

Hazlux®



High Bay & Low Bay

Linear lighting

Flood lighting

Hazardous Location Lighting

Products & Accessories

Thomas & Betts
A Member of the ABB Group

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Choosing the right partner

For your hazardous location lighting project

When you're looking for hazardous location lighting, you need an experienced partner you can trust. Someone who will accompany you every step of the way and provide expert advice and exceptional service. The Thomas & Betts sales team has been doing just that for close to a century.

01 Since 2001, the Thomas & Betts manufacturing facility has been ISO 9001, 1400 & OHSAS 18001 compliant.

Engineering expertise at your fingertips

Our product engineers are readily available to answer all your technical questions, and partner with you in selecting the best lighting solution to reach your goals.

High standards of quality control

Quality is built 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 our strict quality standards, and then professionally packed so that your order will arrive intact at your installation site.

Product customization

We design and manufacture all units under one roof, giving us unparalleled capabilities to customize lighting fixtures to meet your specific needs.

Reduced lead time

We produce what you need when you need it in our state-of-the-art North American Centre of Excellence. We can easily accommodate both large and small production runs with a fast turnaround - no waiting for shipments from overseas.

01



A Sustainable Development policy is in effect at the Thomas & Betts production facility to reduce our carbon footprint and minimize the environmental impact of our operations. Through a series of initiatives, reductions in water usage, water bottles, electricity and natural gas, packaging, and pallets have already been realized.

Lighting selection method

The right fixture in the right place

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

For example : Class I, Division 2, Group D

02 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 catalogue or contact your Hazlux® Sales representative.

03 Determine the Maximum Allowable Temperature for the hazardous materials.

Class I Gas	Ignition Temperature for the Specific Gas (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)

04 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.

T-Number Table

Class I, II, Div. 1, 2 T-Number	Max. Temperature
T1	450°C
T2	300°C
T2A	280°C
T2B	260°C
T2C	230°C
T2D	215°C
T3	200°C
T3A	180°C
T3B	165°C
T3C	160°C
T4	135°C
T4A	120°C
T5	100°C
T6	85°C



Hazlux® Applications

We have a fixture for virtually any condition

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

Examples of hazardous locations

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

01

Hose-Down and Wet Locations

- Certified for wet locations - NEMA 4X, IP66 (indoor and outdoor); UL1598A (marine), CSA and cULus 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

02

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



01



02



03



04

03**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

04**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

05**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 Teflon coated globes for protection from vandalism



05



06

06**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

07**Marine-Duty Option**

- This feature is supplied as standard on most Hazlux® 3 fixtures
- 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

08**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



07



08

Hazlux® H3 LED

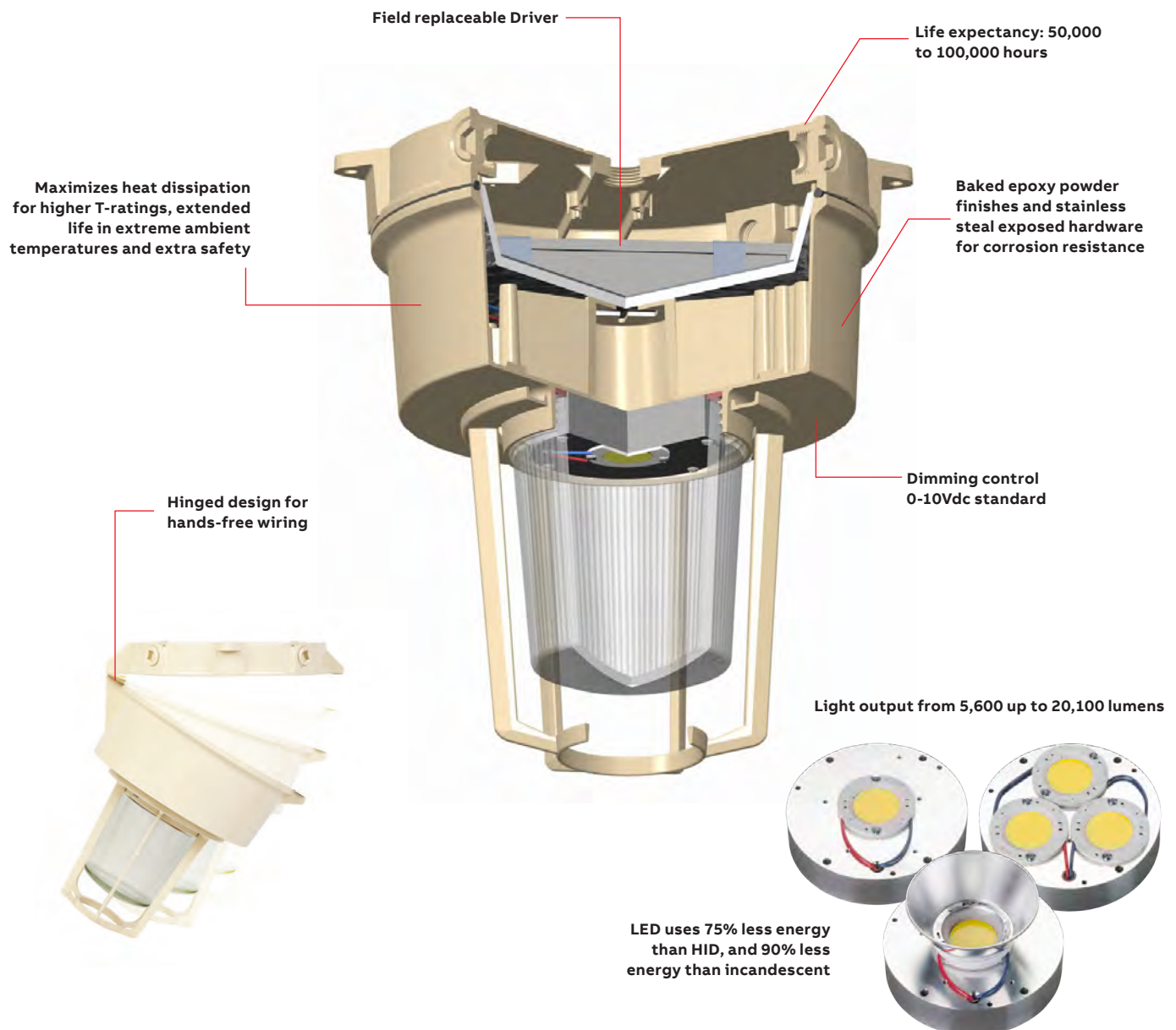
Generation 2

A safe, dependable and rugged luminaire with an exclusive design that maximizes heat dissipation and offers excellent performance.

CLASSIFICATION

CLASS 1	
Division 2	Groups A, B, C, D
Zone 2	Groups IIC, IIB, IIA
CLASS II	
Division 1*	Group E, F, G*
Division 2	Group F, G
CLASS III	

* Contact your Thomas & Betts sales representative to verify classification



CERTIFICATIONS



Not all DL Series are DLC qualified.
For all qualified products, please visit: www.designlights.org/qpl



Hazlux® H3 LED Generation 2

Key features & benefits

Hinged design for hands-free wiring

Easy tank access allows Hazlux® lighting fixtures to be maintained quickly and safely. The hinged lid is designed to support the weight of the tank, leaving the installer's both hands free.

Robust construction

Cast, copper-free aluminum construction offers corrosion resistance in a strong and durable fixture. Baked epoxy powder finishes and stainless steel exposed hardware provide additional corrosion resistance.

Field-replaceable driver

The driver is designed in its own compartment so it can be easily replaced in the field.

Impressive life expectancy

Life expectancy of 50,000 to 100,000 hours.

Certifications

Easily identifiable nameplate displays third party certification for all electrical and hazardous location ratings as required by the National Electrical Code, Canadian Electrical Code, OSHA regulations and CUL to provide peace of mind, confirming that the correct lighting fixture with the required certifications is in place.

Versatile optics include internal reflector options for light distribution

The Hazlux® H3 LED Generation 2 fixture is available with a thermal-resistant globe and a variety of internal reflectors with 35°, 45° and 65° beam angles.

6kV combi-wave surge rating

ANSI C82.77-5 CAT C low compliant - no external surge suppression device required

ANSI surge type	Differential mode (L-N)	Common mode (L-G, N-G, L&N-G)
1.2/50 μ s combination wave (w/t 2 Ω)	6kV	6kV

ENERGY SAVINGS

15%
higher
efficacy
lm/W

High efficacy luminaire

Model	AC Power (W)	Lumen	Lm/W
DL005	37	5,600	151
DL007	48	7,500	156
DL010	74	10,500	142
DL015	103	15,800	153
DL017	115	17,300	150
DL020	138	20,100	146

Better temperature codes

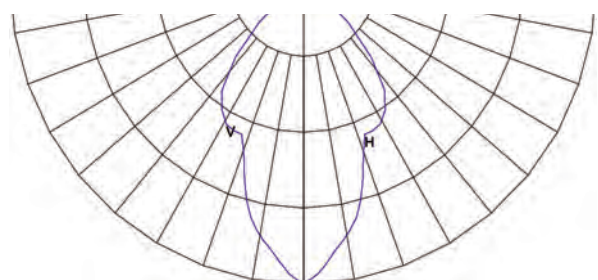
With an exclusive design that maximizes heat dissipation, Hazlux® LED fixtures lower internal temperature allow for higher T-rating and extended LED and driver life in extreme ambient temperatures. With the entire luminaire acting as a heat sink, Hazlux® LED fixtures allow for better performance.

Temperature codes

	Class I Zone 2 Groups IIC, IIB, IIA	Class I Division 2 Groups A, B, C, D	Class II Groups E, F, G	Simultaneous Class I Division 2 & Class II
GLASS GLOBE DL005, DL007, DL010				
Ambient temp. 40°C	T5	T5	T6	T5
Ambient temp. 55°C	T4	T4A	T6	T4A
GLASS GLOBE DL005, DL007, DL010 with internal reflector I3, I4, I6				
Ambient temp. 40°C	T4	T4A	T6	T4A
GLASS GLOBE DL015, DL017, DL020				
Ambient temp. 40°C	T4	T4A	T4A	T4A
OPTIC TYPE CUT DL005, DL007, DL010				
Ambient temp. 40°C	T5	T5	T5*	T5*
Ambient temp. 55°C	T4	T4A	T4A*	T4A*
OPTIC TYPE CUT DL015, DL017, DL020				
Ambient temp. 40°C	T4	T4A	T4A*	T4A*

* Cut reflector: Class II, Division 2, Groups F, G

Beam angles



Hazlux® H3 LED Generation 2

Build your luminaire



Mounting options¹

Part number	Description	Conduit hub size
VA2	Cone-Top Pendant	3/4"
VA3		1"
VC2	Ceiling & Pendant Mount	3/4"
VC3		1"
VB2-VIB	Wall mount	3/4"
VB3-VIB		1"
P2	3/4" Rigid Pendant	3/4"
P3	1" Rigid Pendant	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"
HV3*	Hazvertor™ Adaptor Ring Crouse-Hinds Ceiling, Pendant ² & Straight stanchion top hats ³	
HV4*	Hazvertor™ Adaptor Ring Stanchion Angle Mount ³	
HV5*	Hazvertor™ Adaptor Ring Wall Mount ³	

*HV3, HV4 and HV5 Hazvertors are CSA/CSAus certified

Globes or refractors

Part number	Description
VGT15	Heat-Resistant Prismatic Glass Globe
VGL15R1	IES Type I Refractor Globe
VGL15R3	IES Type III Refractor Globe
VGL15R5	IES Type V Refractor Globe
CUT	Dark Sky Cut-Off reflector with Polycarbonate Flat Lens

Guards

Part number	Description
VGU22	Cast Guard
VGU22P	Polymeric Guard

¹ For stainless steel inserts, please add "SI" to part no. (ex:VA2SI)

² Not compatible with HPM2 crouse-hinds top hats

³ Some installations may not be compatible

Ordering form

Hazlux® H3 LED Generation 2

Numbering system

Type:

Catalogue number:

Notes:

Custom
build
available

Unipak™= LED Driver Tank + Optics & Mountings + Options (if necessary)

LED driver tank						Optics		Mounting		Options		
DL	0	10	E	UN	0	TG	C	C2	E	T	I6	
1	2	3	4	5	6	7	8	9	10	11	12	13

01. LED driver tank

Part	Part number	Description
1 Fixture series	DL	Hazlux® H3 Gen 2
2 Fixture	0	Standard Fixture
3 Lumen output	05	5,600 lumens, 37W
	07	7,500 lumens, 48W
	10	10,500 lumens, 74W
	15	15,800 lumens, 103W
	17	17,300 lumens, 115W
	20	20,100 lumens, 138W
4 Driver circuit	E	Electronic LED Driver with Dimming 0-10VDC
5 Voltage / Frequency	UN	Universal 120 to 277VAC 50/60Hz (voltage range includes 208V, 220V, 240V etc.)
	UN2	Universal 347/480VAC 50/60Hz
6 LED Driver housing style	0	Standard Housing
	S	Standard Housing with Stainless-steel insert

02. Optics

Part	Part number	Description
7 Optical assembly ¹	TG	Thermal Shock-Resistant Globe
	R1	Type I Glass Refractor Globe
	R3	Type III Glass Refractor Globe
	R5	Type V Glass Refractor Globe
	CUT	Dark Sky Cut-Off Polycarbonate Flat Lens
8 Guard option	Blank	No guard
	C	Cast Aluminum Guard
	L	Polymeric Guard

¹ For silicone coating, add prefix "S" before the first digit. Not applicable to CUT.

