globe TGC = Thermal Shock-Resistant Globe with Cast Guard TGL = Thermal Shock-Resistant Globe with Polymeric Guard SG = Tuff-Skin® Coated Globe SGC = Tuff-Skin® Coated Globe with Cast Guard SGL = Tuff-Skin® Coated Globe with Polymeric Guard R2 = 12-in. Glass Refractor, Type II R5 = 12-in. Glass Refractor, Type V R2G = R2 with Wire Guard R5G = R5 with Wire Guard CBDL = Closed Bottom Refractor with Polycarbonate Lens
9	MOUNTING STYLE A2 = 3/4" Cone-Top Pendant A3 = 1" Cone-Top Pendant B2 = 3/4" Wall Mount B3 = 1" Wall Mount C2 = 3/4" Ceiling Mount C3 = 1" Ceiling Mount F2 = 3/4" Flexible Pendant F3 = 1" Flexible Pendant HV1 = HazVertor™ Ring – Class I, Div. 2, Zone 2 HV2 = HazVertor™ Ring – Class I, Div. 2, Zone 2 Class II L4 = 1-1/4" Straight Stanchion L5 = 1-1/2" Straight Stanchion P2 = 3/4" Rigid Pendant P3 = 1" Rigid Pendant S4 = 1/4" 25° Angle Stanchion S5 = 1-1/2" 25° Angle Stanchion
OPTIONS	
10	UNIPAK™ OPTIONS E = UNIPAK™ with Clear Lamp D = UNIPAK™ with Dual Arc Lamp** U = UNIPAK™, No Lamp
11	SPECIAL OPTIONS T = HazCote® Custom Corrosion Coating (Consult Factory)
12	FUSING OPTIONS F = Fuse Block(s) with Fuse(s)
13	CERTIFICATION C = Canadian Market

For high ambient temperature (55C, 65C) please consult factory.
Tuff-Skin is a registered trademark of Thomas Manufacturing Corp.
* For more information on lamp selection, see lamp chart on p. 99

** HPS and Pulse start MH only

Hazlux® 3 Standard Housing

INDIVIDUAL COMPONENTS (to be used with ballast housing, see page 17)

Mounting Options



Rigid Pendant



Ceiling Mount



Wall Mount



Cone-Top Pendant



HazVerter™
Adapter Ring



25° Angle Stanchion



Flexible Pendant



Straight Stanchion

CAT. NO.	DESCRIPTION	CONDUIT HUB SIZE
VP2	Rigid Pendant	3/4"
VP3	Rigid Pendant	1"
VA2	Cone-Top Pendant	3/4"
VA3	Cone-Top Pendant	1"
VF2	Flexible Pendant	3/4"
VF3	Flexible Pendant	1"
VC2	Ceiling Mount	3/4"
VC3	Ceiling Mount	1"
VB2-VIB	Wall Mount	3/4"
VB3-VIB	Wall Mount	1"
VS4-VIB	25° Angle Stanchion	1/4"
VS5-VIB	25° Angle Stanchion	1/2"
VL4-VIB	Straight Stanchion	1/4"
VL5-VIB	Straight Stanchion	1/2"
HV1	HazVerter™ Adapter Ring Class I Div. 2, Zone 2	N/A
HV2	HazVerter™ Adapter Ring Class I Div. 2, Zone 2 Class II	N/A

Globes or Refractors



Heat-Resistant Globe



Refractor Glass



Low-Bay Refractor

CAT. NO.	DESCRIPTION
VGT22	5 1/2"-dia. Heat-Resistant Globe (250W max.)
VGT22TS	5 1/2"-dia. Heat-Resistant Globe (250W max.) Coated with Tuff-Skin®
VRF22C2	12"-dia. IES Type II Refractor, 5 1/2" thread
VRF22C5	12"-dia. IES Type V Refractor, 5 1/2" thread
VR22CBDL	Low-Bay Refractor with Plastic Lens

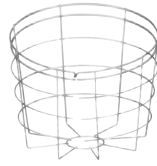
Guards



Polymeric Guard



Cast Guard



Wire Guard

CAT. NO.	DESCRIPTION
VGU22P	Polymeric Guard for VGT22 Series Globe
VGU22	Cast Guard for VGT22 Series Globe
VGR48	Steel Wire Guard for All VRF Series 12" Refractors

Optional Components

Reflectors or Exit Sign



30° Angle Reflector



Three-Sided Exit Sign



Standard Dome

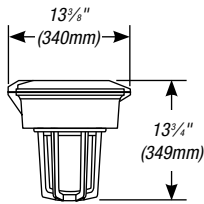
CAT. NO.	DESCRIPTION
VR22P	Standard Dome, Fiberglass-Reinforced Polyester
VRA22P	30° Angle Reflector, Fiberglass-Reinforced Polyester
VRE22	Three-Sided Exit Sign

Note: Reflectors are shipped bulk unless specified

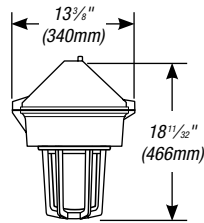
Tuff-Skin is a registered trademark of Thomas Manufacturing Corp.

Hazlux® 3 Standard Housing

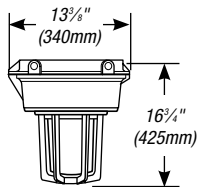
Dimensions — Standard Housing with Globe and Guard



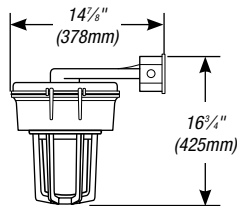
Rigid & Flexible Pendant



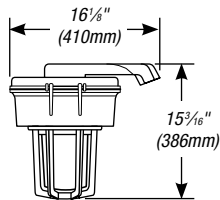
Cone-Top Pendant



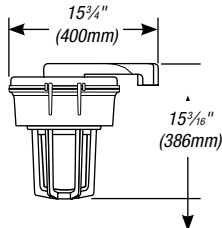
Ceiling Mount



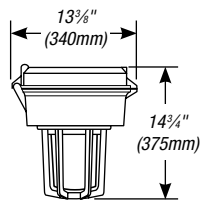
Wall Mount



25° Angle Stanchion Mount



Straight Stanchion



HazVektor™ Ring

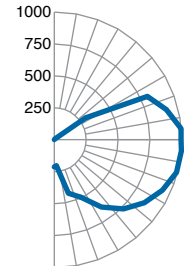
Photometry — Standard Housing with Globe and Guard

Ceiling Mount

Reference Data

Catalogue No.	DS010H090-TGLA2E
Lamp	100W HPS ED23 1/2
Lamp Lumens	9500
Input Watt	130
Luminaire Lumens	8318
Efficiency	88%
Efficacy Rating (LER)	64.0
Spacing Criterion (0-180)	3.56
Spacing Criterion (90-270)	3.56
Spacing Criterion (diagonal)	3.42

Candlepower Curve

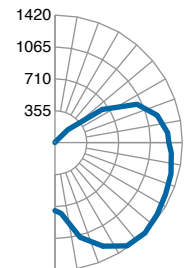


Ceiling Mount

Reference Data

Catalogue No.	DH017C090-TGLA3E
Lamp	175W MH ED28
Lamp Lumens	14000
Input Watt	210
Luminaire Lumens	12719
Efficiency	91%
Efficacy Rating (LER)	60.6
Spacing Criterion (0-180)	2.38
Spacing Criterion (90-270)	2.38
Spacing Criterion (diagonal)	2.36

Candlepower Curve

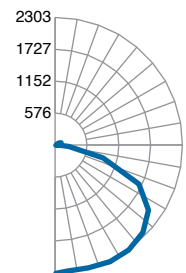


Ceiling Mount

Reference Data

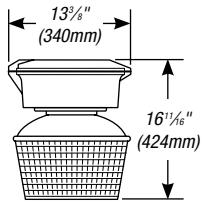
Catalogue No.	DH017C090-TGLA3E & VR22P
Lamp	175W MH ED28
Lamp Lumens	14000
Input Watt	210
Luminaire Lumens	10006
Efficiency	71%
Efficacy Rating (LER)	47.7
Spacing Criterion (0-180)	1.52
Spacing Criterion (90-270)	1.52
Spacing Criterion (diagonal)	1.68

Candlepower Curve

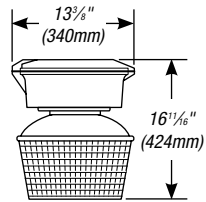


Hazlux® 3 Standard Housing

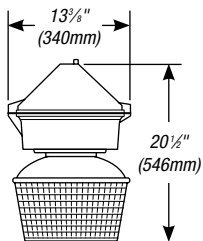
Dimensions — Standard Housing with 12" Refractor and Guard



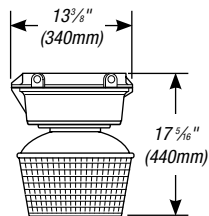
Rigid Pendant



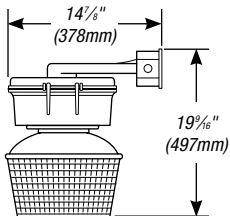
Flexible Pendant



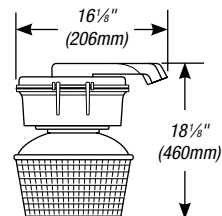
Cone-Top Pendant



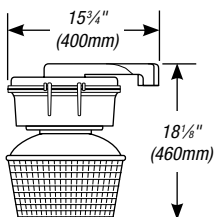
Ceiling Mount



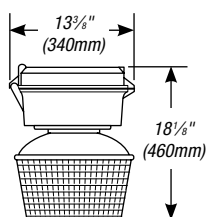
Wall Mount



25° Angle Stanchion Mount



Straight Stanchion



HazVertor™ Ring

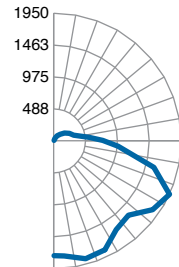
Photometry — Standard Housing with 12" Refractor and Guard

Ceiling Mount

Reference Data

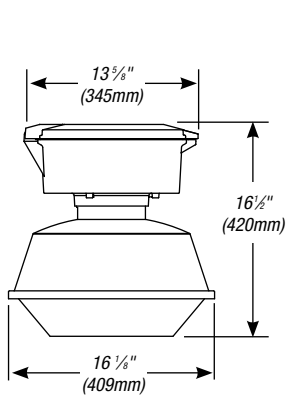
Catalogue No.	DH017C090-R5A2E
Lamp	175W MH ED28
Lamp Lumens	14000
Input Watt	210
Luminaire Lumens	11690
Efficiency	84%
Efficacy Rating (LER)	55.7
Spacing Criterion (0-180)	1.46
Spacing Criterion (90-270)	1.46
Spacing Criterion (diagonal)	1.74

Candlepower Curve

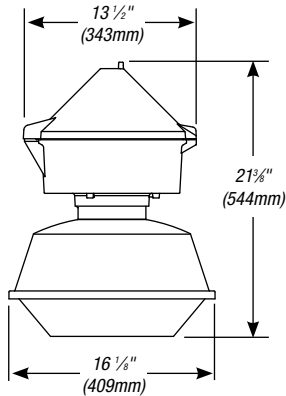


Hazlux® 3 Standard Housing

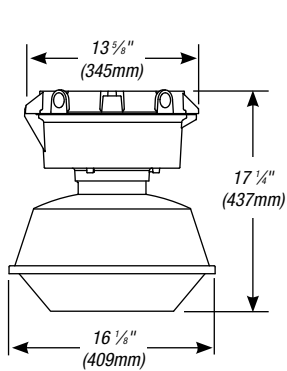
Dimensions — Standard Housing with Low Bay Refractor



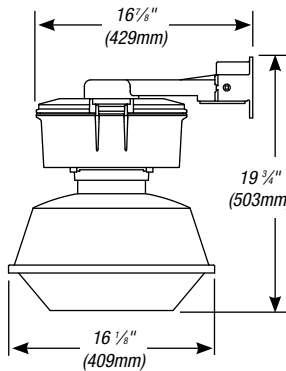
Rigid & Flexible Pendant



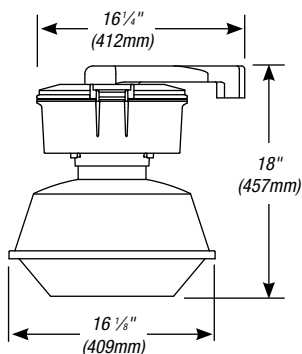
Cone-Top Pendant



Ceiling Mount



Wall Mount



Straight Stanchion

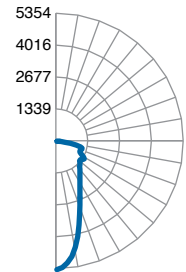
Photometry — Standard Housing with Low Bay Refractor

Ceiling Mount

Reference Data

Catalogue No.	DS015H090-CBDL-A2E
Lamp	150W HPS ED23 1/2
Lamp Lumens	16000
Input Watt	165
Luminaire Lumens	8744
Efficiency	55%
Efficacy Rating (LER)	53
Spacing Criterion (0-180)	0.66
Spacing Criterion (90-270)	0.66
Spacing Criterion (diagonal)	0.80

Candlepower Curve

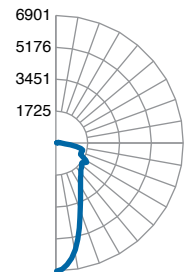


Ceiling Mount

Reference Data

Catalogue No.	DH025C090-CBDL-A2E
Lamp	250W MH ED28
Lamp Lumens	20500
Input Watt	275
Luminaire Lumens	11869
Efficiency	58%
Efficacy Rating (LER)	43
Spacing Criterion (0-180)	0.68
Spacing Criterion (90-270)	0.68
Spacing Criterion (diagonal)	0.82

Candlepower Curve



Hazlux® 3 R-Housing

Assembly Guide

Complete luminaire consists of :

A MOUNTING STYLE

+ BALLAST TANK

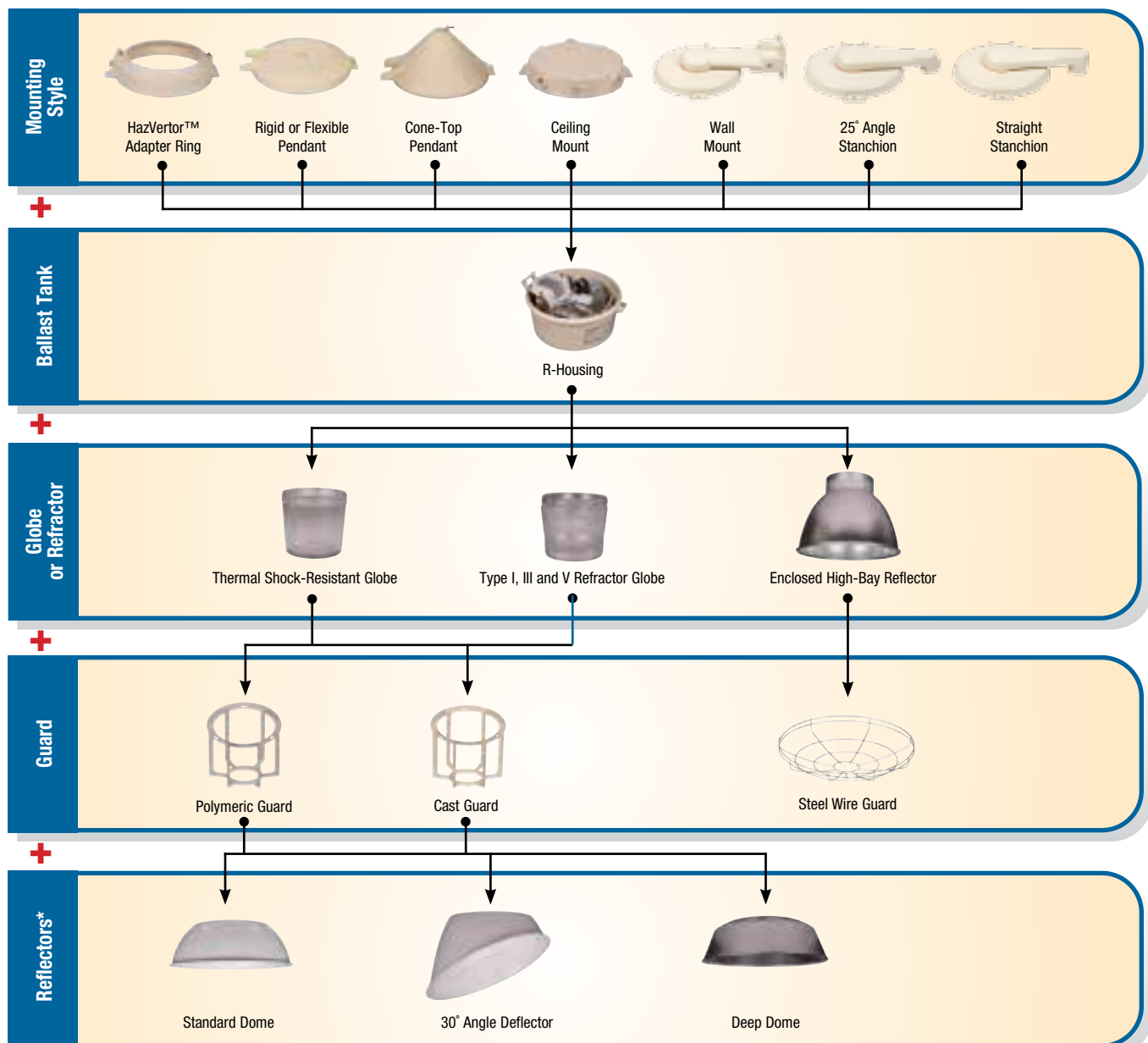
+ GLOBE OR REFRACTOR

+ OPTIONAL GUARD AND/OR REFRACTOR



To order a UNIPAK™ fixture, see page 23.

To order **separate components**, order **BALLAST TANK** on page 23 and **INDIVIDUAL COMPONENTS** on page 24.



* Reflectors are sold separately. See page 24 for ordering number.

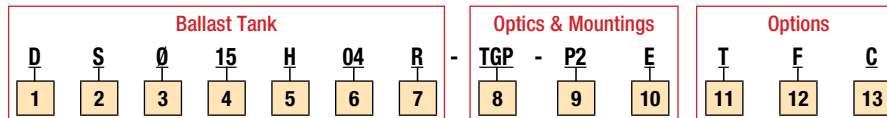
Catalog Numbering System

Class I	— Zone 2, Groups IIC, IIB, IIA	
	— Division 2, Groups A, B, C and D	
Class II	— Division 1 and 2, Groups E, F and G	
Class III		
<ul style="list-style-type: none"> • UL® Listed (UL1598A) for Marine Locations • UL844 • NEMA 4X, IP66 • CSA C22.2 No. 137 		
Contact your Thomas & Betts sales representative to verify classification.		



UNIPAK™ =

Ballast Tank +
Optics & Mountings +
Options (if necessary)



BALLAST TANK											
1	FIXTURE SERIES D = Hazlux® 3 Fixture										
2	LAMP TYPE S = High-Pressure Sodium H = Metal Halide										
3	STARTER CIRCUIT/QUARTZ OPTIONS Ø = Standard Fixture (without options) P = Pulse Start (MH only)* Q = Quartz Auxiliary Option (not hazardous rated) R = Instant Restart (50 - 150W HPS) J = Auto Shutoff Starter (HPS only) Y = Auto Shutoff Starter with Quartz Restrike (HPS only, non-UL)										
4	LAMP WATTAGE <table border="0"> <tr> <td>Metal Halide Lamps</td> <td>High Pressure Sodium Lamps</td> </tr> <tr> <td>10 = 100W ED28</td> <td>05 = 50W ED23 1/2</td> </tr> <tr> <td>17 = 175W ED28</td> <td>07 = 70W ED23 1/2</td> </tr> <tr> <td>20 = 200W ED28PS</td> <td>10 = 100W ED23 1/2</td> </tr> <tr> <td>25 = 250W ED28</td> <td>16 = 150W ED23 1/2</td> </tr> </table>	Metal Halide Lamps	High Pressure Sodium Lamps	10 = 100W ED28	05 = 50W ED23 1/2	17 = 175W ED28	07 = 70W ED23 1/2	20 = 200W ED28PS	10 = 100W ED23 1/2	25 = 250W ED28	16 = 150W ED23 1/2
Metal Halide Lamps	High Pressure Sodium Lamps										
10 = 100W ED28	05 = 50W ED23 1/2										
17 = 175W ED28	07 = 70W ED23 1/2										
20 = 200W ED28PS	10 = 100W ED23 1/2										
25 = 250W ED28	16 = 150W ED23 1/2										
5	BALLAST CIRCUIT H = High Reactance C = Constant Wattage Autotransformer (CWA) I = CWI P = Reactor (all ballasts high power factor)										
6	VOLTAGE/FREQUENCY 03 = 120/277V, 60 Hz 04 = 120/208/240/277V, 60 Hz 09 = 120/277/347V, 60 Hz (CSA) 12 = 120V, 60 Hz 20 = 208V, 60 Hz 24 = 240V, 60 Hz 27 = 277V, 60 Hz 34 = 347V, 60 Hz 48 = 480V, 60 Hz 225 = 220V, 50 Hz 245 = 240V, 50 Hz										
7	BALLAST HOUSING STYLE R = Standard Housing I = R-Housing with Stainless Steel Inserts										

For high ambient temperature (55C, 65C) please consult factory.
* For more information on lamp selection, see lamp chart on p. 99

OPTICS AND MOUNTINGS	
8	OPTICAL ASSEMBLY OPTIONS R1 = 7-3/4" Refractor Globe, Type I R3 = 7-3/4" Refractor Globe, Type III R5 = 7-3/4" Refractor Globe, Type V R1P = R1 with Polymeric Guard R3P = R3 with Polymeric Guard R5P = R5 with Polymeric Guard R1G = R1 with Cast Guard R3G = R3 with Cast Guard R5G = R5 with Cast Guard TG = 7-3/4" Thermal Shock-Resistant TGP = TG with Polymeric Guard TGC = TG with Cast Guard RCB = Enclosed High-Bay Reflector RCG = RCB with Steel Wire Guard
9	MOUNTING STYLE A2 = 3/4" Cone-Top Pendant A3 = 1" Cone-Top Pendant B2 = 3/4" Wall Mount B3 = 1" Wall Mount C2 = 3/4" Ceiling Mount C3 = 1" Ceiling Mount F2 = 3/4" Flexible Pendant F3 = 1" Flexible Pendant HV1 = HazVertor™ Ring – Class I, Div. 2, Zone 2 HV2 = HazVertor™ Ring – Class I Div. 2, Zone 2 Class II L4 = 1-1/4" Straight Stanchion L5 = 1-1/2" Straight Stanchion P2 = 3/4" Rigid Pendant P3 = 1" Rigid Pendant S4 = 1/4" 25° Angle Stanchion S5 = 1-1/2" 25° Angle Stanchion
10	UNIPAK™ OPTIONS E = UNIPAK™ with Clear Lamp D = UNIPAK™ with Dual Arc Lamp** U = UNIPAK™, No Lamp
11	SPECIAL OPTIONS T = HazCote® Custom Corrosion Coating (Consult Factory)
12	FUSING OPTIONS F = Fuse Block(s) with Fuse(s)
13	CERTIFICATION C = Canadian Market

** HPS and Pulse start MH only

Hazlux® 3 R-Housing

INDIVIDUAL COMPONENTS (to be used with ballast tank, see page 23)

Mounting Options



CAT. NO.	DESCRIPTION	CONDUIT HUB SIZE
VP2	Rigid Pendant	3/4"
VP3		1"
VA2	Cone-Top Pendant	3/4"
VA3		1"
VF2	Flexible Pendant	3/4"
VF3		1"
VC2	Ceiling Mount	3/4"
VC3		1"
VB2-VIB	Wall Mount	3/4"
VB3-VIB		1"
VS4-VIB	25° Angle Stanchion	1 1/4"
VS5-VIB		1 1/2"
VL4-VIB	Straight Stanchion	1 1/4"
VL5-VIB		1 1/2"
HV1	HazVerter™ Adapter Ring Class I, Div. 2, Zone 2	N/A
HV2	HazVerter™ Adapter Ring Class I Div. 2, Zone 2 Class 2	N/A

Globes or Refractors



CAT. NO.	DESCRIPTION
VGT31S	7 3/4" dia. Heat-Resistant Globe (250W max.)
VGT31STS	7 3/4" dia. Heat-Resistant Globe (250W max.) coated with Tuff-Skin®
VGL31R1	7 3/4" dia. IES Type I Refractor Globe (250W max.)
VGL31R3	7 3/4" dia. IES Type III Refractor Globe (250W max.)
VGL31R5	7 3/4" dia. IES Type V Refractor Globe (250W max.)
VR31CB	Enclosed High-Bay, Anodized Aluminum with Lens

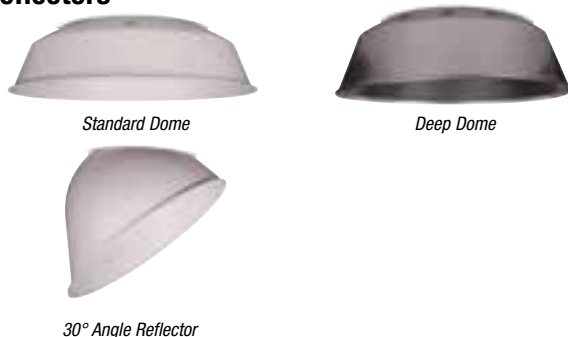
Guards



CAT. NO.	DESCRIPTION
VGU31RP	Polymeric Guard for VGT31S Globe and VGL31R Series Refractor Globes
VGU31R	Cast Aluminum Guard for VGT31S Globe and VGL31R Series Refractor Globes
VGR64	Steel Wire Guard for VR31CB Enclosed High Bay Reflector

Optional Components

Reflectors



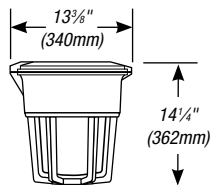
CAT. NO.	DESCRIPTION
VR31P	Standard Dome, Fiberglass-Reinforced Polyester
VRD31	Deep Dome, Anodized Aluminum
VRA31P	30° Angle Reflector, Fiberglass-Reinforced Polyester

Note: Reflectors are shipped bulk unless specified

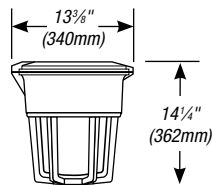
Tuff-Skin is a registered trademark of Thomas Manufacturing Corp.

Hazlux® 3 R-Housing

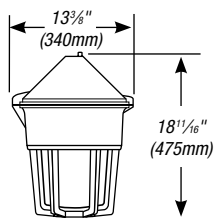
Dimensions — R-Housing with 7-3/4" Refractor and Guard



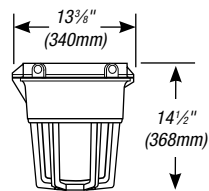
Rigid Pendant



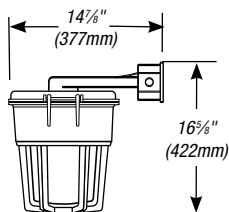
Flexible Pendant



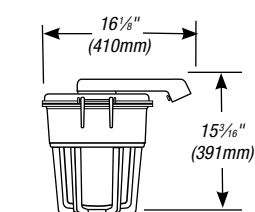
Cone-Top Pendant



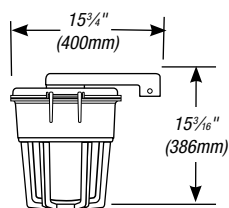
Ceiling Mount



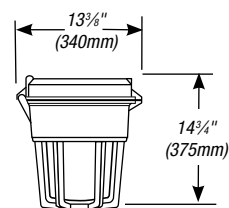
Wall Mount



25° Stanchion Mount



Straight Stanchion



HazVertor™ Ring

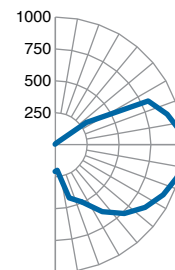
Photometry — R-Housing with 7-3/4" Refractor and Guard

Ceiling Mount

Reference Data

Catalogue No.	DS010H09R-TGCA3E
Lamp	100W HPS ED23 1/2
Lamp Lumens	9500
Input Watt	130
Luminaire Lumens	8318
Efficiency	88%
Efficacy Rating (LER)	64.0
Spacing Criterion (0-180)	3.56
Spacing Criterion (90-270)	3.56
Spacing Criterion (diagonal)	3.42

Candlepower Curve

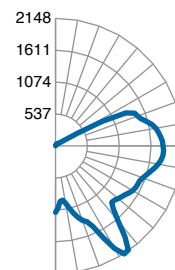


Ceiling Mount

Reference Data

Catalogue No.	DHP17C09R-TGA3E
Lamp	175W MH ED28PS
Lamp Lumens	17700
Input Watt	192.5
Luminaire Lumens	14969
Efficiency	85%
Efficacy Rating (LER)	78
Spacing Criterion (0-180)	1.86
Spacing Criterion (90-270)	1.86
Spacing Criterion (diagonal)	2.00

Candlepower Curve

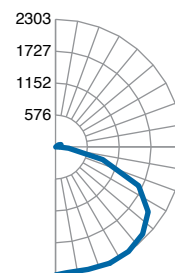


Ceiling Mount

Reference Data

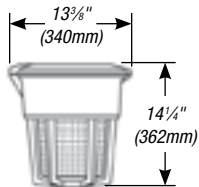
Catalogue No.	DH017C09R-TGA3E & VR31P
Lamp	175W MH ED28
Lamp Lumens	14000
Input Watt	210
Luminaire Lumens	10006
Efficiency	71%
Efficacy Rating (LER)	47.7
Spacing Criterion (0-180)	1.52
Spacing Criterion (90-270)	1.52
Spacing Criterion (diagonal)	1.68

Candlepower Curve

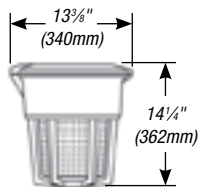


Hazlux® 3 R-Housing

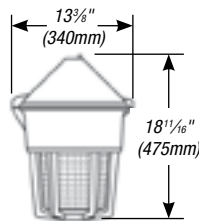
Dimensions — R-Housing with 7-3/4" Refractor Globe and Guard



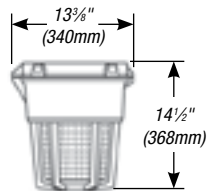
Rigid Pendant



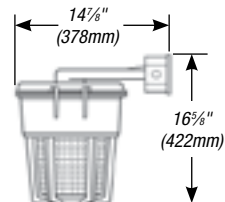
Flexible Pendant



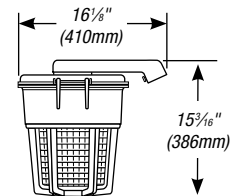
Cone-Top Pendant



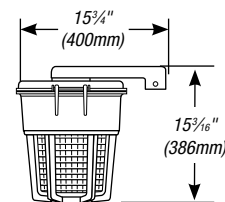
Ceiling Mount



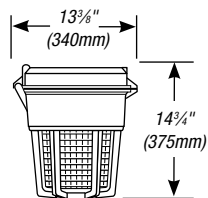
Wall Mount



25° Stanchion Mount



Straight Stanchion



HazVertor™ Ring

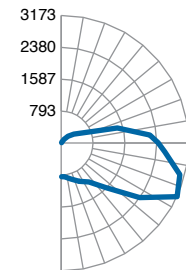
Photometry — R-Housing with 7-3/4" Refractor Globe and Guard

Ceiling Mount

Reference Data

Catalogue No.	DH017C09R-R1A3E
Lamp	175W MH ED28
Lamp Lumens	14000
Input Watt	210
Luminaire Lumens	10352
Efficiency	74%
Efficacy Rating (LER)	49.3
Spacing Criterion (0-180)	1.68
Spacing Criterion (90-270)	3.02
Spacing Criterion (diagonal)	2.02

Candlepower Curve

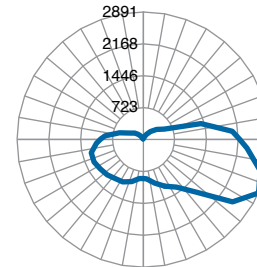


Ceiling Mount

Reference Data

Catalogue No.	DH017C09R-R3A3E
Lamp	175W MH ED28
Lamp Lumens	14000
Input Watt	210
Luminaire Lumens	10609
Efficiency	76%
Efficacy Rating (LER)	50.5
Spacing Criterion (0-180)	1.62
Spacing Criterion (90-270)	2.28
Spacing Criterion (diagonal)	2.10

Candlepower Curve

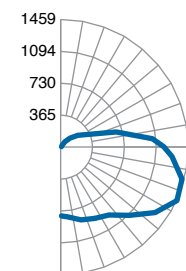


Ceiling Mount

Reference Data

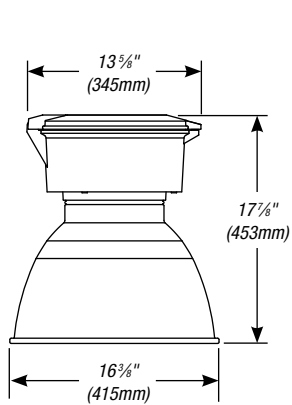
Catalogue No.	DH017C09R-R5A3E
Lamp	175W MH ED28
Lamp Lumens	14000
Input Watt	210
Luminaire Lumens	10221
Efficiency	73%
Efficacy Rating (LER)	48.7
Spacing Criterion (0-180)	2.00
Spacing Criterion (90-270)	2.00
Spacing Criterion (diagonal)	2.30