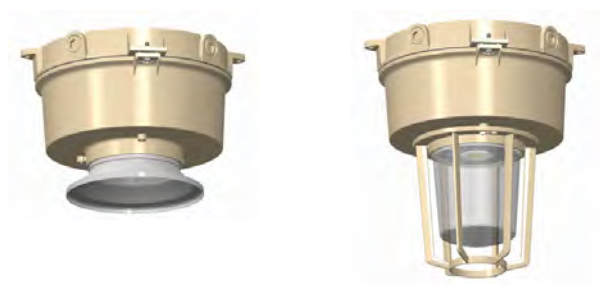
03. Mounting

Part	Part number	Description
9 Mounting style	A2	3/4" Cone-Top Pendant
	A3	1" Cone-Top Pendant
	B2	3/4" Wall
	B3	1" Wall
	C2	3/4" Ceiling Mount / Pendant
	C3	1" Ceiling Mount / Pendant
	L4	1-1/4" Straight Stanchion
	L5	1-1/2" Straight Stanchion
	P2	3/4" Rigid Pendant
	P3	1" Rigid Pendant
	S4	1-1/4" 25° Angle Stanchion
	S5	1-1/2" 25° Angle Stanchion
	Blank	No mounting (to replace existing fixt.)
10 Unipak™	E	UNIPAK™ with LED Lamp

04. Options

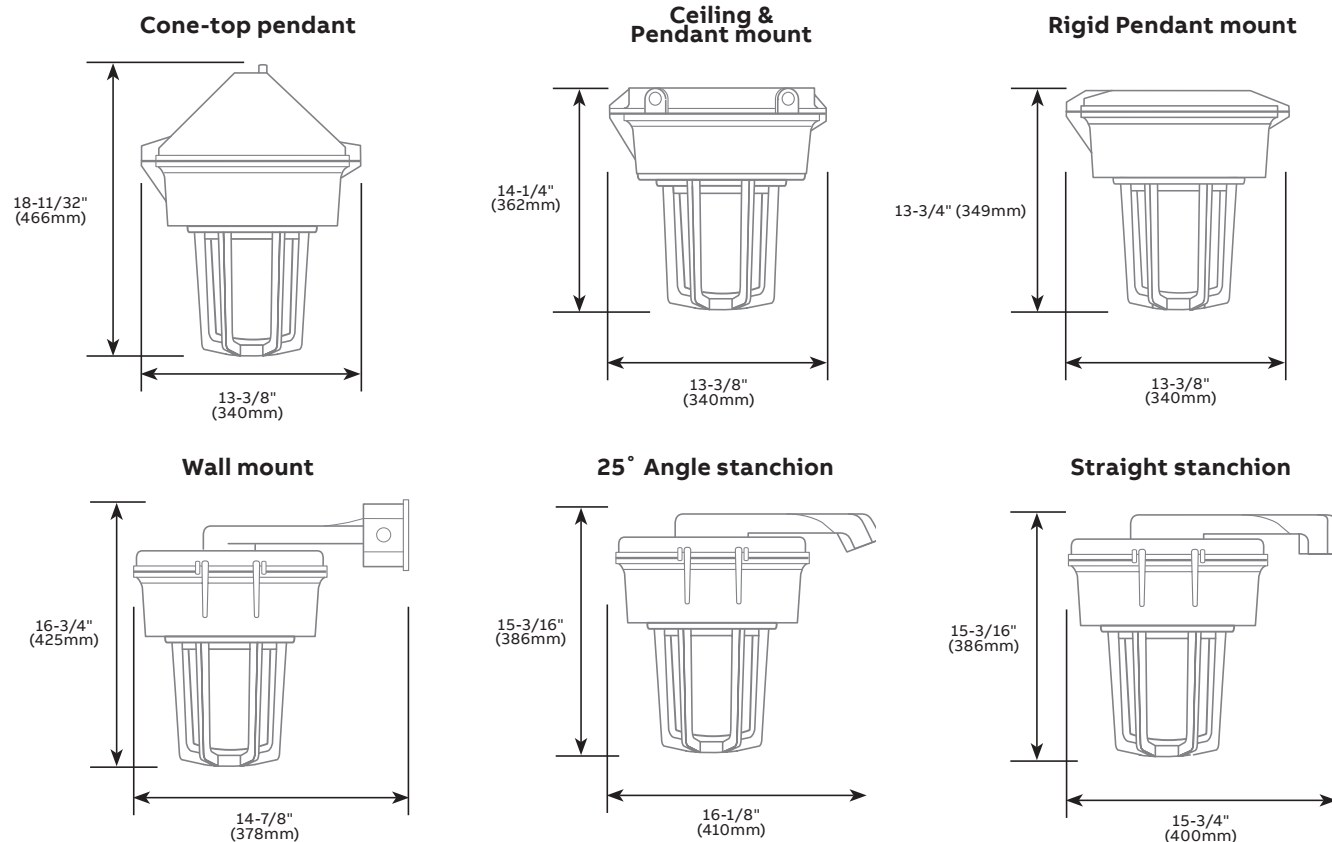
Part	Part number	Description
11 Special options	T	Hazcote® Black Custom Anti-corrosion Coating (Consult factory)
	G	Grey Colour Option
12 Light distribution options	I3	Internal reflector 35° beam angle ²
	I4	Internal reflector 45° beam angle ²
	I6	Internal reflector 65° beam angle ²
	K	Special Kelvin Colour Temperature (consult factory)
13 Certification	(blank)	Canadian Market
	U	U.S Market

² DL005, DL007 and DL010 only, maximum 40°C (104°F) ambient temperature



Hazlux® H3 LED Generation 2

Dimensions - Housing with mounting top, globe, and guard



Design Lights consortium DLC

Summary of test results: Certified for optics TG Globe and CUT reflector, and for AC input 120V, 277V and 347 V

Model	Electrical, 277Vac			Photometry, 120Vac			
	Power (W)	Power Factor	THD	TG Globe		CUT Reflector	
				Lumens	Lm/W	Lumens	Lm/W
DL005	37.71	0.914	13.5%	5747	155.3	5237	141.5
DL007	49.4	0.941	13.3%	7607	156.6	6832	140.8
DL010	71.9	0.968	10.1%	10706	147.8	9814	135.4
DL015	103	0.968	11.0%	16063	155	14564	140.7
DL017	114.98	0.972	11.8%	17549	151.7	16140	139.7
DL020	136.97	0.966	12.3%	20468	147.2	18782	135.3

Model	Electrical, 347Vac			Photometry, 120Vac			
	Power (W)	Power Factor	THD	TG Globe		CUT Reflector	
				Lumens	Lm/W	Lumens	Lm/W
DL005	36.69	0.98	10.2%	-	-	-	-
DL007	47.87	0.987	8.3%	-	-	-	-
DL010	70.2	0.99	7.1%	10582	147.7	9659	134.9
DL015	104.94	0.99	7.6%	-	-	-	-
DL017	116.73	0.99	7.1%	-	-	-	-
DL020	141.20	0.99	7.8%	21284	149.6	19065	134.1

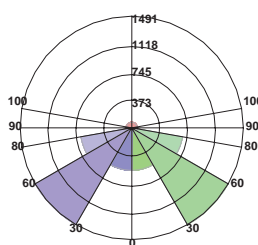
Hazlux® H3 LED Generation 2

Photometry reference data - Ceiling Mount

Standard globe

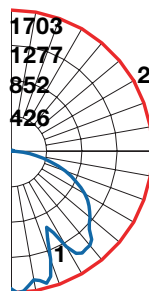
Catalogue number	DL005EUN0-TGC2
Luminaire lumens	5,764
Luminaire efficacy rating (LER)	156
Input watts	37.01
Spacing criterion	0.88
Spacing criterion (90-270)	0.88
Spacing criterion (diagonal)	1.52

Luminaire classification system



BUG rating : B2-U3-G1

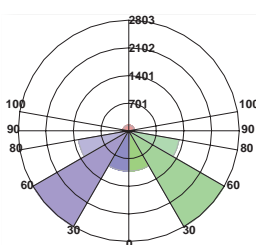
Candlepower curve



Standard globe

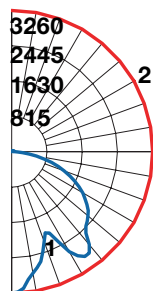
Catalogue number	DL010EUN0-TGC2
Luminaire lumens	10,739
Luminaire efficacy rating (LER)	148
Input watts	72.44
Spacing criterion	0.82
Spacing criterion (90-270)	0.82
Spacing criterion (diagonal)	1.46

Luminaire classification system



BUG rating : B3-U3-G2

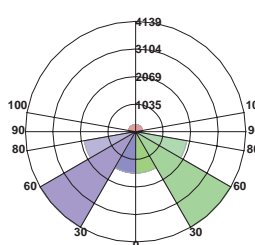
Candlepower curve



Standard globe

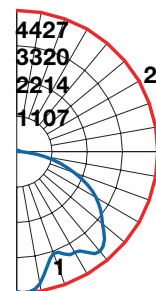
Catalogue number	DL015EUN0-TGC2
Luminaire lumens	16,110
Luminaire efficacy rating (LER)	155
Input watts	103.66
Spacing criterion	1.32
Spacing criterion (90-270)	1.32
Spacing criterion (diagonal)	1.58

Luminaire classification system



BUG rating : B3-U3-G3

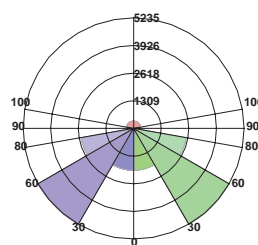
Candlepower curve



Standard globe

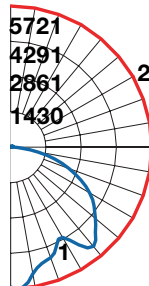
Catalogue number	DL020EUN0-TGC2
Luminaire lumens	20,530
Luminaire efficacy rating (LER)	148
Input watts	139.02
Spacing criterion	1.10
Spacing criterion (90-270)	1.10
Spacing criterion (diagonal)	1.56

Luminaire classification system



BUG rating : B4-U3-G3

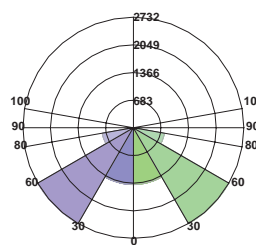
Candlepower curve



CUT reflector

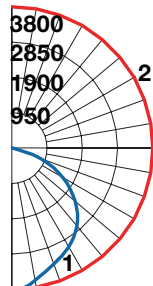
Catalogue number	DL010EUN0-CUTC2
Luminaire lumens	9,846
Luminaire efficacy rating (LER)	136
Input watts	72.47
Spacing criterion	1.22
Spacing criterion (90-270)	1.22
Spacing criterion (diagonal)	1.38

Luminaire classification system



BUG rating : B3-U0-G1

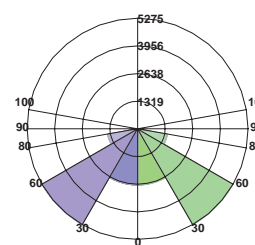
Candlepower curve



CUT reflector

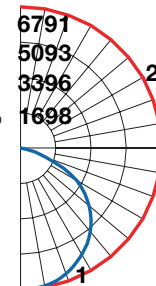
Catalogue number	DL020EUN0-CUTC2
Luminaire lumens	18,841
Luminaire efficacy rating (LER)	136
Input watts	138.8
Spacing criterion	1.30
Spacing criterion (90-270)	1.30
Spacing criterion (diagonal)	1.42

Luminaire classification system



BUG rating : B4-U0-G1

Candlepower curve



Hazlux® 5

HID

Your go-to versatile explosion proof lighting fixture, ideal for use in marine and wet locations, and a variety of hazardous areas.

CLASSIFICATION

CLASS 1	
Division 1	Groups C, D
Division 2	Groups A, B, C, D
Zone 1	Groups IIC, IIB, IIA
CLASS II	
Division 1	Group E, F, G
Division 2	Group E, F, G

Classification may vary upon light source and wattage. For details, see Thermal Performance chart on P.22.



CERTIFICATIONS



CSA 22.2 No. 137



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
Temperature Range: -30°C to 40°C

Hazlux® 5 HID

Key features & benefits

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
- High-pressure sodium 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
- All Luminaires: Multi-Tap standard (120, 208, 240, 277V), wired 120V (Other voltages, frequencies available)

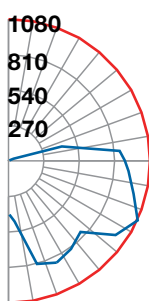
Materials and Finishes

- 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

Ceiling mount photometry

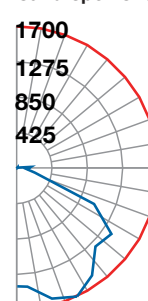
Reference data	
Catalogue number	XSO10H090G-C2-E
Lamp	100W HPS ED23 1/2
Lamp Lumens	9500
Input watt	130
Luminaire lumens	7162
Efficiency	75%
Efficacy rating (LER)	55.1
Spacing Criterion (0-180)	2.66
Spacing criterion (90-270)	2.66
Spacing criterion (diagonal)	2.74

Candlepower curve



Reference data	
Catalogue number	XSO10H090G-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



Hazlux® 5 HID

Build your luminaire

01 Choose a mounting style



Pendant Mount



Stanchion Mount



Ceiling Mount



Wall Mount



Bulkhead Mount

02 Choose a Fixture and Globe



Up to 150 HPS



250 HPS & 400 HPS

03 Choose a Guard

Cast Guard
for 150 HPSCast Guard
for 250 HPS

04 Option: Choose a Reflector (sold separately)



Standard dome



30° Angle Reflector

Mounting options

Part number	Description	Conduit hub size
XP2	Pendant Mount	3/4"
XP3		1"
XS4	Stanchion Mount	1-1/4"
XS5		1-1/2"
XC2	Ceiling Mount	3/4"
XC3		1"
XB2	Wall Mount	3/4"
XB3		1"
XJ2	Bulkhead Mount	3/4"
XJ3		1"

Replacement globe assemblies¹

Part number	Description
XGSA44	Hazlux® 5 Replacement Globe Assembly - Up to 150 HPS
XGSA44A	Hazlux® 5 Replacement Globe Assembly - 250 HPS & 400 HPS

¹ For stainless steel inserts, please add "SI" to part no. (ex: XGSA44SI)

Guards

Part number	Description
XGU44	Cast Aluminum Guard
VGU31 ²	Cast Aluminum Guard

² Used on all 400-watt fixtures and 250-watt HPS fixtures

Reflectors

Part number	Description
VR31P	Standard Dome, Fiberglass-Reinforced Polyester
VRA31P	30° Angle Reflector, Fiberglass-Reinforced Polyester

Reflectors are shipped bulk unless specified.

Ordering form

Hazlux® 5 HID

Numbering system

Type:

Catalogue number:

Notes:

Custom
build
available

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

Ballast tank							Optics & Mountings			Options		
X	S	Q	07	H	04	0	G	C2	E	T	F	C
1	2	3	4	5	6	7	8	9	10	11	12	13

01. Ballast tank

Part	Part number	Description
1 Fixture series	X	Hazlux® 5 Fixture
2 Lamp type	S	High-Pressure Sodium
3 Starter Circuit/ Quartz Option	Ø	Standard Fixture (Without Options)
	Q	Quartz Auxiliary Option (Not Hazardous Rated)
	R	Fixture with Instant Restart Option (70, 100 and 150 HPS Only)
4 Lamp Wattage (High pressure sodium lamp)	05	50W ED23 1/2
	07	70W ED23 1/2
	10	100W ED23 1/2
	15	150W ED23 1/2
	25	250W ED18
	40	400W ED18
5 Ballast Circuit	C	Constant Wattage Autotransformer (CWA)
	I	Constant Wattage Insulated Trans- former (CWI)
	H	High Reactance
	P	Reactor
6 Ballast voltage	04	Multi-Tap 120/208/240/277 Volt
	09	120/277/347V Volt (CSA)
	12	120 Volt
	20	208V Volt
	24	240V Volt
	27	277V, 60 Hz
	34	347V Volt
7 Ballast Housing style	Ø	Standard Housing
	S	Standard Housing with Stainless Steel Inserts

02. Optics and mountings

Part	Part number	Description
8 Guard option	G	Cast Guard (Omit "G" if Guard Not Required)
9 Mounting style	P2	3/4" Pendant
	P3	1" Pendant
	C2	3/4" Ceiling
	C3	1" Ceiling
	B2	3/4" Wall
	B3	1" Wall
	J2	3/4" Bulkhead
	J3	1" Bulkhead
	S4	1-1/4" 25° Stanchion
10 Unipak™ Options	S5	1-1/2" 25° Stanchion
	D	UNIPAK™ with Dual Arc Lamp
	E	UNIPAK™ with Clear Lamp
	U	UNIPAK™ No Lamp

03. Options

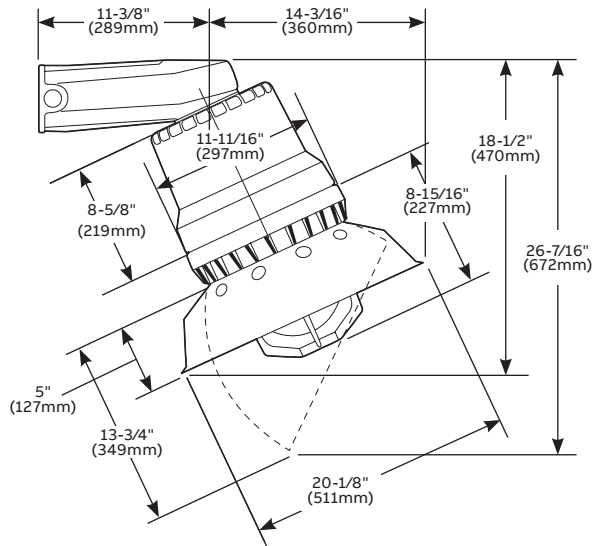
Part	Part number	Description
11 Special options	T	Hazcote® Black Custom Anti-corrosion Coating (Consult factory)
	PS	Paint Spray Label (100W max.)
12 Fusing options	F	Fuse Block with Fuse
	C	Canadian Market



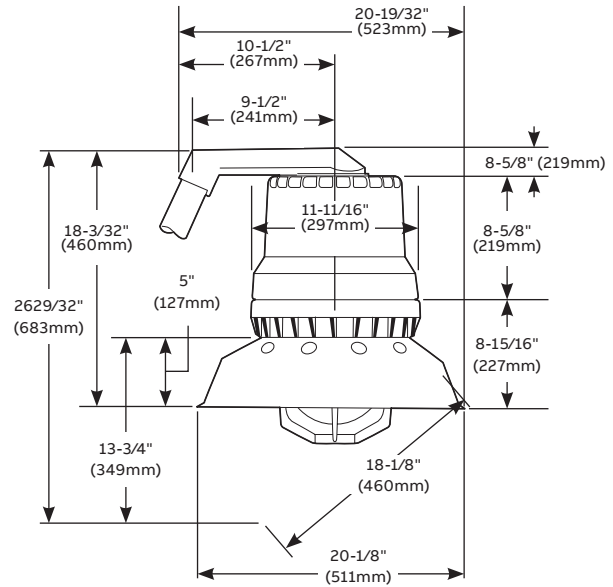
Hazlux® 5 HID

Dimensions

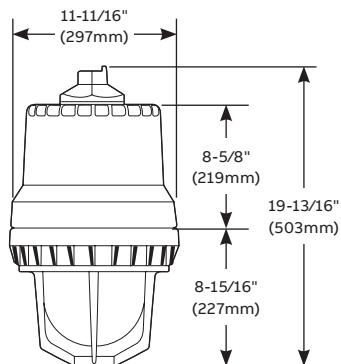
Bulkhead Mount with Globe, Guard and Reflector



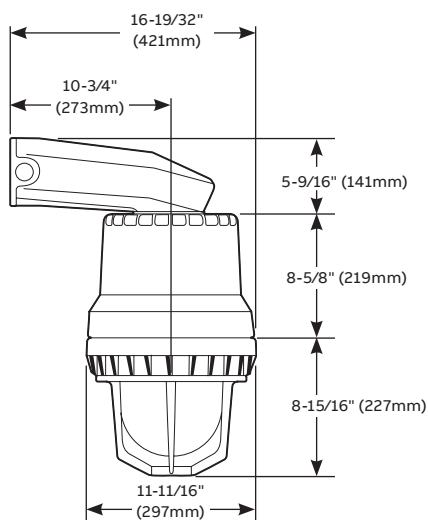
Stanchion Mount with Globe, Guard and Reflector



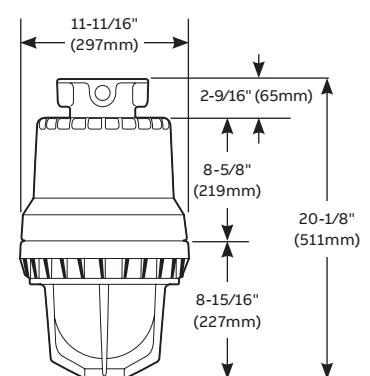
Pendant Mount with Globe and Guard



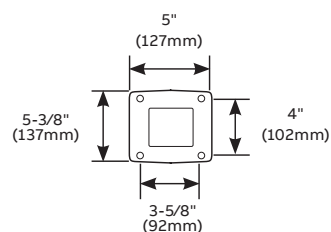
Wall Mount with Globe and Guard



Ceiling Mount with Globe and Guard

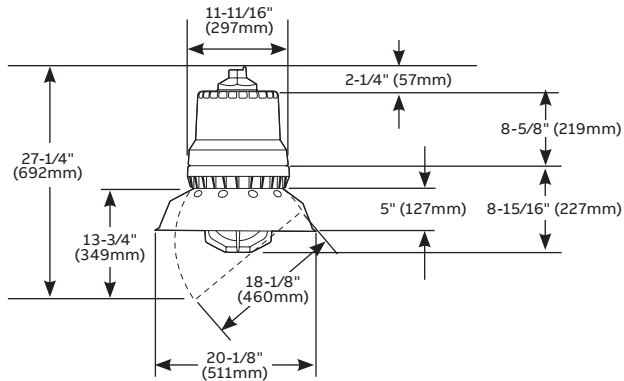
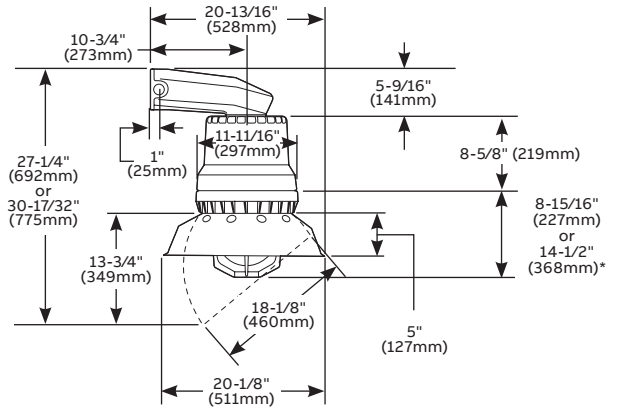
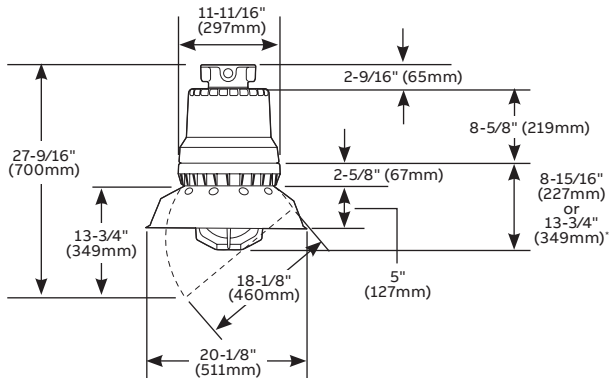
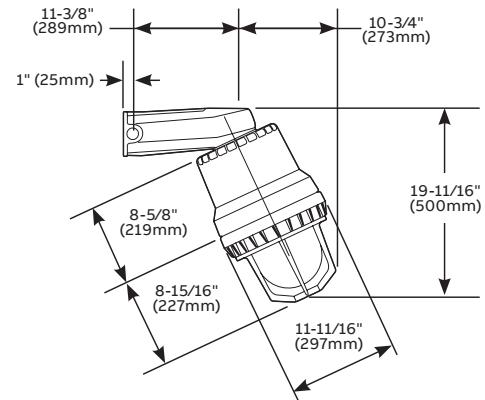
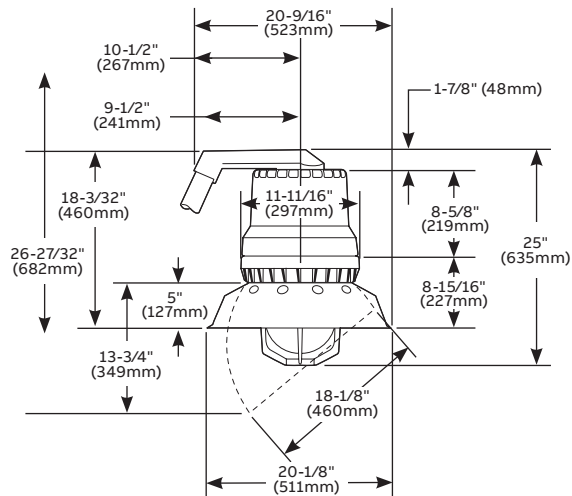
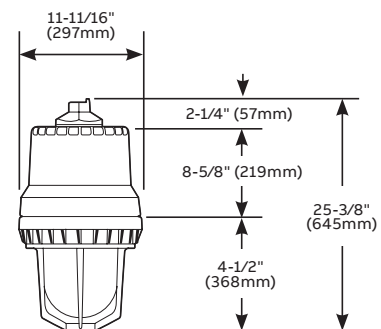


Template for Bulkhead for Wall Mount



Hazlux® 5 HID

Dimensions

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**

Hazlux® 5 HID

Thermal Performance Data

Class I, Division 1, Group C & D - Maximum External Fixture Temperature in °C @ 40 °C | Ambient in Free Air

High Pressure Sodium / Nameplate marked with Rating based on hottest fixture congestion									
Configuration		50W (S68 Lamp)		70W (S62 Lamp)		100W (S54 Lamp)		150W (S55 or S56 Lamp)	
		Lamp	Lamp w/ Auxiliary Qtz.	Lamp	Lamp w/ Auxiliary Qtz.	Lamp	Lamp w/ Auxiliary Qtz.	Lamp	Lamp w/ Auxiliary Qtz.
		"T" No.	"T" No.	"T" No.	"T" No.	"T" No.	"T" No.	"T" No.	"T" No.
Globe & Guard	A	T6	T4A	T6	T4A	T5	T4	T4	T4A
Globe, Guard & Dome Reflector	B	T6	T4A	T6	T4A	T5	T4	T4	T3C
Globe, Guard & Angle Reflector	C	T6	T4A	T6	T4A	T5	T3C	T4	T3C

Class II & III*, Division 1 & 2 - Maximum External Fixture Temperature in °C @ 40 °C | Ambient in Free Air

High Pressure Sodium / Nameplate marked with Rating based on hottest fixture congestion									
Configuration		50W (S68 Lamp)		70W (S62 Lamp)		100W (S54 Lamp)		150W (S55 or S56 Lamp)	
		Lamp	Lamp w/ Auxiliary Qtz.	Lamp	Lamp w/ Auxiliary Qtz.	Lamp	Lamp w/ Auxiliary Qtz.	Lamp	Lamp w/ Auxiliary Qtz.
		Class II Groups	Class II Groups	Class II Groups	Class II Groups	Class II Groups	Class II Groups	Class II Groups	Class II Groups
Globe & Guard	A	EFG	EFG	EFG	EFG	EFG	EF	EFG	EF
Globe, Guard & Dome Reflector	B	EFG	EFG	EFG	EFG	EFG	EF	EFG	EF
Globe, Guard & Angle Reflector	C	EFG	EFG	EFG	EFG	EFG	EF	EFG	EF

Class I, Division 1, Group C & D - Maximum External Fixture Temperature in °C @ 55 °C | Ambient in Free Air

High Pressure Sodium / Nameplate marked with Rating based on hottest fixture congestion									
Configuration		50W (S68 Lamp)		70W (S62 Lamp)		100W (S54 Lamp)		150W (S55 or S56 Lamp)	
		Lamp	Lamp w/ Auxiliary Qtz.	Lamp	Lamp w/ Auxiliary Qtz.	Lamp	Lamp w/ Auxiliary Qtz.	Lamp	Lamp w/ Auxiliary Qtz.
		"T" No.	"T" No.	"T" No.	"T" No.	"T" No.	"T" No.	"T" No.	"T" No.
Globe & Guard	A	T6	T4	T5	T4	T5	T4A	N/A	T4A
Globe, Guard & Dome Reflector	B	T6	T4	T5	T4	T5	T4A	N/A	T4A
Globe, Guard & Angle Reflector	C	T6	T4	T5	T4	T5	T4A	N/A	T4A

Hazlux® 5 HID

Thermal Performance Data

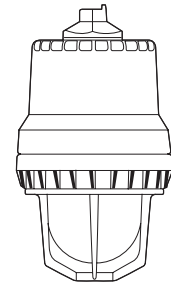
Class I, Division 1, Group C & D - Maximum External Fixture Temperature in °C @ 65 °C | Ambient in Free Air

High Pressure Sodium / Nameplate marked with Rating based on hottest fixture congestion							
Configuration		50W (S68 Lamp)		70W (S62 Lamp)		100W (S54 Lamp)	
		Lamp	Lamp w/ Auxiliary Qtz.	Lamp	Lamp w/ Auxiliary Qtz.	Lamp	Lamp w/ Auxiliary Qtz.
		"T" No.	"T" No.	"T" No.	"T" No.	"T" No.	"T" No.
Globe & Guard	A	T5	N/A	T4A	N/A	T4A	N/A
Globe, Guard & Dome Reflector	B	T5	N/A	T4A	N/A	T4A	N/A
Globe, Guard & Angle Reflector	C	T5	N/A	T4A	N/A	T4A	N/A

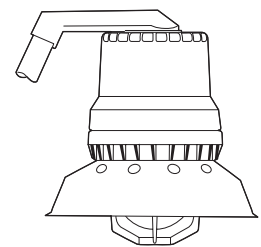
Hazlite™ 5 (400 Series) Thermal Data

This data includes Globe, Guard and Reflector				
Lamp type	Ambient temperature	Class I		Supply wire suitable temperature
		Groups	Temp. code	
250 Watt HPS Type S50	40	C, D	T4A	85
400 Watt HPS Type S51	40	C, D	T4A	85