Candlepower Curve

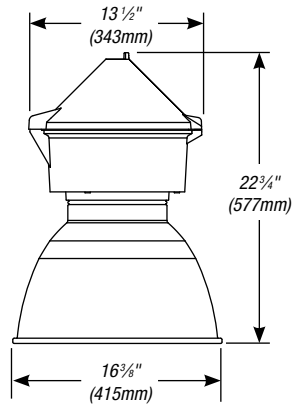


Hazlux® 3 R-Housing

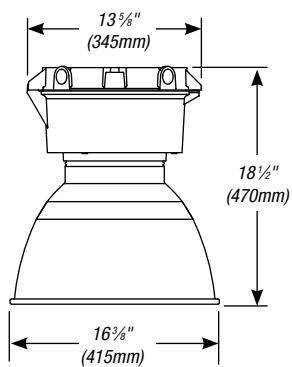
Dimensions — R-Housing with High Bay Reflector



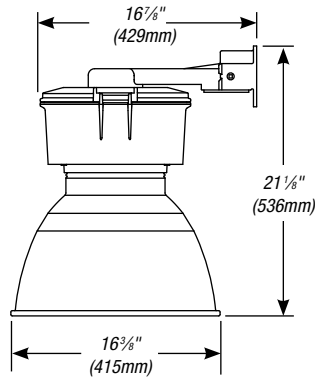
Rigid & Flexible Pendant



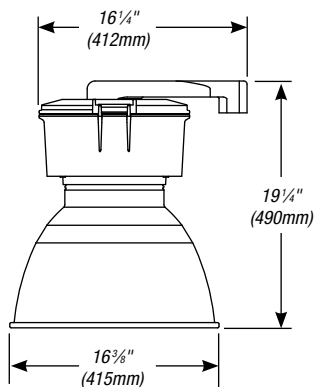
Cone-Top Pendant



Ceiling Mount



Wall Mount



Straight Stanchion

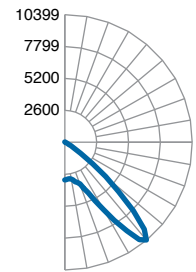
Photometry — R-Housing with High Bay Reflector

Ceiling Mount

Reference Data

Catalogue No.	DHP25C04R-RCB-P2E
Lamp	250W MH ED28PS
Lamp Lumens	25000
Input Watt	250
Luminaire Lumens	16988
Efficiency	68%
Efficacy Rating (LER)	68
Spacing Criterion (0-180)	2.28
Spacing Criterion (90-270)	2.28
Spacing Criterion (diagonal)	1.82

Candlepower Curve



Hazlux® 3 Large Housing

Assembly Guide

Complete luminaire consists of :

A MOUNTING STYLE

+ BALLAST TANK

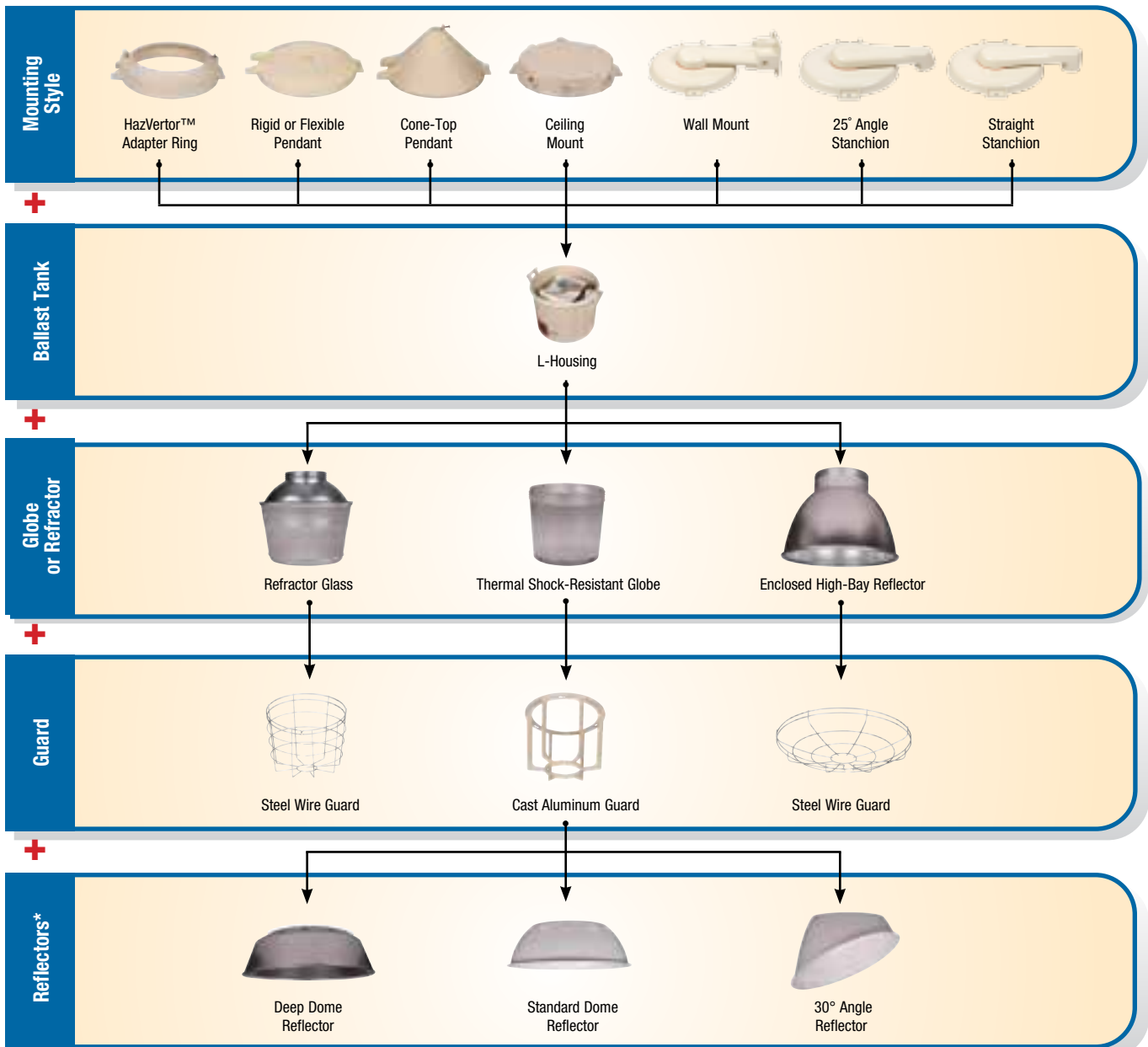
+ GLOBE OR REFRACTOR

+ OPTIONAL GUARD AND/OR REFRACTOR



To order a UNIPAK™ fixture, see page 29.

To order **separate components**, order **BALLAST TANK** on page 29 and **INDIVIDUAL COMPONENTS** on page 30.



* Reflectors are sold separately. See page 30 for ordering number.

Hazlux® 3 Large Housing

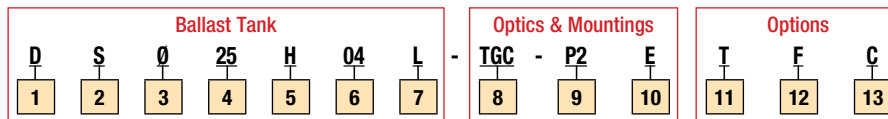
Catalog Numbering System

Class I	— Zone 2, Groups IIC, IIB, IIA	
	— Division 2, Groups A, B, C and D	
Class II	— Division 1 and 2, Groups E, F and G	
Class III	• UL® Listed (UL1598A) for Marine Locations	
	• UL844 • NEMA 4X, IP66 • CSA C22.2 No. 137	
Contact your Thomas & Betts sales representative to verify classification.		



* For more information on lamp selection, see p.99

UNIPAK™ =
Ballast Tank +
Optics & Mountings +
Options (if necessary)



BALLAST TANK													
1	FIXTURE SERIES D = Hazlux® 3 Fixture												
2	LAMP TYPE S = High-Pressure Sodium H = Metal Halide												
3	STARTER CIRCUIT/QUARTZ OPTIONS Ø = Standard Fixture (without options) P = Pulse Start (MH only)* Q = Quartz Auxiliary Option (not hazardous rated) J = Auto Shutoff Starter (HPS only)												
4	LAMP WATTAGE <table border="0"> <tr> <th>Metal Halide Lamps</th> <th>High Pressure Sodium Lamps</th> </tr> <tr> <td>20 = 200W ED28PS</td> <td>20 = 200W ED18</td> </tr> <tr> <td>25 = 250W ED28</td> <td>25 = 250W ED18</td> </tr> <tr> <td>32 = 320W ED28PS</td> <td>40 = 400W ED18</td> </tr> <tr> <td>35 = 350W ED37PS</td> <td></td> </tr> <tr> <td>40 = 400W ED37</td> <td></td> </tr> </table>	Metal Halide Lamps	High Pressure Sodium Lamps	20 = 200W ED28PS	20 = 200W ED18	25 = 250W ED28	25 = 250W ED18	32 = 320W ED28PS	40 = 400W ED18	35 = 350W ED37PS		40 = 400W ED37	
Metal Halide Lamps	High Pressure Sodium Lamps												
20 = 200W ED28PS	20 = 200W ED18												
25 = 250W ED28	25 = 250W ED18												
32 = 320W ED28PS	40 = 400W ED18												
35 = 350W ED37PS													
40 = 400W ED37													
5	BALLAST CIRCUIT H = High Reactance C = Constant Wattage Autotransformer (CWA) I = CWI P = Reactor (all ballasts high power factor)												
6	VOLTAGE/FREQUENCY 03 = 120/277V, 60 Hz 04 = 120/208/240/277V, 60 Hz 09 = 120/277/347V, 60 Hz (CSA) 12 = 120V, 60 Hz 20 = 208V, 60 Hz 27 = 277V, 60 Hz 34 = 347V, 60 Hz 48 = 480V, 60 Hz 225 = 220V, 50 Hz 245 = 240V, 50 Hz												
7	BALLAST HOUSING STYLE L = Large Housing M = Large Housing with Stainless Steel Inserts												

For high ambient temperature (55C, 65C) please consult factory.
* For more information on lamp selection, see lamp chart on p. 99

OPTICS AND MOUNTINGS	
8	OPTICAL ASSEMBLY OPTIONS R2 = 12" Refractor Glass, Type II R5 = 12" Refractor Glass, Type V R2G = R2 with Steel Wire Guard R5G = R5 with Steel Wire Guard RCB = Enclosed High-Bay Reflector RCG = RCB with Steel Wire Guard TG = 7-3/4" Thermal Shock-Resistant CBDL Globe TGC = TG with Cast Aluminum Guard SG = Tuff-Skin® Coated Globe SGC = SG with Cast Aluminum Guard
9	MOUNTING STYLE A2 = 3/4" Cone-Top Pendant A3 = 1" Cone-Top Pendant B2 = 3/4" Wall Mount B3 = 1" Wall Mount C2 = 3/4" Ceiling Mount C3 = 1" Ceiling Mount F2 = 3/4" Flexible Pendant F3 = 1" Flexible Pendant HV1 = HazVertor™ Ring – Class I, Div. 2, Zone 2 HV2 = HazVertor™ Ring – Class I, Div. 2, Zone 2 Class II L4 = 1-1/4" Straight Stanchion L5 = 1-1/2" Straight Stanchion P2 = 3/4" Rigid Pendant P3 = 1" Rigid Pendant S4 = 1/4" 25° Angle Stanchion S5 = 1-1/2" 25° Angle Stanchion
10	UNIPAK™ OPTIONS E = UNIPAK™ with Clear Lamp D = UNIPAK™ with Dual Arc Lamp** U = UNIPAK™, No Lamp
OPTIONS	
11	SPECIAL OPTIONS T = HazCote® Custom Corrosion Coating (Consult Factory)
12	FUSING OPTIONS F = Fuse Block(s) with Fuse(s)
13	CERTIFICATION C = Canadian Market

** HPS and Pulse start MH only

Hazlux® 3 Large Housing

INDIVIDUAL COMPONENTS (to be used with ballast tank, see page 29)

Mounting Options



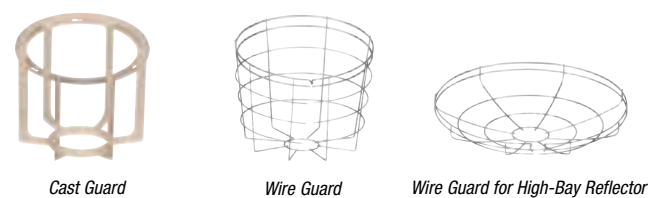
CAT. NO.	DESCRIPTION	CONDUIT HUB SIZE
VP2	Rigid Pendant	¾"
VP3		1"
VA2	Cone-Top Pendant	¾"
VA3		1"
VF2	Flexible Pendant	¾"
VF3		1"
VC2	Ceiling Mount	¾"
VC3		1"
VB2-VIB	Wall Mount	¾"
VB3-VIB		1"
VS4-VIB	25° Angle Stanchion	1¼"
VS5-VIB		1½"
VL4-VIB	Straight Stanchion	1¼"
VL5-VIB		1½"
HV1	HazVertor™ Adapter Ring Class I Div. 2, Zone 2	N/A
HV2	HazVertor™ Adapter Ring Class I Div. 2, Zone 2 Class II	N/A

Globes or Refractors



CAT. NO.	DESCRIPTION
VGT31	7¾" dia. Heat-Resistant Globe (400W max.)
VGT31TS	7¾" dia. Heat-Resistant Globe (400W max.) coated with Tuff-Skin®
VRF31C2	12" dia. IES Type II Refractor, 7¾" Thread
VRF31C5	12" dia. IES Type V Refractor, 7¾" Thread
VR31CB	Enclosed High-Bay, Anodized Aluminum with Lens

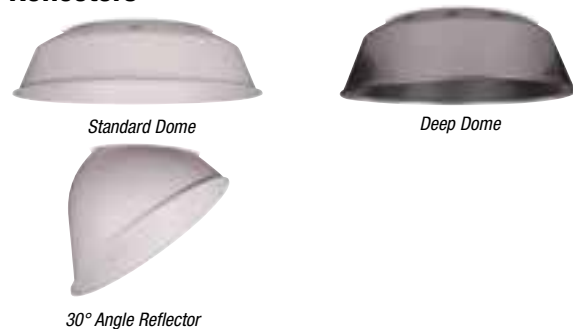
Guards



CAT. NO.	DESCRIPTION
VGU31	Cast Aluminum Guard for VGT31 Globe
VGR48	Steel Wire Guard for All VRF Series 12" Refractors
VGR64	Steel Wire Guard for VR31CB Enclosed High Bay Reflector

Optional Components

Reflectors



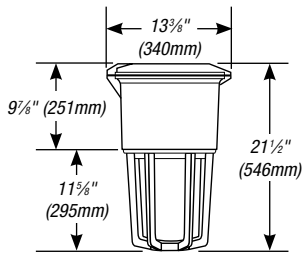
CAT. NO.	DESCRIPTION
VR31P	Standard Dome, Fiberglass-Reinforced Polyester
VRD31	Deep Dome, Anodized Aluminum
VRA31P	30° Angle Reflector, Fiberglass-Reinforced Polyester

Note: Reflectors are shipped bulk unless specified

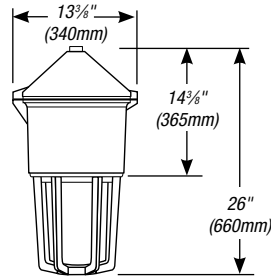
Tuff-Skin is a registered trademark of Thomas Manufacturing Corp.

Hazlux® 3 Large Housing

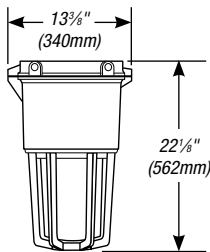
Dimensions — Large Housing with Globe and Guard



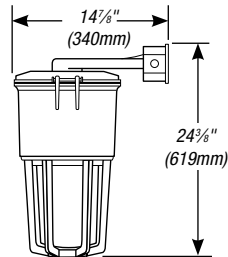
Rigid Pendant



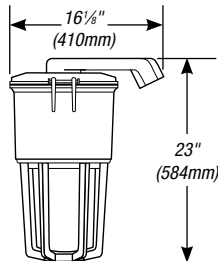
Cone-Top Pendant



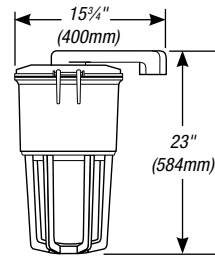
Ceiling Mount



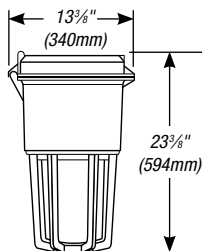
Wall Mount



25° Angle Stanchion Mount



Straight Stanchion



HazVector™ Ring

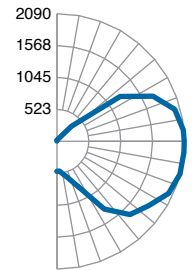
Photometry — Large Housing with Globe and Guard

Ceiling Mount

Reference Data

Catalogue No.	DS020C09L-TGCA3E
Lamp	200W HPS ED18
Lamp Lumens	22000
Input Watt	255
Luminaire Lumens	18415
Efficiency	84%
Efficacy Rating (LER)	72.2
Spacing Criterion (0-180)	NA
Spacing Criterion (90-270)	NA
Spacing Criterion (diagonal)	NA

Candlepower Curve

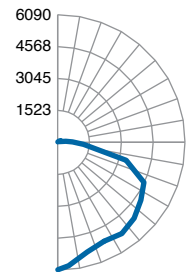


Ceiling Mount

Reference Data

Catalogue No.	DH035C09L-TGCA3E
Lamp	350W MH ED37PS
Lamp Lumens	34000
Input Watt	400
Luminaire Lumens	26392
Efficiency	78%
Efficacy Rating (LER)	66.0
Spacing Criterion (0-180)	1.36
Spacing Criterion (90-270)	1.36
Spacing Criterion (diagonal)	1.58

Candlepower Curve

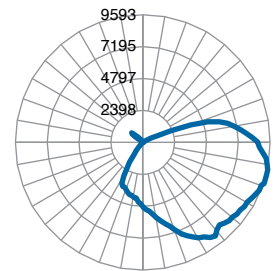


Ceiling Mount

Reference Data

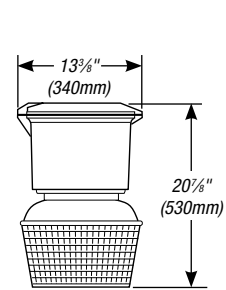
Catalogue No.	DHP40C04L-TG-P2V & VRA31P
Lamp	400W MH ED37PS
Lamp Lumens	44000
Input Watt	400
Luminaire Lumens	30407
Efficiency	69%
Efficacy Rating (LER)	76
Spacing Criterion (0-180)	2.32
Spacing Criterion (90-270)	1.72
Spacing Criterion (diagonal)	1.58

Candlepower Curve

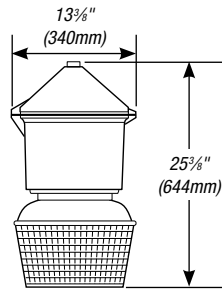


Hazlux® 3 Large Housing

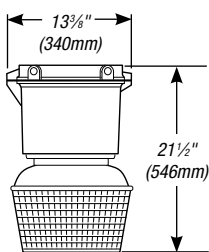
Dimensions — Large Housing with 12" Refractor



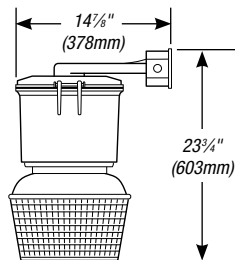
Flexible Pendant



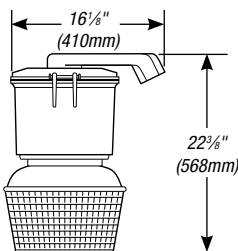
Cone-Top Pendant



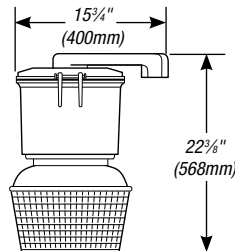
Ceiling Mount



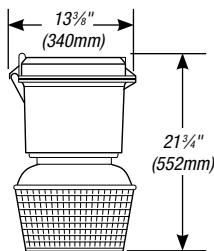
Wall Mount



25° Angle Stanchion Mount



Straight Stanchion



HazVector™ Ring

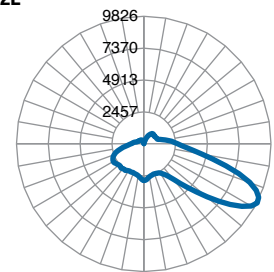
Photometry — Large Housing with 12" Refractor

Ceiling Mount

Reference Data

Catalogue No.	DHP32C04L-R2-P2E
Lamp	320W MH ED28PS
Lamp Lumens	30000
Input Watt	352
Luminaire Lumens	21773
Efficiency	73%
Efficacy Rating (LER)	62
Spacing Criterion (0-180)	1.56
Spacing Criterion (90-270)	1.50
Spacing Criterion (diagonal)	1.90

Candlepower Curve

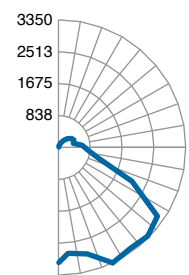


Ceiling Mount

Reference Data

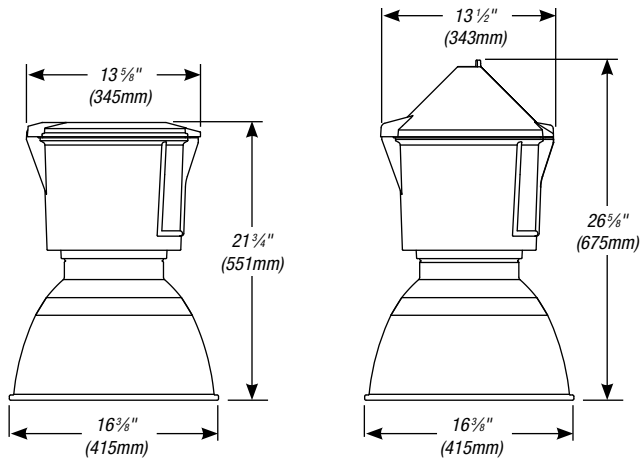
Catalogue No.	DS020C04L-R5-P2E
Lamp	200W HPS ED18
Lamp Lumens	22000
Input Watt	240
Luminaire Lumens	16414
Efficiency	75%
Efficacy Rating (LER)	68
Spacing Criterion (0-180)	1.66
Spacing Criterion (90-270)	1.66
Spacing Criterion (diagonal)	1.80

Candlepower Curve



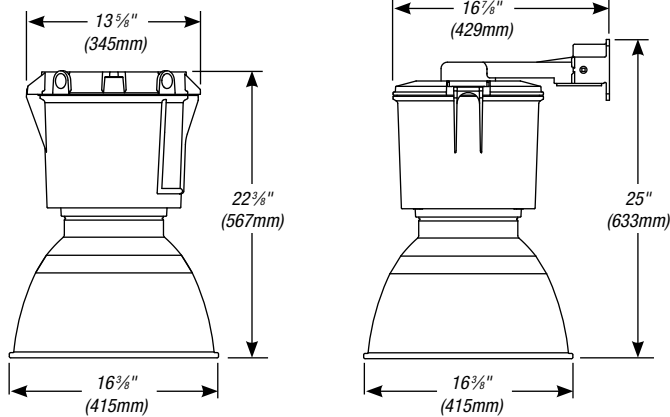
Hazlux® 3 Large Housing

Dimensions — Large Housing with High Bay Reflector



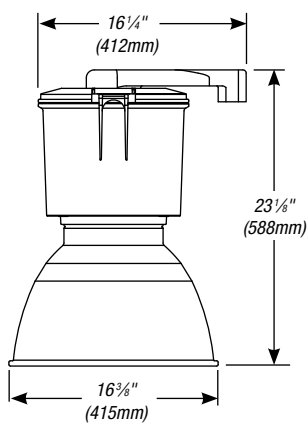
Rigid & Flexible Pendant

Cone-Top Pendant



Ceiling Mount

Wall Mount



Straight Stanchion

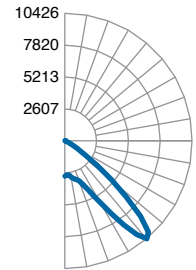
Photometry — Large Housing with High Bay Reflector

Ceiling Mount

Reference Data

Catalogue No.	DHP25C04-RCB-A3E
Lamp	250W MH ED28PS
Lamp Lumens	25000
Input Watt	250
Luminaire Lumens	17383
Efficiency	70%
Efficacy Rating (LER)	70
Spacing Criterion (0-180)	2.36
Spacing Criterion (90-270)	2.36
Spacing Criterion (diagonal)	1.86

Candlepower Curve

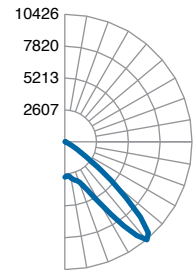


Ceiling Mount

Reference Data

Catalogue No.	DS020C04L-RCB-A3E
Lamp	200W HPS ED18
Lamp Lumens	22000
Input Watt	240
Luminaire Lumens	12810
Efficiency	58%
Efficacy Rating (LER)	53
Spacing Criterion (0-180)	1.70
Spacing Criterion (90-270)	1.70
Spacing Criterion (diagonal)	1.38

Candlepower Curve



Hazlux® 3 Induction



Now You Can Use the Longest-Life Lamp Available on the Market.

In the typical process industry plant, reliable lighting is often required in hazardous, hard-to-reach places. Lamp replacement not only places employees at risk, but often requires the rental of expensive equipment such as scissor lifts.

With the introduction of Hazlux® Induction Lighting Fixtures for hazardous areas (Class 1, Div. 2 Groups A, B, C, D) and non-hazardous areas, you can benefit from the longest lamp life available on the market.

Features include:

- 60,000+ hour lamp life
- Reduced maintenance/re-lamp operations
- Instant On/Instant Restrike
- Automatic switch-off in case of failure
- 5000K CCT Standard
- Exceptional energy efficiency
- -45° C to 40° C ambient operating range
- Retrofits into existing Hazlux® 3 applications
- RFI-approved (FCC part 18 reference luminaire)

Here's how you save maintenance costs with Hazlux® Induction Lighting:

- Eliminates the need for expensive HID options such as Quartz Auxiliary Lamps or Instant Restrike
- Reduces risks to installers performing maintenance in hard-to-reach places
- Increases efficiency by decreasing machine shutdown time
- Reduces number of times necessary to de-energize entire circuit of lights for maintenance in hazardous locations
- Lowers cost of expensive rental of scissor lifts or bucket trucks

Hazlux® 3 Induction Certification Guide

WATTS	AMBIENT TEMP (DEG. C)	CLASS I, DIVISION 2 GROUPS A, B, C, D TEMPERATURE CODE	CLASS II DIVISION 1	UL 1598A MARINE	NEMA 4X*	SUPPLY WIRE TEMP. RATING (DEG. C)
35	40	T3B	T6	Yes	Yes	90°
55	40	T3B	T6	Yes	Yes	90°
85	40	T2A	T6	Yes	Yes	90°
100	40	T2A	T6	Yes	Yes	90°
165	40	T2A	T6	Yes	Yes	90°

Notes: 1. Simultaneous presence applications: Some Hazlux® 3 fixtures are UL® Listed for simultaneous presence of gas and dust. Contact Hazlux® for specific information.
2. Tuff-Skin® Coated Optics: Many Hazlux® 3 fixtures are UL® Listed with Tuff-Skin® (silicone) coating on glass optics. Contact Hazlux® for specific information.
3. For UL® and CSA Certification Information on other ambient temperatures and fixture configurations, consult the factory.

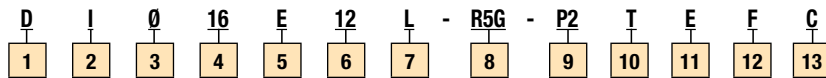


"I sure don't envy the person who has to change these lamps!"

Hazlux® Induction Lighting reduces the cost of expensive maintenance of industrial lighting in hazardous locations.

Hazlux® 3 Induction - High Wattage

Catalog Numbering System



1 Hazlux® 3 HID Fixture

- D** = Class I, Div. 2, Groups A, B, C and D
- D** = Class I, Zone 2, Groups IIA, IIB, IIC
- D** = Class II, Div. 1 & 2, Groups E, F and G
- D** = Class III
 - UL 595 Marine Locations,
 - Wet Locations, NEMA 4X

2 Lamp Type

- I** = Induction Lighting

3 Starter Circuit/Quartz Options

- Ø** = Standard Fixture

4 Lamp Wattage

- 16** = 165 Watt Induction System

5 Ballast Circuit

- E** = Electronic Ballast (Induction Fixture)

6 Voltage

- 12** = 120V, 60 Hz
- 06** = 208/240/277V 50 or 60 Hz
- 34** = 347V 60 Hz (CSA)

7 Ballast Housing Style

- L** = Large Housing
- M** = Large Housing with Stainless Steel Inserts

8 Refractor

- R5G** = Type V Refractor with Wire Guard
- R5** = Type V Refractor

9 Mounting Style

- A2** = ¾" Cone-Top Pendant
- A3** = 1" Cone-Top Pendant Mount
- B2** = ¾" Wall Mount
- B3** = 1" Wall Mount
- C2** = ¾" Ceiling Mount
- C3** = 1" Ceiling Mount
- F2** = ¾" Flexible Pendant
- F3** = 1" Flexible Pendant
- HV1** = HazVektor™ Ring - Class I Div. 2, Zone 2
- HV2** = HazVektor™ Ring - Class I Div. 2, Zone 2 Class II
- L4** = 1¼" Straight Stanchion
- L5** = 1½" Straight Stanchion
- P2** = ¾" Rigid Pendant
- P3** = 1" Rigid Pendant
- S4** = 1¼" 25° Angle Stanchion
- S5** = 1½" 25° Angle Stanchion

10 Coating

- T** = HazCote® Custom Corrosion Coating

11 UNIPAK™ *

- E** = UNIPAK™ with Induction Lamp

12 Fusing Options

- F** = Fuse Block(s) with Fuse(s)
(Not Marine listed if using fuses)

13 Certification

- C** = Canadian Market

(*) Available Unipak only

- Class I — Zone 2, Groups IIC, IIB, IIA
— Division 2, Groups A, B, C and D
- Class II — Division 1 and 2, Groups E, F and G
- Class III
 - UL® Listed (UL1598A) for Marine Locations
 - UL844
 - NEMA 4X, IP66

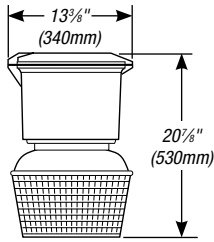


Contact your Thomas & Betts sales representative to verify classification.

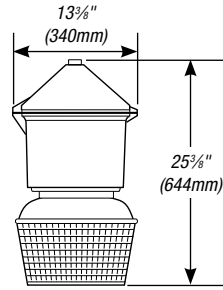
Hazlux® 3 Induction - High Wattage

Dimensions — Large Housing with 12" Refractor

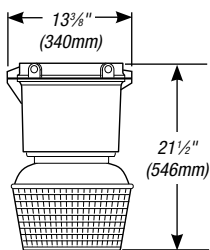
Photometry — Large Housing with 12" Refractor



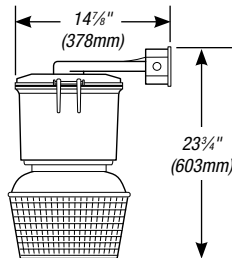
Flexible Pendant



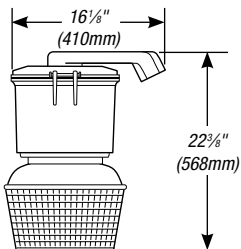
Cone-Top Pendant



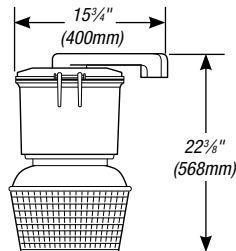
Ceiling Mount



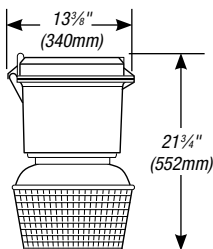
Wall Mount



25° Angle Stanchion Mount



Straight Stanchion



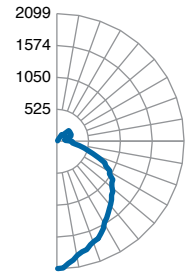
HazVektor™ Ring

Ceiling Mount

Reference Data

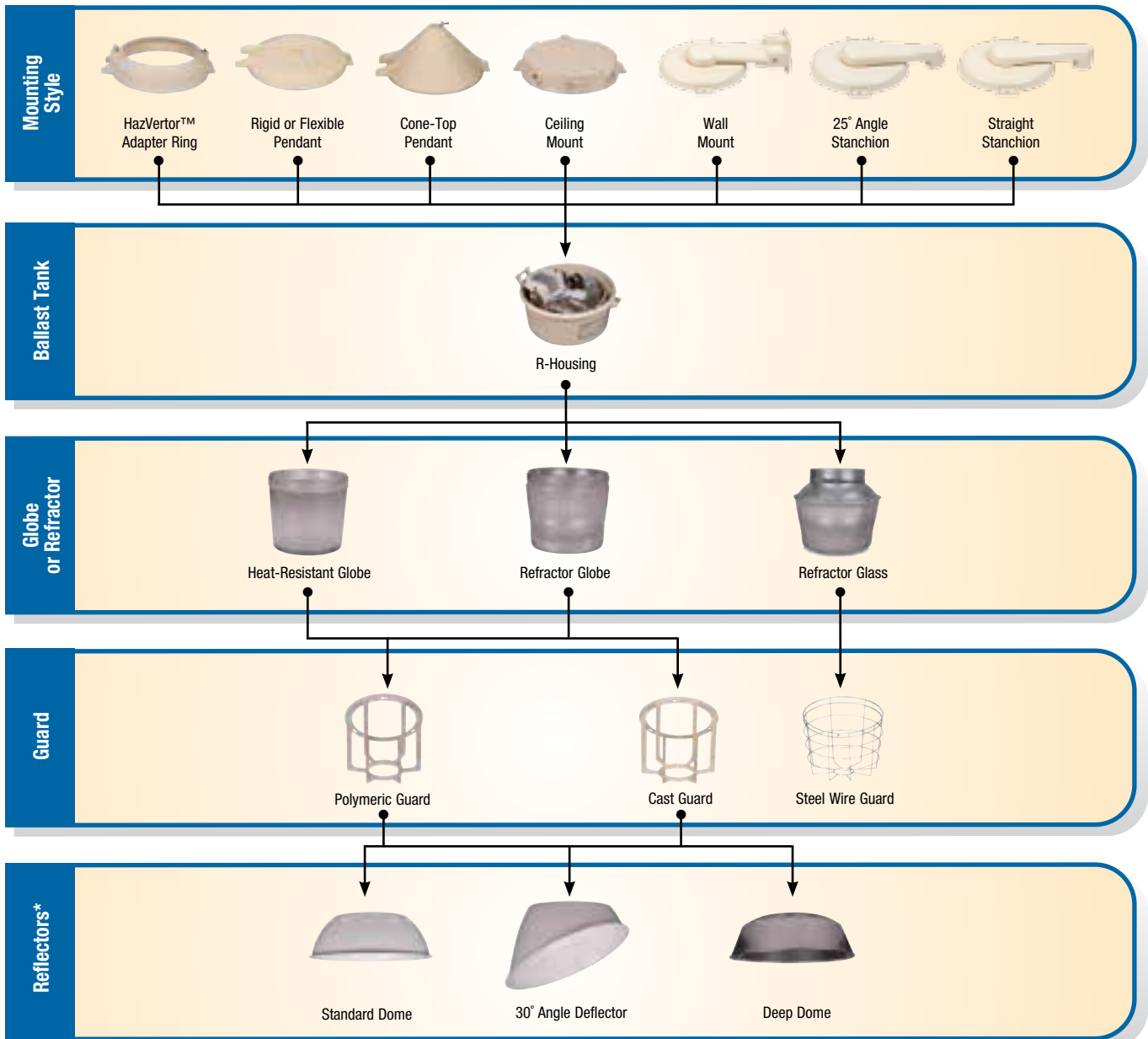
Catalogue No.	DI016E12L-R5-P2E
Lamp	165W Induction lamp
Lamp Lumens	12000
Input Watt	165
Luminaire Lumens	6890
Efficiency	57%
Efficacy Rating (LER)	42
Spacing Criterion (0-180)	1.12
Spacing Criterion (90-270)	1.12
Spacing Criterion (diagonal)	1.30

Candlepower Curve



Hazlux® 3 Induction - Low Wattage

Hazardous Area Lighting Class I Div 2



* Reflectors are sold separately. See page 40 for ordering number.