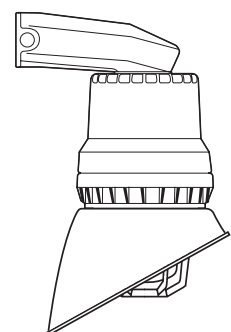
—
A



—
B



—
C



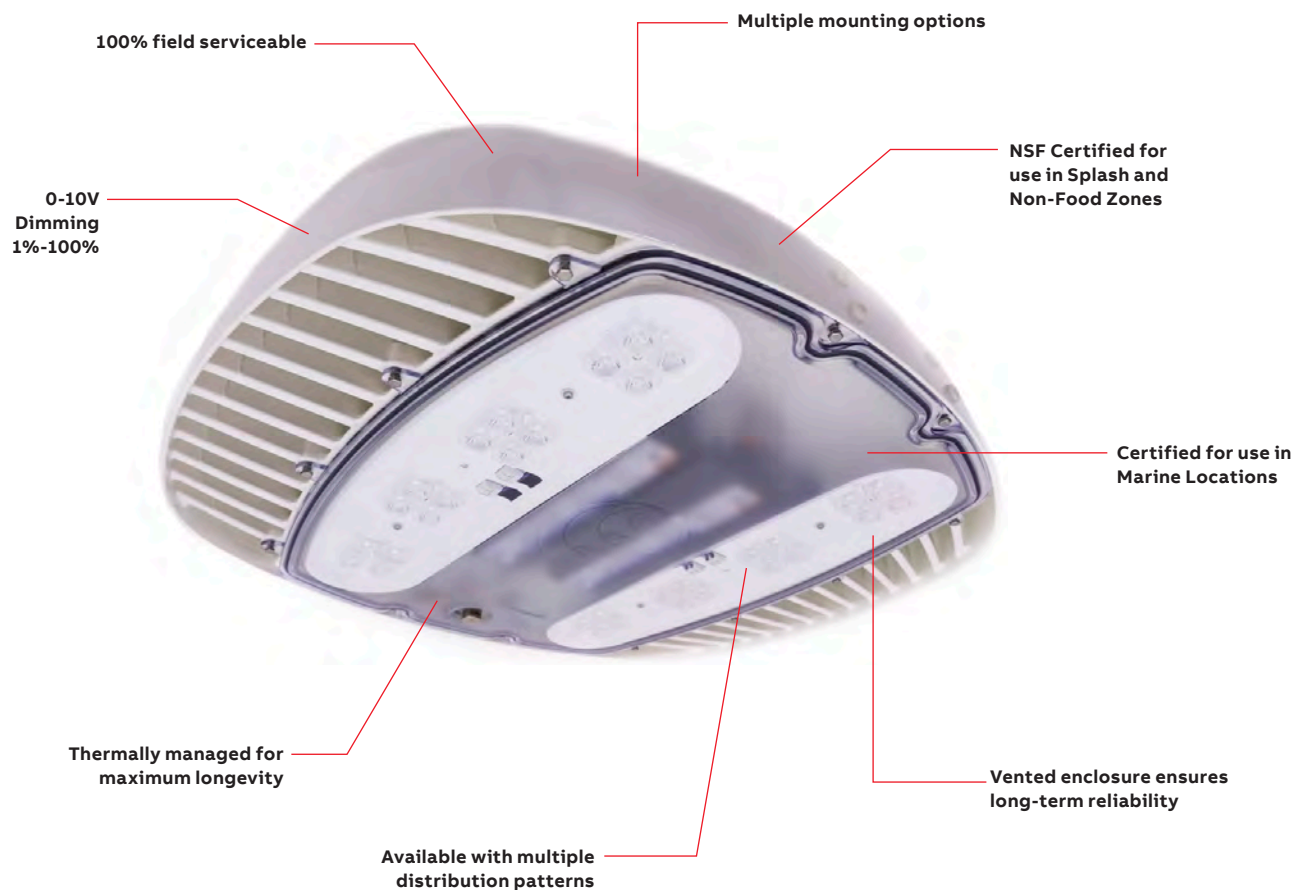
FMR LED

These multi-functional and feature rich fixtures are capable of both meeting and exceeding the demands of the food processing industry, industrial and commercial environments and architectural applications.

CLASSIFICATION

CLASS 1	
Division 2	Groups A, B, C, D
Zone 2	Group IIC
Zone 22	Group IIIB
CLASS II	
Division 2	Group F, G
CLASS III	

Contact your Thomas & Betts sales representative to verify classification



CERTIFICATIONS



Not all DL Series are DLC qualified. For all qualified products, please visit: www.designlights.org/qpl



UL 844
UL 8750



Splash & Non-Food Zones

FMR LED

Key features & benefits

Housing

- Copper-free high-pressure die-cast aluminum
- Lens and case are designed to withstand severe impact
- Gore vented pressure equalization

Finish

- Polyurethane multi-layer powder coating with anti-graffiti properties suitable for interior and exterior surfaces
- Easy cleaning and very smooth to prevent particulate from accumulating
- Resistant to impact, humidity and high chlorine environments
- Superior surface bonding to prevent dripping

Power Supplies

- Two independent power supplies for increased reliability
- Two input power ranges for flexibility
- Built-in temperature control adjusts power output in case of extreme ambient temperatures in order to maintain illumination while protecting the luminaire
- High performance LED drivers for better efficiency and up to 100,000 hours of maintenance-free operation (LM-80)
- Built in JB with ¾" NPT entry for electrical termination within sealed cavity

Thermal Management

- Surface area ensures LEDs are kept running at maximum efficiency in temperatures up to 55°C
- Unique heat sink design creates increased airflow for optimal LED and power supply operating temperatures

CREE LEDs

- Proven reliability and high efficiency
- Superior CRI (90+)

Electrical ratings

Luminance	Input voltage	Rated wattage (watts)	Rated voltage (Volts)	Frequency (Hz)	Rated current (Amps)
FMR10	AC	107	120-277	50/60	1.11 - 0.48
	HV	129	347-480	50/60	0.43 - 0.31
FMR15	AC	145	120-277	50/60	1.42 - 0.61
	HV	145	347-480	50/60	0.47 - 0.34
FMR20	AC	190	120-277	50/60	1.74 - 0.75
	HV	187	347-480	50/60	0.59 - 0.42
FMR25	AC	247	120-277	50/60	2.18 - 0.95
	HV	248	347-480	50/60	0.74 - 0.53
FMR30	AC	312	120-277	50/60	2.82 - 1.22
	HV	310	347-480	50/60	0.96 - 0.70

Applications

High mast
 Parking lots
 Tunnels
 Loading docks
 Swimming pools
 High bay
 Food processing
 Coolers & freezers
 Inspection
 Meat processing
 Quality control areas
 Packaging areas
 Hangars
 Storage facilities
 Oil & gas processing
 Agricultural
 Marine/wet environments
 Chemical/industrial facilities

Light Engine

- Metal core PCB
- Fault tolerant and fail-over design ensures reliability and resilience to damage



FMR LED

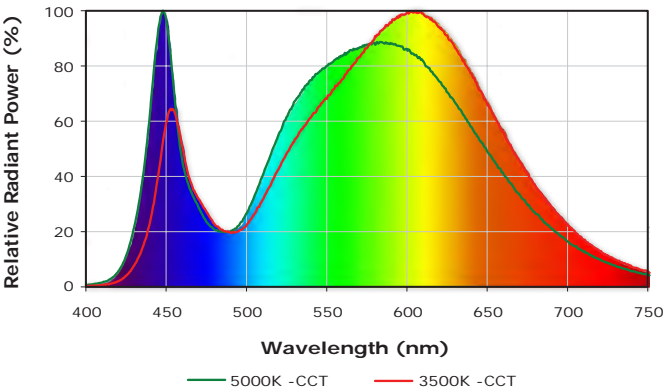
Key features & benefits

Temperature Range Chart

Luminance	Input voltage	Optical models		Flood models		All models
		Ambient temp [°C]	Class I, Div 2 T-Codes	Ambient temp [°C]	Class I, Div 2 T-Codes	Class II, Div 2 T-Codes
FMR10	AC	-40 to 55	T3C	-40 to 55	T4A	T5
	HV	-40 to 54	T3C	-40 to 51	T4	T5
FMR15	AC	-40 to 55	T3C	-40 to 55	T4A	T5
	HV	-40 to 54	T3C	-40 to 51	T4	T5
FMR20	AC	-40 to 55	T3C	-40 to 55	T4A	T5
	HV	-40 to 54	T3C	-40 to 51	T4	T5
FMR25	AC	-40 to 51	T3C	-40 to 55	T4A	T5
	HV	-40 to 44	T3B	-40 to 50	T4A	T5
FMR30	AC	-40 to 43	T3	-40 to 42	T4A	T5
	HV	-40 to 43	T3	-40 to 40	T3	T5

Colour temperature

Available standard in 3,500K and 5,000K colour temperatures, with additional colour temperatures available from 2,700 to 6,500K.

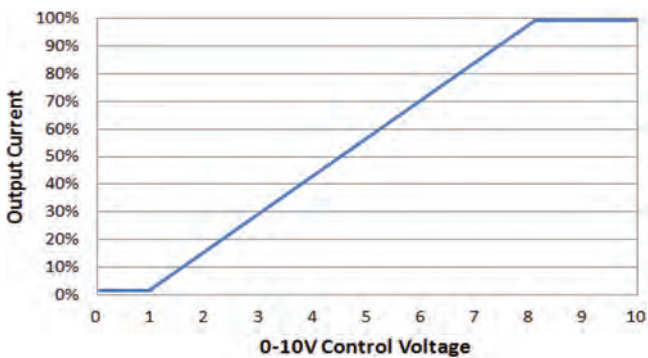


Light Engine

- Metal core PCB
- Fault tolerant and fail-over design ensures reliability and resilience to damage

Dimming

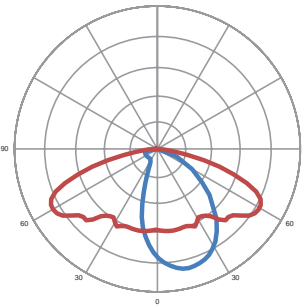
Driver will source a maximum of 200 uA for control needs. A controller must sink current from 0-10V control leads.



FMR LED

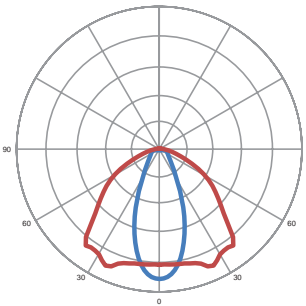
Key features & benefits

Modular optics (20 options)



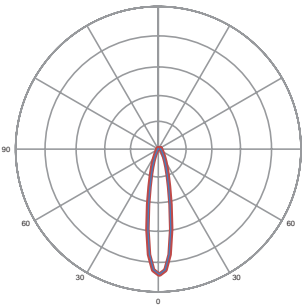
T2 - IESNA Type 2

Model	Lumens	Lumens/ Watts
FMR10	12370	132
FMR15	16340	130
FMR20	20560	125
FMR25	26090	117
FMR30	31670	109



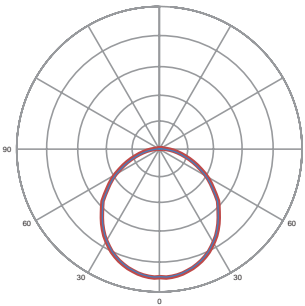
OC - Oval

Model	Lumens	Lumens/ Watts
FMR10	12370	132
FMR15	16340	130
FMR20	20560	125
FMR25	26090	117
FMR30	31670	109



SC - Narrow 18°

Model	Lumens	Lumens/ Watts
FMR10	12370	132
FMR15	16340	130
FMR20	20560	125
FMR25	26090	117
FMR30	31670	109



WC - Wide Beam

Model	Lumens	Lumens/ Watts
FMR10	12370	132
FMR15	16340	130
FMR20	20560	125
FMR25	26090	117
FMR30	31670	109

Standard offering above, 13 alternate optical profiles available upon request.
Contact Sales representative for further details. Minimum order quantities, additional costs and lead times may incur.

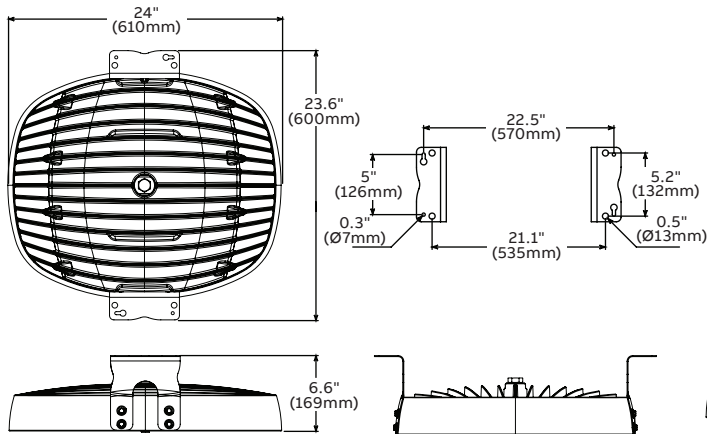


FMR LED

Mounting Options

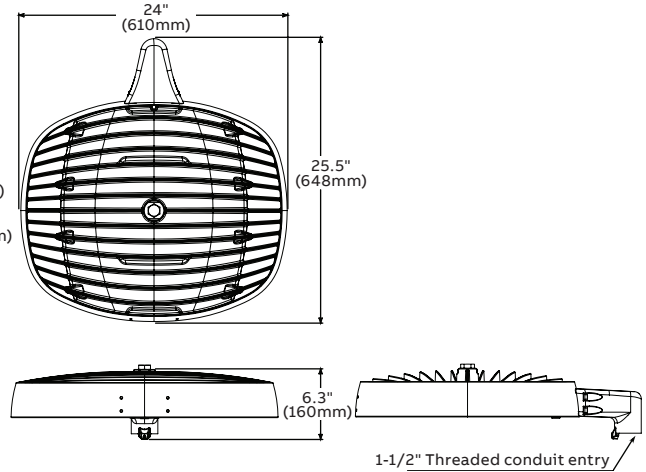
Surface/Suspended Mount
(Included standard)

16.8 kg | 37 lbs



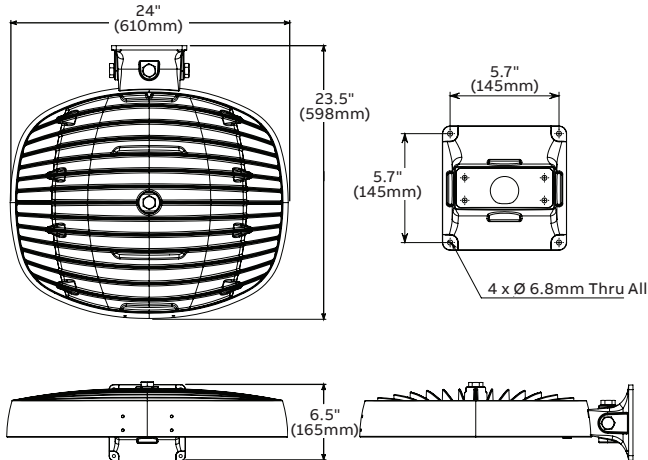
Pole Mount FMR-PM
(Optional accessory)