Hazlux® 3 Induction - Low Wattage

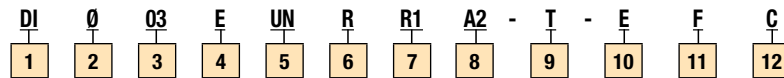
Hazardous Area Lighting Class I Div 2 Catalog Numbering System



- Class I — Zone 2, Groups IIC, IIB, IIA
 — Division 2, Groups A, B, C and D
 Class II — Division 1 and 2, Groups E, F and G
 Class III
- UL® Listed (UL1598A) for Marine Locations
 - UL844
 - NEMA 4X, IP66
 - CSA C22.2 No 137 standard



Contact your Thomas & Betts sales representative to verify classification.



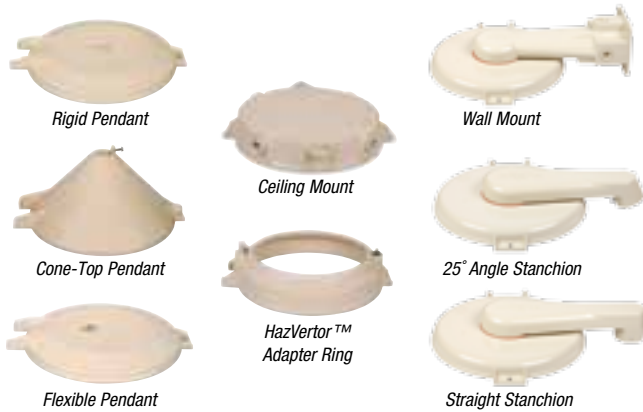
BALLAST TANK	
1	FIXTURE SERIES DI = Hazlux® 3 Induction Series
2	STARTER CIRCUIT/QUARTZ OPTIONS Ø = Standard Fixture (without options) C = Cold Weather Circuit (-45°C)
3	LAMP WATTAGE 03 = 35 Watts 05 = 55 Watts 08 = 85 Watts 10 = 100 Watts
4	BALLAST CIRCUIT E = Electronic Ballast
5	VOLTAGE/FREQUENCY UN = 120 to 277 Vac, 50/60 Hz 48 = 480 Vac, 60 Hz 34 = 347 Vac, 60 Hz
6	BALLAST HOUSING STYLE R = R-Housing I = R-Housing with Stainless Steel Inserts
7	OPTICAL ASSEMBLY OPTIONS Globes are available only for 35W and 55W R1 = 7-3/4" Refractor Globe, Type I R3 = 7-3/4" Refractor Globe, Type III R5 = 7-3/4" Refractor Globe, Type V R1C = R1 with Cast Guard R3C = R3 with Cast Guard R5C = R5 with Cast Guard R1P = R1 with Polymeric Guard R3P = R3 with Polymeric Guard R5P = R5 with Polymeric Guard TG = 7-3/4" Thermal Shock-Resistant Globe TGC = TG with Cast Guard TGP = TG with Polymeric Guard Refractor Glass are available for all wattages RR2 = 12" Glass Refractor Type II RR2G = 12" Glass Refractor Type II with Wire Guard RR5 = 12" Glass Refractor Type V RR5G = RR5 with Wire Guard

OPTICS AND MOUNTINGS	
8	MOUNTING STYLE A2 = 3/4" Cone-Top Pendant A3 = 1" Cone-Top Pendant B2 = 3/4" Wall Mount B3 = 1" Wall Mount C2 = 3/4" Ceiling Mount C3 = 1" Ceiling Mount F2 = 3/4" Flexible Pendant F3 = 1" Flexible Pendant HV1 = HazVektor™ Ring – Class I, Div. 2, Zone 2 HV2 = HazVektor™ Ring – Class I Div. 2, Zone 2 Class II L4 = 1-1/4" Straight Stanchion L5 = 1-1/2" Straight Stanchion P2 = 3/4" Rigid Pendant P3 = 1" Rigid Pendant S4 = 1/4" 25° Angle Stanchion S5 = 1-1/2" 25° Angle Stanchion
9	SPECIAL OPTIONS T = HazCote® Custom Corrosion Coating (Consult Factory)
10	UNIPAK™ E = UNIPAK™ with Induction Lamp
11	FUSING OPTIONS F = Fuse Block(s) with Fuse(s) (Not Marine listed if using fuses)
12	CERTIFICATION C = Canadian Market

(*) Available Unipak™ only

Hazlux® 3 Induction - Low Wattage

Mounting Options



CAT. NO.	DESCRIPTION	CONDUIT HUB SIZE
VP2	Rigid Pendant	¾"
VP3	Rigid Pendant	1"
VA2	Cone-Top Pendant	¾"
VA3	Cone-Top Pendant	1"
VF2	Flexible Pendant	¾"
VF3	Flexible Pendant	1"
VC2	Ceiling Mount	¾"
VC3	Ceiling Mount	1"
VB2-VIB	Wall Mount	¾"
VB3-VIB	Wall Mount	1"
VS4-VIB	25° Angle Stanchion	1¼"
VS5-VIB	25° Angle Stanchion	1½"
VL4-VIB	Straight Stanchion	1¼"
VL5-VIB	Straight Stanchion	1½"
HV1	HazVertor™ Adapter Ring - Class I Div. 2, Zone 2	N/A
HV2	HazVertor™ Adapter Ring - Class I Div. 2, Zone 2 Class II	N/A

Globes or Refractors



CAT. NO.	DESCRIPTION
VG31S	7¾" dia. Heat-Resistant Globe (250W max.)
VGL31R1	7¾" dia. IES Type I Refractor Globe (250W max.)
VGL31R3	7¾" dia. IES Type III Refractor Globe (250W max.)
VGL31R5	7¾" dia. IES Type V Refractor Globe (250W max.)
VRF31C2	12" dia. IES Type II Refractor Glass, 7¾" Thread
VRF31C5	12" dia. IES Type V Refractor Glass, 7¾" Thread

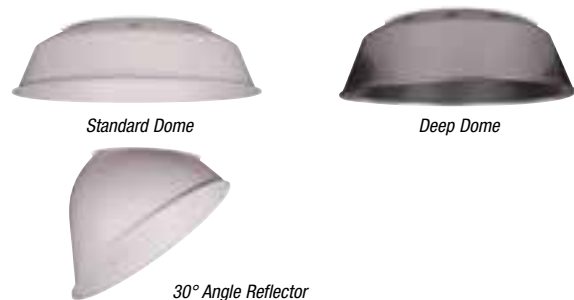
Guards



CAT. NO.	DESCRIPTION
VGU31RP	Polymeric Guard for VG31S Globe and VGL31R Series Refractor Globes
VGU31R	Cast Aluminum Guard for VG31S Globe and VGL31R Series Refractor Globes
VGR48	Steel Wire Guard for All VRF Series 12" Refractors

Optional Components

Reflectors

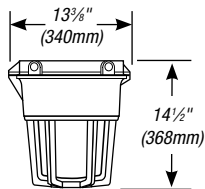


CAT. NO.	DESCRIPTION
VR31P	Standard Dome, Fiberglass-Reinforced Polyester
VRD31	Deep Dome, Anodized Aluminum
VRA31P	30° Angle Reflector, Fiberglass-Reinforced Polyester

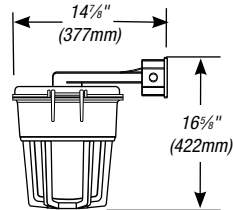
Note: Reflectors are shipped bulk unless specified

Hazlux® 3 Induction - Low Wattage

Dimensions — R-Housing with Globe and Guard



Ceiling Mount



Wall Mount

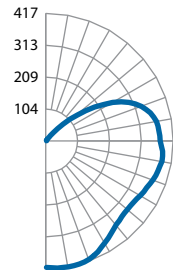
Photometry — R-Housing with Refractor

Ceiling Mount

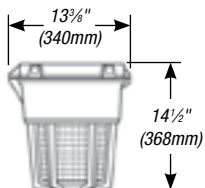
Reference Data

Catalogue No.	DI55EUNRTGA2-E
Lamp	55W Induction lamp
Lamp Lumens	N.A. (absolute)
Input Watt	55.71
Luminaire Lumens	3644
Efficiency	NA
Efficacy Rating (LER)	65
Spacing Criterion (0-180)	1.38
Spacing Criterion (90-270)	1.38
Spacing Criterion (diagonal)	1.58

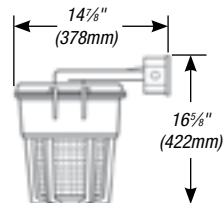
Candlepower Curve



R-Housing with 12" Refractor and Guard



Ceiling Mount



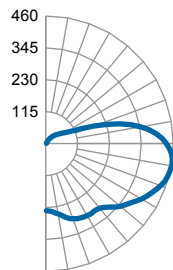
Wall Mount

Ceiling Mount

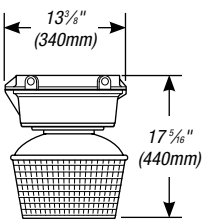
Reference Data

Catalogue No.	DI055EUNRR5A2-E
Lamp	55W Induction lamp
Lamp Lumens	N.A. (absolute)
Input Watt	55.87
Luminaire Lumens	3351
Efficiency	NA
Efficacy Rating (LER)	60
Spacing Criterion (0-180)	1.90
Spacing Criterion (90-270)	1.90
Spacing Criterion (diagonal)	2.22

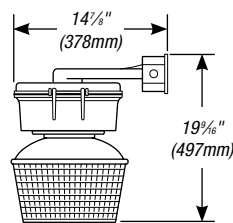
Candlepower Curve



R-Housing with Refractor Glass



Ceiling Mount



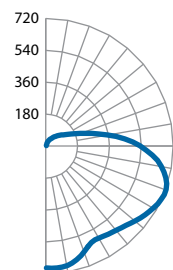
Wall Mount

Ceiling Mount

Reference Data

Catalogue No.	DI10EUNRR5A2-E
Lamp	100W Induction lamp
Lamp Lumens	N.A. (absolute)
Input Watt	100.5
Luminaire Lumens	5245
Efficiency	NA
Efficacy Rating (LER)	61
Spacing Criterion (0-180)	1.36
Spacing Criterion (90-270)	1.36
Spacing Criterion (diagonal)	1.70

Candlepower Curve



Assembly Guide

Complete luminaire consists of :

A MOUNTING STYLE

+ BALLAST TANK

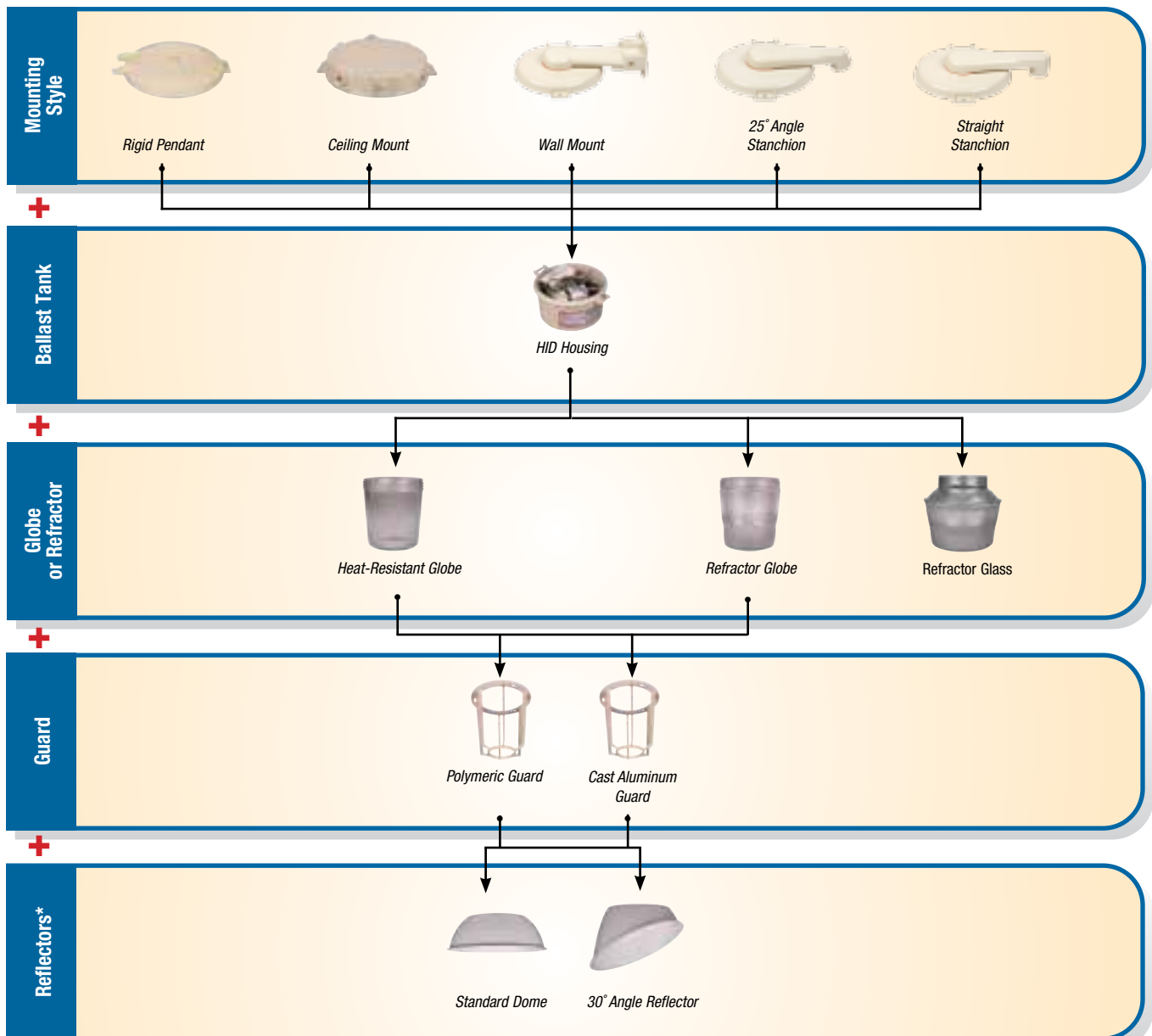
+ GLOBE OR REFRACTOR

+ OPTIONAL GUARD AND/OR REFLECTOR



To order a UNIPAK™ fixture, see page 43.

To order **separate components**, order **BALLAST TANK** on page 43 and **INDIVIDUAL COMPONENTS** on page 44.



* Reflectors are sold separately. See page 44 for ordering number.

Catalog Numbering System

- Class I — Zone 2, Groups IIC, IIB, IIA
 — Division 2, Groups A, B, C and D
- Class II — Division 1 and 2, Groups E, F and G
- Class III
- UL® Listed (UL1598A) for Marine Locations
 - UL844
 - NEMA 4X, IP66
 - CSA C22.2 No. 137

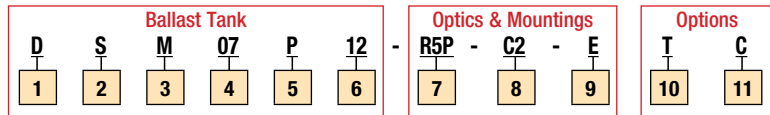


Contact your Thomas & Betts sales representative to verify classification.



UNIPAK™ = Ballast Tank + Optics
 & Mountings +
 Options (if necessary)

HID



BALLAST TANK	
1	FIXTURE SERIES
D	= Hazlux® 3 Fixture
2	LAMP TYPE
S	= High-Pressure Sodium
H	= Metal Halide
3	LAMP HOLDER
Ø	= Standard Fixture (without options)
P	= Pulse Start (MH only)*
Q	= Quartz Auxiliary Option (not hazardous rated)
J	= Auto Shutoff Starter (HPS only)
4	LAMP WATTAGE
Metal Halide Lamps	
05	= 50W ED17
07	= 70W ED17
10	= 100W ED17
High Pressure Sodium Lamps	
03	= 35W BD17
05	= 50W BD17
07	= 70W BD17
10	= 100W BD17
15	= 150W BD17
5	BALLAST CIRCUIT
P	= Reactor Type
6	VOLTAGE
12	= 120 Volt

OPTICS AND MOUNTINGS	
7	OPTICAL ASSEMBLY OPTIONS
TG	= Tempered Globe Only
TGP	= Tempered Globe and Polymeric Guard
TGC	= Tempered Globe and Cast Guard
R1	= Type I (Long and Narrow) Refractor Globe
R3	= Type III (Assymetric) Refractor Globe
R5	= Type V (Symetric) Refractor Globe
R1P	= R1 with Polymeric Guard
R3P	= R3 with Polymeric Guard
R5P	= R5 with Polymeric Guard
R1C	= R1 with Cast Guard
R3C	= R3 with Cast Guard
R5C	= R5 with Cast Guard
R5A	= 8" Refractor Glass (Type V)
8	MOUNTING STYLE
P2	= 3/4" Rigid Pendant
P3	= 1" Rigid Pendant
B2	= 3/4" Wall Mount
B3	= 1" Wall Mount
C2	= 3/4" Ceiling Mount
C3	= 1" Ceiling Mount
L4	= 1-1/4" Straight Stanchion
L5	= 1-1/2" Straight Stanchion
S4	= 1-1/4" 25° Angle Stanchion
S5	= 1-1/2" 25° Angle Stanchion
9	UNIPAK™ OPTIONS
D	= UNIPAK™ with Dual Arc Lamp
E	= UNIPAK™ with Clear Lamp
U	= UNIPAK™ No Lamp
OPTIONS	
10	SPECIAL OPTIONS
T	= HazCote® Custom Corrosion Coating on all aluminum parts (Consult Factory)
11	CERTIFICATION
C	= Canadian Market

INDIVIDUAL COMPONENTS (to be used with ballast tank, see page 43)

Mounting Options



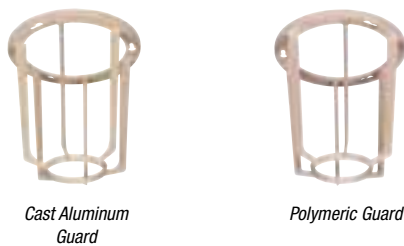
CAT. NO.	DESCRIPTION	CONDUIT HUB SIZE	PRICE
VMP2	Rigid Pendant	¾"	
VMP3		1"	
VMC2	Ceiling Mount	¾"	
VMC3		1"	
VMB2	Wall Mount	¾"	
VMB3		1"	
VMS4	25° Angle Stanchion	1¼"	
VMS5		1½"	
VML4	Straight Stanchion	1¼"	
VML5		1½"	

Globes or Refractors



CAT. NO.	DESCRIPTION	PRICE
VGT15	Heat-Resistant Prismatic Glass Globe	
VGL15R1	IES Type I Refractor Globe	
VGL15R3	IES Type III Refractor Globe	
VGL15R5	IES Type V Refractor Globe	
VRF22C5A	IES Type V Refractor Glass 8" dia.	

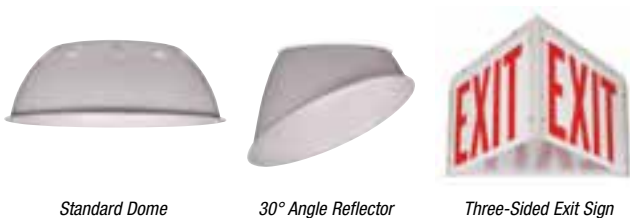
Guards



CAT. NO.	DESCRIPTION	PRICE
VGU15	Cast Aluminum for Use with Glass Globes or Refractors	
VGU15P	Polymeric for Use with Glass Globes or Refractors	

Optional Components

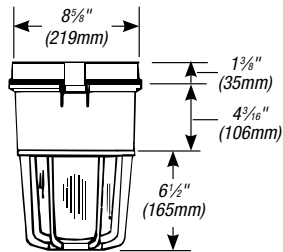
Reflectors or Exit Sign



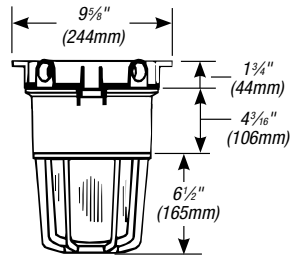
CAT. NO.	DESCRIPTION	PRICE
VR15P	Standard Dome, Fiberglass-Reinforced Polyester	
VRA15P	30° Angle Reflector, Fiberglass-Reinforced Polyester	
VRE22	Three-Sided Exit Sign	

Note: Reflectors are shipped bulk unless specified

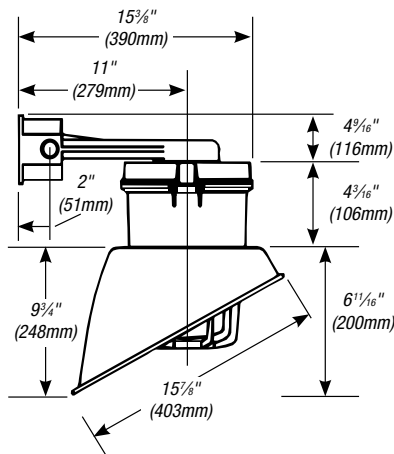
Dimensions — Hazlite™ M3 Fixtures with Heat-Resistant Globe



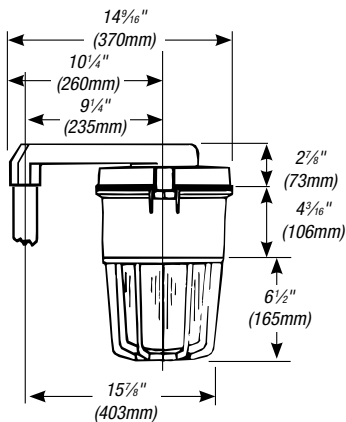
Rigid Pendant



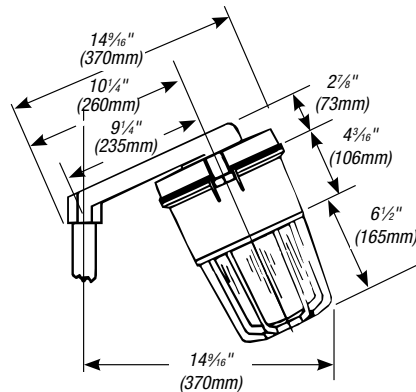
Ceiling Mount



Wall Mount



Straight Stanchion Mount



25° Angle Stanchion Mount

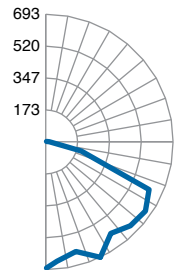
Photometry — Hazlite™ M3 Fixtures with Heat-Resistant Globe

Ceiling Mount

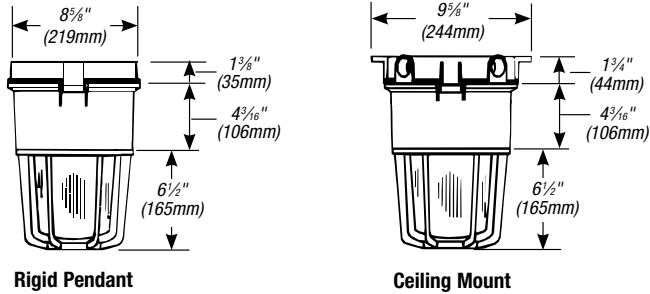
Reference Data

Reference Data	DSM05P12-TG-P2-E & VR15P
Catalogue No.	50W HPS BD17
Lamp	4000
Lamp Lumens	62
Input Watt	2865
Luminaire Lumens	72%
Efficiency	46.2
Efficacy Rating (LER)	1.38
Spacing Criterion (0-180)	1.38
Spacing Criterion (90-270)	1.38
Spacing Criterion (diagonal)	1.70

Candlepower Curve



Dimensions — Hazlite[™] M3 Fixtures with Refractor Globe



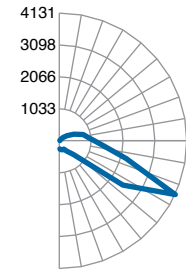
Photometry — Hazlite[™] M3 Fixtures with Refractor Globe

Ceiling Mount

Reference Data

Catalogue No.	DSM05P12-R1-P2-E
Lamp	50W HPS BD17
Lamp Lumens	4000
Input Watt	62
Luminaire Lumens	3340
Efficiency	83%
Efficacy Rating (LER)	53.9
Spacing Criterion (0-180)	1.44
Spacing Criterion (90-270)	3.60
Spacing Criterion (diagonal)	2.32

Candlepower Curve

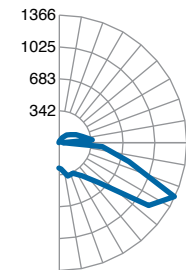


Ceiling Mount

Reference Data

Catalogue No.	DSM05P12-R3-P2-E
Lamp	50W HPS BD17
Lamp Lumens	4000
Input Watt	62
Luminaire Lumens	2979
Efficiency	74%
Efficacy Rating (LER)	48.1
Spacing Criterion (0-180)	1.30
Spacing Criterion (90-270)	1.70
Spacing Criterion (diagonal)	2.40

Candlepower Curve

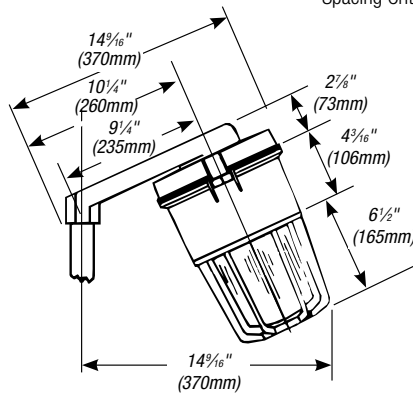
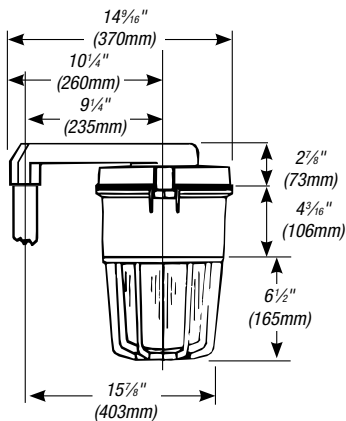
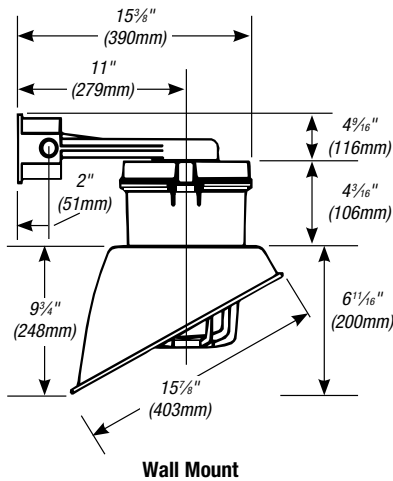
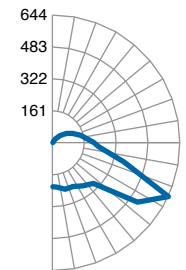


Ceiling Mount

Reference Data

Catalogue No.	DSM05P12-R5-P2-E
Lamp	50W HPS BD17
Lamp Lumens	4000
Input Watt	62
Luminaire Lumens	2935
Efficiency	73%
Efficacy Rating (LER)	47.3
Spacing Criterion (0-180)	1.88
Spacing Criterion (90-270)	1.88
Spacing Criterion (diagonal)	2.84

Candlepower Curve





Hazlux® 1 mogul base polymeric lighting fixtures are certified for use in Class I, Zone 2 and Division 2 locations and indoor or outdoor locations where lighting fixtures are exposed to corrosion accelerators such as dust, rain, hose-directed water and ice formation.

- Fiberglass-reinforced polyester housing and mounting covers provide excellent strength, durability and corrosion resistance
- Impact-resistant and corrosion-resistant polycarbonate guards protect glass globes and refractors
- Guards have keyhole slots for ease of attachment to grounded, stainless steel guard screws
- Thermal shock-resistant globes and refractor globes provide superior protection for HID lamps and effective options for light distribution
- Polymeric reflectors are reinforced fiberglass that resist corrosion, UV rays and weathering and are bright white for maximum reflectance



Hazlux® 1 Certification Guide (40° C Ambient)

LAMP TYPE	WATTS	AMBIENT TEMP (DEG. C)	CLASS I, DIVISION 2 TEMPERATURE CODE		MARINE*	NEMA 4X (SUITABLE FOR HOSEDOWN)*	WET LOCATIONS	SUPPLY WIRE TEMP. RATING °C
			GLOBE/GUARD & REFLECTOR	REFRACTOR/GUARD*				
High-Pressure Sodium	50	40	T3	T3	Yes	Yes	Yes	90
	70	40	T3	T3	Yes	Yes	Yes	90
	100	40	T3	T3	Yes	Yes	Yes	90
	150	40	T2C	T2C	Yes	Yes	Yes	90
Metal Halide	70	40	T3C	T3C	Yes	Yes	Yes	90
	100	40	T3	T3	Yes	Yes	Yes	90
	175	40	T2B	T2A	Yes	Yes	Yes	90

Hazlite™ M1 Certification Guide

LAMP TYPE	AMBIENT (DEG. C)	MARINE	ORDINARY	CLASS I, DIVISION 2 GLOBES — "TR" REFRACTOR WITH/ WITHOUT REFLECTORS		NEMA 4X (SUITABLE FOR HOSEDOWN)*	SUPPLY WIRE SUITABLE °C	VOLTS
				TEMP. °C	TEMP. CODE			
35-Watt	40	Yes	Yes	180	T3A	Yes	75	120
HPS Type S76	55	Yes	Yes	200	T3	Yes	90	120
50-Watt	40	Yes	Yes	215	T2D	Yes	75	120
HPS Type S68	55	Yes	Yes	215	T2D	Yes	90	120
70-Watt	40	Yes	Yes	260	T2B	Yes	75	120
HPS Type S62	55	Yes	Yes	260	T2B	Yes	90	120
70-Watt	40	Yes	Yes	260	T2B	Yes	75	120
HPS Type S62	55	Yes	Yes	260	T2B	Yes	90	120
100-Watt	40	No	Yes	280	T2A	Yes	125	120
HPS Type S54	40	No	Yes	280	T2A	Yes	125	120
70W MH T-rating	40	Yes	Yes	290	T2A	Yes	125	120
100W MH T-rating	40	No	Yes	290	T2A	Yes	125	120

* All Hazlux® fixture assemblies shown in this Buyers Guide as UL® Listed or CSA Certified for Marine applications are suitable for hosedown when fixture is off and glass has been allowed to cool. Tempered glass globes and refractors have better thermal shock resistance properties than non-tempered globes and refractors and should be considered whenever fixtures are subject to being splashed with significantly cooler liquids while illuminated (hot). Consult factory for more information.