17.3 kg | 38 lbs



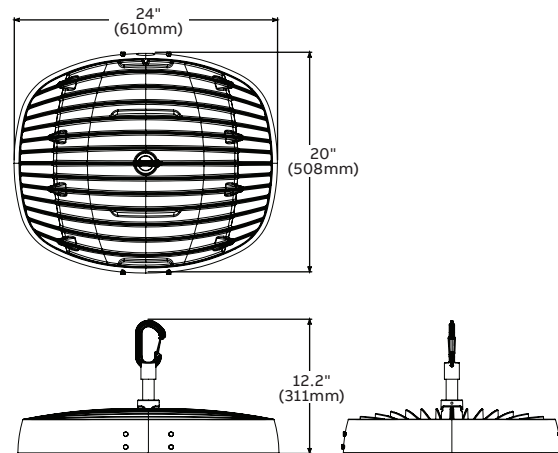
Wall Mount FMR-WM
(Optional accessory)

17.7 kg | 39 lbs



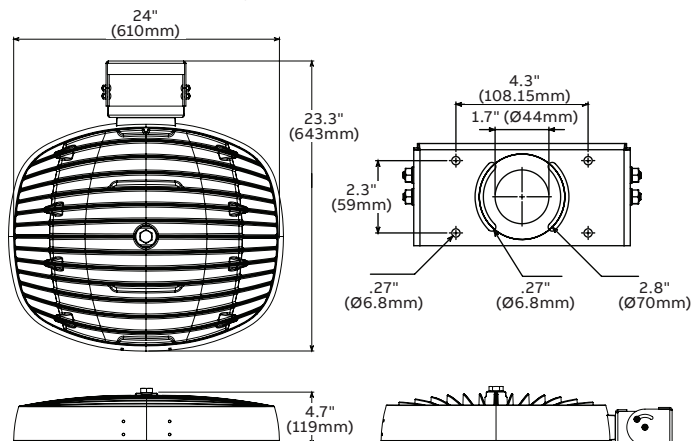
Hanging Pendant FMR-HK
(Optional accessory)

16.4 kg | 36 lbs



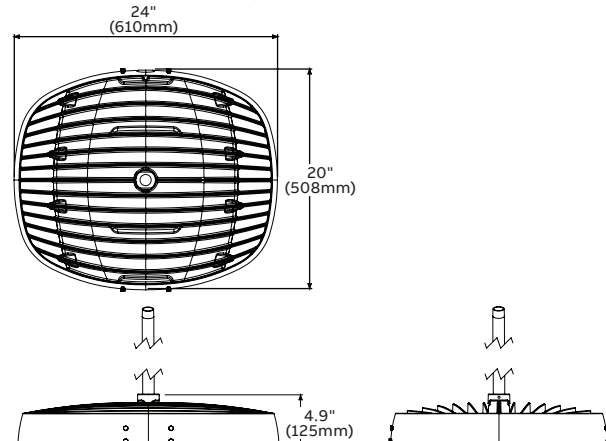
Yoke Mount FMR-YM
(Optional accessory)

16.8 kg | 37 lbs



Conduit Mount FMR-CM
(Optional accessory)

16.4 kg | 36 lbs



FMR LED

Numbering system

Lighting fixture							Mounting options	
FMR30	WC	W	35	AC	HL		FMR-WM	WT
1	2	3	4	5	6	7	8	9

01. Fixture

Part	Part number	Description
1 Model	FMR10	12260 to 12370 Lumens
	FMR15	16200 to 16490 Lumens
	FMR20	20380 to 20730 Lumens
	FMR25	25860 to 26610 Lumens
	FMR30	31400 to 31670 Lumens
2 Optic	WC	Wide Beam (No Optics)
	T2	IESNA Type 2
	OC	Oval, 26° x 108°
	SC	Spot 18°
3 Finish	W	White
4 Colour	35	Warm White (3500K)
	35H	Warm White, High CRI (3500K)
	50	Cool White (5000K)
	50H	Cool White, High CRI (5000K)
5 Power	AC	120 to 277VAC
	HV	347 to 480VAC
6 Location	HL	Hazardous location
7 Market		Canadian market
	U	US market

02. Mounting options (order separately)

Part	Part number	Description
8 Mounting type	FMR-WM	Wall Mount 5
	FMR-HK	Hanging Pendant
	FMR-PM	Pole Mount 5
	FMR-YM	Yoke Mount 4,5
	FMR-YK	High Vibration Yoke 2,4,5
9 Colour	WT	White finish

NOTES

1. Minimum order quantities, additional costs and lead times may incur.
2. Custom finishes and High Vibration Yoke mount are not available for NSF certified units.
3. Hazardous location is also NSF compliant.
4. Yoke mount only available in stainless steel finish.
5. IDA Fixture Seal of Approval only applies to fixtures with a CCT of 3000K or less, and have fixed mounts aiming the fixture perpendicular to the ground.



Ordering form

Type:

Catalogue number:

Notes:

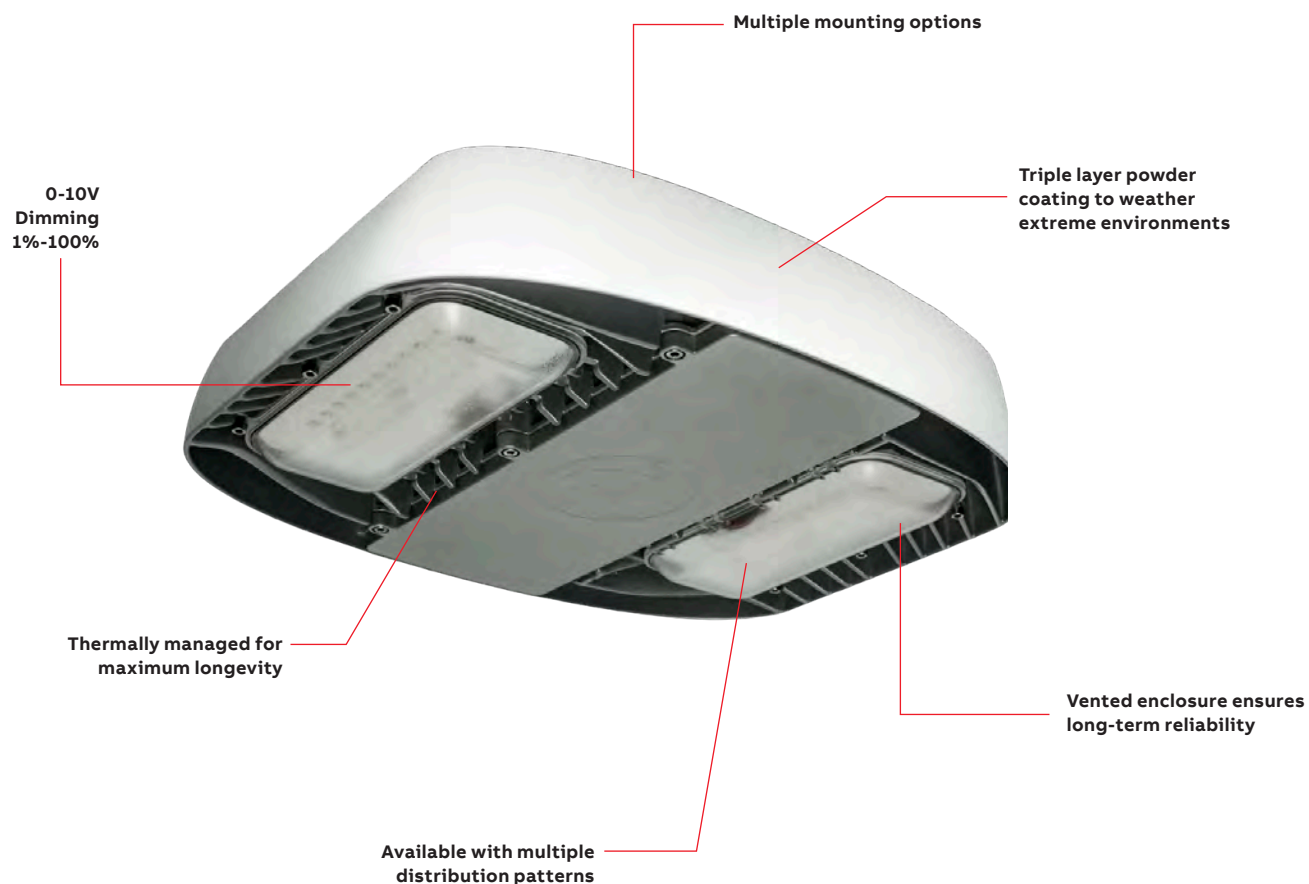
SMR LED

The unique combination of flexibility and robust design allows the implementation of this light fixture in various new or existing facilities. The SMR not only exceeds the expectations of an HID replacement, but establishes a new benchmark in versatility for industrial LED lighting.

CLASSIFICATION

CLASS 1	
Division 2	Groups A, B, C, D, T4
Zone 2	Group IIC
Zone 22	
CLASS II	
Division 2	Group F, G
CLASS III	
	T4A

Contact your Thomas & Betts sales representative to verify classification



CERTIFICATIONS



Not all DL Series are DLC qualified.
For all qualified products, please visit: www.designlights.org/qpl



UL 1598
UL 844

SMR LED

Key features & benefits

Features

- Extremely robust
- Thermally managed for longevity
- Easy field angle adjustment
- -40 to +55°C operating range
- Lifespan up to 100,000 hours
- Sealed to IP66
- Extreme vibration resistance

Junction Box

- Direct heat transfer from power supply to external case for optimal performance
- Plenty of wiring space for optional accessories (Contact us for custom options)
- 3/4" NPT entry
- IP 66/67 rated. Suitable for wet locations

Thermal Management

- Ample surface area of head ensures LEDs are kept running at maximum efficiency, even at 55°C temperature
- Unique heat sink design creates increased airflow for optimal LED and power supply operating temperature
- Physical separation of electronics for increased system reliability
- Perimeter band adds ruggedness and channels heat through fins with laminar flow principles

Light Engine

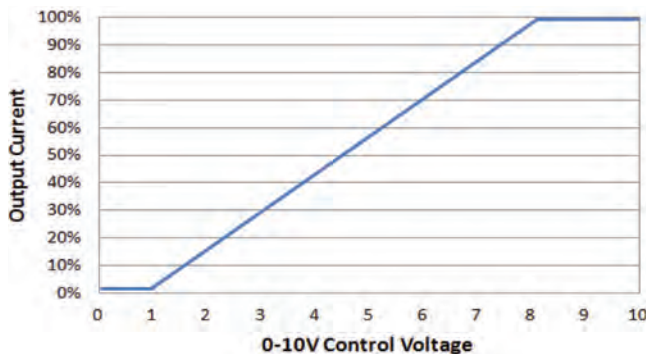
- Metal core PCB (MCPCB)
- Modular Optics

Output

3050 to 6265 lumens

Dimming

Driver will source a maximum of 200 uA for control needs. A controller must sink current from 0-10V control leads.

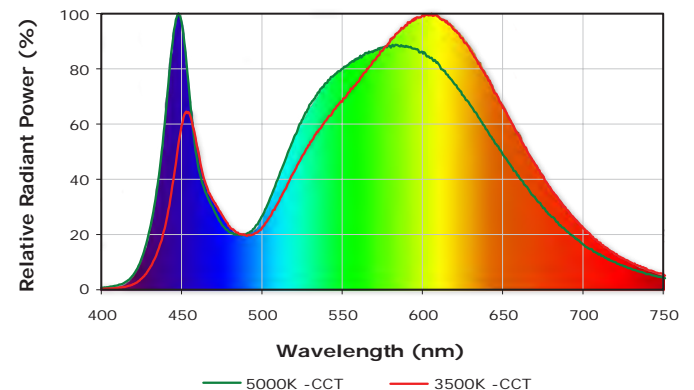


Applications

Hazardous locations
Indoor lighting
Tunnel lighting
Industrial facilities
Refinery & petrochemical facilities

Colour temperature

Available standard 5,000K, with additional colour temperatures available from 2,700 to 6,500K.



Nichia LEDs

- Proven reliability
- High efficiency
- Superior CRI
- Several CCT options for added design flexibility

Housing

- Copper-free high pressure die-cast aluminum case
- Triple layer coating suitable for marine applications
- Physical separation between power supply and LEDs
- Lens and case are designed to withstand severe impact

Power Supplies

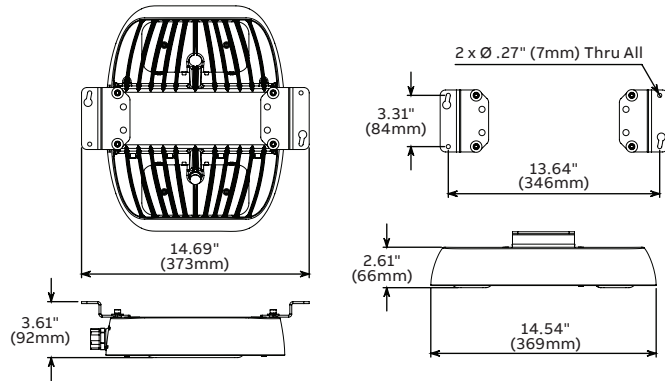
- Two input ranges for ultimate flexibility
- Utilizes high performance LED drivers for better efficiency and up to 100,000 hours of maintenance-free operation
- Built-in JB with 3/4" NPT entry

SMR LED

Mounting Options

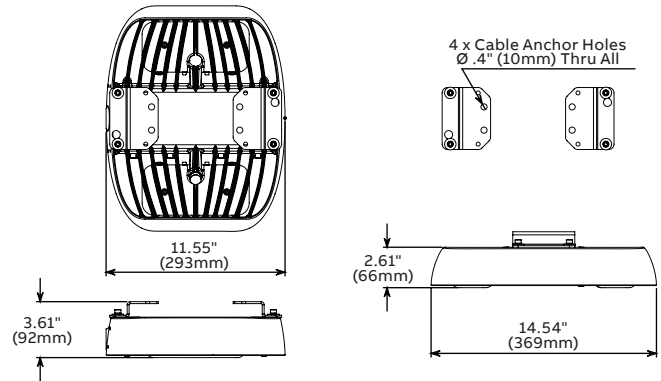
Surface Mount
(Included standard)

5.3 kg | 11.7 lbs



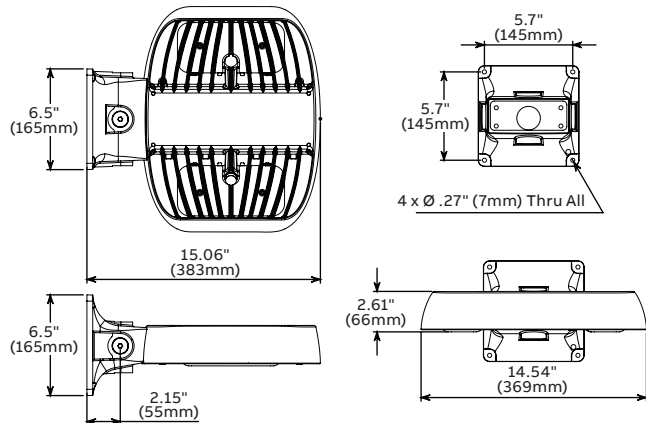
Suspended Mount
(Included standard)