Assembly Guide



Complete luminaire consists of :

A MOUNTING STYLE

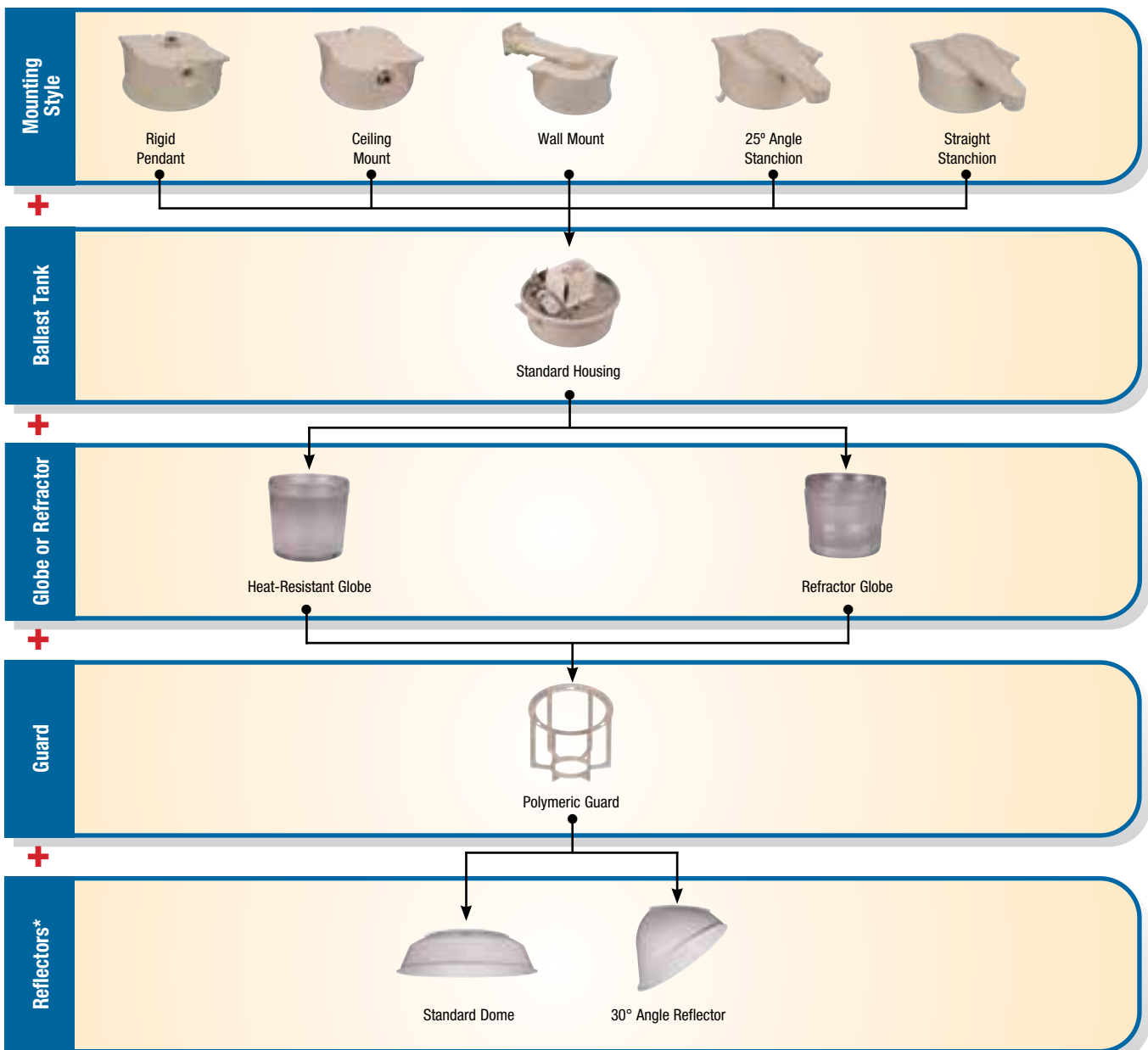
+ BALLAST TANK

+ GLOBE OR REFRACTOR

+ OPTIONAL GUARD AND/OR REFLECTOR

To order a UNIPAK™ fixture, see page 51.

To order **separate components**, order **BALLAST TANK** on page 51 and **INDIVIDUAL COMPONENTS** on page 52.



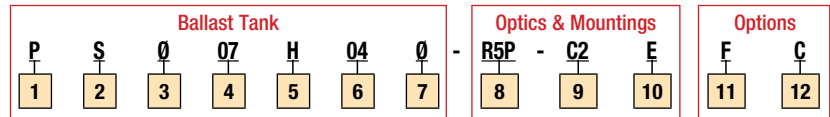
* Reflectors are sold separately. See page 52 for ordering number.

Catalog Numbering System

Class I	— Zone 2, Groups IIC, IIB, IIA	
	— Division 2, Groups A, B, C and D	
Class II	— Division 1 and 2, Groups E, F and G	
Class III		
	<ul style="list-style-type: none"> • UL® Listed (UL1598A) • UL844 • NEMA 4X, IP66 • CSA C22.2 No. 137 	
Contact your Thomas & Betts sales representative to verify classification.		



UNIPAK™ = Ballast Tank + Optics & Mountings
+ Options (if necessary)



BALLAST TANK	
1	FIXTURE SERIES
P	= Hazlux® 1 Fixture
2	LAMP TYPE
S	= High-Pressure Sodium
H	= Metal Halide
3	STARTER OPTIONS
Ø	= Standard Fixture (without options)
P	= Pulse Start (MH only)*
J	= Auto Shutoff Starter (HPS only)
4	LAMP WATTAGE
Metal Halide Lamps	High Pressure Sodium Lamps
10 = 100 Watts	05 = 50 Watts
17 = 175 Watts	07 = 70 Watts
	10 = 100 Watts
	15 = 150 Watts
5	BALLAST CIRCUIT
H	= High Reactance
C	= Constant Wattage Auto-transformer (CWA)
I	= CWI
P	= Reactor Type
6	VOLTAGE/FREQUENCY
03	= 120/277V, 60 Hz
04	= 120/208/240/277V, 60 Hz
09	= 120/277/347V, 60 Hz (CSA)
12	= 120V
20	= 208V
27	= 277V
34	= 347V
48	= 480V
7	BALLAST HOUSING STYLE
Ø	= Standard Housing

OPTICS AND MOUNTINGS	
8	OPTICAL ASSEMBLY OPTIONS
TG	= Tempered Globe Only
TGP	= Tempered Globe with Polymeric Guard
RI	= Refractor Globe (IES Type I)
R3	= Refractor Globe (IES Type III)
R5	= Refractor Globe (IES Type V)
R1P	= Refractor Globe (IES Type I) with Polymeric Guard
R3P	= Refractor Globe (IES Type III) with Polymeric Guard
R5P	= Refractor Globe (IES Type V) with Polymeric Guard
9	MOUNTING STYLE
P2	= 3/4" Pendant Mount**
B2	= 3/4" Wall Mount
C2	= 3/4" Ceiling Mount
S5	= 1-1/2" 25° Angle Stanchion
L5	= 1-1/2" Straight Stanchion
10	UNIPAK™ OPTIONS
E	= UNIPAK™ with Clear Lamp
D	= UNIPAK™ with Diffused Coated Lamp
U	= UNIPAK™ No Lamp
OPTIONS	
11	FUSING OPTIONS
F	= Fuse Block(s) with Fuse(s)
12	CERTIFICATION
C	= Canadian Market

* For more information on lamp selection, see lamp chart on p. 99
 *** 150-Watt Metal Halide and 175 Watt Metal Halide not available with Pendant Mount.

INDIVIDUAL COMPONENTS (to be used with ballast tank, see page 51)

Mounting Options



Rigid Pendant



Ceiling Mount



Wall Mount with Metallic Arm



25° Angle Stanchion



Straight Stanchion

CAT. NO.	DESCRIPTION	CONDUIT HUB	
		SIZE	STD. PKG.
VNP2	Rigid Pendant	3/4"	1
VNC2	Ceiling Mount	3/4"	1
VNB2	Wall Mount with Metallic Arm	3/4"	1
VNS5	25° Angle Stanchion	1 1/2"	1
VNL5	Straight Stanchion	1 1/2"	1

Designed for all Hazlux® 1 Ballasts Housings.

Globes or Refractors



Heat-Resistant Glass Globe



Refractor Globe

CAT. NO.	DESCRIPTION
VGT31S	Heat-Resistant Glass Globe (7 3/4" dia.) 250 Watt Max.
VGT31STS	Heat-Resistant Glass Globe (7 3/4" dia.) Coated with Tuff-Skin®, 250 Watt Max.
VGL31R1	IES Type I Light Distribution (Long and Narrow) Threaded Glass Globe Refractor 7 3/4" dia.
VGL31R3	IES Type III Light Distribution (Asymmetric) Threaded Glass Globe Refractor 7 3/4" dia.
VGL31R5	IES Type V Light Distribution (Symmetric) Threaded Glass Globe Refractor 7 3/4" dia.

Guard



Polymeric Guard

CAT. NO.	DESCRIPTION
VGU31RP	Polymeric Guard for Use with Threaded Glass Globes and Refractors (7 3/4" dia.)

Optional Components

Reflectors



Standard Dome



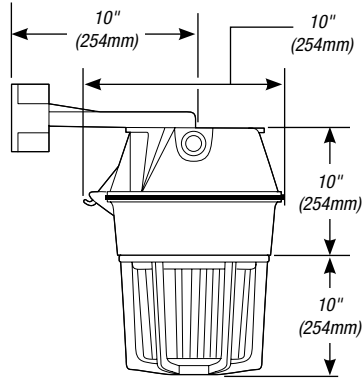
30° Angle Reflector

CAT. NO.	DESCRIPTION
VR31P	Standard Dome, Fiberglass-Reinforced Polyester, for Use with 7 3/4"-dia. Globes
VRA31P	30° Angle Reflector, Fiberglass-Reinforced Polyester, for Use with 7 3/4"-dia. Globes

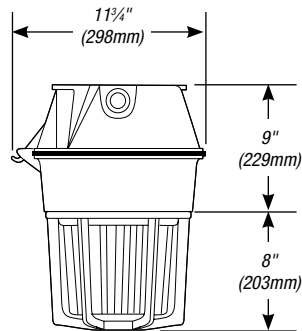
Note: Reflectors are shipped bulk unless specified

Dimensions — Hazlux® 1 Fixtures

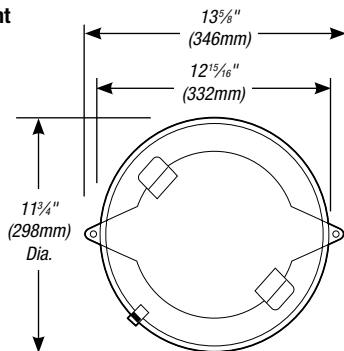
Wall Arm Mount
with Globe
and Guard



Ceiling Mount
with Globe
and Guard



Ceiling Mount
Top View



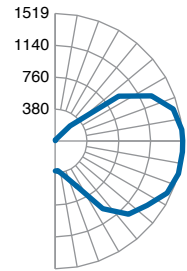
Photometry — Hazlux® 1 Fixtures

Ceiling Mount

Reference Data

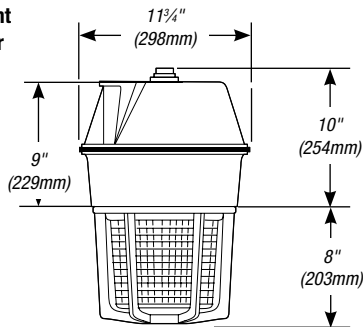
Catalogue No.	PS015H090-TGP-C2E
Lamp	150W HPS ED23 1/2
Lamp Lumens	16000
Input Watt	188
Luminaire Lumens	13388
Efficiency	84%
Efficacy Rating (LER)	71.2
Spacing Criterion (0-180)	NA
Spacing Criterion (90-270)	NA
Spacing Criterion (diagonal)	NA

Candlepower Curve

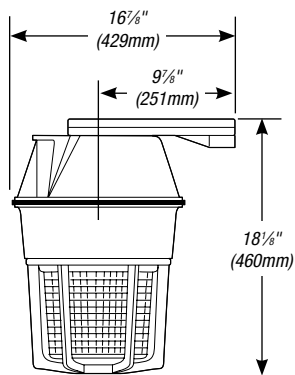


Dimensions — Hazlux® 1 Fixtures

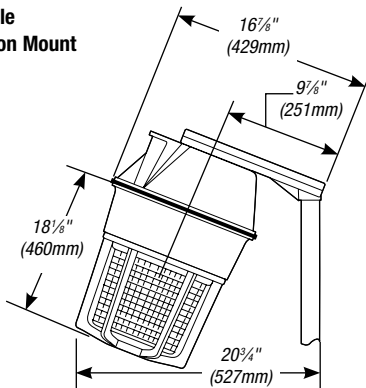
Pendant Mount with Refractor and Guard



Straight Stanchion Mount



25° Angle Stanchion Mount



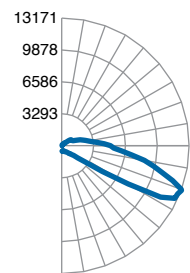
Photometry — Hazlux® 1 Fixtures

Ceiling Mount

Reference Data

Catalogue No.	PH017C090-R1-C2E
Lamp	175W MH ED28
Lamp Lumens	14000
Input Watt	210
Luminaire Lumens	11973
Efficiency	86%
Efficacy Rating (LER)	57.0
Spacing Criterion (0-180)	1.82
Spacing Criterion (90-270)	6.64
Spacing Criterion (diagonal)	3.10

Candlepower Curve

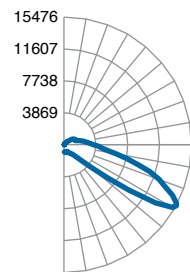


Ceiling Mount

Reference Data

Catalogue No.	PS015H090-R3-C2E
Lamp	150W HPS ED23 1/2
Lamp Lumens	16000
Input Watt	188
Luminaire Lumens	14148
Efficiency	88%
Efficacy Rating (LER)	75.3
Spacing Criterion (0-180)	1.44
Spacing Criterion (90-270)	1.84
Spacing Criterion (diagonal)	2.78

Candlepower Curve

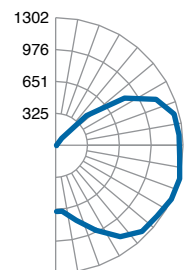


Ceiling Mount

Reference Data

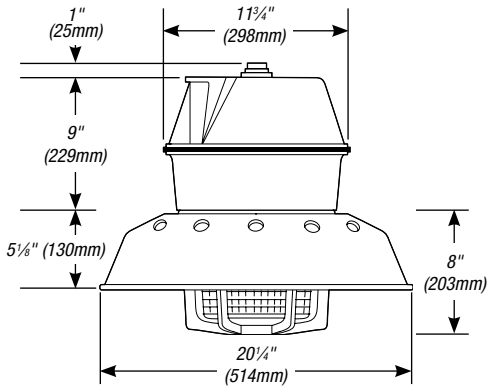
Catalogue No.	PH017C090-R5-C2E
Lamp	175W MH ED28
Lamp Lumens	14000
Input Watt	210
Luminaire Lumens	12489
Efficiency	89%
Efficacy Rating (LER)	59.5
Spacing Criterion (0-180)	2.38
Spacing Criterion (90-270)	2.38
Spacing Criterion (diagonal)	2.40

Candlepower Curve

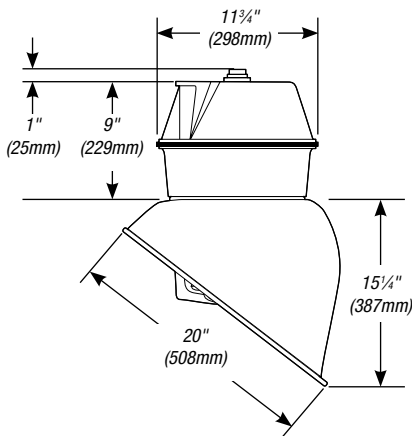


Dimensions — Hazlux® 1 Fixtures

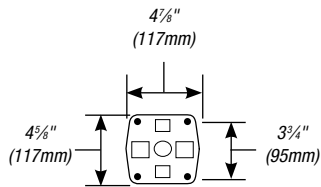
Dome Reflector with Refractor and Guard



Angle Reflector with Globe and Guard



Wall-Mount Flange Template



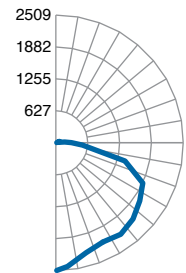
Photometry — Hazlux® 1 Fixtures

Ceiling Mount

Reference Data

Catalogue No.	PH017C090-TGP-C2E & VR31P
Lamp	175W MH ED28
Lamp Lumens	14000
Input Watt	210
Luminaire Lumens	10873
Efficiency	78%
Efficacy Rating (LER)	51.8
Spacing Criterion (0-180)	1.36
Spacing Criterion (90-270)	1.36
Spacing Criterion (diagonal)	1.58

Candlepower Curve

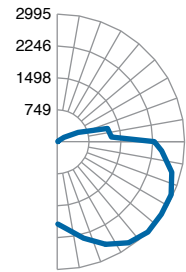


Ceiling Mount

Reference Data

Catalogue No.	PH017C090-TGP-C2E & VRA31P
Lamp	175W MH ED28
Lamp Lumens	14000
Input Watt	210
Luminaire Lumens	9587
Efficiency	68%
Efficacy Rating (LER)	45.7
Spacing Criterion (0-180)	2.14
Spacing Criterion (90-270)	1.64
Spacing Criterion (diagonal)	1.54

Candlepower Curve

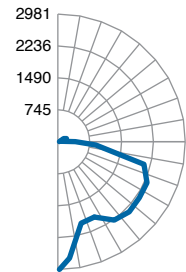


Ceiling Mount

Reference Data

Catalogue No.	PS015H090-TGP-C2E & VR31P
Lamp	150W HPS ED23 1/2
Lamp Lumens	16000
Input Watt	188
Luminaire Lumens	12675
Efficiency	79%
Efficacy Rating (LER)	67.4
Spacing Criterion (0-180)	0.90
Spacing Criterion (90-270)	0.90
Spacing Criterion (diagonal)	1.50

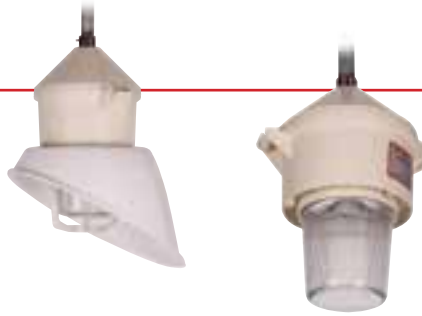
Candlepower Curve



Assembly Guide

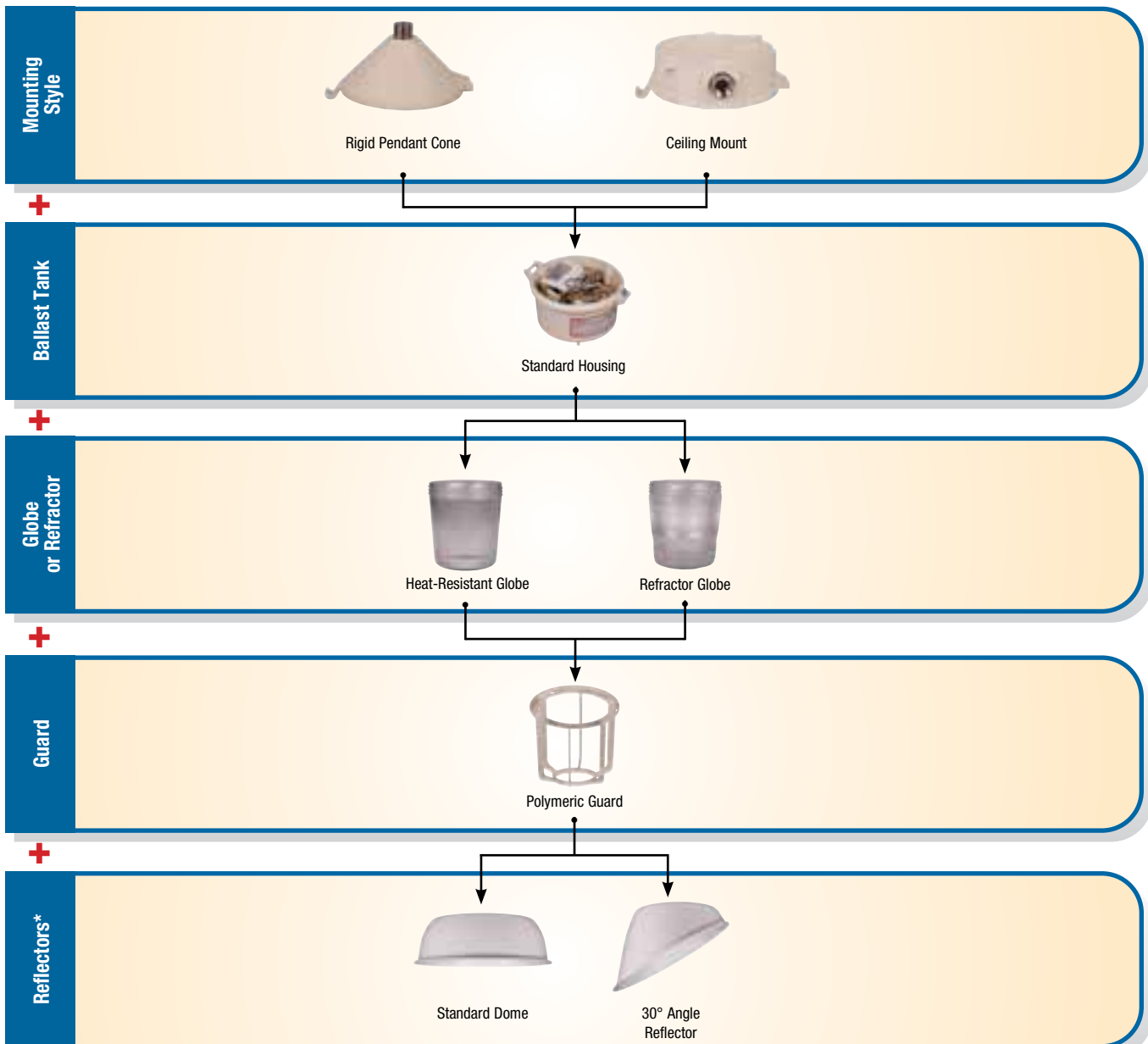
Complete luminaire consists of :

- A MOUNTING STYLE
- + BALLAST TANK
- + GLOBE OR REFRACTOR
- + OPTIONAL GUARD AND/OR REFLECTOR



To order a UNIPAK™ fixture, see page 57.

To order **separate components**, order **BALLAST TANK** on page 57 and **INDIVIDUAL COMPONENTS** on page 58.



* Reflectors are sold separately. See page 58 for ordering number.

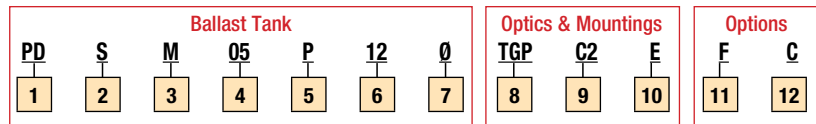
Catalog Numbering System



UNIPAK™ =

Ballast Tank +
Optics & Mountings +
Options (if necessary)

High-Pressure Sodium/
Metal Halide



BALLAST TANK											
1	FIXTURE SERIES PD = Hazlite™ M1 Fixture										
2	LAMP TYPE S = High-Pressure Sodium H = Metal Halide										
3	LAMP HOLDER M = Medium Base Lampholder										
4	LAMP WATTAGE <table border="0"> <tr> <td>Metal Halide Lamps</td> <td>High Pressure Sodium Lamps</td> </tr> <tr> <td>05 = 50W ED17</td> <td>03 = 35W BD17</td> </tr> <tr> <td>07 = 70W ED17</td> <td>05 = 50W BD17</td> </tr> <tr> <td>10 = 100W ED17</td> <td>07 = 70W BD17</td> </tr> <tr> <td></td> <td>10 = 100W BD17</td> </tr> </table>	Metal Halide Lamps	High Pressure Sodium Lamps	05 = 50W ED17	03 = 35W BD17	07 = 70W ED17	05 = 50W BD17	10 = 100W ED17	07 = 70W BD17		10 = 100W BD17
Metal Halide Lamps	High Pressure Sodium Lamps										
05 = 50W ED17	03 = 35W BD17										
07 = 70W ED17	05 = 50W BD17										
10 = 100W ED17	07 = 70W BD17										
	10 = 100W BD17										
5	BALLAST CIRCUIT P = Reactor Type										
6	VOLTAGE 12 = 120 Volt										
7	BALLAST HOUSING STYLE 0 = Standard Housing										

OPTICS AND MOUNTINGS	
8	OPTICAL ASSEMBLY OPTIONS TG = Tempered Globe Only TGP = Tempered Globe and Polymeric Guard R1 = Refractor Globe (IES Type I) R3 = Refractor Globe (IES Type III) R5 = Refractor Globe (IES Type V) R1P = Refractor Globe (IES Type I) with Polymeric Guard R3P = Refractor Globe (IES Type III) with Polymeric Guard R5P = Refractor Globe (IES Type V) with Polymeric Guard
9	MOUNTING STYLE P2 = 3/4" Cone Pendant C2 = 3/4" Ceiling, 1 Hub C22 = 3/4" Ceiling, 2 Hubs
10	UNIPAK™ OPTIONS E = UNIPAK™ with Clear Lamp U = UNIPAK™ No Lamp
OPTIONS	
11	SPECIAL OPTIONS F = Fuse Kit
12	CERTIFICATION C = Canadian Market

- Class I — Zone 2, Groups IIC, IIB, IIA
— Division 2, Groups A, B, C and D
- UL® Listed (UL1598A) for Marine Locations
 - UL844
 - NEMA 4X, IP66
 - CSA C22.2 No.137



Contact your Thomas & Betts sales representative to verify classification.

INDIVIDUAL COMPONENTS (to be used with ballast tank, see page 57)

Mounting Options



Rigid Pendant Cone



Ceiling Mount

CAT. NO.	DESCRIPTION	CONDUIT HUB SIZE	STD. PKG.	PRICE
VPA2	Rigid Pendant Cone	3/4	5	
VPC2	Ceiling Mount	3/4	5	
VPC22	(feed-through)			

Exit Sign



Three-Sided Exit Sign

CAT. NO.	DESCRIPTION	STD. PKG.	COLOR	PRICE
VRE22	Three-Sided Exit Sign	1	Red	

Globes or Refractors



Reflector Globe



Heat-Resistant Globe

CAT. NO.	DESCRIPTION	PRICE
VGT15	Heat-Resistant Globe	
VGL15R1	IES Type I Refractor Globe	
VGL15R3	IES Type III Refractor Globe	
VGL15R5	IES Type V Refractor Globe	

Guards



Polymeric Guard

CAT. NO.	DESCRIPTION	PRICE
VGU15P	Polymeric — for Use with Glass Globes or Refractors	

Optional Components

Reflectors



Standard Dome



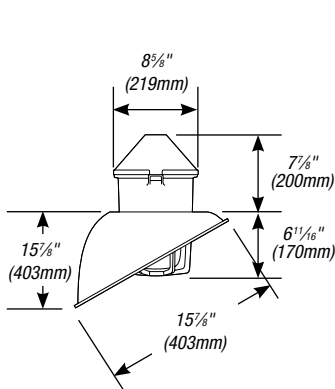
30° Angle Reflector

CAT. NO.	DESCRIPTION	PRICE
VR15P	Standard Dome Fiber Glass Reinforced Polyester	
VRA15P	30° Angle Reflector Fiber Glass Reinforced Polyester	

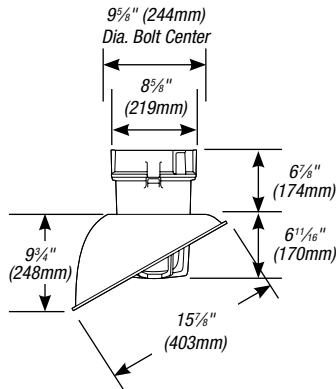
Note: Reflectors are shipped bulk unless specified

Dimensions

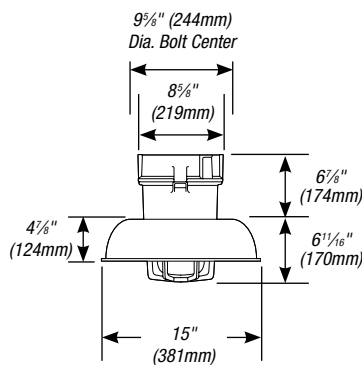
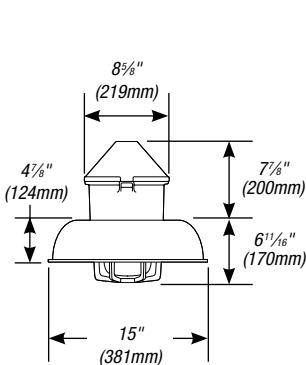
Cone Pendant Mount



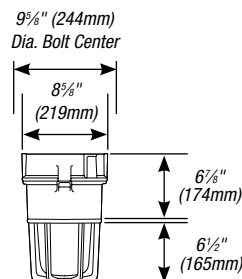
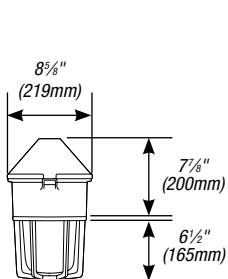
Ceiling Mount



Glass Globe with Angled Reflector



Glass Globe with Dome Reflector



Glass Globe and No Reflector

Photometry

Ceiling Mount

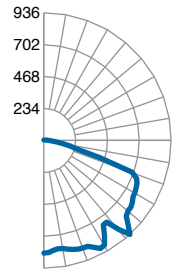
Reference Data

Catalogue No.

**PDHM07P120TGLC2
& VR15P**

Lamp	70W PSMH ED17
Lamp Lumens	5700
Input Watt	77
Luminaire Lumens	3756
Efficiency	66%
Efficacy Rating (LER)	49
Spacing Criterion (0-180)	1.42
Spacing Criterion (90-270)	1.42
Spacing Criterion (diagonal)	1.72

Candlepower Curve



Ceiling Mount

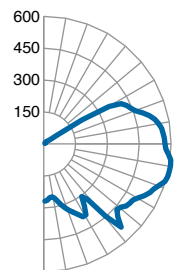
Reference Data

Catalogue No.

PDHM07P120TGLC2

Lamp	70W PSMH ED17
Lamp Lumens	5700
Input Watt	77
Luminaire Lumens	4804
Efficiency	84%
Efficacy Rating (LER)	62
Spacing Criterion (0-180)	2.26
Spacing Criterion (90-270)	2.26
Spacing Criterion (diagonal)	2.38

Candlepower Curve



Ceiling Mount

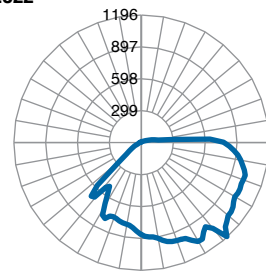
Reference Data

Catalogue No.