5.3 kg | 11.7 lbs



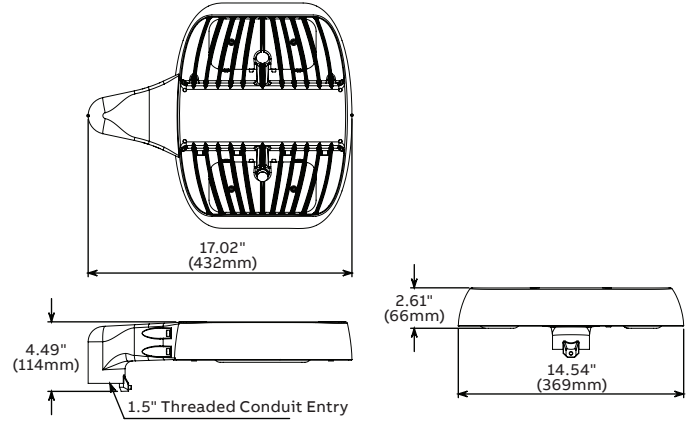
Wall Pack Mount
(Optional accessory)

6.8 kg | 15 lbs



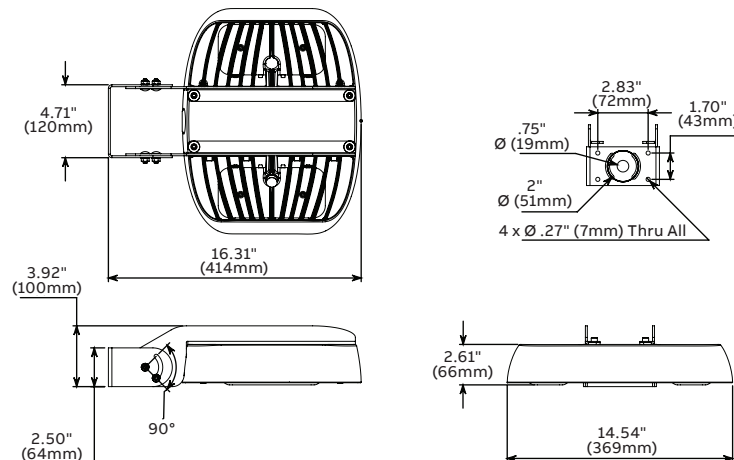
Pole Mount SMR-PM
(Optional accessory)

5.6 kg | 12.4 lbs



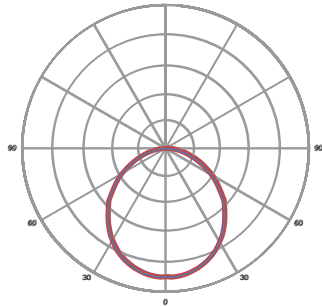
Yoke Mount SMR-YM
(Optional accessory)

6.3 kg | 13.9 lbs



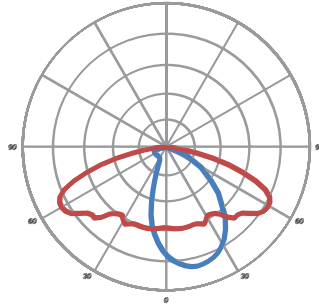
SMR LED

Optic options



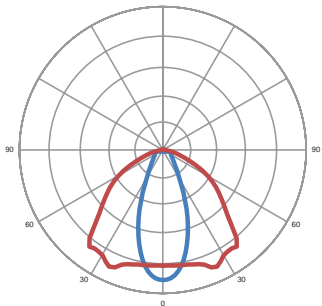
WF - Wide beam (no optic)

Model	Lumen output (CW)
SMR3	3050
SMR6	5650



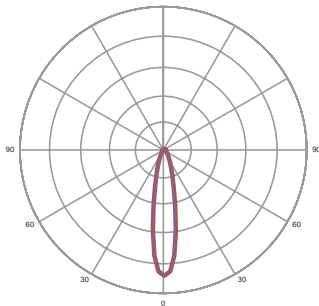
T2F - IESNA Type 2

Model	Lumen output (CW)
SMR3	2980
SMR6	5520



OF - Oval 26° x 108°

Model	Lumen output (CW)
SMR3	3290
SMR6	6090



SF - Spot 18°

Model	Lumen output (CW)
SMR3	3380
SMR6	6265

Standard offering above, 13 alternate optical profiles available upon request.

Contact Sales representative for further details. Minimum order quantities, additional costs and lead times may incur.



Numbering system

Custom
optics
available

Custom
finish
available

Lighting fixture

SMR6	WF	GY	CW	AC	HL	
1	2	3	4	5	6	7

01. Lighting Fixture

Part	Part number	Description
1 Model	SMR3	2980 to 3380 Lumens
	SMR6	5520 to 6265 Lumens
2 Optic	2F	IESNA Type 2
	OF	Oval 26° x 108°
	SF	Spot 15°
	WF	Wide (No optic)
3 Finish	GY	Grey
4 Colour	CW	Cool White (5000K)
5 Power	AC	120 to 277VAC
	HV	347VAC
6 Location	HL	Hazardous location
7 Market		Canadian Market
	U	US Market

Ordering form

Type:

Catalogue number:

Notes:

Hazlux® 6 DFP

LED

An energy efficient alternative when sturdy vapor and dust proof lighting is required. A wide range of lumen output makes this your go-to fixture for a variety of applications.

CLASSIFICATION

CLASS 1	
Division 2	Groups A, B, C, D
CLASS II	
Division 2	Group F, G
CLASS III	

Contact your Thomas & Betts sales representative to verify classification



CERTIFICATIONS



CSA 22.2 No. 137
CSA 22.2 No. 250.0
CSA 22.2 No. 250.13



UL 1598 Wet/Damp
UL 844
UL8750



Hazlux® 6 DFP LED

Key features & benefits

Standard Features

- Front access fixture for hazardous locations
- Hinged front door frame with hinged ballast tray
- Spring loaded lamp holders – standard
- Available in 2, 3, 4, 5 and 6 lamp configurations
- Multiple hub locations can meet most wiring needs

Construction

- Sturdy 18 Ga. steel white powder coated housing
- 3/16" tempered glass lens
- Zinc latches

Electrical

- Available with low or standard ballast factor
- Wattage ranging from 25W in the 2 lamp low ballast factor, to 87W in 6 lamp standard ballast factor configuration (see wattage table below)
- Through feed wiring
- Voltage of 120 to 277 and 347 available

Options

- Adjustable surface mount brackets
- Cable mount
- Wire guard
- Acrylic lens
- 3 wire whip

Accessories

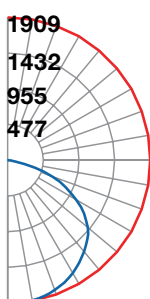
- Chain or cable mount kit
- Adjustable surface or vertical mounting bracket

Photometry Ceiling Mount

Reference data

Catalogue number	DFPLEDS4K434PFT
Luminaire Lumens	5,737 Lumens (4 Lamps)
Luminaire Efficacy Rating (LER)	97
Input watt	59.03
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.36
Spacing Criterion (Diagonal)	1.44

Candlepower curve



T-Ratings

Model	Rated ambient deg. C	Class I Division 2 Groups A, B, C, D	Class II Division 2 Groups F,G	Class III
DFPLED	40°C	T5 (100°C)	T4A (120°C)	T4A (120°C)

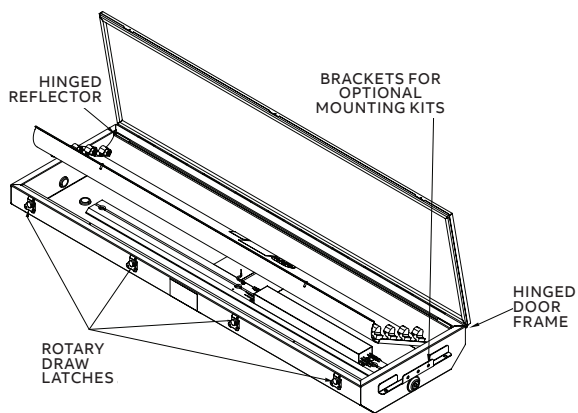
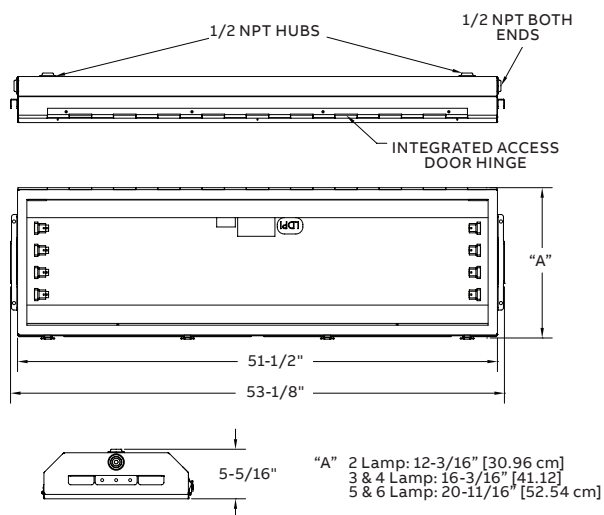
Performance

Lamp qty.	Source (ballast factor)	Average system watts	Initial lumen output	Colour temperature
2 Lamp	L - Low	25	2800, 2900	4000K, 5000K
	S - Standard	29	3200, 3300	4000K, 5000K
3 Lamp	L - Low	37.5	4200, 4350	4000K, 5000K
	S - Standard	43.5	4800, 4950	4000K, 5000K
4 Lamp	L - Low	50	5600, 5800	4000K, 5000K
	S - Standard	58	6400, 6600	4000K, 5000K
5 Lamp	L - Low	62.5	7000, 7250	4000K, 5000K
	S - Standard	72.5	8000, 8250	4000K, 5000K
6 Lamp	L - Low	75	8400, 8700	4000K, 5000K
	S - Standard	87	9600, 9900	4000K, 5000K



Hazlux® 6 DFP LED

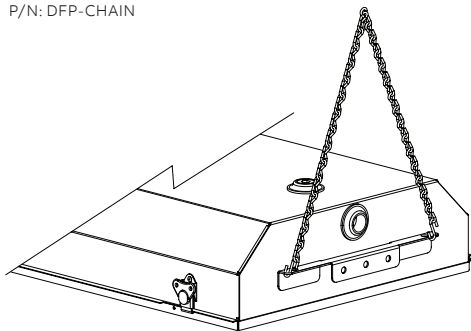
Dimensions



Mounting options

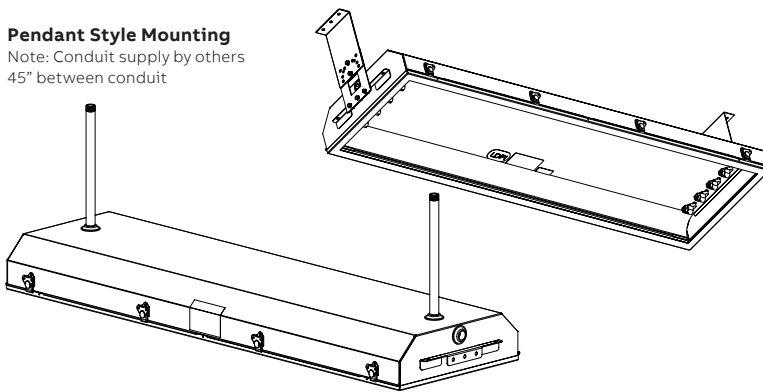
Chain Kit

P/N: DFP-CHAIN



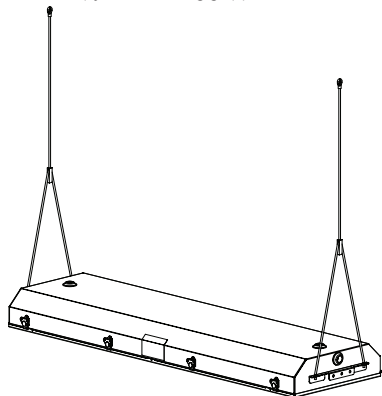
Pendant Style Mounting

Note: Conduit supply by others
45° between conduit



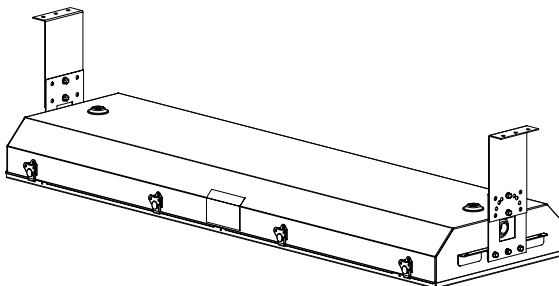
Cable Hang Kit

P/N: DFP-CABLE (zinc coated), Qty 2 cables with toggle ends and qty 2 self locking gripples



Adjustable Surface Mounting Bracket Kit

P/N: DFP-SURFACE (galvanized), toggle ends and qty 2 self locking gripples



Hazlux® 6 DFP LED

Numbering system



Lighting fixture						Mounting options
DFPLED	S	5K	2	UN	PFT	A
1	2	3	4	5	6	7

01. Lighting Fixture

Part	Part number	Description
1 Fixture Series	DFPLED	Hazlux® Vapor / Dust Proof Lighting
2 Ballast Factor	L	Low Ballast Factor
	S	Standard Ballast Factor
3 Colour Temperature	4K	4000K
	5K	5000K
4 Lamp Quantity	2	2 lamp configuration, 4' length
	3	3 lamp configuration, 4' length
	4	4 lamp configuration, 4' length
	5	5 lamp configuration, 4' length
	6	6 lamp configuration, 4' length
5 Voltage	UN	Universal Voltage 120-277 50/60 Hz
	34	347 Volt
6 Hub	PFT	1/2" NPT hubs on top and side

02. Mounting options

Part	Part number	Description
7 Mounting type	KH	Adjustable Mounting Brackets for Surface Mount
	CX	Cable Mount (with 5' cable)
	PW	3 Wire Whip
	WG	Wire Guard
	F	Fusing
	A	Acrylic Lens
	P	Polycarbonate Lens

Ordering form

Type:

Catalogue number:

Notes:

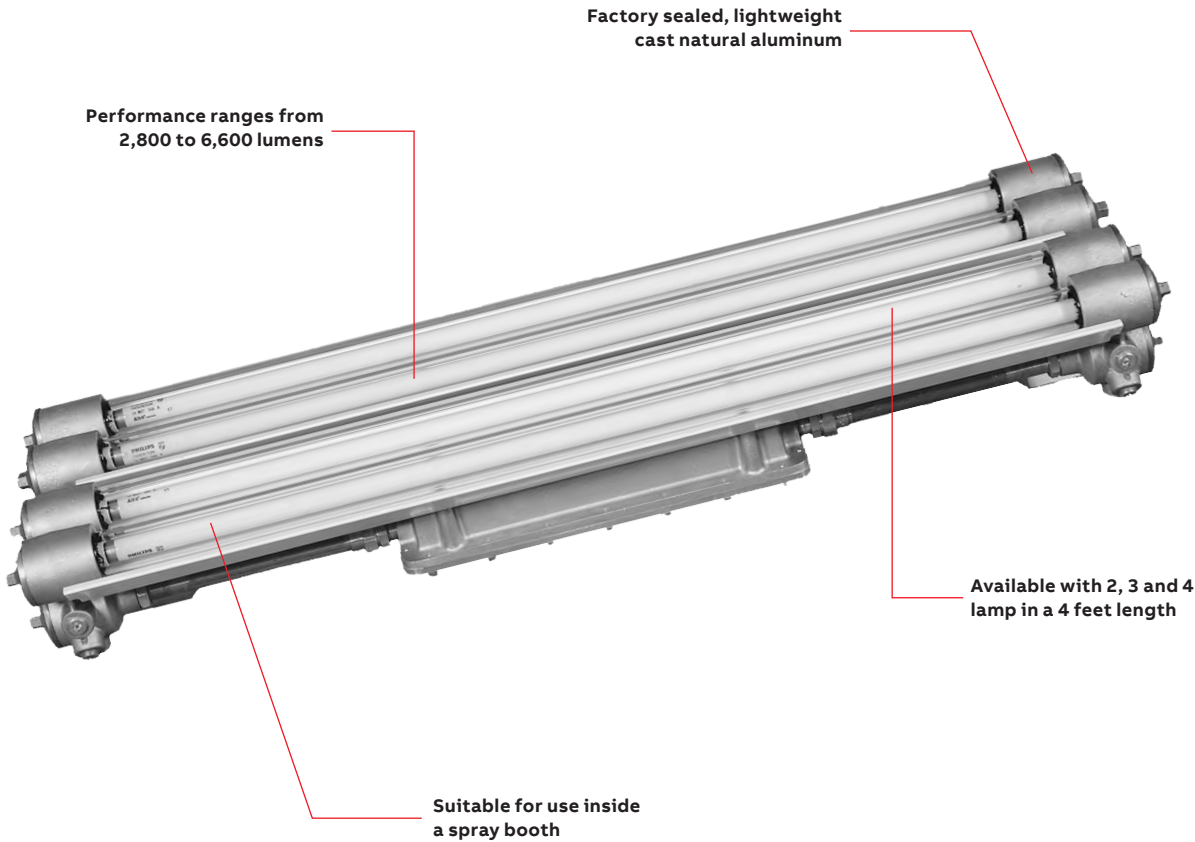
Hazlux® 7 XFM LED

A versatile lightweight explosion proof lighting that is built to last. Can be mounted on walls, ceilings or inside a spray booth.

CLASSIFICATION

CLASS 1	
Division 1	Groups C, D
Division 2	Groups A, B, C, D
Zone 1	Groups IIB, IIA
CLASS II	
Division 1	Group E, F, G
Division 2	Group E, F, G
CLASS III	
CLASSE I and II Simultaneous Presence	

Contact your Thomas & Betts sales representative to verify classification



CERTIFICATIONS



CSA 22.2 No. 137
CSA 22.2 No. 250.0
CSA 22.2 No. 250.13



UL 1598A
UL 1598 Wet/Damp
UL 844 Paint Spray
UL8750



Hazlux® 7 XFM LED

Key features & benefits

Standard Features

- Factory sealed, lightweight cast natural aluminum
- 5 Different 1/2" NPT hubs entries at each end
- Center ballast placement for better balanced and low profile
- Available with 2, 3 and 4 lamp in a 4 ft length
- One piece painted aluminum reflector
- Suitable for use inside a spray booth

Construction

- Cast natural aluminum
- .189" wall Borosilicate glass tubes

Electrical

- Available with low or standard ballast factor
- Wattage ranging from 25W in the 2 lamp low ballast factor, to 58W in the 4 lamp standard ballast factor configuration (see wattage table below)
- Voltage of 120 to 277 (50/60Hz) and 347 available

Options

- Wall and ceiling mount kit (4 lamps)
- Wire guard
- Polycarbonate shield
- 93% reflective premium specular reflector insert

Accessories

- Wall, ceiling and drop mount kit

Performance

Lamp qty.	Source (ballast factor)	Average system watts	Initial lumen output	Colour temperature
2 Lamp	L - Low	25	2800, 2900	4000K, 5000K
	S - Standard	29	3200, 3300	4000K, 5000K
3 Lamp	L - Low	37.5	4200, 4350	4000K, 5000K
	S - Standard	43.5	4800, 4950	4000K, 5000K
4 Lamp	L - Low	50	5600, 5800	4000K, 5000K
	S - Standard	58	6400, 6600	4000K, 5000K

T-Ratings

Model	Rated ambient degree C	Class I, Division 1 Groups C, D	Class I, Division 2 Groups A, B, C, D	Class II, Division 1 Groups E, F, G	Class II, Division 2 Groups E, F, G	Class 1 and II simultaneous presence
XFMLED	40°C	T6 (85°C)	T6 (85°C)	T4 (135°C)	T4 (135°C)	T4 (135°C)

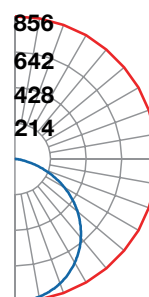


Photometry Ceiling Mount

Reference data

Catalogue number	XFMLED5K24UN
Luminaire Lumens	3,024 Lumens (2 Lamps)
Luminaire Efficacy Rating (LER)	105
Input watt	28.68
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.40
Spacing Criterion (Diagonal)	1.48

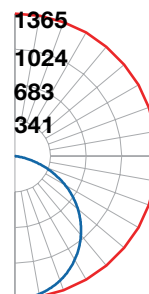
Candlepower curve



Reference data

Catalogue number	XFMLED5K34UN
Luminaire Lumens	4,803 Lumens (3 Lamps)
Luminaire Efficacy Rating (LER)	110
Input watt	43.72
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.40
Spacing Criterion (Diagonal)	1.48

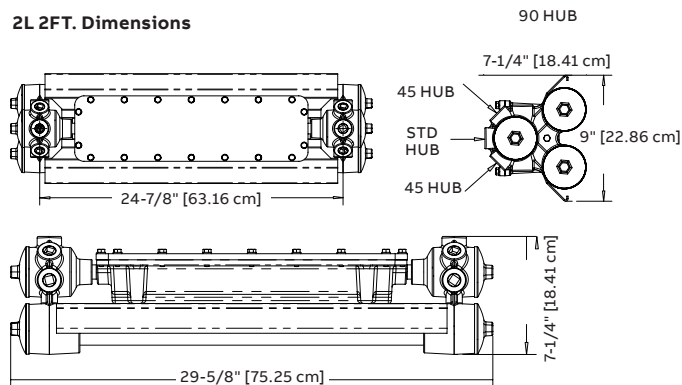
Candlepower curve



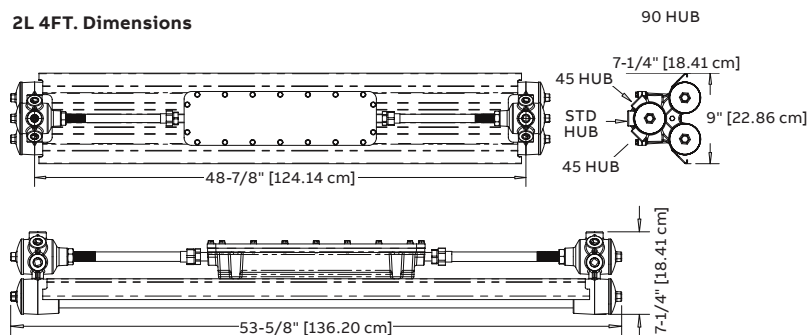
Hazlux® 7 XFM LED

Dimensions

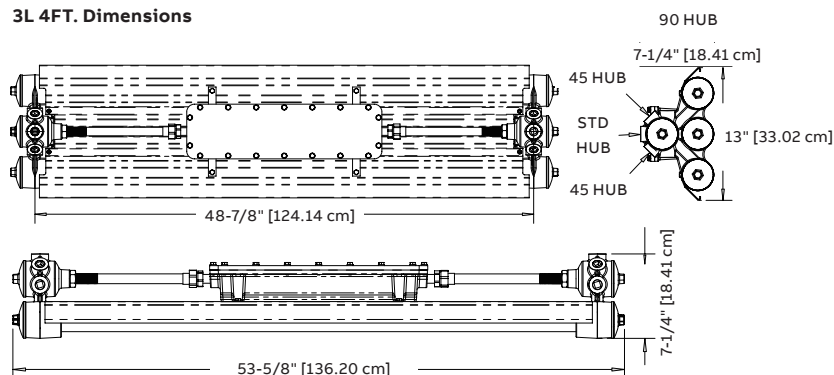
2L 2FT. Dimensions



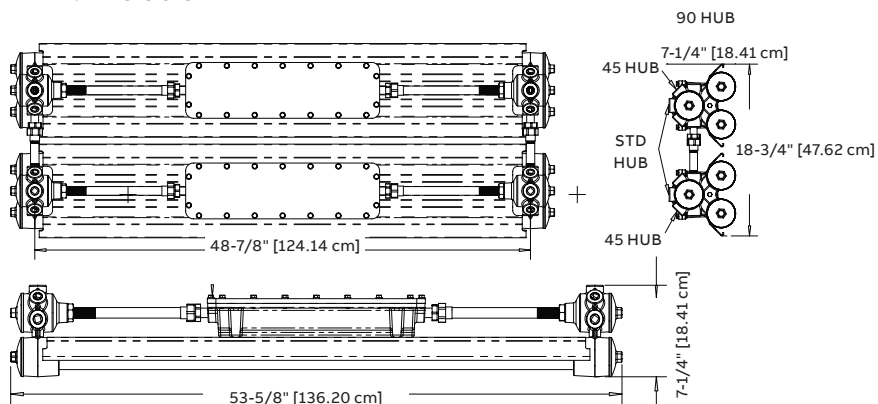
2L 4FT. Dimensions



3L 4FT. Dimensions



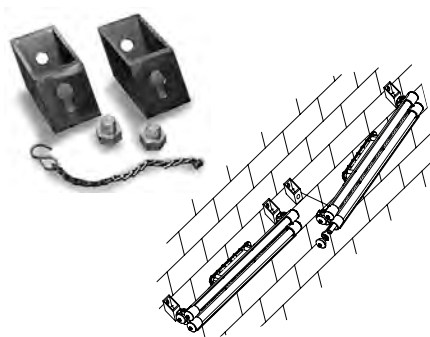
4L 4FT. Dimensions



Mounting options

Wall/Ceiling mount kit for 2 or 3 lamps

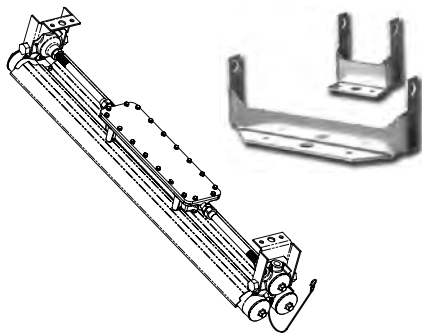
P/N: XFM-4401



Wall/Ceiling mount kit for 4 lamps

P/N: XFM-4400

These are factory fitted please contact sales office for further details.

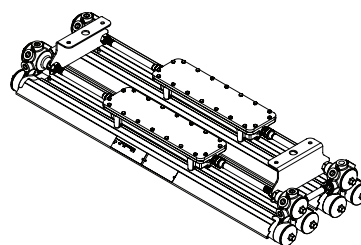


Drop mount kit for 2 or 3 lamps

P/N: XFM-4405

For 4 lamps

P/N: XFM-4403



Hazlux® 7 XFM LED

Numbering system



Lighting fixture						Options
XFMLED	S	5K	2	4	UN	P
1	2	3	4	5	6	7

01. Lighting Fixture

Part	Part number	Description
1 Fixture Series	XFMLED	Hazlux® Vapor / Dust Proof Lighting
2 Ballast Factor	L	Low Ballast Factor
	S	Standard Ballast Factor
3 Colour Temperature	4K	4000K
	5K	5000K
4 Lamp Quantity	2	2 lamp configuration, 4' length
	3	3 lamp configuration, 4' length
	4	4 lamp configuration, 4' length
5 Length	4	4' length
6 Voltage	UN	Universal Voltage 120-277 50/60 Hz
	34	347 Volt

02. Options

Part	Part number	Description
7 Options	P	Polycarbonate Shield
	WK	Stainless Steel Guard (not for sure in paint spray applications)
	MK	Wall/Ceiling Mount Kit (4 lamps)

Ordering form

Type:

Catalogue number:

Notes:

WNL LED

A durable and robust linear luminaire designed to replace conventional fluorescent fixtures in industrial, commercial and tunnel applications.

CLASSIFICATION

CLASS 1	
Division 2	Groups A, B, C, D
Zone 2	Group IIC
CLASS II	
Division 2	Group F, G
Zone 22	Group IIB
CLASS III	

Contact your Thomas & Betts sales representative to verify classification



CERTIFICATIONS



UL 1598
UL 1598A

WNL LED

Key features & benefits

Features

- 100% field serviceable
- Minimum CRI of 70
- Up to 115 lumen/watt delivered
- -40 to +46°C operating range
- IP66 vented enclosure

Finish

- Powder coated end caps
- Polycarbonate lens resistant to impacts with an integral hinge part of the fixture
- Ideal for dirty, wet and corrosive environments

Housing

- Copper-free high-pressure die-cast aluminum end-caps and extruded aluminum body
- Suitable for wet locations (IP67)
- Lens and case are designed to withstand severe impact and vibration
- Vented enclosure eliminates pressure differentials and ensures reliable sealing
-

Output

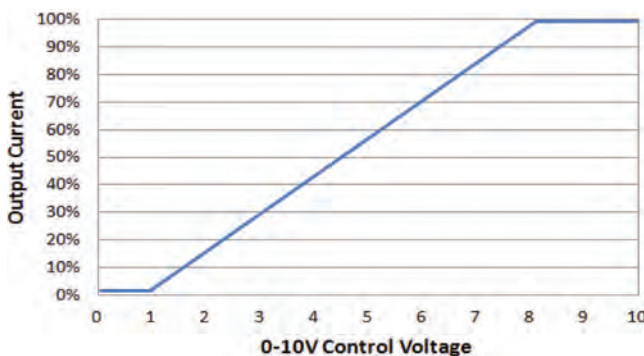
- 3,970 up to 14,313 lumens
- 0-10V dimmable

Mounting

- Versatile brackets allow for several mounting styles:
 - Surface mount
 - Suspended mount
 - Angle adjustable mount

Dimming

Driver will source a maximum of 200 uA for control needs. A controller must sink current from 0-10V control leads.