**PDHM07H120TGLC22
& VRA15P**

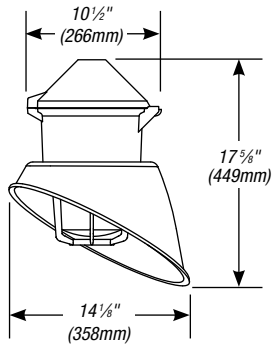
Lamp	70W PSMH ED17
Lamp Lumens	5700
Input Watt	77
Luminaire Lumens	3855
Efficiency	68%
Efficacy Rating (LER)	50
Spacing Criterion (0-180)	1.92
Spacing Criterion (90-270)	1.38
Spacing Criterion (diagonal)	1.64

Candlepower Curve

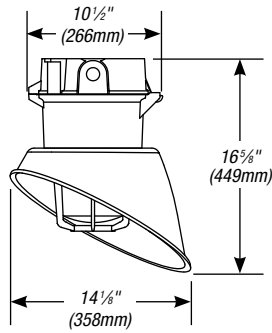


Dimensions

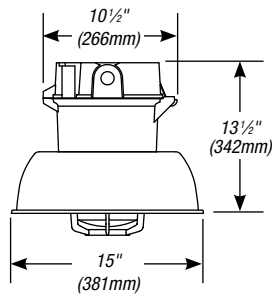
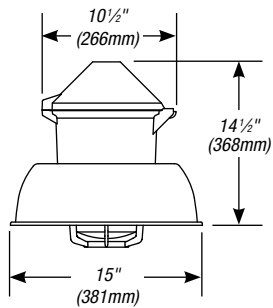
Cone Pendant Mount



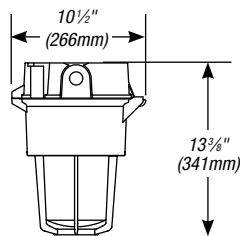
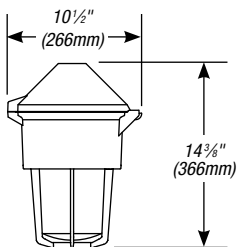
Ceiling Mount



Glass Globe with Angled Reflector



Glass Globe with Dome Reflector



Glass Globe and No Reflector

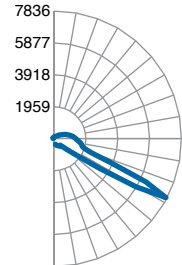
Photometry

Ceiling Mount

Reference Data

Catalogue No.	PDHM07P120R1
Lamp	70W PSMH ED17
Lamp Lumens	5700
Input Watt	77
Luminaire Lumens	4490
Efficiency	79%
Efficacy Rating (LER)	58
Spacing Criterion (0-180)	1.42
Spacing Criterion (90-270)	5.04
Spacing Criterion (diagonal)	2.98

Candlepower Curve

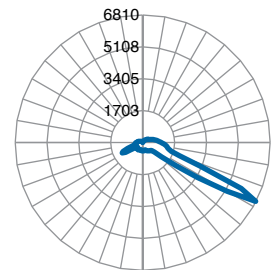


Ceiling Mount

Reference Data

Catalogue No.	PDHM07P120R3
Lamp	70W PSMH ED17
Lamp Lumens	5700
Input Watt	77
Luminaire Lumens	4864
Efficiency	85%
Efficacy Rating (LER)	63
Spacing Criterion (0-180)	1.24
Spacing Criterion (90-270)	1.62
Spacing Criterion (diagonal)	1.62

Candlepower Curve

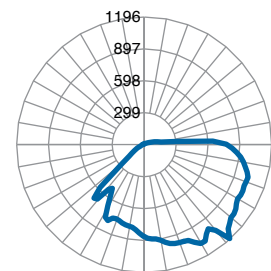


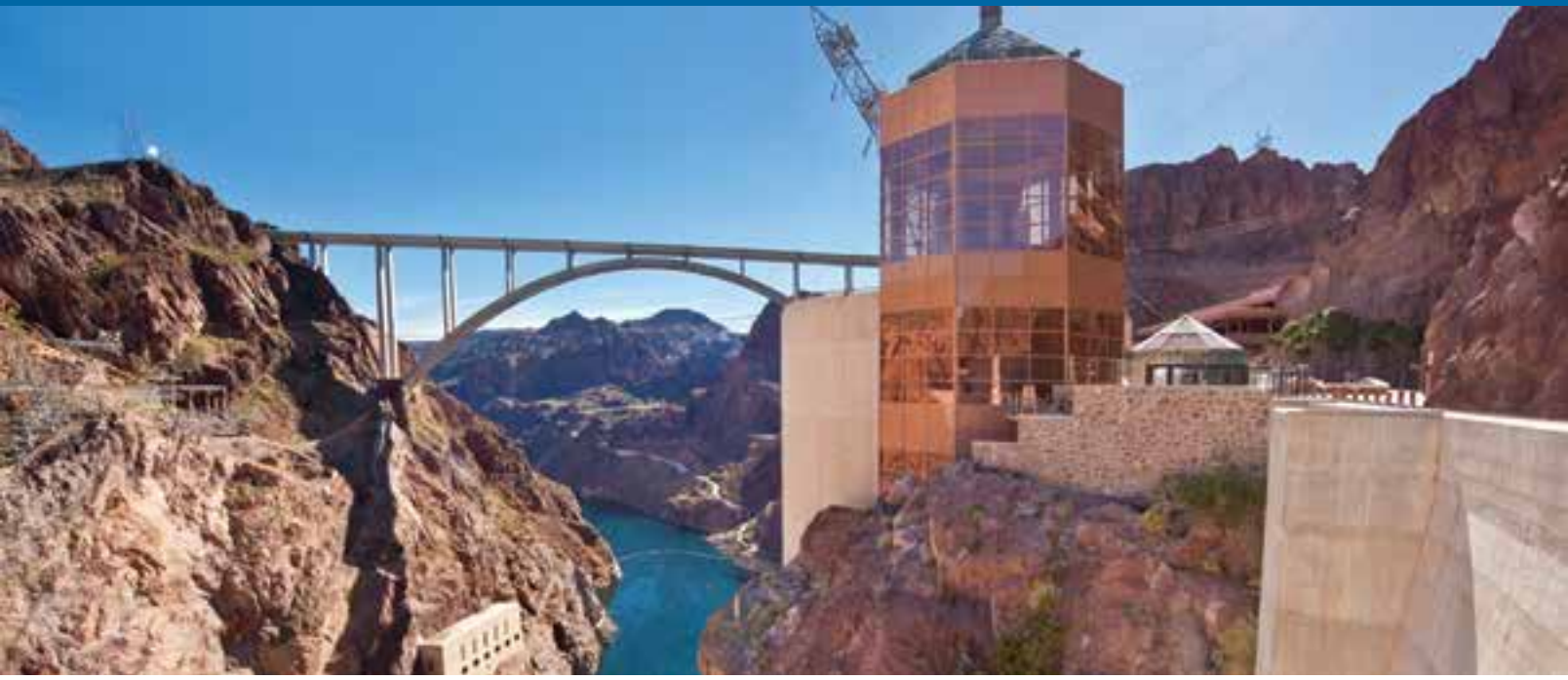
Ceiling Mount

Reference Data

Catalogue No.	PDHM07P120R5
Lamp	70W PSMH ED17
Lamp Lumens	5700
Input Watt	77
Luminaire Lumens	4791
Efficiency	84%
Efficacy Rating (LER)	62
Spacing Criterion (0-180)	1.68
Spacing Criterion (90-270)	1.68
Spacing Criterion (diagonal)	3.08

Candlepower Curve





Hazlux® 5 HID Lighting Fixtures for Class I, Division 1, Groups C and D Hazardous Locations



Features

- UL® Listed for Class I, Division 1 for safe, explosion-proof application in a variety of hazardous areas
- Factory-sealed assembly meets code requirements without the need for external sealing fittings
- Dual-pitch Acme threads make assembly easy and faster than designs with standard V-cut threads, greatly reducing the risk of cross threading
- Factory-wired connection block means ballast is pre-wired to lower half of electrical connection block, allowing wireless connection of ballast housing to mounting module
- Five mounting styles — pendant, ceiling, wall, angle stanchion and bulkhead — provide versatility for installation
- Thermal shock-resistant glass globes are factory assembled and pre-tested to ensure the highest quality and safety
- Die-cast aluminum guards are epoxy powder coated for corrosion resistance and have keyhole slots for easy attachment to stainless steel screws
- Choice of high-pressure sodium and metal halide light sources in wattages from 50 to 400 watts
- Polymeric reflectors are available in standard dome and 30° angle versions
- UL® Listed for Marine and Wet Locations, making Hazlux® 5 fixtures ideal for use in many outdoor, offshore, hosedown and coastal locations
- UL® Paint Spray Listed in wattages up to 100 watts

Applications

- Chemical Plants
- Oil Refineries
- Offshore Platforms
- Waste Treatment Facilities
- Automotive Manufacturing Plants
- Paint Manufacturing Facilities
- Paint Spray Locations
- Chemical and Plastic Mixing and Storage Areas
- Pipeline Pumping Stations
- Oil and Gas Terminals
- Defense and Government Facilities

Wattages and Voltages

- High-Pressure Sodium: 50–400 Watts
- Metal Halide: 70–400 Watts
- All Luminaires: Multi-Tap standard (120, 208, 240, 277V), wired 120V

Other voltages, frequencies available; contact Thomas & Betts.

Materials and Finishes

- Ballast Housing: Copper-free aluminum, powder finish
- Mounting Modules: Copper-free aluminum, powder finish
- Hardware: Stainless steel
- Globes: Tempered glass
- Guard: Copper-free aluminum, powder finish
- Reflectors: Fiberglass-reinforced

Certifications

- UL844 Class I, Division 1, Groups C, D
- UL844 Paint Spray (100W max.)
- UL844 Class II, Division 1, Groups E, F, G
- Outdoor Wet Locations
- UL1598A Marine Locations
- Temperature Range: -30° C to 40° C

Hazlux® 5 Certification Guide (40° C Ambient)

LAMP TYPE	WATTS	CLASS I, DIVISION 1 GROUPS C AND D			CLASS II, DIVISION 1 AND 2		CLASS III, DIVISION 1 AND 2	NEMA 4X (SUITABLE FOR HOSEDOWN)*	MARINE LISTED (UL 1598A)
		RATED TEMP °C	"T" NO.	RATED TEMP °C	GROUPS				
High-Pressure Sodium	With or without Instant Restart	50**	85	T6	100	EFG	Yes	Yes	Yes
		70**	85	T6	120	EFG	Yes	Yes	Yes
		100**	100	T5	135	EFG	Yes	Yes	Yes
		150(S55)	120	T4A	160	EFG	Yes	Yes	Yes
		150(S56)	120	T4A	160	EFG	Yes	Yes	Yes
		250	120	T4A	—	—	—	Yes	Yes
	400	160	T3C	—	—	—	Yes	Yes	
	With Auxiliary Quartz	50	120	T4A	160	EFG	Yes	Yes	Yes
		70	120	T4A	160	EFG	Yes	Yes	Yes
		100	160	T3C	200	EF	—	Yes	Yes
150(S55)		160	T3C	200	EF	—	Yes	Yes	
150(S56)		160†	T3C†	—	—	—	Yes	Yes	
Metal Halide		100†	100†	T5	—	—	—	—	—
		175	120	T4A	180	EF	—	Yes	Yes
		250	160	T3C	200	EF	—	Yes	Yes
		400	165	T3B	—	—	—	Yes	Yes
	Pulse Start	320	165	T3B	—	—	—	Yes	Yes
		400	165	T3B	—	—	—	Yes	Yes
	With Auxiliary Quartz	175	160†	T3C†	—	—	—	Yes	Yes
250		180†	T3A†	—	—	—	Yes	Yes	
Induction		35	85	T6	85	EFG	—	Yes	Yes
		55	85	T6	85	EFG	—	Yes	Yes
		85	85	T6	85	EFG	—	Yes	Yes

* All Hazlux® fixture assemblies shown in this Buyers Guide as UL® Listed or CSA Certified for Marine applications are suitable for hosedown when fixture is off and glass has been allowed to cool. Tempered glass globes and refractors have better thermal shock resistance properties than non-tempered globes and refractors and should be considered whenever fixtures are subject to being splashed with significantly cooler liquids while illuminated (hot). Consult factory for more information.

** For fixtures suitable (UL® Listed) for use in paint spray areas, add suffix "PS" to the number.

† 100W MH is UL® Listed for paint spray.



Hazlite™ M5 Certification Guide (40° C Ambient)

LAMP TYPE	WATTS	CLASS I, DIVISION 1, GROUPS C AND D CLASS I, DIVISION 2, GROUPS A,B,C AND D			CLASS II, DIVISION 1 AND 2		CLASS III, DIVISION 1 AND 2	NEMA 4X*	MARINE LISTED (UL 1598A)
		RATED TEMP °C	"T" NO.	RATED TEMP °C	GROUPS				
High-Pressure Sodium	50**	85	T6	120	EFG	Yes	Yes	Yes	
	70**	100	T5	135	EFG	Yes	Yes	Yes	
	100	120	T4A	160	EFG	Yes	Yes	Yes	
	150†	135	T4	—	—	—	Yes	Yes	

* All Hazlux® fixture assemblies shown in this Buyers Guide as UL® Listed or CSA Certified for Marine applications are suitable for hosedown when fixture is off and glass has been allowed to cool. Tempered glass globes and refractors have better thermal shock resistance properties than non-tempered globes and refractors and should be considered whenever fixtures are subject to being splashed with significantly cooler liquids while illuminated (hot). Consult factory for more information.

** For fixtures suitable (UL® Listed) for use in paint spray areas, add suffix "PS" to the catalog number.

† UL® Listed at 25° C.



Assembly Guide

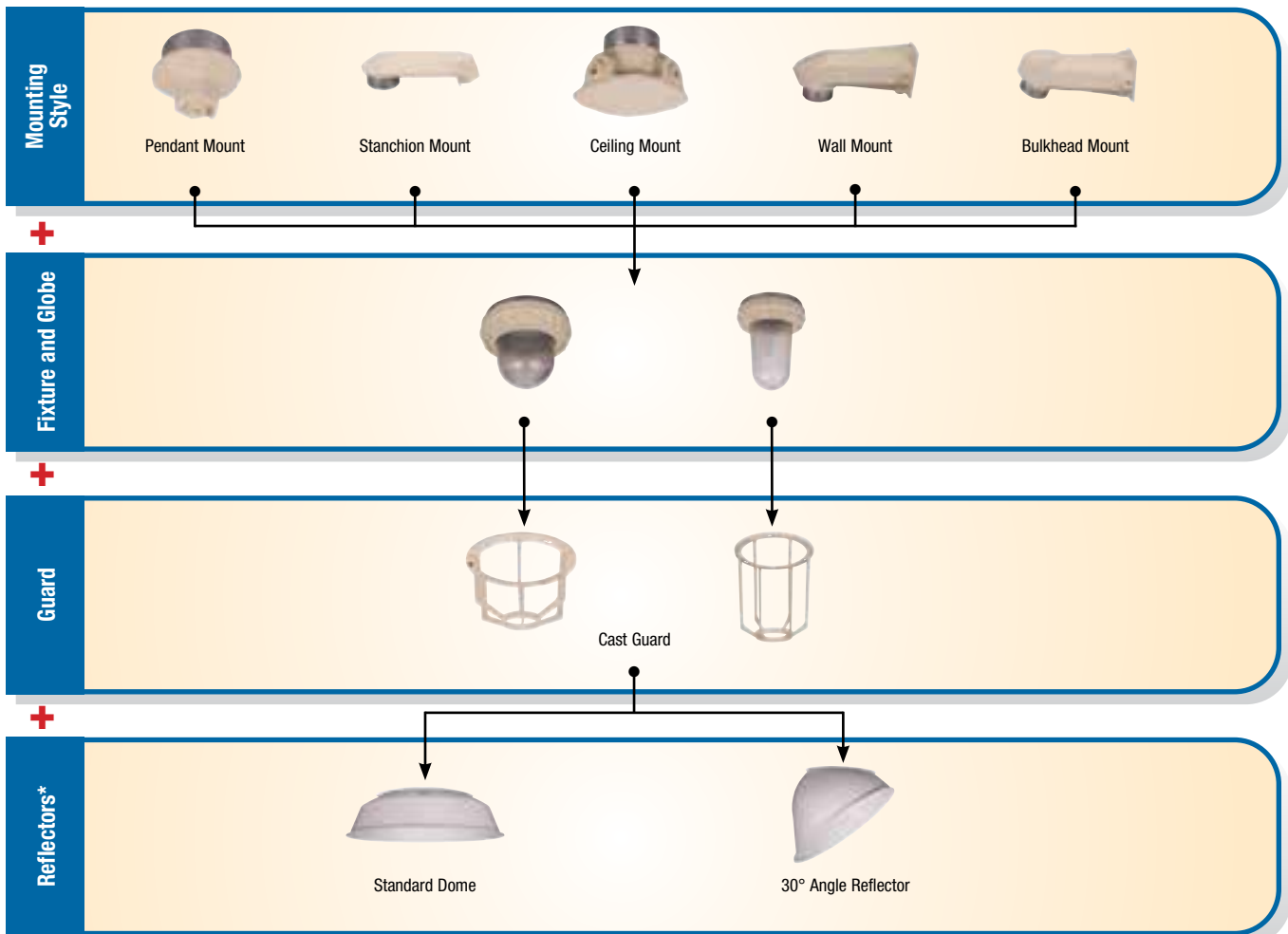
Complete luminaire consists of :

- A MOUNTING STYLE
- + FIXTURE AND GLOBE
- + OPTIONAL SPECIAL APPLICATION FLOODLIGHT
- + OPTIONAL GUARD AND/OR REFLECTOR



To order a **UNIPAK™** fixture, see **page 65**.

To order **separate components**, order **FIXTURE AND GLOBE** on **page 65** and **INDIVIDUAL COMPONENTS** on **page 66**.



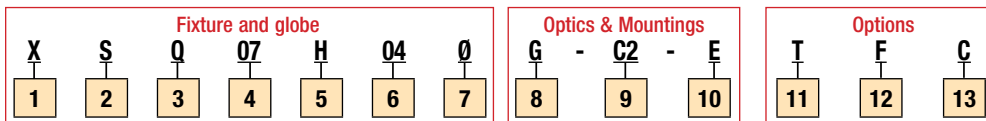
* Reflectors are sold separately. See page 66 for ordering number.

Catalog Numbering System



UNIPAK™ =

Ballast Tank +
Optics & Mountings +
Options (if necessary)



BALLAST TANK	
1	FIXTURE SERIES
X	= Hazlux® 5 Fixture
2	LAMP TYPE
S	= High-Pressure Sodium
H	= Metal Halide
3	STARTER OPTIONS
0	= Standard Fixture (without options)
P	= Pulse Start (MH only)*
Q	= Quartz Auxiliary Option
R	= Fixture with Instant Restart Option (70, 100 and 150 HPS Only)
4	LAMP WATTAGE
Metal Halide Lamps	High Pressure Sodium Lamps
10 = 100W ED28	05 = 50W ED23 1/2
17 = 175W ED28	07 = 70W ED23 1/2
25 = 250W ED28	10 = 100W ED23 1/2
32 = 320W ED28PS	15 = 150W ED23 1/2
40 = 400W ED37	20 = 200W ED18
	25 = 250W ED18
	40 = 400W ED18
5	BALLAST CIRCUIT
H	= High Reactance
C	= Constant Wattage Auto-transformer (CWA)
I	= CWI
6	BALLAST VOLTAGE
04	= Multi-Tap 120/208/240/277 Volt
09	= 120/208/240/277V, 60 Hz
12	= 120/277/347V, 60 Hz (CSA)
20	= 120V
24	= 208V
34	= 347V
48	= 480V
7	BALLAST HOUSING STYLE
0	= Standard Housing
S	= Standard Housing with Stainless Steel Inserts

Note: Verify hazardous location certification with your requirements on Hazlux® 5 Certification Guide on page 63.
* For more information on lamp selection, see p.99

OPTICS AND MOUNTINGS	
8	GUARD
G	= Cast Guard (Omit "G" if Guard Not Required)
9	MOUNTING STYLE
P2	= 3/4" Pendant Mount
P3	= 1" Pendant
C2	= 3/4" Ceiling Mount
C3	= 1" Ceiling
B2	= 3/4" Wall
B3	= 1" Wall
J2	= 3/4" Bulkhead
J3	= 1" Bulkhead
S4	= 25° 11/4" Stanchion
S5	= 25° 11/2" Stanchion
10	UNIPAK™ OPTIONS
E	= UNIPAK™ with Clear Lamp
D	= UNIPAK™ with Diffused Coated Lamp
OPTIONS	
11	SPECIAL OPTIONS
T	= HazCote® Custom Corrosion Coating on all Aluminum Parts (Consult Factory)
PS	= Paint Spray Label
12	FUSING OPTIONS
F	= Fuse Block(s) with Fuse(s)
13	CERTIFICATION
C	= Canadian Market

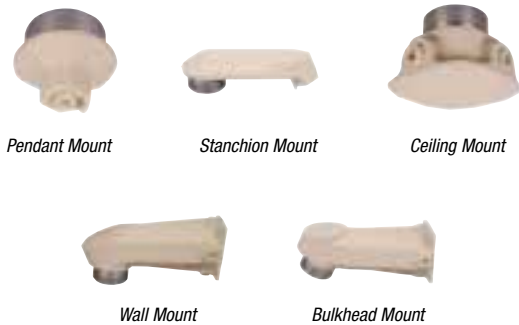
- Class I — Division 1, Groups C and D
- Zone 2, Groups IIC, IIB and IIA
- Division 2, Groups A, B, C and D
- Class II — Division 1 and 2, Groups E, F and G
- UL® Listed (UL1598A)
- UL844
- NEMA 4X, IP66
- CSA C22.2 No.137



Contact your Thomas & Betts sales representative to verify classification.

INDIVIDUAL COMPONENTS (to be used with ballast tank, see page 65)

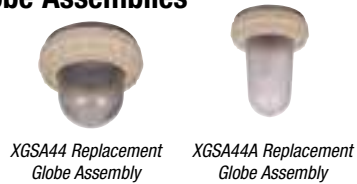
Mounting Options



CAT. NO.	DESCRIPTION	CONDUIT HUB SIZE	STD. PKG.
XP2	Pendant Mount	¾"	1
XP3		1"	
XS4	Stanchion Mount	1¼"	1
XS5		1½"	
XC2	Ceiling Mount	¾"	1
XC3		1"	
XB2	Wall Mount	¾"	1
XB3		1"	
XJ2	Bulkhead Mount	¾"	1
XJ3		1"	

Outlet Boxes include female electrical connectors and appropriate close-up plugs.

Replacement Globe Assemblies



CAT. NO.	DESCRIPTION
XGSA44	Hazlux 5 Replacement Globe Assembly — 150 HPS
XGSA44A	Hazlux 5 Replacement Globe Assembly — 400 Watts and 250 HPS/MH

Optional Components

Guards



CAT. NO.	DESCRIPTION
XGU44	Cast Aluminum Guard
VGU31*	Cast Aluminum Guard

* Used on all 400-watt fixtures, 250-watt HPS fixtures and 250-watt metal halide fixtures.

Reflectors

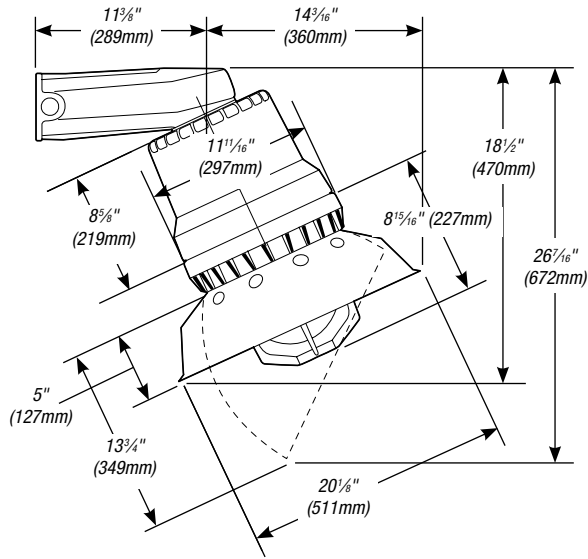


CAT. NO.	DESCRIPTION
VR31P	Standard Dome, Fiberglass-Reinforced Polyester
VRA31P	30° Angle Reflector, Fiberglass-Reinforced Polyester

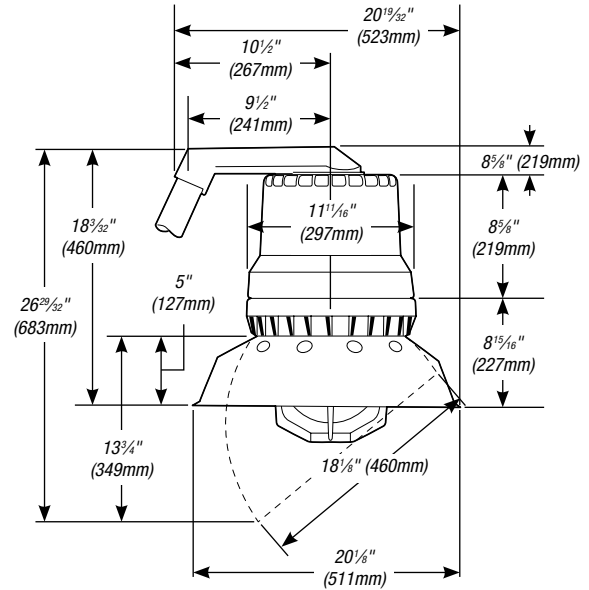
Note: Reflectors are shipped bulk unless specified

Dimensions — Hazlux® 5 Fixtures

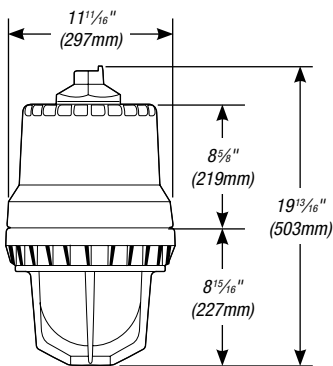
Bulkhead Mount with Globe, Guard and Reflector



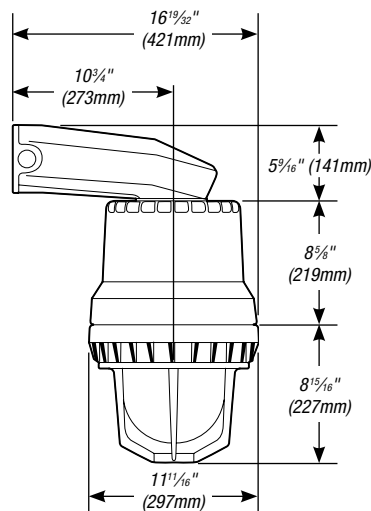
Stanchion Mount with Globe, Guard and Reflector



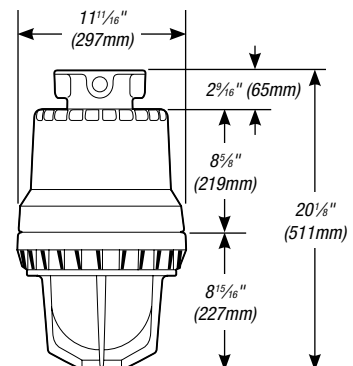
Pendant Mount with Globe and Guard



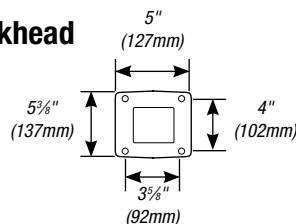
Wall Mount with Globe and Guard



Ceiling Mount with Globe and Guard

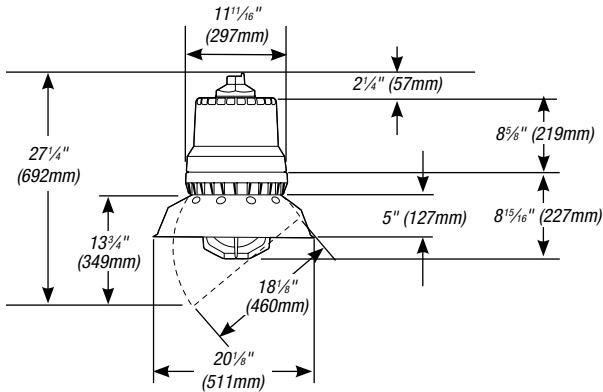


Template for Bulkhead or Wall Mount

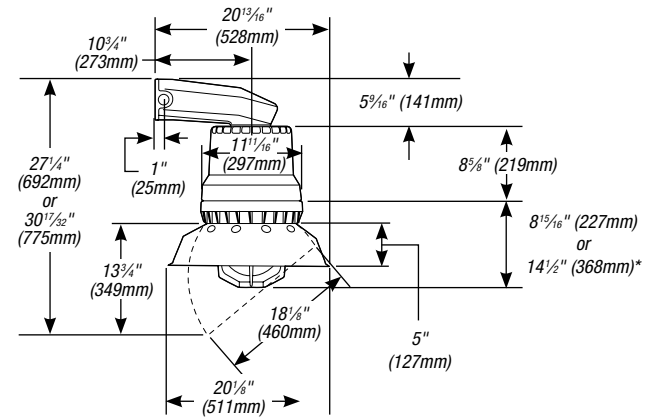


Dimensions — Hazlux® 5 Fixtures (continued)

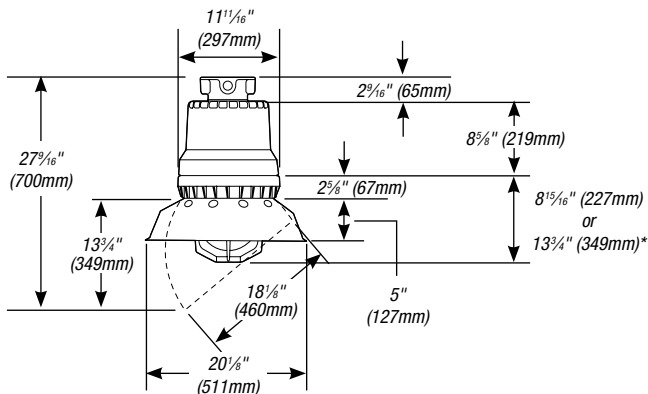
Pendant Mount with Globe, Guard and Reflector



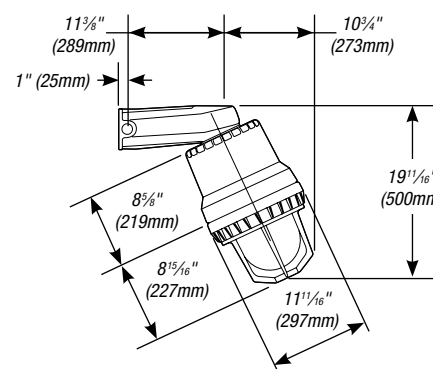
Wall Mount with Globe, Guard and Reflector



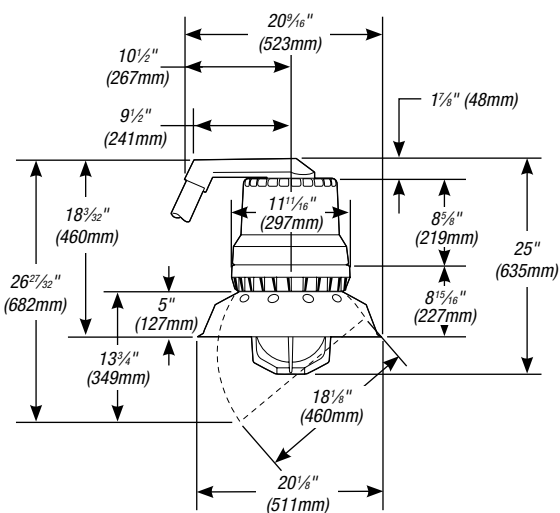
Ceiling Mount with Globe, Guard and Reflector



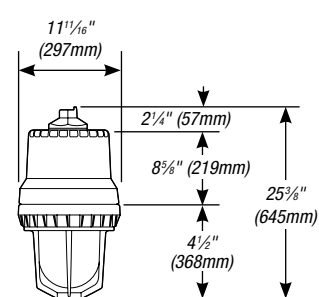
Bulkhead Mount with Globe and Guard



Stanchion Mount with Globe, Guard and Reflector*



Pendant Mount with Globe and Guard*



* When XGSA44A globe assembly is used with ED18 and ED37 lamps.

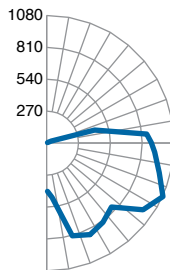
Photometry — Hazlux® 5 Fixtures

Ceiling Mount

Reference Data

Catalogue No.	XS010H090G-C2-E
Lamp	100W HPS ED23 1/2
Lamp Lumens	9500
Input Watt	130
Luminaire Lumens	7162
Efficiency	75%
Efficacy Rating (LER)	55.1
Spacing Criterion (0-180)	2.66
Spacing Criterion (90-270)	2.66
Spacing Criterion (diagonal)	2.74

Candlepower Curve

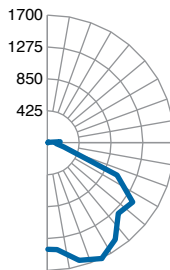


Ceiling Mount

Reference Data

Catalogue No.	XS010H090G-C2-E & VR31P
Lamp	100W HPS ED23 1/2
Lamp Lumens	9500
Input Watt	130
Luminaire Lumens	6254
Efficiency	66%
Efficacy Rating (LER)	48.1
Spacing Criterion (0-180)	1.60
Spacing Criterion (90-270)	1.60
Spacing Criterion (diagonal)	1.70

Candlepower Curve

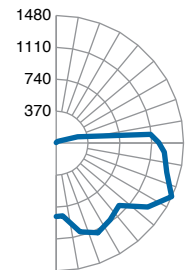


Ceiling Mount

Reference Data

Catalogue No.	XH017C090G-C2-E
Lamp	175W MH ED28
Lamp Lumens	14000
Input Watt	210
Luminaire Lumens	9368
Efficiency	67%
Efficacy Rating (LER)	44.6
Spacing Criterion (0-180)	1.82
Spacing Criterion (90-270)	1.82
Spacing Criterion (diagonal)	2.20

Candlepower Curve

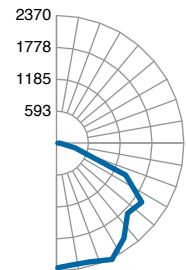


Ceiling Mount

Reference Data

Catalogue No.	XH017C090G-C2-E & VR31P
Lamp	175W MH ED28
Lamp Lumens	14000
Input Watt	210
Luminaire Lumens	8264
Efficiency	59%
Efficacy Rating (LER)	39.4
Spacing Criterion (0-180)	1.44
Spacing Criterion (90-270)	1.44
Spacing Criterion (diagonal)	1.54

Candlepower Curve

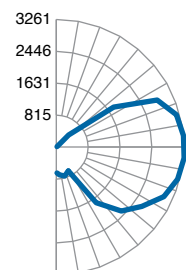


Ceiling Mount

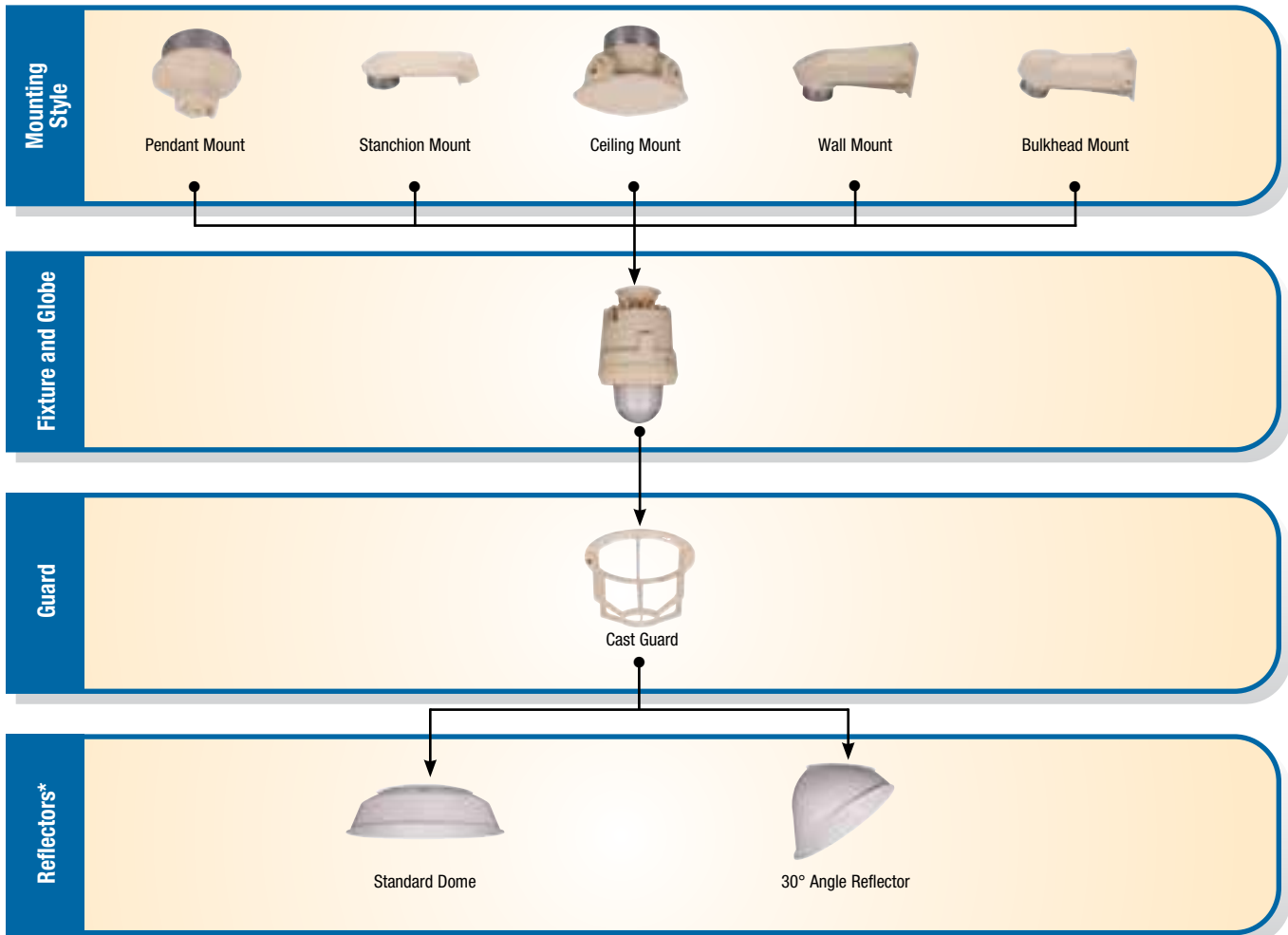
Reference Data

Catalogue No.	XH032C090-C2-E
Lamp	320W MH ED28PS
Lamp Lumens	30000
Input Watt	368
Luminaire Lumens	27341
Efficiency	91%
Efficacy Rating (LER)	74.3
Spacing Criterion (0-180)	NA
Spacing Criterion (90-270)	NA
Spacing Criterion (diagonal)	NA

Candlepower Curve

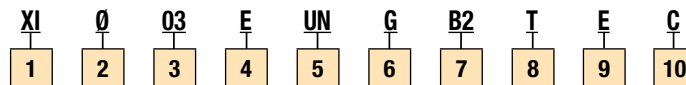


Hazardous Area Lighting Class I Div 1



* Reflectors are sold separately. See page 72 for ordering number.

Hazardous Area Lighting Class I Div 1 Catalog Numbering System



FIXTURE AND GLOBE	
1	FIXTURE SERIES XI = Hazlux® 5 Induction Series
2	STARTER CIRCUIT Ø = Standard Fixture (Without Options) C = Cold Weather Circuit (-45°C)
3	LAMP WATTAGE 03 = 35 Watts 05 = 55 Watts 08 = 85 Watts
4	BALLAST CIRCUIT E = Electronic Ballast
5	VOLTAGES/FREQUENCY UN = 120 to 277 Vac, 50/60 Hz 34 = 347 Vac, 60 Hz 48 = 480 Vac, 60 Hz

Note: Verify hazardous location certification with your requirements on Hazlux® 5 Certification Guide on [page 63](#).

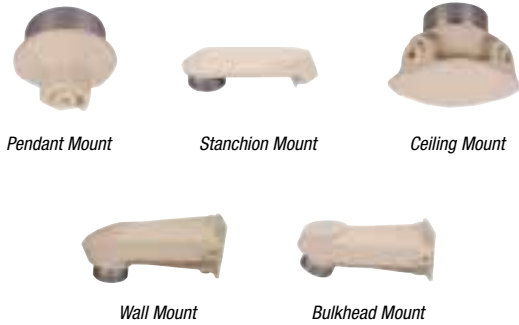
OPTICS & MOUNTINGS	
6	GUARDS Blank = No Guard G = Cast Guard
7	MOUNTING STYLE B2 = 3/4" Wall Mount B3 = 1" Wall Mount C2 = 3/4" Ceiling Mount C3 = 1" Ceiling Mount J2 = 3/4" Bulkhead J3 = 1" Bulkhead P2 = 3/4" Rigid Pendant P3 = 1" Rigid Pendant S4 = 1-1/4" 25° Angle Stanchion S5 = 1-1/2" 25° Angle Stanchion
8	UNIPAK™ OPTIONS E = UNIPAK™ with Induction Lamp
9	SPECIAL OPTIONS T = HazCote® Custom Corrosion Coating on all Aluminum Parts PS = UL® Listed Fixture for Paint Spray Areas PST = UL® Listed Fixture for Paint Spray Areas with HazCote®
10	CERTIFICATION C = Canadian Market

- Class I — Division 1, Groups C and D
- Zone 2, Groups IIC, IIB and IIA
- Division 2, Groups A, B, C and D
- Class II — Division 1 and 2, Groups E, F and G
- UL844
- CSA C22.2 No 137 standard



Contact your Thomas & Betts sales representative to verify classification.

Mounting Options



CAT. NO.	DESCRIPTION	CONDUIT HUB SIZE	STD. PKG.	PRICE
XP2	Pendant Mount	¾	1	
XP3		1		
XS4	Stanchion Mount	1¼	1	
XS5		1½		
XC2	Ceiling Mount	¾	1	
XC3		1		
XB2	Wall Mount	¾	1	
XB3		1		
XJ2	Bulkhead Mount	¾	1	
XJ3		1		

Outlet Boxes include female electrical connectors and appropriate close-up plugs.

Guards



XGU44 Cast Aluminum Guard

CAT. NO.	DESCRIPTION	PRICE
XGU44	Cast Aluminum Guard	

Replacement Globe Assemblies



CAT. NO.	DESCRIPTION	PRICE
XGSA44	Hazlux 5 Replacement Globe Assembly	

Reflectors



Standard Dome

30° Angle Reflector

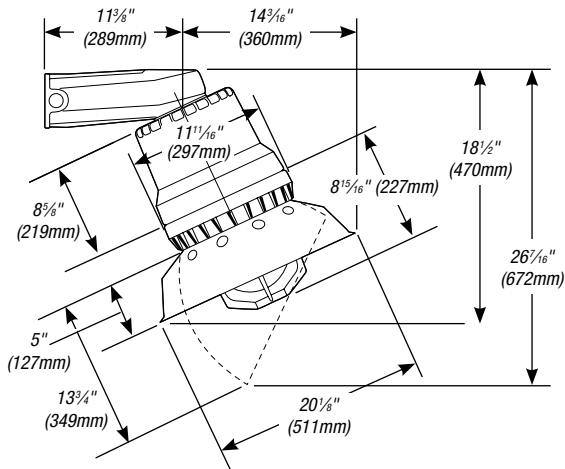
CAT. NO.	DESCRIPTION	PRICE
VR31P	Standard Dome, Fiberglass-Reinforced Polyester	
VRA31P	30° Angle Reflector, Fiberglass-Reinforced Polyester	

Note: Reflectors are shipped bulk unless specified

Dimensions — Hazlux® 5 Fixtures

Photometry — Hazlux® 5 Fixtures

Bulkhead Mount with Globe, Guard and Reflector

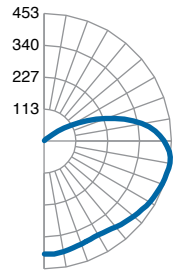


Ceiling Mount

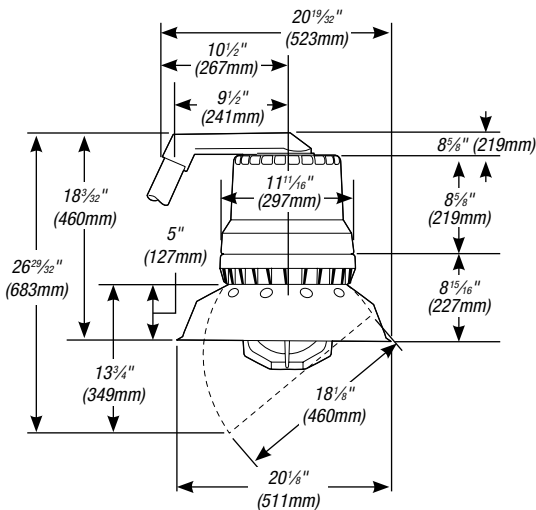
Reference Data

Catalogue No.	XI085EUNC2E
Lamp	85W Induction lamp
Lamp Lumens	N.A. (absolute)
Input Watt	80.45
Luminaire Lumens	3633
Efficiency	N.A.
Efficacy Rating (LER)	45
Spacing Criterion (0-180)	1.50
Spacing Criterion (90-270)	1.50
Spacing Criterion (diagonal)	1.80

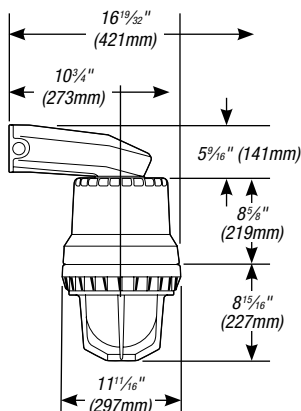
Candlepower Curve



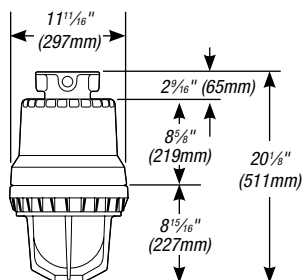
Stanchion Mount with Globe, Guard and Reflector



Wall Mount with Globe and Guard



Ceiling Mount with Globe and Guard



Assembly Guide

Complete luminaire consists of :

A MOUNTING STYLE

+ FIXTURE

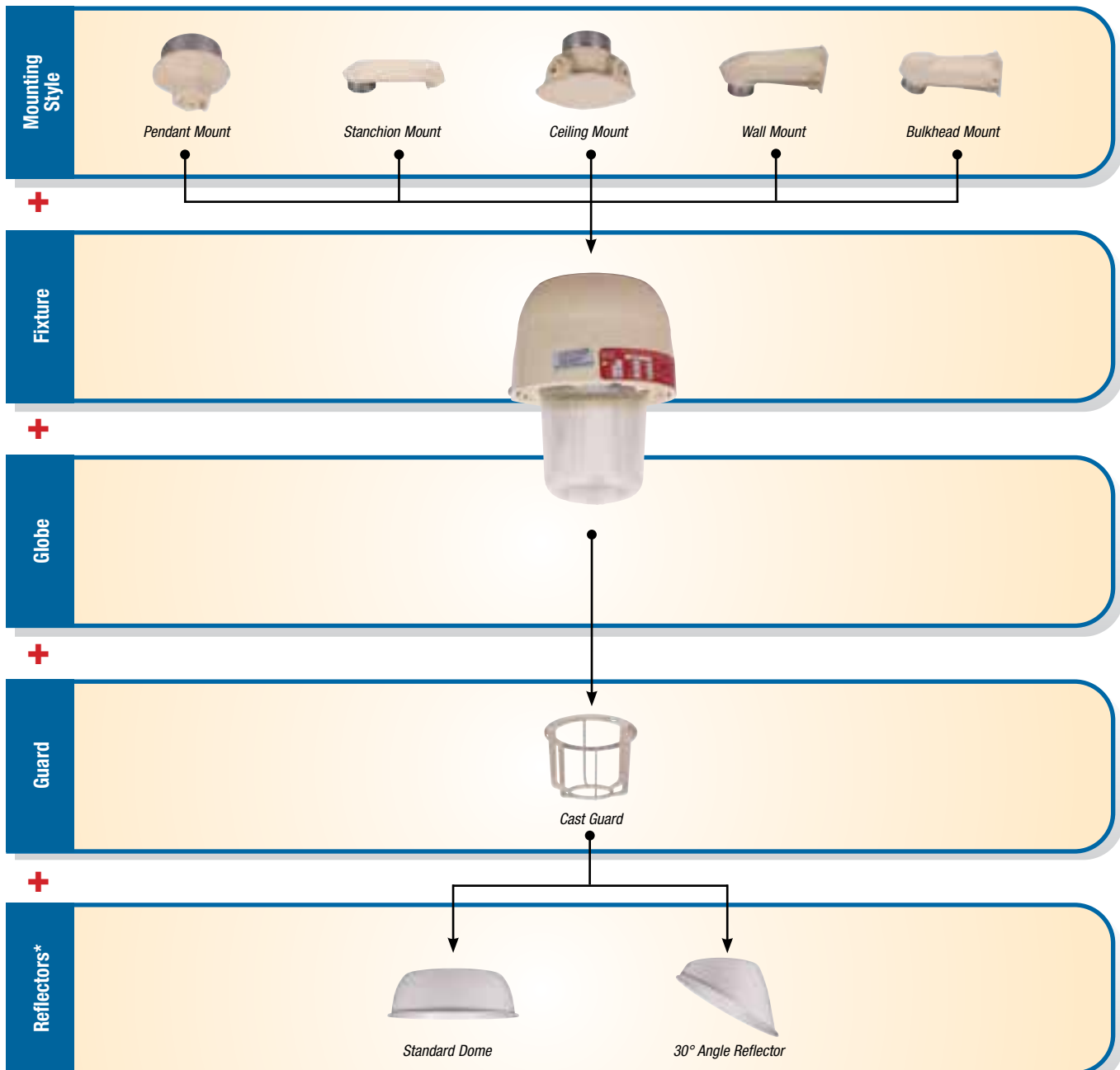
+ GLOBE

+ OPTIONAL GUARD AND/OR REFLECTOR





To order a UNIPAK™ fixture, see [page 75](#).

To order **separate components**, order **FIXTURE AND GLOBE** on [page 75](#) and **INDIVIDUAL COMPONENTS** on [page 76](#).



* Reflectors are sold separately. See page 76 for ordering number.

Catalog Numbering System

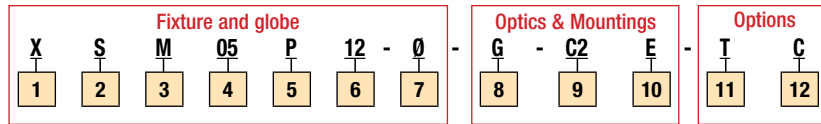
Class I	— Division 1, Groups C and D	
	— Zone 2, Groups IIC, IIB, IIA	
	— Division 2, Groups E, F and G	
Class II	— Division 1 and 2, Groups E, F and G	
	• UL® Listed (UL1598A) for Marine Locations	
	• UL 844	
	• NEMA 4X, IP66	
	• CSA C22.2 No. 137	

Contact your Thomas & Betts sales representative to verify classification.



UNIPAK™ =
Ballast Tank +
Optics & Mountings +
Options (if necessary)

High-Pressure Sodium





FIXTURE AND GLOBE	
1	FIXTURE SERIES
X	= HazLite™ M5 Fixture
2	LAMP TYPE
S	= High-Pressure Sodium
3	LAMP HOLDER TYPE
M	= Medium-base Lampholder
4	LAMP WATTAGE
High Pressure Sodium	
05	= 50W BD17
07	= 70W BD17
10	= 100W BD17
15	= 150W BD17
5	BALLAST CIRCUIT
P	= Reactor Type
6	VOLTAGE/FREQUENCY
12	= 120 Volt
7	BALLAST HOUSING STYLE
0	= Standard Housing
S	= Standard Housing with Stainless Steel Inserts

Note: Verify hazardous location certification with your requirements on Hazlux® 5 Certification Guide on **page 63**.




OPTICS & MOUNTINGS	
8	OPTICS AND GUARDS
G	= Cast Guard (Omit "G" if Guard is Not Required)
9	MOUNTING STYLE
P2	= 3/4" Rigid Pendant
P3	= 1" Rigid Pendant
C2	= 3/4" Ceiling
C3	= 1" Ceiling
B2	= 3/4" Wall
B3	= 1" Wall
J2	= 3/4" Bulkhead
J3	= 1" Bulkhead
S4	= 25° Angle 1-1/4" Stanchion
S5	= 25° Angle 1-1/2" Stanchion
10	UNIPAK™ OPTIONS
D	= UNIPAK™ with Diffused Coated Lamp
E	= UNIPAK™ with Clear Lamp
OPTIONS	
11	SPECIAL OPTIONS
T	= HazCote® Custom Corrosion Coating on All Aluminum Parts (Consult Factory)
PS	= Paint Spray Label
12	CERTIFICATION
C	= Canadian Market

INDIVIDUAL COMPONENTS (to be used with ballast tank, see page 75)

Mounting Options

MOUNTING STYLE	CAT. NO.	CONDUIT HUB SIZE	STD. PKG.	PRICE
 Pendant Mount	XP2	¾"	1	
	XP3	1"	1	
 Stanchion Mount	XS4	1¼"	1	
	XS5	1½"	1	

Outlet Boxes include female electrical connectors and appropriate close-up plugs.

MOUNTING STYLE	CAT. NO.	CONDUIT HUB SIZE	STD. PKG.	PRICE
 Ceiling Mount	XC2	¾"	1	
	XC3	1"	1	
 Wall Mount	XB2	¾"	1	
	XB3	1"	1	
 Bulkhead Mount	XJ2	¾"	1	
	XJ3	1"	1	

Replacement Globe Assemblies



CAT. NO.	DESCRIPTION	PRICE
XGSA15	Replacement Globe Assembly, 35-150 Watts	

Optional Components

Guards



CAT. NO.	DESCRIPTION	PRICE
XGU15	Cast Aluminum, Powder Finish	

Reflectors



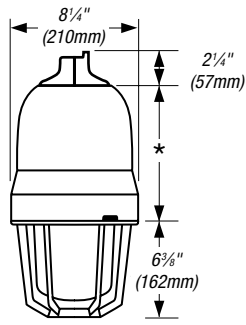
Standard Dome



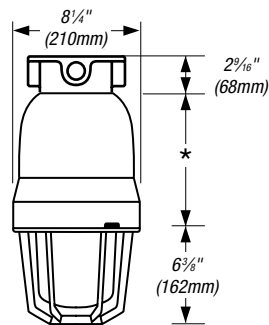
30° Angle Reflector

CAT. NO.	DESCRIPTION	PRICE
VR15P	Standard Dome Fiberglass-Reinforced Polyester	
VRA15P	30° Angle Reflector Fiberglass-Reinforced Polyester	

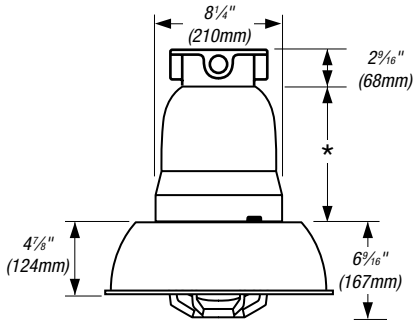
Dimensions — Hazlite™ M5 Fixtures



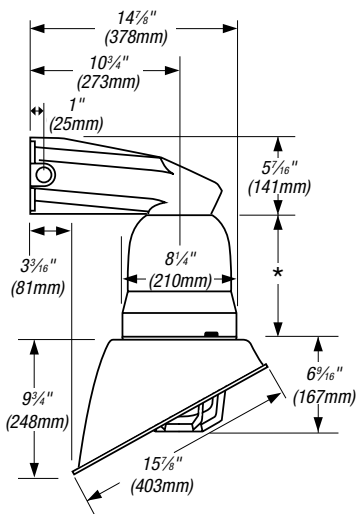
Rigid Pendant Globe/Guard



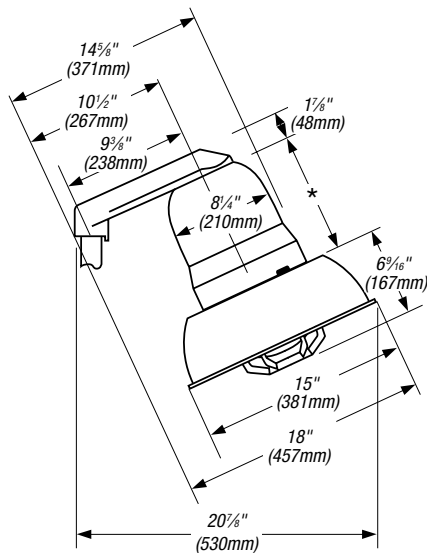
Ceiling Mount Globe/Guard



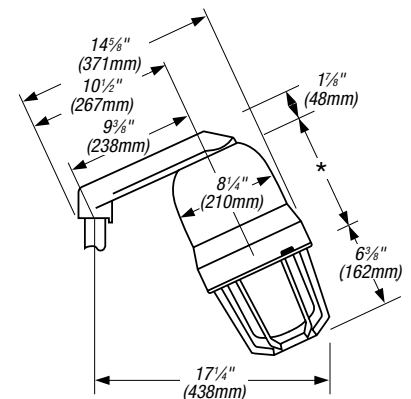
Ceiling Mount
Globe/Guard with Dome Reflector



Wall Mount Globe/Guard with 30° Angle Reflector



Stanchion Mount Globe/Guard with 30° Angle Reflector



Stanchion Mount Globe/Guard

* Tank Dimension: HPS 9"/229mm

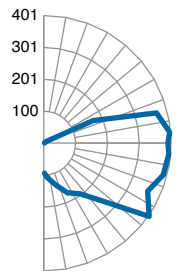
Photometry — Hazlite™ M5 Fixtures

Ceiling Mount

Reference Data

Catalogue No.	XSM05P12-0-P2E
Lamp	50W HPS BD17
Lamp Lumens	4000
Input Watt	66
Luminaire Lumens	2984
Efficiency	75%
Efficacy Rating (LER)	45.2
Spacing Criterion (0-180)	3.48
Spacing Criterion (90-270)	3.48
Spacing Criterion (diagonal)	3.22

Candlepower Curve

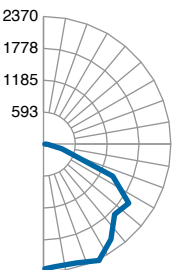


Ceiling Mount

Reference Data

Catalogue No.	XSM05P12-0-P2E & VR15P
Lamp	50W HPS BD17
Lamp Lumens	4000
Input Watt	66
Luminaire Lumens	2651
Efficiency	66%
Efficacy Rating (LER)	40.2
Spacing Criterion (0-180)	1.54
Spacing Criterion (90-270)	1.54
Spacing Criterion (diagonal)	1.88

Candlepower Curve



Hazardous Location Fixtures for Class I, Division 2; Class II; and Wet and Marine Locations.

Hazlite™ M4 lighting fixtures have a compact, low-profile design that is ideally suited for areas where space or fixture weight is restricted. While it is available for use with both incandescent and fluorescent lamps, the Hazlite™ M4 fixture with fluorescent lamps is particularly energy efficient.

- Easy-to-assemble, modular construction
- Fully threaded glass globes, refractors and silicone rubber gaskets seal out dirt, dust and moisture
- Bright white FRP material reflectors optimize light output and resist corrosion and abuse
- Clear glass globes are standard; tempered globes, colored glass globes and plastic globes are also available
- 1¾"-deep boxes are standard on ceiling and wall mount fixtures; 3"-deep boxes available for added wiring room
- Four mounting styles — pendant, ceiling, wall, angle stanchion — to meet all mounting needs
- Polycarbonate guards are corrosion and impact resistant and do not interfere with globe seal
- Incandescent
 - Two basic sizes cover all popular wattages up to 300 watts
- Fluorescent
 - Factory-wired integral ballasts for easy installation
 - 10,000-hour rated lamp life — extremely energy efficient
 - One or two 13-, 22- and 28-watt lamps provide up to 44 watts of fluorescent light
 - 22-, 28- and 44-watt fixtures start and operate reliably in cold temperature applications (-29° C)



Lighting Fixture Components



Temperature Ratings

MAXIMUM LAMP WATTS	WITHOUT REFLECTOR	WITH REFLECTOR
150	T2A	T2
300	T1	T1

- Class I — Division 2, Groups A, B, C and D
 Class II — Division 2, Groups E, F, and G[‡]
- Enclosed and Gasketed for Wet Locations
 - UL® Listed (UL1598A) for Marine Locations
 - NEMA 4X, IP66



Contact your Thomas & Betts sales representative to verify classification.
[‡] Pendant mount only, 100 watts max.

Hazlite™ M4 Compact Fluorescent Lighting Fixtures



Hazlite™ M4 Temperature Information Chart

FIXTURE WATTAGE	AMBIENT TEMPERATURE		SUPPLY WIRE TEMPERATURE	CLASS I, DIVISION 2 T-NUMBER	
	MINIMUM	MAXIMUM		GLOBE, GUARD	GLOBE, GUARD & REFLECTOR
13 Watt	0° C (32° F)	40° C (104° F)	110° C	T3	T3
22 Watt	-29° C (-20° F)	40° C (104° F)	110° C	T3	T3
26 Watt	0° C (32° F)	40° C (104° F)	110° C	T3	T3
28 Watt	-29° C (-20° F)	40° C (104° F)	110° C	T3	T3
44 Watt	-29° C (-20° F)	40° C (104° F)	110° C	T3	T3

- Class I — Division 2, Groups A, B, C and D
 Class II — Division 2, Groups E, F, and G[‡]
- UL844
 - Enclosed and Gasketed for Wet Locations
 - NEMA 4X, IP66



Contact your Thomas & Betts sales representative to verify classification.
[‡] Pendant mount only

Hazlux® M4 Hazlite™ Incandescent

Assembly Guide

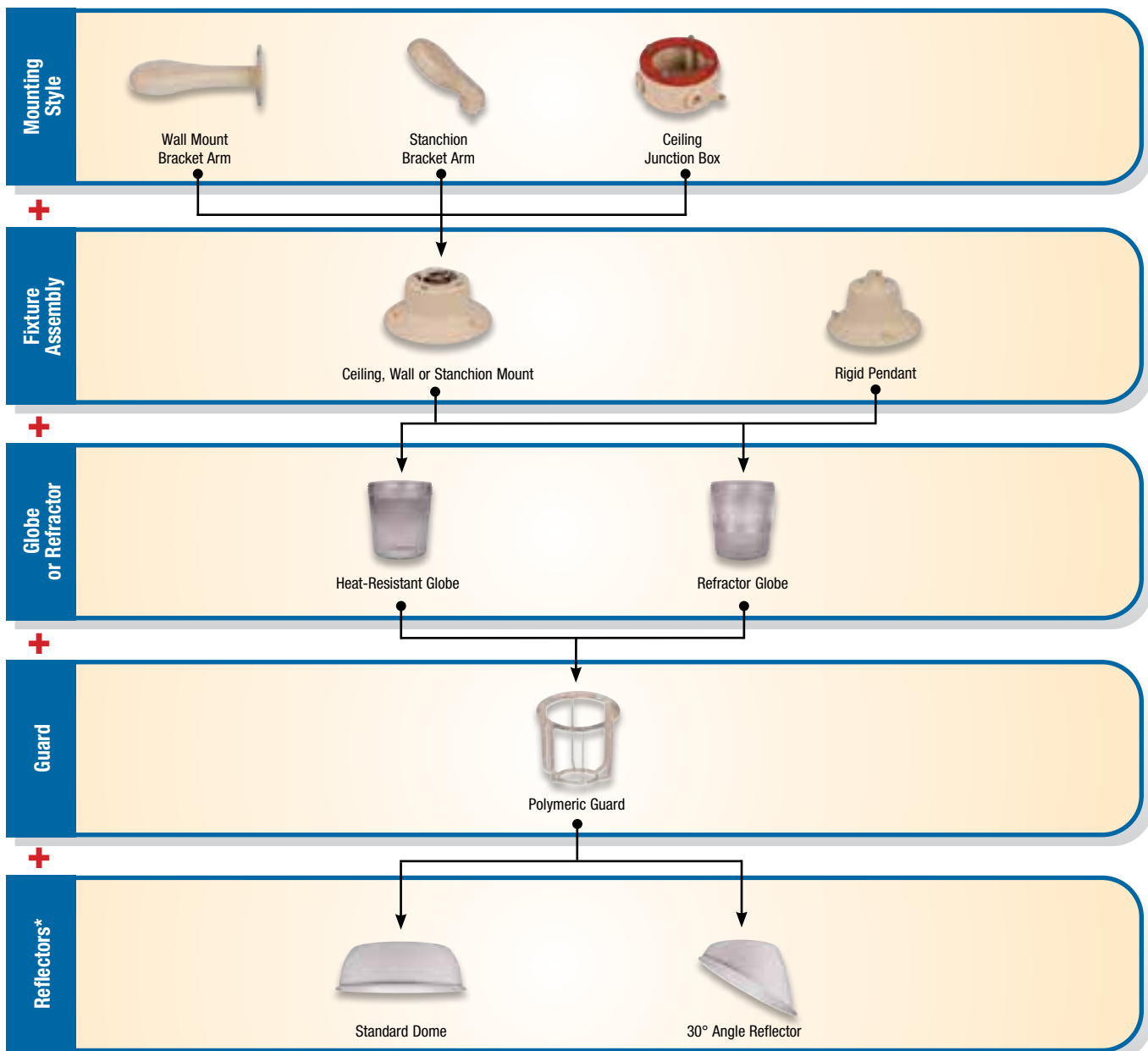
Complete luminaire consists of :

A MOUNTING STYLE

+ FIXTURE ASSEMBLY

+ GLOBE OR REFRACTOR

+ OPTIONAL GUARD AND/OR REFLECTOR



* Reflectors are sold separately. See page 82 for ordering number.

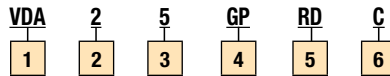
Hazlux® M4 Hazlite™ Incandescent

Catalog Numbering System

- Class I — Division 2, Groups A, B, C and D
 Class II — Division 2, Groups E, F, and G†
- Enclosed and Gasketed for Wet Locations
 - UL® Listed (UL1598A) for Marine Locations
 - NEMA 4X, IP66
 - CSA C22.2 No. 137



Contact your Thomas & Betts sales representative to verify classification.
 † Pendant mount only, 100 watts max.



FIXTURE SERIES AND MOUNTING STYLE	
1	FIXTURE SERIES
VDA	= M4 Incandescent Pendant Mount Fixture
VXH	= M4 Incandescent Fixture Body for Ceiling, Wall or Stanchion Mount
VXHA	= M4 Incandescent Stanchion Mount Fixture
VXHB	= M4 Incandescent Wall Mount Fixture (No Box)
VXHBF	= Wall Mount Fixture with Box
VXHF	= Ceiling Mount with Box
2	HUB SIZE
2	= 3/4" NPT Hub
4	= 1-1/4" NPT Hub
3	LAMP WATTAGE
5	= 150 Watt Maximum
2	= 200 to 300 Watt

OPTICS & MOUNTINGS	
4	OPTICS AND GUARDS
GP	= Clear Globe with Polymeric Guard
TG	= Tempered Globe
TGP	= Tempered Globe with Polymeric Guard
ACG	= Amber Globe
BCG	= Blue Globe
GCG	= Green Globe
RCG	= Red Globe
ACGP	= Amber Globe with Polymeric Guard
BCGP	= Blue Globe with Polymeric Guard
GCGP	= Green Globe with Polymeric Guard
RCGP	= Red Globe with Polymeric Guard
RI	= Refractor Globe (IES Type I)*
R3	= Refractor Globe (IES Type III)*
R5	= Refractor Globe (IES Type V)*
R1P	= Refractor Globe (IES Type I) with Polymeric Guard
R3P	= Refractor Globe (IES Type III) with Polymeric Guard
R5P	= Refractor Globe (IES Type V) with Polymeric Guard
	*150 Watt maximum
OPTIONS	
5	REFLECTOR OPTIONS
RD	= Dome Reflector
RA	= Angle Reflector
6	CERTIFICATION
C	= Canadian Market

Hazlux® M4 Hazlite™ Incandescent

INDIVIDUAL COMPONENTS

Mounting Options



Wall Mount Bracket Arm



Stanchion Bracket Arm

CAT. NO.	CONDUIT HUB SIZE
VXB	N.A.
VXA4	1¼"

Junction Box for Wall or Ceiling



1¼" Inside Depth

CAT. NO. 4 HUBS	CAT. NO. 5 HUBS	CONDUIT HUB SIZE
VXF10	VXFT10	½"
VXF20	VXFT20	¾"

Globes (Heat-Resistant)



Clear*



Red



Green



Blue



Amber



Reflector Globe

*Not Heat-Resistant

Optional Components

Guards



Polymeric Guard

Fixture Assembly



Pendant Mount



Ceiling, Wall
or Stanchion Mount

CAT. NO.	WATT MAX. LAMP SIZE	CONDUIT HUB SIZE
VDA15	150W	½"
VDA25	150W	¾"
VDA12	200–300W	½"
VDA22	200–300W	¾"
VXH15	150W	N.A.
VXH12	200–300W	N.A.

Covers and Gaskets



Cover



Gasket

CAT. NO.	DESCRIPTION	CONDUIT HUB SIZE
VHC2	Fixture Hanger Hub Cover for VXF and VXFD Boxes	¾"
GASK643	Gasket for Hub Covers, Flat Covers and Bracket Arms	N.A.

CAT. NO. 150W MAX. LAMP SIZE	CAT. NO. 200–300W MAX. LAMP SIZE	DESCRIPTION
VG15	VG22	Clear, Heat Resistant
VG15R	VG22R	Red
VG15G	VG22G	Green
VG15B	VG22B	Blue
VG15A	VG22A	Amber
VGL15	VGL22	Clear
VGL15R1	VGL22R1	IES Type V Refractor
VGL15R3	VGL22R3	IES Type V Refractor
VGL15R5	VGL22R5	IES Type V Refractor

CAT. NO. 150W MAX. LAMP SIZE	CAT. NO. 200–300W MAX. LAMP SIZE	DESCRIPTION
VGU15P	VGU22P	Polymeric Guard

Reflectors



Standard Dome



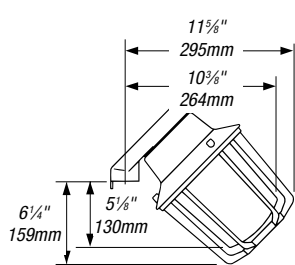
30° Angle Reflector

CAT. NO. 150W MAX. LAMP SIZE	CAT. NO. 200–300W MAX. LAMP SIZE	DESCRIPTION
VR15P	VR22P	Dome
VRA15P	VRA22P	Angled

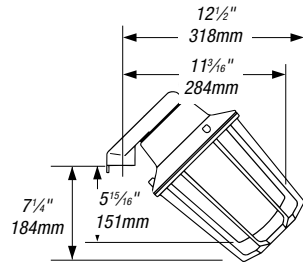
Note: Reflectors are shipped bulk unless specified

Hazlux® M4 Hazlite™ Incandescent

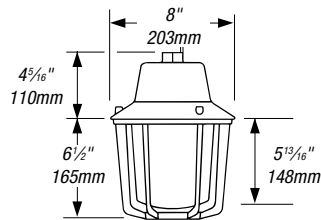
Dimensions — Hazlite™ M4 Incandescent Fixtures



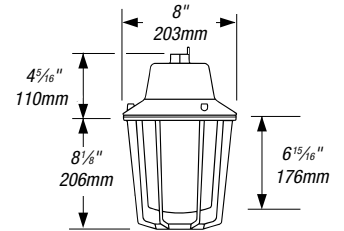
**Angle Stanchion Mount
150 Watts Maximum**



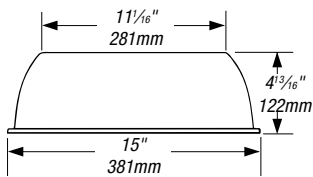
**Angle Stanchion Mount
300 Watts Maximum**



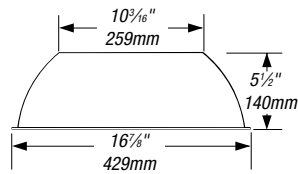
**Pendant Mount
150 Watts Maximum**



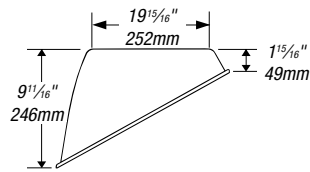
**Pendant Mount
300 Watts Maximum**



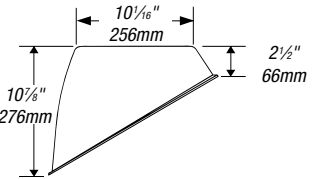
**Dome Reflector
150 Watts Maximum**



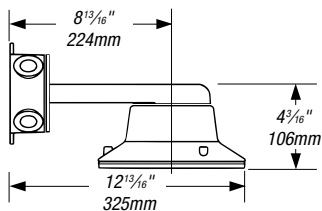
**Dome Reflector
300 Watts Maximum**



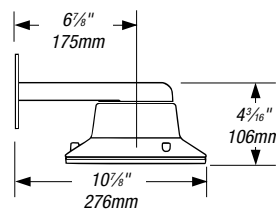
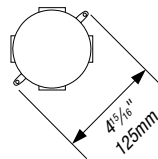
**Angle Dome
150 Watts Maximum**



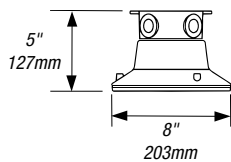
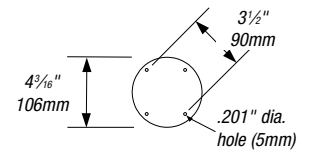
**Angle Reflector
300 Watts Maximum**



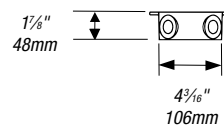
Wall Mount with Box



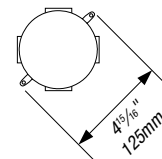
Wall Mount without Box



Ceiling Mount



Junction Box for Wall or Ceiling Mount



Hazlux® M4 Hazlite™ Fluorescent

Fixture Assembly Guide

Complete luminaire consists of :

A MOUNTING STYLE

+ FIXTURE ASSEMBLY

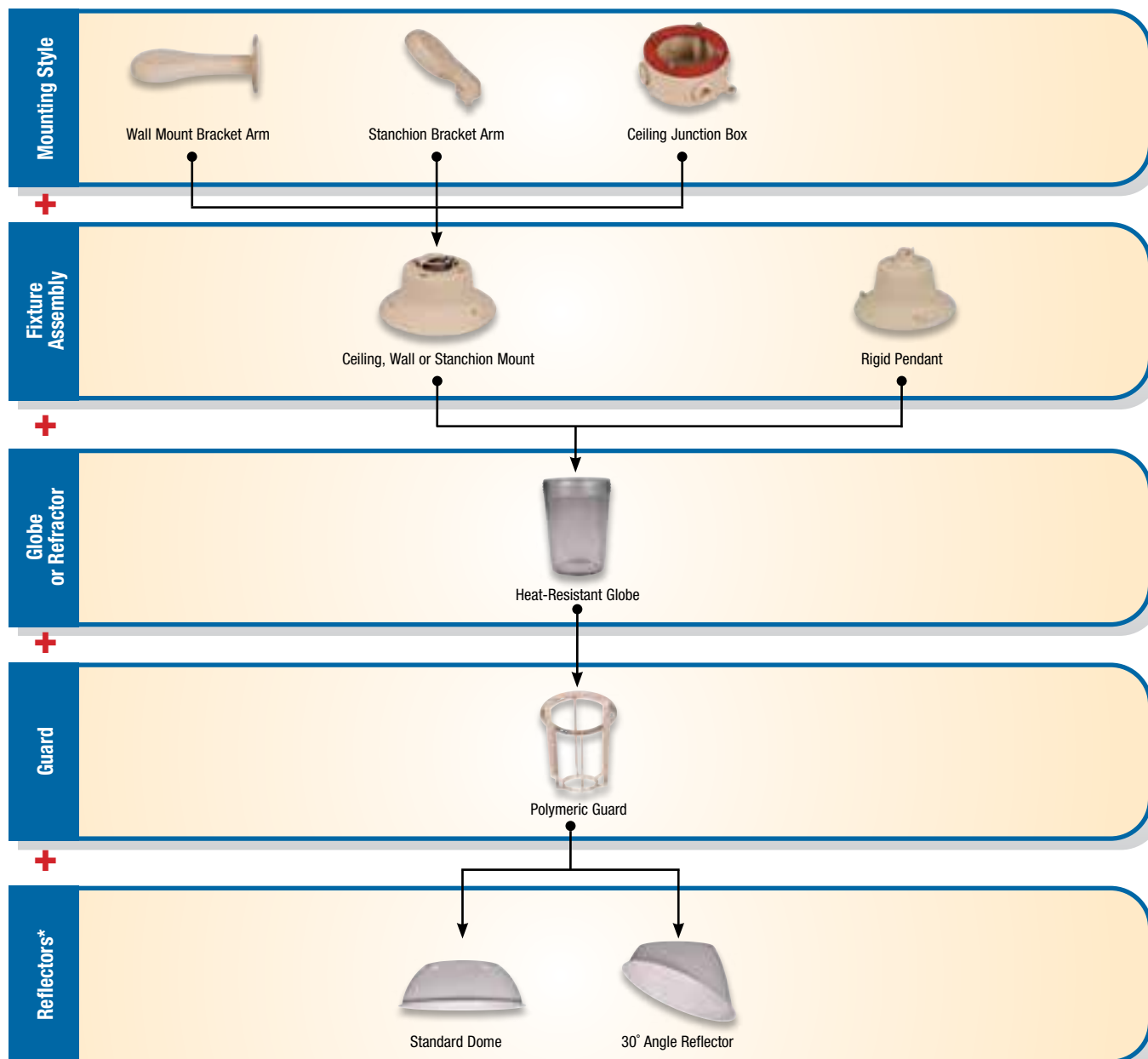
+ GLOBE OR REFRACTOR

+ OPTIONAL GUARD AND/OR REFLECTOR



To order a UNIPAK™ fixture, see page 85.

To order **separate components**, order **FIXTURE ASSEMBLY** on page 85 and **INDIVIDUAL COMPONENTS** on page 86.



* Reflectors are sold separately. See page 86 for ordering number.

Hazlux® M4 Hazlite™ Fluorescent

Catalog Numbering System

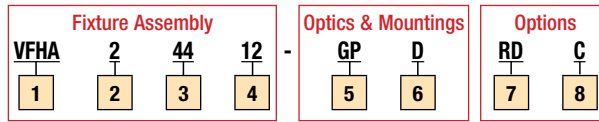
- Class I — Zone 2, Groups IIC, IIB, IIA,
 — Division 2, Groups A, B, C and D
- Class II — Division 1, Groups E, F and G
- Enclosed and Gasketed for Wet Locations
 - UL844
 - NEMA 4X, IP66
 - CSA C22.2 No.137



Contact your Thomas & Betts sales representative to verify classification.



UNIPAK™ =
 Ballast Tank +
 Optics & Mountings +
 Options (if necessary)



FIXTURE ASSEMBLY	
1	FIXTURE SERIES
VFA	= M4 Fluorescent Pendant Mount
VFH	= M4 Fluorescent Body for Ceiling, Wall or Stanchion Mount
VFHA	= M4 Fluorescent Stanchion Mount
VFHB	= M4 Fluorescent Wall Mount (No Box)
VFHBF	= M4 Fluorescent Wall Mount (Std. Box)
VFHBFD	= M4 Fluorescent Wall Mount (Deep Box)
VFHF	= M4 Fluorescent Ceiling Mount (Std. Box)
VFHFD	= M4 Fluorescent Wall Mount (Deep Box)
2	HUB SIZE
1	= 1/2" NPT Hub (Except VFH and VFHB)
2	= 3/4" NPT Hub
4	= 1-1/4" NPT Hub
3	LAMP WATTAGE
13	= 13 Watt (One 13W Lamp)
22	= 22 Watt (One 22W Lamp)
26	= 26 Watt (Two 13W Lamps)
28	= 28 Watt (One 28W Lamp)
44	= 44 Watt (Two 22W Lamps)
4	VOLTAGE
12	= 120VAC

OPTICS & MOUNTINGS	
5	OPTICS AND GUARDS
GP	= Clear Globe with Polymeric Guard
TG	= Tempered Globe
TGP	= Tempered Globe with Polymeric Guard
ACG	= Amber Globe
BCG	= Blue Globe
GCG	= Green Globe
RCG	= Red Globe
ACGP	= Amber Globe with Polymeric Guard
BCGP	= Blue Globe with Polymeric Guard
GCGP	= Green Globe with Polymeric Guard
RCGP	= Red Globe with Polymeric Guard
6	PACKING OPTIONS
D	= UNIPAK® Packaging (Completely Assembled with Lamps in One Carton)
P	= PROJECPAK™ Packaging (All Components, Including Lamp(s), in One Carton, Unassembled)
OPTIONS	
7	REFLECTOR OPTIONS
RD	= Dome Reflector
RA	= Angle Reflector
8	CERTIFICATION
C	= Canadian Market

Note: If no packaging code is specified, fixture components will be shipped in separate cartons. All fixtures and fixture housings include lamps.

Hazlux® M4 Hazlite™ Fluorescent

INDIVIDUAL COMPONENTS (to be used with ballast tank, see page 85)

Mounting Options



Wall Mount Bracket Arm

CAT. NO.	CONDUIT HUB SIZE
VXB	N.A.
VXA4	1/4"



Stanchion Bracket Arm

Fixture Assembly



Ceiling, Wall or Stanchion Mount

CAT. NO.	CONDUIT HUB SIZE
VFH	N.A.
VFA	1/2"



Pendant Mount

Junction Box for Wall or Ceiling



1/4" Inside Depth

CAT. NO. 4 HUBS	CAT. NO. 5 HUBS	CONDUIT HUB SIZE
VXF10	VXFT10	1/2"
VXF20	VXFT20	3/4"

Covers and Gaskets



Fixture Hanger

CAT. NO.	DESCRIPTION	CONDUIT HUB SIZE
VHC1	Fixture Hanger	1/2"
VHC2	Hub Cover for VXF Boxes	3/4"
GASK643	Gasket for Hub Covers, Flat Covers and Bracket Arms	N.A.



Gasket

Globes and Exit Sign



Three-Sided Exit Sign



Globe

CAT. NO.	DESCRIPTION
VGL22	Clear, Non Heat Resistant
VG22	Clear, Heat Resistant
VGT22R	Red
VGT22G	Green
VGT22B	Blue
VGT22A	Amber
VRE22	Three-Sided Exit Sign

Optional Components

Guards



Polymeric Guard

CAT. NO.	DESCRIPTION
VGU22P	Polymeric Guard

Reflectors



Standard Dome



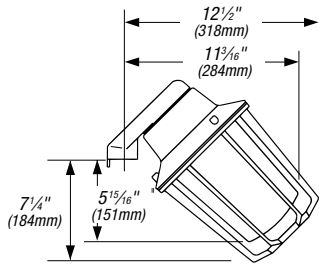
30° Angle Reflector

CAT. NO.	DESCRIPTION
VR22P	Dome
VRA22P	Angled

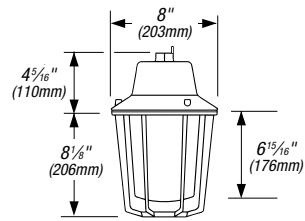
Note: Reflectors are shipped bulk unless specified

Hazlux® M4 Hazlite™ Fluorescent

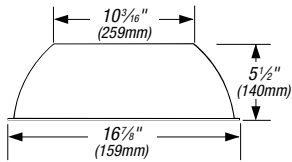
Dimensions — Hazlite™ M4 Fluorescent Fixtures



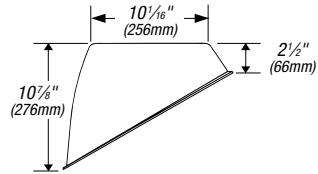
**Angle Stanchion Mount
Fluorescent**



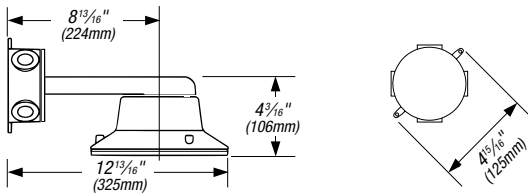
**Pendant Mount
Fluorescent**



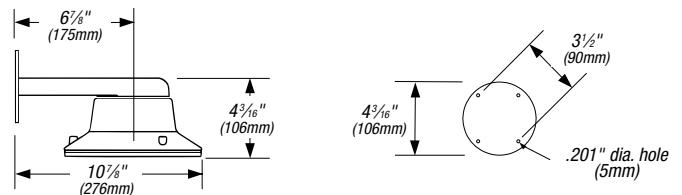
**Dome Reflector
Fluorescent**



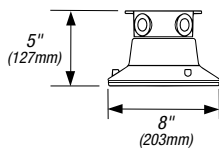
**Angle Reflector
Fluorescent**



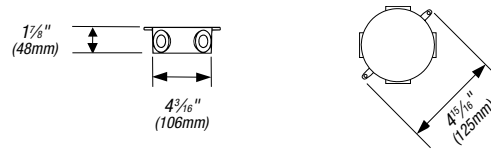
Wall Mount with Box



Wall Mount without Box



Ceiling Mount



Junction Box for Wall or Ceiling Mount

Hazlux® 3 Floodlights

IMPORTANT: MODEL WITH LARGE HOUSING CANNOT BE USED IN HAZARDOUS LOCATIONS

Class I, Division 2/Marine-Duty Floodlights

Applications

- Chemical plants
- Oil refineries
- Offshore platforms
- Waste treatment facilities
- Food processing plants
- Steel mills, foundries
- Power plants
- Pulp and paper facilities
- General manufacturing plants
- Shipyards and shipbuilding facilities
- Airplane manufacturing plants
- Defense and government facilities

Features and Benefits

- **Computer-Designed Reflectors** — for optimal light distribution and efficiency
- **Die-Cast Aluminum** — housings and covers for excellent strength, light weight, and corrosion resistance; Marine-duty floodlights are copper-free aluminum alloy
- **Polyester Powder Finish** — provides superior corrosion resistance and attractive appearance
- **Fully Pivoting Steel Yoke** — is standard for ease of aiming and mounting flexibility
- **Tempered Glass Lens** — resists thermal shock and is fully sealed and mechanically retained
- **Hinged Door** — swings down for easy lamp replacement; is easily removable for maintenance
- **Aiming Sight** — is standard on all Hazlux UltraFlood® floodlights — makes installation faster and easier



Wattages, Voltages

- High-Pressure Sodium: 70–1000 watts
- Metal Halide: 175–1000 watts
- All Floodlights: 120, 277, 480 or Multi-tap voltages available

Materials, Finishes

- Housings, Covers: Powder-coated aluminum
- Hardware: Corrosion-resistant steel
- Lens: Tempered glass

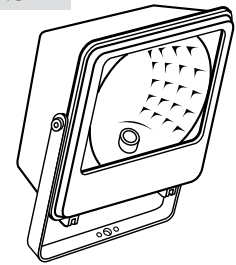
Certifications

- Class I, Division 2, Groups A, B, C, D — All (UL844)
- CSA C22.2 No 137
- Outdoor Wet Locations — All
- Marine Locations (UL1598A) — FDM Series
- Temperature Range: 70W–400W (All) -30° C to 40° C
1000W HPS -30° C to 40° C
1000W MH -30° C to 25° C

Hazlux® 3 Floodlights

IMPORTANT: MODEL WITH LARGE HOUSING CANNOT BE USED IN HAZARDOUS LOCATIONS

Catalog Numbering System



Class I — Division 2, Groups A, B, C and D

- UL844
- UL1598A for Marine Locations
- NEMA 4X (FDM Series)
- NEMA 3R
- CSA C22.2 No 137



Contact your Thomas & Betts sales representative to verify classification.




FD	S	O	40	C	48	0	-	Y	W	E	-	FF	C
1	2	3	4	5	6	7		8	9	10		11	12

BALLAST TANK	
1	FIXTURE SERIES
FD	= Class I, Division 2, Groups A, B, C, D
FDM	= Class I, Division 2, Groups A, B, C, D and Marine Locations*
2	LAMP TYPE
S	= High-Pressure Sodium
H	= Metal Halide
3	STARTER CIRCUIT
O	= Standard fixture (without options)
R	= Instant Restart (HPS)
P	= Pulse Start (MH)
4	LAMP WATTAGE
Metal Halide Lamps	
10	= 100W ED28
17	= 175W ED28
25	= 250W ED28
40	= 400W ED37
00	= 1000W BT37
High Pressure Sodium	
10	= 100W ED23 1/2
15	= 150W ED23 1/2
20	= 200W ED18
25	= 250W ED18
40	= 400W ED18
00	= 1000W ED37
5	BALLAST CIRCUIT
C	= Constant Wattage Autotransformer
H	= High Reactance
I	= Constant Wattage insulated (for 208,240,480 Volts)
6	VOLTAGE
04	= 120/208/277/240VAC (wired to 120VAC)
08	= 120/277/347VAC (wired to 120V)
09	= 120/277/347VAC (wired to 277V)
10	= 120/277/347VAC (wired to 347V)
12	= 120VAC
20	= 208VAC
24	= 240VAC
27	= 277VAC
48	= 480VAC
Contact the factory for other available voltages	
7	HOUSING SIZE
0	= Standard Housing (400W max.)
L	= Large Housing (1000W)

OPTICS AND MOUNTINGS	
8	MOUNTING STYLES
Y	= Yoke (Trunnion) Mount
9	BEAM STYLE
W	= Wide Beam
D	= Narrow Beam (400W max.)
10	PACKAGING
E	= UNIPAK™ with Clear Lamp
D	= UNIPAK™ with Diffuse Lamp
OPTIONS	
11	SPECIAL OPTIONS
OF	= Single Fuse
FF	= Double Fuse
BRZ	= Bronze Color
BLK	= Black Color
12	CERTIFICATION
C	= Canadian Market
Note: Standard color is gray.	

* Minimum order quantity applies; consult customer service for details.



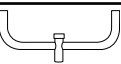
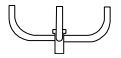
Yoke Mount Floodlights — Mounting Brackets

CAT. NO.	DESCRIPTION
 9901H-TB	Steel Cross-Arm Mounting Bracket
 9902H-TB	Pole-Top Mounting Bracket
 9920H-TB	Universal Wall Mounting Bracket

Accessories

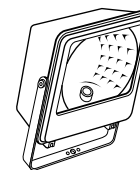
CAT. NO.	DESCRIPTION
75-8-TB	Polycarbonate Vandal Shield
75-V-TB	Glare Control Shield

Integral Slipfitter Floodlights — Mounting Brackets

CAT. NO.	DESCRIPTION
 9605	Wall Mount Pipe Bracket (2") with Flange (Prime Coated)
 9605-G	Wall Mount Pipe Bracket (2") with Flange (Galvanized)
 9352-TB	Two-Arm Pole-Top Bracket ("Bullhorn")
 9333-TB	Three-Arm Pole-Top Bracket ("Bullhorn")

Hazlux® 3 Floodlights

IMPORTANT: MODEL WITH LARGE HOUSING CANNOT BE USED IN HAZARDOUS LOCATIONS



Class I, Div. 2 HID Floodlights for Wet Locations

LAMP TYPE	LAMP WATTS	VOLTAGE	YOKE (TRUNNION) MOUNT CAT. NO.	BEAM TYPE [†]
High-Pressure Sodium	100	120	FDS010P120-YW	Wide
		MT	FDS010H080-YW	
	150	120	FDS015P120-YW	Wide
		MT	FDS015H080-YW	
	200	120	FDS020C120-YW	Wide
		MT	FDS020C080-YW	
	250	120	FDS025C120-YW	Wide
MT		FDS025C080-YW		
400	120	FDS040C120-YW	Wide	
	MT	FDS040C080-YW		
1000	120	FDS000C120-YW	Wide	
	MT	FDS000C080-YW		
Metal Halide	100	120	FDH010H120-YW	Wide
		MT	FDH010H080-YW	
	175	120	FDH017C120-YW	Wide
		MT	FDH017C080-YW	
	250	120	FDH025C120-YW	Wide
		MT	FDH025C080-YW	
	400	120	FDH040C120-YW	Wide
MT		FDH040C080-YW		
1000	120	FDH000C12L-YW	Wide	
	MT	FDH000C08L-YW		

Class I, Div. 2 HID Floodlights for Marine Locations

LAMP TYPE	LAMP WATTS	VOLTAGE	YOKE (TRUNNION) MOUNT CAT. NO.	BEAM TYPE [†]
High-Pressure Sodium	100	120	FDMS010P120-YW	Wide
		MT	FDMS010H080-YW	
	150	120	FDMS015P120-YW	Wide
		MT	FDMS015H080-YW	
	200	120	FDMS020C120-YW	Wide
		MT	FDMS020C080-YW	
	250	120	FDMS025C120-YW	Wide
MT		FDMS025C080-YW		
400	120	FDMS040C120-YW	Wide	
	MT	FDMS040C080-YW		
1000	120	FDMS000C120-YW	Wide	
	MT	FDMS000C080-YW		
Metal Halide	100	120	FDMH010H120-YW	Wide
		MT	FDMH010H080-YW	
	175	120	FDMH017C120-YW	Wide
		MT	FDMH017C080-YW	
	250	120	FDMH025C120-YW	Wide
		MT	FDMH025C080-YW	
	400	120	FDMH040C120-YW	Wide
MT		FDMH040C080-YW		
1000	120	FDMH000C12L-YW	Wide	
	MT	FDMH000C08L-YW		

[†] For narrow-beam floodlights, replace "W" at end of catalog number with "N."

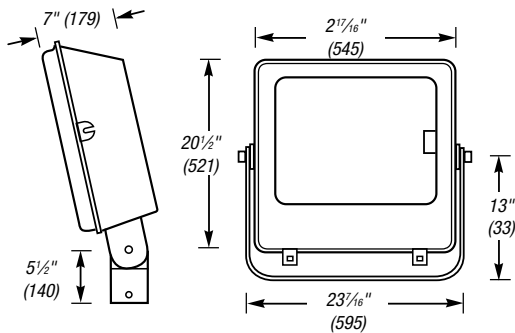
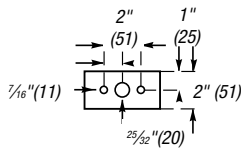
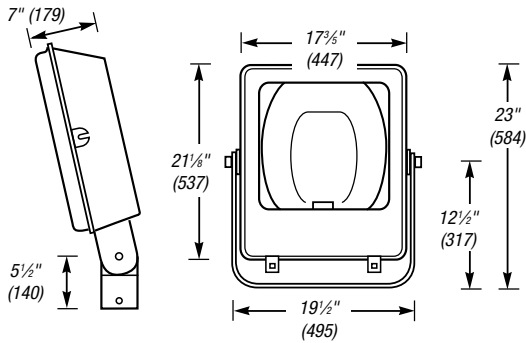
Ordering Notes:

- MT indicates multi-tap ballast — 120,277,347 Volts
- See **previous page** for other mounting brackets and accessories.
- All floodlights for use with mogul base lamps.

Hazlux® 3 Floodlights

IMPORTANT: MODEL WITH LARGE HOUSING CANNOT BE USED IN HAZARDOUS LOCATIONS

Dimensions — Hazlux® 3 Floodlight HID Fixtures



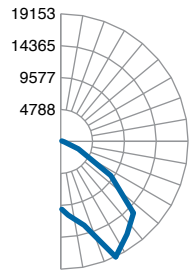
Photometry — Hazlux® 3 Floodlight HID Fixtures

Ceiling Mount

Reference Data

Reference Data	FDH040H090-YWE
Catalogue No.	FDH040H090-YWE
Lamp	400W MH ED37
Lamp Lumens	34000
NEMA Type	7 H x 6 V
Maximum Candela	19153
Maximum Candela Angle	25H 0V
Horizontal Beam Angle (50%)	108.2
Vertical Beam Angle (50%)	33.8
Horizontal Field Angle (10%)	137.2
Vertical Field Angle (10%)	123.3
Luminaire Lumens	25756
Total Efficiency	76 %
Total Luminaire Watts	465
Ballast Factor	1.00

Candlepower Curve

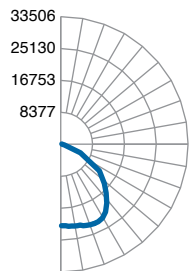


Ceiling Mount

Reference Data

Reference Data	FDH0100H090-YWE
Catalogue No.	FDH0100H090-YWE
Lamp	1000W MH BT37
Lamp Lumens	107800
NEMA Type	6 H x 6 V
Maximum Candela	33506
Maximum Candela Angle	0H 33V
Horizontal Beam Angle (50%)	86.2
Vertical Beam Angle (50%)	95.5
Horizontal Field Angle (10%)	128.5
Vertical Field Angle (10%)	126.1
Luminaire Lumens	68208
Total Efficiency	63 %
Total Luminaire Watts	1069
Ballast Factor	1.00

Candlepower Curve



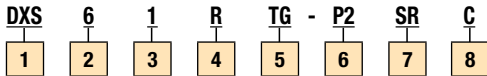
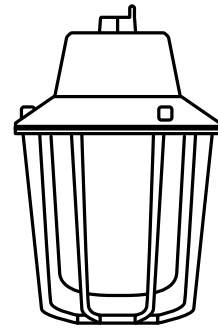
Hazlux® M4 HazFlash Series

Catalog Numbering System

- Class I — Division 2, Groups A, B, C, D
 Class II — Division 1, Groups E, F, G⁺
- CSA — NRTL/C
 - Outdoor Wet Locations, NEMA 3R
 - Outdoor Marine[†], NEMA 4X[†]



Contact your Thomas & Betts sales representative to verify classification.

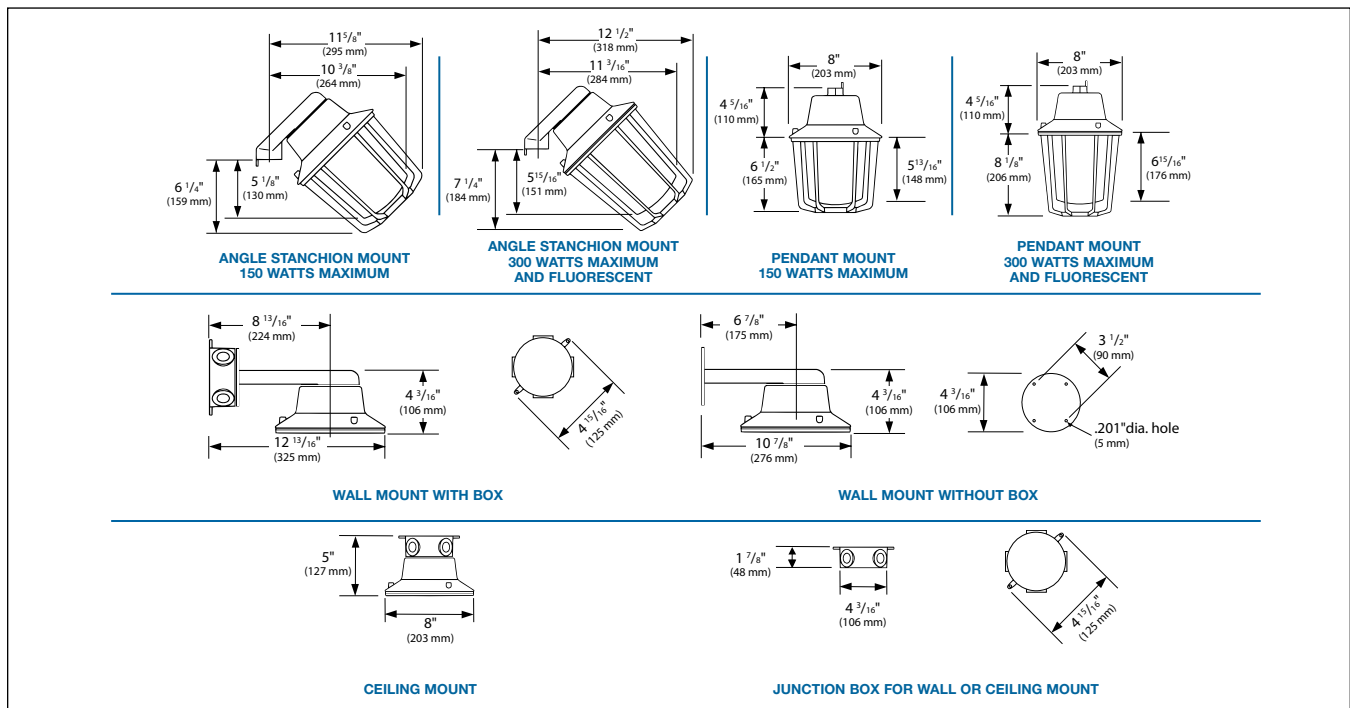


BALLAST TANK	
1	STROBE SERIES AND SUITABILITY
DXS = HazFlash® M4 Xenon Strobe Class I, Division 2, Groups A, B, C, D Class II, Division 1, Groups E, F, G ⁺ * Class II: Pendant-Mount Strobes Only, Pendant Mount only.	
2	FLASH RATE
6	= 60 Flashes per Minute
3	VOLTAGE
1	= 120 Volts AC, 50/60 Hz (Standard)
2	= 240 Volts AC, 50/60 Hz
8	= 10–30 Volts DC
9	= 90–130 Volts DC
4	LENS COLOR
R	= Red
B	= Blue
C	= Clear
G	= Green
A	= Amber

OPTICS AND MOUNTINGS	
5	OPTICAL ASSEMBLY OPTIONS
TG	= Tempered Glass Globe
TGP	= Tempered Globe and Polymeric Guard
6	MOUNTING STYLE
P2	= 3/4" Pendant Mount
C2	= 3/4" Ceiling Mount
B2	= 3/4" Wall Mount with Box
S4	= 1-1/4" Angle Stanchion Mount
OPTIONS	
7	SPECIAL OPTIONS
SR	= Sealing Ring Kit for Inverted Mounting (Maintains Marine Listing in Globe-Up Position)
8	CERTIFICATION
C	C = Canadian Market

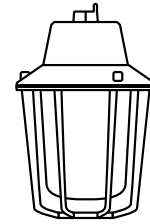
Note: Sealing Ring Option required when mounting in globe-up position.

Dimensions



Hazlux® M4 HazFlash Series

Hazardous Area Strobe Lights



MOUNTING STYLE	CONDUIT SIZE	120 VAC, 50/60 HZ CAT. NO.	240 VAC, 50/60 HZ CAT. NO.	10–30 VDC CAT. NO.	90–130 VDC CAT. NO.
RED Lens HazFlash® M4 DXS Strobe Lights					
Pendant	3/4"	DXS61RGP-P2	DSX62RGP-P2	DXS68RGP-P2	DXS69RGP-P2
Ceiling	3/4"	DXS61RGP-C2	DXS62RGP-C2	DXS68RGP-C2	DXS69RGP-C2
Wall	3/4"	DXS61RGP-B2	DXS62RGP-B2	DXS68RGP-B2	DXS69RGP-B2
Stanchion	1 1/4"	DXS61RGP-S4	DXS62RGP-S4	DXS68RGP-S4	DXS69RGP-S4
BLUE Lens HazFlash® M4 DXS Strobe Lights					
Pendant	3/4"	DXS61BGP-P2	DSX62BGP-P2	DXS68BGP-P2	DXS69BGP-P2
Ceiling	3/4"	DXS61BGP-C2	DXS62BGP-C2	DXS68BGP-C2	DXS69BGP-C2
Wall	3/4"	DXS61BGP-B2	DXS62BGP-B2	DXS68BGP-B2	DXS69BGP-B2
Stanchion	1 1/4"	DXS61BGP-S4	DXS62BGP-S4	DXS68BGP-S4	DXS69BGP-S4
CLEAR Lens HazFlash® M4 DXS Strobe Lights					
Pendant	3/4"	DXS61CGP-P2	DSX62CGP-P2	DXS68CGP-P2	DXS69CGP-P2
Ceiling	3/4"	DXS61CGP-C2	DXS62CGP-C2	DXS68CGP-C2	DXS69CGP-C2
Wall	3/4"	DXS61CGP-B2	DXS62CGP-B2	DXS68CGP-B2	DXS69CGP-B2
Stanchion	1 1/4"	DXS61CGP-S4	DXS62CGP-S4	DXS68CGP-S4	DXS69CGP-S4
GREEN Lens HazFlash® M4 DXS Strobe Lights					
Pendant	3/4"	DXS61GGP-P2	DSX62GGP-P2	DXS68GGP-P2	DXS69GGP-P2
Ceiling	3/4"	DXS61GGP-C2	DXS62GGP-C2	DXS68GGP-C2	DXS69GGP-C2
Wall	3/4"	DXS61GGP-B2	DXS62GGP-B2	DXS68GGP-B2	DXS69GGP-B2
Stanchion	1 1/4"	DXS61GGP-S4	DXS62GGP-S4	DXS68GGP-S4	DXS69GGP-S4
AMBER Lens HazFlash® M4 DXS Strobe Lights					
Pendant	3/4"	DXS61AGP-P2	DSX62AGP-P2	DXS68AGP-P2	DXS69AGP-P2
Ceiling	3/4"	DXS61AGP-C2	DXS62AGP-C2	DXS68AGP-C2	DXS69AGP-C2
Wall	3/4"	DXS61AGP-B2	DXS62AGP-B2	DXS68AGP-B2	DXS69AGP-B2
Stanchion	1 1/4"	DXS61AGP-S4	DXS62AGP-S4	DXS68AGP-S4	DXS69AGP-S4

Notes:

[†] Use pendant mount strobes only for Class II locations.

[‡] Use sealing ring kit (below) to maintain Outdoor Marine and NEMA 4X ratings when installing in the inverted position.

To order DXS strobe light with sealing ring kit for inverted mounting (globe pointing up), add suffix "-SR" to the catalog number. Example: DXS61RGP-P2-SR.

DXS Strobe Light Replacement Parts

CAT. NO.	DESCRIPTION
XSFT	Replacement Flash Tube
XSFL-R	Replacement Fresnel Lens — Red
XSFL-B	Replacement Fresnel Lens — Blue
XSFL-C	Replacement Fresnel Lens — Clear
XSFL-G	Replacement Fresnel Lens — Green
XSFL-A	Replacement Fresnel Lens — Amber
VGU22P	Replacement Polycarbonate Guard
VGL22	Clear Globe
VGT22	Tempered Globe
SRKIT-1	Sealing Ring Kit — includes sealing ring and gasket

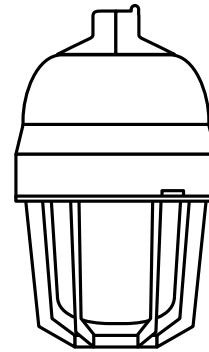
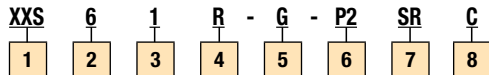
Hazlux® M5 HazFlash Series

Catalog Numbering System

- Class I — Class I, Division 1, Groups C, D
- Class II — Class II, Division 1, Groups E, F, G
- Outdoor Wet Locations†, NEMA 4X
- UL864, UL1598, UL844
- CSA C22.2 No 137



Contact your Thomas & Betts sales representative to verify classification.
 ‡ Pendant mount only

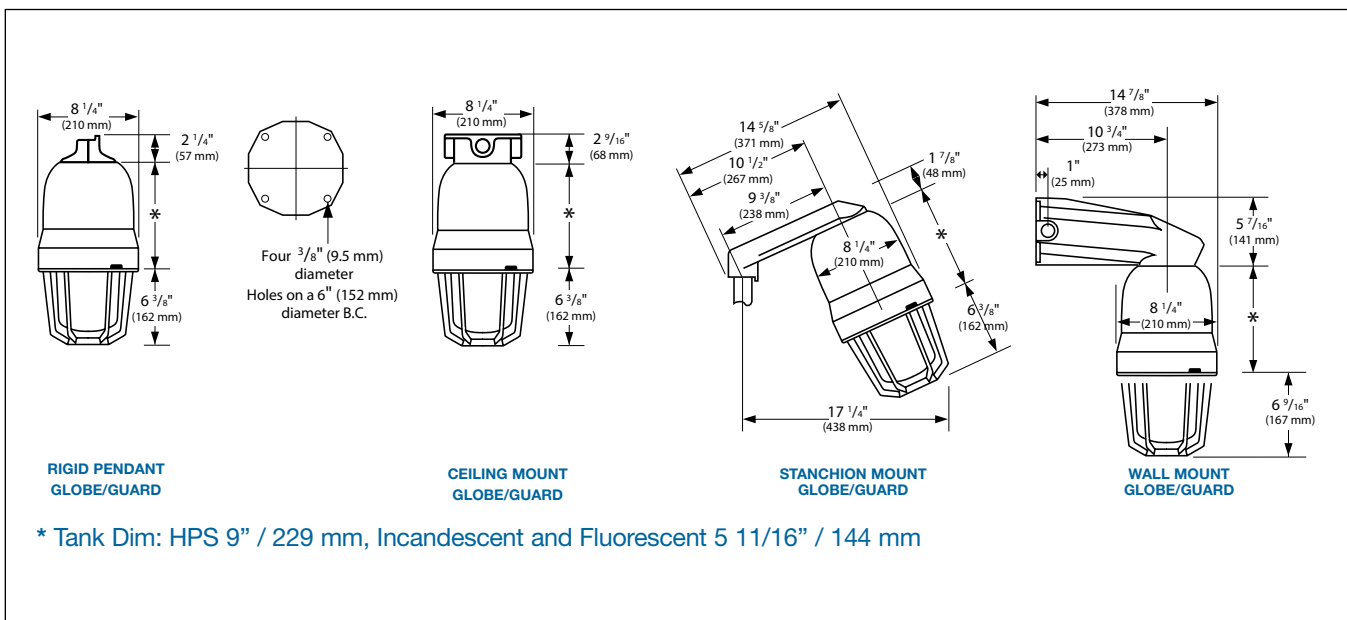


BALLAST TANK	
1	STROBE SERIES AND SUITABILITY
XXS = HazFlash® M5 Xenon Strobe Class I, Division 1, Groups C, D Class II, Division 1, Groups E, F, G * Class II: Pendant-Mount Strobes Only, Pendant Mount only.	
2	FLASH RATE
6 = 60 Flashes per Minute 4 = 40 Flashes per Minute (Standard) 8 = 80 Flashes per Minute	
3	ELECTRICAL RATINGS
1 = 120 Volts AC, 50/60 Hz (Standard) 2 = 240 Volts AC, 50/60 Hz 8 = 10-30 Volts DC 9 = 90-130 Volts DC	
4	LENS COLOR
R = Red B = Blue C = Clear G = Green A = Amber	

OPTICS AND MOUNTINGS	
5	GUARDS
G = Cast Guard (omit "G" if guard is not required)	
6	MOUNTING STYLE
P2 = 3/4" Pendant Mount P3 = 1" Pendant Mount C2 = 3/4" Ceiling Mount C3 = 1" Ceiling Mount B2 = 3/4" Wall Mount with Box B3 = 1" Wall Mount with Box J2 = 3/4" Bulkhead Mount J3 = 1" Bulkhead Mount S4 = 1-1/4" Angle Stanchion Mount S5 = 1-1/2" Angle Stanchion Mount	
OPTIONS	
7	SPECIAL OPTIONS
SR = Sealing Ring Kit for Inverted Mounting (Maintains Marine Listing in Globe-Up Position)	
8	CERTIFICATION
C = Canadian Market	

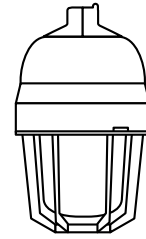
Note: Sealing Ring Option required when mounting in globe-up position.

Dimensions



Hazlux® M5 HazFlash Series

Explosion-Proof Strobe Lights



MOUNTING STYLE	CONDUIT SIZE	120 VAC, 50/60 HZ CAT. NO.	240 VAC, 50/60 HZ CAT. NO.	10–30 VDC CAT. NO.	90–130 VDC CAT. NO.
RED Lens HazFlash® M5 XXS Strobe Lights					
Pendant	¾"	XXS61R-G-P2	XSX62R-G-P2	XXS68R-G-P2	XXS69R-G-P2
Ceiling	¾"	XXS61R-G-C2	XXS62R-G-C2	XXS68R-G-C2	XXS69R-G-C2
Wall	¾"	XXS61R-G-B2	XXS62R-G-B2	XXS68R-G-B2	XXS69R-G-B2
Stanchion	1¼"	XXS61R-G-S4	XXS62R-G-S4	XXS68R-G-S4	XXS69R-G-S4
BLUE Lens HazFlash® M5 XXS Strobe Lights					
Pendant	¾"	XXS61B-G-P2	XSX62B-G-P2	XXS68B-G-P2	XXS69B-G-P2
Ceiling	¾"	XXS61B-G-C2	XXS62B-G-C2	XXS68B-G-C2	XXS69B-G-C2
Wall	¾"	XXS61B-G-B2	XXS62B-G-B2	XXS68B-G-B2	XXS69B-G-B2
Stanchion	1¼"	XXS61B-G-S4	XXS62B-G-S4	XXS68B-G-S4	XXS69B-G-S4
CLEAR Lens HazFlash® M5 XXS Strobe Lights					
Pendant	¾"	DXS61C-G-P2	DSX62C-G-P2	DXS68C-G-P2	DXS69C-G-P2
Ceiling	¾"	DXS61C-G-C2	DXS62C-G-C2	DXS68C-G-C2	DXS69C-G-C2
Wall	¾"	DXS61C-G-B2	DXS62C-G-B2	DXS68C-G-B2	DXS69C-G-B2
Stanchion	1¼"	DXS61C-G-S4	DXS62C-G-S4	DXS68C-G-S4	DXS69C-G-S4
GREEN Lens HazFlash® M5 XXS Strobe Lights					
Pendant	¾"	XXS61G-G-P2	XSX62G-G-P2	XXS68G-G-P2	XXS69G-G-P2
Ceiling	¾"	XXS61G-G-C2	XXS62G-G-C2	XXS68G-G-C2	XXS69G-G-C2
Wall	¾"	XXS61G-G-B2	XXS62G-G-B2	XXS68G-G-B2	XXS69G-G-B2
Stanchion	1¼"	XXS61G-G-S4	XXS62G-G-S4	XXS68G-G-S4	XXS69G-G-S4
AMBER Lens HazFlash® M5 XXS Strobe Lights					
Pendant	¾"	XXS61A-G-P2	XSX62A-G-P2	XXS68A-G-P2	XXS69A-G-P2
Ceiling	¾"	XXS61A-G-C2	XXS62A-G-C2	XXS68A-G-C2	XXS69A-G-C2
Wall	¾"	XXS61A-G-B2	XXS62A-G-B2	XXS68A-G-B2	XXS69A-G-B2
Stanchion	1¼"	XXS61A-G-S4	XXS62A-G-S4	XXS68A-G-S4	XXS69A-G-S4

Note:

To order XXS strobe light with sealing ring kit for inverted mounting (globe pointing up), add suffix "-SR" to the catalog number. Example: XXS61RGP-P2-SR.

XXS Strobe Light Replacement Parts

CAT. NO.	DESCRIPTION
XSFT	Replacement Flash Tube
XSFL-R	Replacement Fresnel Lens — Red
XSFL-B	Replacement Fresnel Lens — Blue
XSFL-C	Replacement Fresnel Lens — Clear
XSFL-G	Replacement Fresnel Lens — Green
XSFL-A	Replacement Fresnel Lens — Amber
XGU15	Replacement Guard
XGSA15	Replacement Globe Assembly

Ignition Temperatures and Group Classifications for Flammable Gases and Vapors

MATERIAL	GROUP	AUTOIGNITION TEMPERATURE	
		DEGREES F	DEGREES C
Acetaldehyde	C	347	175
Acetic Acid	D	867	464
Acetic Anhydride	D	600	316
Acetone	D	869	465
Acetone Cyanohydrin	D	1270	688
Acetonitrile	D	975	524
Acetylene	A	581	305
Acrolein (Inhibited)	B (C)	455	285
Acrylic Acid	D	820	438
Acrylonitrile	D	898	481
Allyl Alcohol	C	713	378
Allyl Chloride	D	905	485
Alpha-Methyl Styrene	D	1066	574
Ammonia	D	928	498
n-Amyl Acetate	D	680	360
Aniline	D	1139	615
Benzene	D	928	498
Benzyl Chloride	D	1085	585
1.3-Butadiene	B (D)	788	420
Butane	D	550	288
1-Butanol	D	650	343
2-Butanol	D	761	405
n-Butyl Acetate	D	790	421
n-Butyl Acrylate (Inhibited)	D	559	293
Butylamine	D	594	312
Butylene	D	725	385
n-Butyraldehyde	C	425	218
n-Butyric Acid	D	830	443
Carbon Disulfide	*	194	90
Carbon Monoxide	C	1128	609
Chlorobenzene	D	1099	593
Cresol	D	1038–1110	559–599
Crotonaldehyde	C	450	232
Cumene	D	795	424
Cyclohexane	D	473	245
Cyclohexanol	D	572	300
Cyclohexanone	D	473	245
Cyclohexene	D	471	244
Cyclopropane	D	938	503
p-Cymene	D	817	436
n-Decanol	D	550	288
Decene	D	455	235
Di-Isobutyl Ketone	D	745	396
Di-Isobutylene	D	736	391
Di-N-Propylamine	C	570	299
Diacetone Alcohol	D	1118	603
o-Dichlorobenzene	D	1198	647
1.1-Dichloroethane	D	820	438
1.2-Dichloroethylene	D	860	460
Dicyclopentadiene	C	937	503
Diethyl Benzene	D	743–842	395–450
Diethyl Ether	C	320	160
Diethylamine	C	594	312
Diethylene Glycol Monobutyl Ether	C	442	228
Diethylene Glycol Monomethyl Ether	C	465	241
n-n-Dimethyl Aniline	C	700	371
Dimethyl Formamide	D	833	455
Dimethyl Sulfate	D	370	188

* Carbon Disulfide has characteristics which require safeguards beyond those required for any of the above groups.

MATERIAL	GROUP	AUTOIGNITION TEMPERATURE	
		DEGREES F	DEGREES C
Dimethylamine	C	752	400
1,4-Dioxane	C	356	180
Dipentene	D	458	237
Dodecene	D	491	255
Du-Isopropylamine	C	600	316
Epichlorohydrin	C	772	411
Ethane	D	882	472
Ethanol	D	685	363
Ethyl Acetate	D	800	427
Ethyl Acetate (Inhibited)	D	702	372
Ethyl Benzene	D	810	432
Ethyl Chloride	D	966	519
Ethyl Formate	D	851	455
2-Ethyl Hexanol	D	448	231
2-Ethyl Hexyl Acrylate	D	485	252
Ethyl Mercaptan	C	572	300
Ethylamine	D	725	385
Ethylene	C	842	450
Ethylene Chlorohydrin	D	797	425
Ethylene Dichloride	D	775	413
Ethylene Glycol Monobutyl Ether	C	460	238
Ethylene Glycol Monobutyl Ether Acetate	C	645	340
Ethylene Glycol Monoethyl Ether	C	455	235
Ethylene Glycol Monoethyl Ether Acetate	C	715	379
Ethylene Glycol Monomethyl Ether	D	545	285
Ethylene Oxide	B (C)	804	429
Ethylenediamine	D	725	385
Ethylenimine	C	608	320
2-Ethylehexaldehyde	C	375	191
Formaldehyde (Gas)	B	795	429
Formic Acid (90%)	D	813	434
Fuel Oils	D	410–765	210–407
Furfural	C	600	316
Furfuryl Alcohol	C	915	490
Gasoline	D	536–880	280–471
Heptane	D	399	204
Heptene	D	500	260
Hexane	D	437	225
2-Hexanone	D	795	424
Hexenes	D	473	245
Hydrazine	C	74–518	23–270
Hydrogen	B	968	520
Hydrogen Cyanide	C	1000	538
Hydrogen Sulfide	C	500	260
Iso-Butyl Acetate	D	790	421
Iso-Octyl Aldehyde	C	387	197
Isoamyl Acetate	D	680	360
Isoamyl Alcohol	D	662	350
Isobutyl Acrylate	D	800	427
Isobutyraldehyde	C	385	196
Isophorone	D	860	460
Isoprene	D	428	220
Isopropyl Acetate	D	860	460
Isopropyl Ether	D	830	443
Isopropylamine	D	756	402
Kerosene	D	410	210
Liquified Petroleum Gas	D	761–842	405–450
Mesityl Oxide	D	652	344
Methane	D	999	537
Methanol	D	725	385

MATERIAL	GROUP	AUTOIGNITION TEMPERATURE	
		DEGREES F	DEGREES C
Methyl Acetate	D	850	454
Methyl Acrylate	D	875	468
Methyl Ether	C	662	350
Methyl Ethyl Ketone	D	759	404
Methyl Formal	C	460	238
Methyl Formate	D	840	449
Methyl Isobutyl Ketone	D	840	449
Methyl Isocyanate	D	994	534
Methyl Methacrylate	D	792	422
Methyl N-Amyl Ketone	D	740	393
2-Methyl-1-Propanol	D	780	416
2-Methyl-2-Propanol	D	892	478
Methylamine	D	806	430
Methylcyclohexane	D	482	250
Methylcyclohexanol	D	565	296
Monoethanolamine	D	770	410
Monoisopropanolamine	D	705	374
Monomethyl Aniline	C	900	482
Monomethyl Hydrazine	C	382	194
Morpholine	C	590	310
Naphtha (Coal Tar)	D	531	277
Naphtha (Petroleum)	D	550	288
Nitrobenzene	D	900	482
Nitroethane	C	778	414
Nitromethane	C	785	418
2-Nitropropane	C	802	428
1-Nitropropane	C	789	421
Nonane	D	401	205
Octane	D	403	206
Octene	D	446	230
Pentane	D	470	243
1-Pentanol	D	572	300
2-Pentanone	D	846	452
1-Pentene	D	527	275
Propane	D	842	450
2-Propanol	D	750	399
1-Propanol	D	775	413
Propionaldehyde	C	405	207
Propionic Acid	D	870	466
Propionic Anhydride	D	545	285
N-Propyl Acetate	D	842	450
N-Propyl Ether	C	419	215
Propyl Nitrate	B	347	175
Propylene	D	851	455
Propylene Dichloride	D	1035	537
Propylene Oxide	B (C)	840	449
Pyridine	D	900	482
Styrene	D	914	490
Tetrahydrofuran	C	610	321
Tetrahydronaphthalene	D	725	385
Toluene	D	896	480
Turpentine	D	488	253
Unsymmetrical Dimethyl Hydrazine (Udmh)	C	480	249
Valeraldehyde	C	432	222
Vinyl Acetate	D	756	402
Vinyl Chloride	D	882	472
Vinyl Toluene	D	921	494
Vinylidene Chloride	D	1058	570
Xylenes	D	867-984	464-529

Lamp Charts

Hazlux® 3 - Standard Tank / R-Tank

Wattage	Description	ANSI Ballast Code	Base	Rated Life	Initial Lumens	Colour Temp.	CRI
Metal Halide Lamps							
100	ED28	M140/M90/E	Mog.	10,000	9,000	4100	92
175	ED28	M57/E	Mog.	10,000	14,000	4000	65
175	ED28PS	M152/M137-0	Mog.	14,000	16,000	3500	62
200	ED28PS	M136/E	Mog.	15,000	21,000	4000	68
250	ED28	M58	Mog.	10,000	21,250	4000	65
250	ED28PS	M153/O	Mog.	24,000	21,300	4200	90
High Pressure Sodium							
50	ED23 1/2	S68	Mog.	24,000+	4,000	2100	21
70	ED23 1/2	S62	Mog.	24,000+	6,500	2100	21
100	ED23 1/2	S54	Mog.	24,000+	9,400	2100	21
150	ED23 1/2	S55	Mog.	24,000+	15,800	2100	21

Hazlux® 3 - Large Tank

Wattage	Description	ANSI Ballast Code	Base	Rated Life	Initial Lumens	Colour Temp.	CRI
Metal Halide Lamps							
200	ED28PS	M136/E	Mog.	15,000	21,000	4000	68
250	ED28	M58	Mog.	10,000	21,250	4000	65
250	ED28PS	M153/O	Mog.	24,000	21,300	4200	90
320	ED28PS	M154/M132/E	Mog.	20,000	30,000	4100	62
350	ED37PS	M131/E	Mog.	20,000	37,000	4000	68
400	ED37	M59	Mog.	20,000	39,000	3900	65
400	ED37PS	M155/M128/M135/S	Mog.	15,000	40,000	3800	65
High Pressure Sodium							
200	ED18	S66MN-200	Mog.	24,000+	21,400	2100	21
250	ED18	S50	Mog.	24,000+	28,500	2100	21
400	ED18	S51	Mog.	24,000+	50,000	2100	21

Hazlux® M3 Hazlite™

Wattage	Description	ANSI Ballast Code	Base	Rated Life	Initial Lumens	Colour Temp.	CRI
Metal Halide Lamps							
50	ED17	M148/M110/O	Med.	20,000	3,750	4000	92
70	ED17	M143/M98/E	Med.	20,000	5,900	4000	92
100	ED17	M140/M90/E	Med.	20,000	9,000	4000	92
High Pressure Sodium							
35	BD17	S76	Med.	24,000+	2,250	2100	21
50	BD17	S68	Med.	24,000+	4,000	2100	21
70	BD17	S62	Med.	24,000+	6,300	2100	21
100	BD17	S54S	Med.	24,000+	9,500	2100	21
150	BD17	S55	Med.	24,000+	16,000	2100	21

Lamp data shown is to be used as a guide only. Lamp manufacturer data at time of printing. Check lamp manufacturer data for other model inquiries or exact specifications.

Lamp Charts

Hazlux® 1							
Wattage	Description	ANSI Ballast Code	Base	Rated Life	Initial Lumens	Colour Temp.	CRI
Metal Halide Lamps							
100	ED28	M140/M90/E	Mog.	10,000	9,000	4100	92
175	ED28	M57/E	Mog.	10,000	14,000	4000	65
High Pressure Sodium							
50	ED23 1/2	S68	Mog.	24,000+	4,000	2100	21
70	ED23 1/2	S62	Mog.	24,000+	6,500	2100	21
100	ED23 1/2	S54	Mog.	24,000+	9,400	2100	21
150	ED23 1/2	S55	Mog.	24,000+	15,800	2100	21

Hazlux® M1 Hazlite™							
Wattage	Description	ANSI Ballast Code	Base	Rated Life	Initial Lumens	Colour Temp.	CRI
Metal Halide Lamps							
50	ED17	M148/M110/O	Med.	20,000	3,600	4000	92
70	ED17	M143/M98/E	Med.	20,000	5,900	4000	92
100	ED17	M140/M90/E	Med.	20,000	9,000	4000	92
High Pressure Sodium							
35	BD17	S76	Med.	24,000+	2,250	2100	21
50	BD17	S68	Med.	24,000+	4,000	2100	21
70	BD17	S62	Med.	24,000+	6,300	2100	21
100	BD17	S54S	Med.	24,000+	9,500	2100	21

Hazlux® 5							
Wattage	Description	ANSI Ballast Code	Base	Rated Life	Initial Lumens	Colour Temp.	CRI
Metal Halide Lamps							
100	ED28	M140/M90/E	Mog.	10,000	9,000	4100	92
175	ED28	M57/E	Mog.	10,000	14,000	4000	65
175	ED28PS	M152/M137-0	Mog.	14,000	16,000	3500	62
250	ED28	M58	Mog.	10,000	21,250	4000	65
250	ED28PS	M153/O	Mog.	24,000	21,300	4200	90
400	ED37	M59	Mog.	20,000	39,000	3900	65
400	ED37PS	M155/M128/M135/S	Mog.	15,000	40,000	3800	65
High Pressure Sodium							
50	ED23 1/2	S68	Mog.	24,000+	4,000	2100	21
70	ED23 1/2	S62	Mog.	24,000+	6,500	2100	21
100	ED23 1/2	S54	Mog.	24,000+	9,400	2100	21
150	ED23 1/2	S55	Mog.	24,000+	15,800	2100	21
200	ED18	S66MN-200	Mog.	24,000+	21,400	2100	21
250	ED18	S50	Mog.	24,000+	28,500	2100	21
400	ED18	S51	Mog.	24,000+	50,000	2100	21

Lamp data shown is to be used as a guide only. Lamp manufacturer data at time of printing. Check lamp manufacturer data for other model inquiries or exact specifications.

Lamp Charts

Hazlux® M5 Hazlite™

Wattage	Description	ANSI Ballast Code	Base	Rated Life	Initial Lumens	Colour Temp.	CRI
High Pressure Sodium							
50	BD17	S68	Med.	24,000+	4,000	2100	21
70	BD17	S62	Med.	24,000+	6,300	2100	21
100	BD17	S54S	Med.	24,000+	9,500	2100	21
150	BD17	S55	Med.	24,000+	16,000	2100	21

Hazlux® 3 Floodlight

Wattage	Description	ANSI Ballast Code	Base	Rated Life	Initial Lumens	Colour Temp.	CRI
Metal Halide Lamps							
175	ED28	M57/E	Mog.	10,000	14,000	4000	65
175	ED28PS	M152/M137-0	Mog.	14,000	16,000	3500	62
250	ED28	M58	Mog.	10,000	21,250	4000	65
250	ED28PS	M153/O	Mog.	24,000	21,300	4200	90
400	ED37	M59	Mog.	20,000	39,000	3900	65
400	ED37PS	M155/M128/M135/S	Mog.	15,000	40,000	3800	65
1000	BT37	M47E	Mog.	10,000	110,000	3700	65
High Pressure Sodium							
70	ED23 1/2	S62	Mog.	24,000+	6,500	2100	21
100	ED23 1/2	S54	Mog.	24,000+	9,400	2100	21
150	ED23 1/2	S55	Mog.	24,000+	15,800	2100	21
250	ED18	S50	Mog.	24,000+	28,500	2100	21
400	ED18	S51	Mog.	24,000+	50,000	2100	21
1000	ED37	S52	Mog.	24,000+	125,000	2100	21

Lamp data shown is to be used as a guide only. Lamp manufacturer data at time of printing. Check lamp manufacturer data for other model inquiries or exact specifications.

Hazlux® Quick Pole Assembly

Features & Benefits

CONSTRUCTION

- Sphere shaped, quick knuckle features round edges, preventing injuries and contaminant build-up of components
- The quick release mechanism is activated using one hand and one pull pin
- The quick pole assembly blocks at a 90° angle when the pull pin reaches the stopper
- All quick knuckle hardware is made of stainless steel
- All mounting brackets hardware are hot dip galvanized

QUICK POLE ASSEMBLY

- Operates in any kind of weather
- Overall length is 10' (3 m)
- Pole trade size is 1-1/2" treaded NPT.
Aluminum pole trade size is 2" treaded NPT
- Top pole section is 70" (1.78 m) long
- Lower pole section is 50" (1.27 m) long
- Set screws secure top and bottom section into the quick knuckle

QUICK KNUCKLE ASSEMBLY

- Rotates 180° (90° left and right) around knuckle's center axis allowing freedom of installation and easy adjustment
- Easy one man operation. After center bolt is loosen, use the pull pin to lock and unlock the assembly
- Pre-fished with tape to ease wiring

BRACKETS

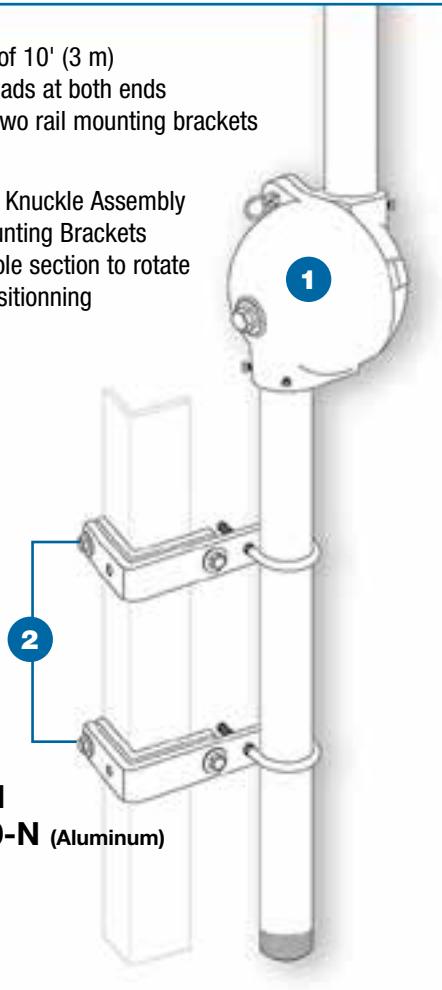
- Universal mounting for 2" to 3" angle iron railings
- Quick mounting brackets can be installed inside or outside the guardrails
- Quick knuckle assembly should be mounted above hand rail allowing the pole sections to rotate before final positioning

Hazlux® Quick Pole Assembly

Galvanized Standard Kit

- Overall height of 10' (3 m)
- 1-1/2" NPT treads at both ends
- Installed with two rail mounting brackets

1. Rotating Quick Knuckle Assembly
2. Angle Iron Mounting Brackets allowing the pole section to rotate before final positioning

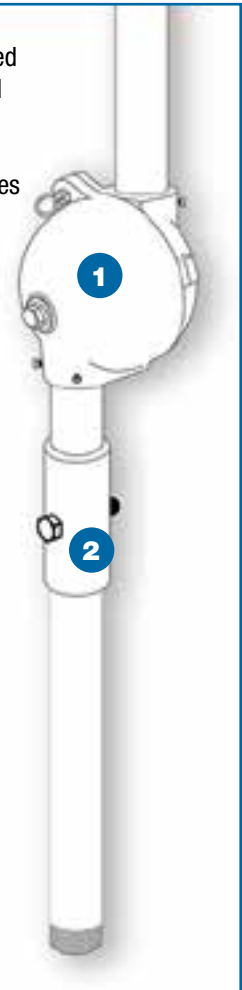


Cat. No.:
Q-P-5-10-N
Q-P-A-5-10-N (Aluminum)

Retrofit Kit

- Overall maximum and predetermined height of 10' (3 m) once assembled
- Can be adapted to existing pole
- Upgrades existing assembly with quick and easy maintenance features
- See instruction sheets provided with product for installation details

1. Rotating Quick Knuckle Assembly
2. Tapered Adaptor, fits over Standard 1-1/4" or 1-1/2" NPT Pipe



Cat. No.:
RQ-P-5-10-N
RQ-P-A-5-10-N (Aluminum)

SAFETY FIRST

- One person operation
- No ladders or lifts required
- Simplified maintenance
- Hot dipped galvanized steel and aluminum finishes
- Free's up catwalks and walkways during maintenance
- Epoxy coated finishes available

- Suitable for 180km/h winds* as per AASHTO LTS-4 2001
- Steel pole treads are treated and protected to prevent galvanic reaction as per AASHTO LTS-4 2001
- CSA certified products



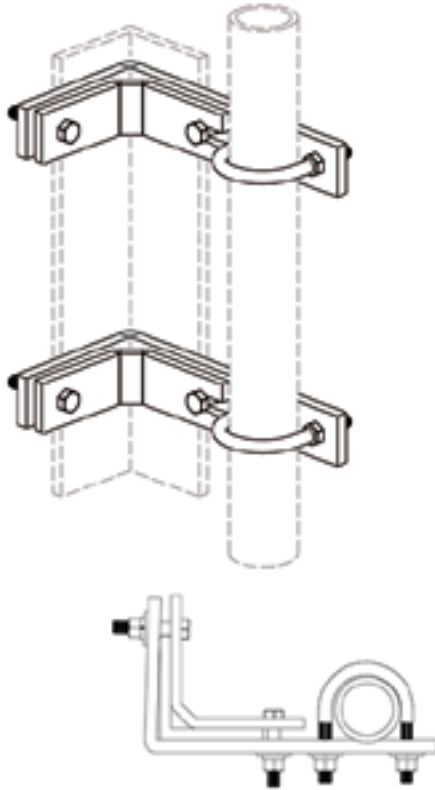
Hazlux® Quick Pole Assembly

Universal Bracket Kit

Cat. No.:

AMB-QP-BKT-N

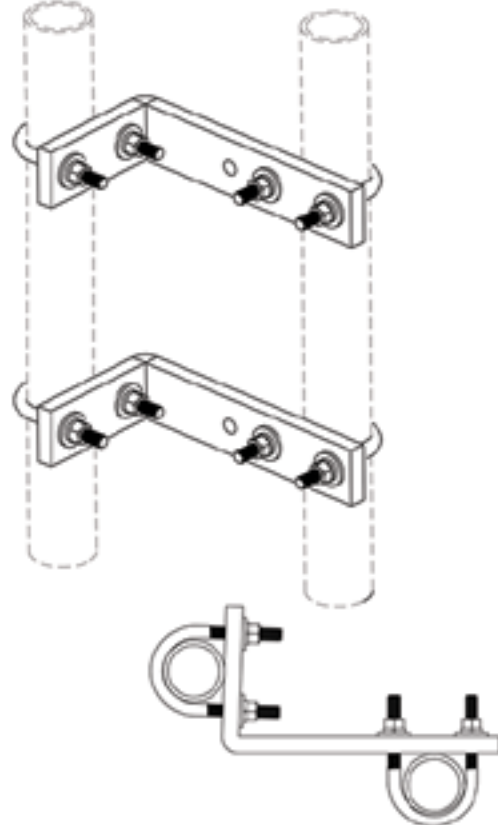
AMB-QP-A-BKT-N (Aluminum)



Cat. No.:

RMB-QP-BKT-N

RMB-QP-A-BKT-N (Aluminum)



- Quick bolt-on installation, no welding or drilling
- Can be attached to angle iron guardrails up to 3"
- Can be installed on tubular structures less than 2" O.D.
- Allows the pole sections to rotate before final positioning