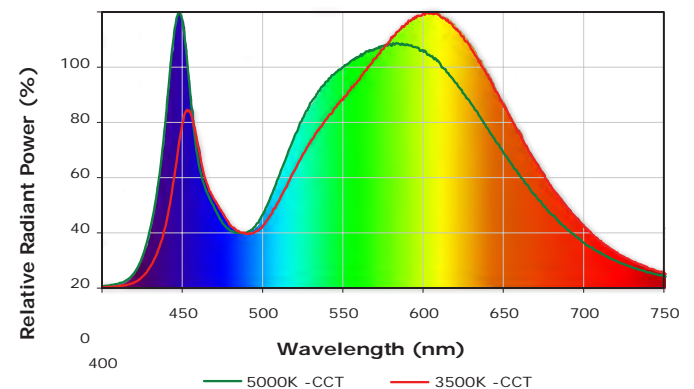


Applications

Tunnels
Interior fluorescent replacement
Loading docks

Colour temperature

Available standard in 3,500K and 5,000K colour temperatures, with additional colour temperatures available from 2,700 to 6,500K.



Light Engine

- Metal core PCB
- Fault tolerant and fail-over design ensures reliability and resilience to damage

Nichia LEDs

- Proven reliability
- High efficiency
- High CRI (70+)
- Available standard in 3,500K and 5,000K with additional custom choices from 2,700K to 6,500K available for special order

Power Supplies

- Two input power ranges for flexibility
- Over voltage, over temperature, and short circuit protection
- Built in JB with 3/4" NPT entry for electrical termination within sealed cavity
- Battery backup available on certain models for emergency lighting
- Transient/surge protection: IEEE C62.41 4kV/4kV

WNL LED
Mounting options

Surface mount



Suspended mount



Two 6.5mm x 10 mm slots on each end for suspension hardware (not provided).

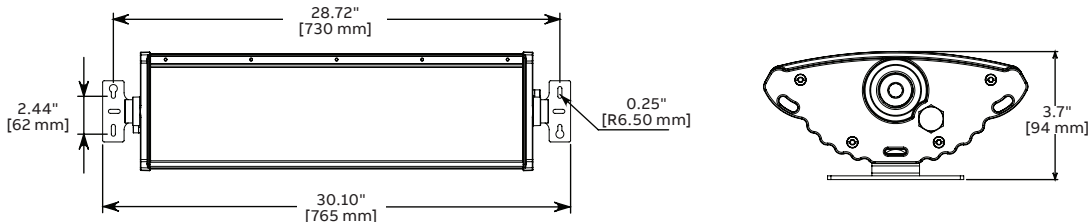
Angle adjustable mount (optional)



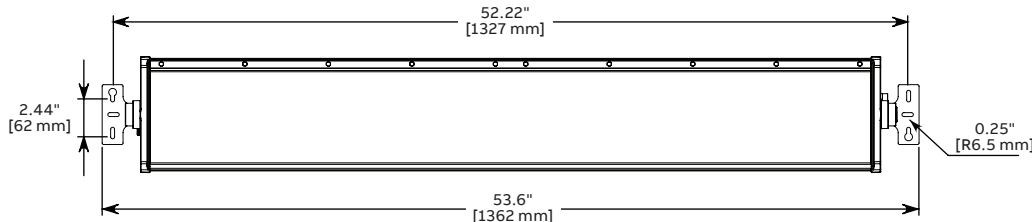
Easy field 360° angle adjustment with 3mm Hex Key.

Surface/Suspended Mount (Optional accessory) NL2 : 5.1 kg | 11.3 lbs NL4 : 10 kg | 22 lbs

WNL2 - Surface Mount 5.3 kg | 12 lbs (included standard)
304 Stainless Steel

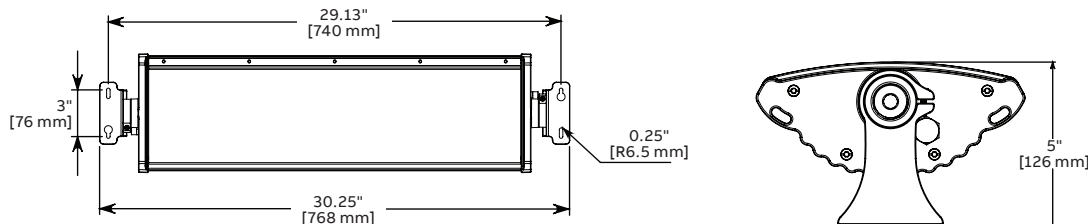


WNL4 - Surface Mount 8.6 kg | 19 lbs (included standard)
304 Stainless Steel

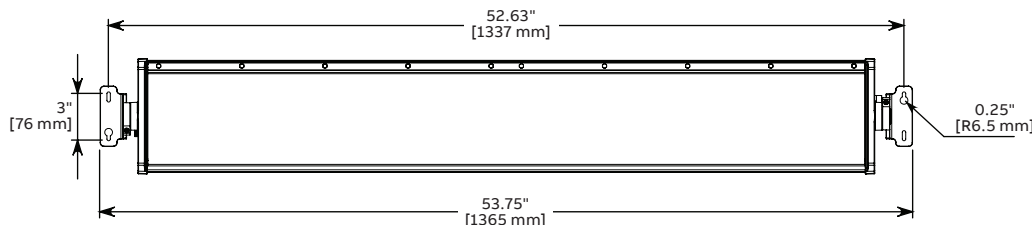


Adjustable Mount (WNL-AM) NL2 : 5.1 kg | 11.3 lbs NL4 : 10 kg | 22 lbs

WNL2 - Angle Adjustable Mount (WNL-AM) 5.3 kg | 12 lbs (optional accessory)



WNL4 - Angle Adjustable Mount (WNL-AM) 8.6 kg | 19 lbs (optional accessory)



WNL LED

Fixture comparison

Size	T12				T8				T5							
	4 foot		8 foot		4 foot		8 foot		4 foot							
Length																
Rating	Standard		Standard	High output	Standard		High output	Standard	High output	Standard		High output				
Lamp quantity	2-Lamp	4-Lamp	2-Lamp	2-Lamp	2-Lamp	4-Lamp	6-Lamp	2-Lamp	2-Lamp	2-Lamp	2-Lamp	4-Lamp	6-Lamp	2-Lamp	4-Lamp	
Est. power	74	133	158	237	62	112	184	86	112	153	59	118	117	120	240	
Est. lumens LED cross	3,200	6,400	6,000	8,100	3,200	6,400	8,600	4,300	8,800	9,100	3,200	6,400	9,600	6,600	13,200	
Model	Lumens															
WNL2-S	3,970	X			X			X			X					
WNL2-H	5,143	X														
WNL2-X	7,965	X		X		X							X		X	
WNL4-S	8,697	X		X		X		X		X			X		X	
WNL4-H	10,470	X														
WNL4-X	14,313	X														

Numbering system

Lighting fixture

WNL4	X	WC	GY	50		AC	HL	
1	2	3	4	5	6	7	8	9

01. Lighting Fixture

Part	Part number	Description
1 Model	WNL2	2 foot
	WNL4	4 foot
2 Output	S	Standard
	H	High Output
	X	Extra High Output (not available with NL4)
3 Optic	WC	Wide (no optics)
4 Finish	GY	Grey
5 Colour	50	Cool White
	35	Warm white
6 Mount		General location
	AM	Adjustable mount
7 Power	AC	120 to 277VAC
	HV	347VAC to 480VAC
8 Location	HL	Hazardous location
9 Market		Canadian market
	US	US market

Ordering form

Type:

Catalogue number:

Notes:



LGS LED

Light weight, extremely durable and water-tight linear strip fixtures to withstand the most demanding hazardous location environments.

CLASSIFICATION

CLASS 1	
Division 2	Groups A, B, C, D
Zone 2	Group IIC
CLASS II	
Division 2	Group F, G
Zone 22	
CLASS III	

Contact your Thomas & Betts sales representative to verify classification



CERTIFICATIONS



UL 844
UL 1598
UL 2108
UL 8750

LGS LED

Key features & benefits

Mounting

- Fixture has two mount options:
- End brackets that allow for easy field adjustable 360° rotation
- Carriage bolts for mounting to surfaces

Housing

- Extruded aluminum and copper free aluminum casting
- MIL-SPEC Hard Anodizing (Body) and super-durable powdercoat (End Caps) suitable for rugged outdoor environments
- Custom brackets available upon request
- Polycarbonate lens that is designed to withstand severe impacts

CREE LEDs

- Proven reliability
- High efficiency
- Superior CRI
- Available in standard 5,000K and 3,500K with custom colour and dual colour options available for special order

Power supplies

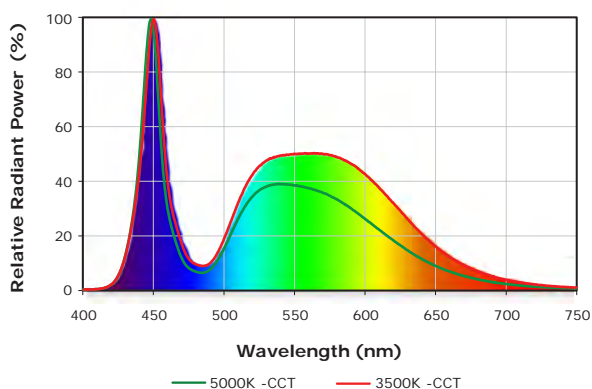
- Utilizes high performance LED drivers for better efficiency and up to 100,000 hours of maintenance-free operation
- 12V or 24V DC input options can run directly off of vehicle or facility low voltage DC
- REFLECTOR
- High efficiency internal reflector maximizes output

Thermal management

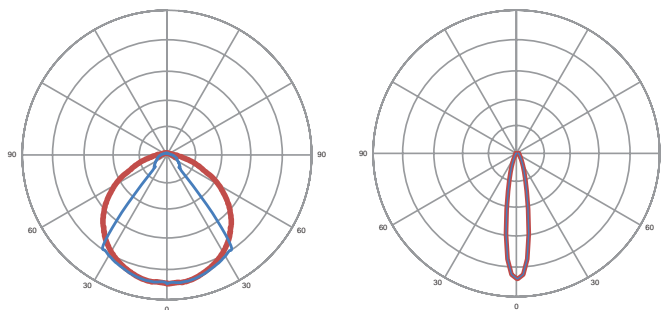
- Heat-sink designed for optimal heat dissipation

Colour temperature

Available standard in 5,000K, with additional colour temperatures available from 2,700 to 6,500K.



Optic options



W - Wide 100°

Model	Lumen output (CW)
LGS-1	586
LGS-2	1172
LGS-3	1758
LGS-4	2289

N - Narrow 30° (DC Only)

Model	Lumen output (CW)
LGS-1	559
LGS-2	1118
LGS-3	1677
LGS-4	2236

Light engine

- Metal Core PCB (MCPCB)
- Modular Optics
- Linear drive circuits used in DC versions produce no flicker or high frequency electronic noise
- AC units produce light at 120Hz with no visible flicker and no high frequency switching noise

Reflector

- High efficiency internal reflector maximizes output

Electronics enclosure

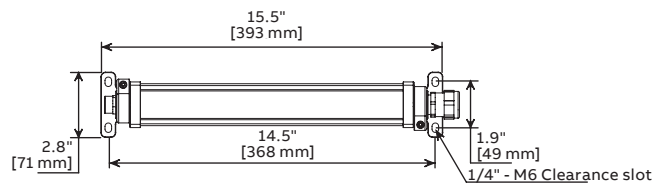
- Direct transfer of heat from PCB to the casing to maximize lifetime and reliability
- Suitable for wet location
- Unique case design utilizes compression for sealing and eliminates fasteners on the front face



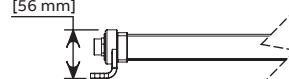
LGS LED

Dimensions

LGS-1 0.8 kg | 1.8 lbs



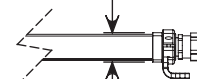
2.2" [56 mm]



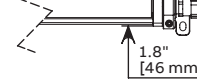
2.8" [71 mm]



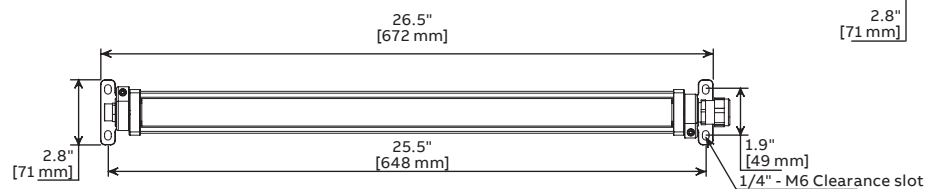
1.3" [34 mm]



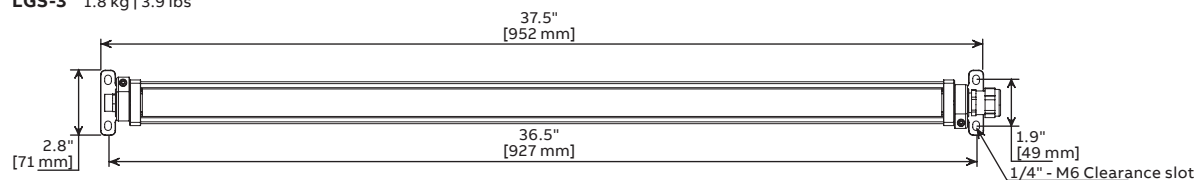
1.8" [46 mm]



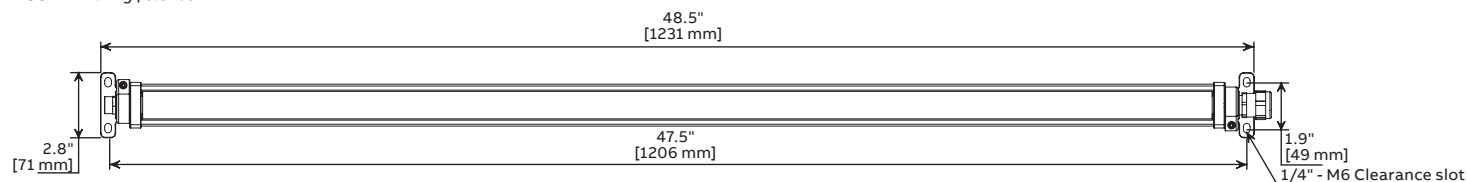
LGS-2 1.2 kg | 2.6 lbs



LGS-3 1.8 kg | 3.9 lbs



LGS-4 2.4 kg | 5.3 lbs

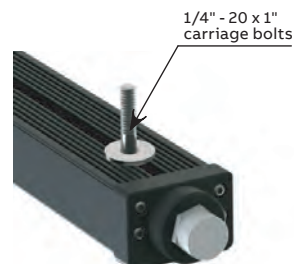


Mounting options

A - Adjustable mounting bracket



B - Carriage bolt/surface mount



Custom options

Wiring

Other wire lengths available in 30 cm (1 ft) increments (general location only)

LGS LED

Numbering system



Lighting fixture

LGS-1	W	BLK	C	A	12	HL	
1	2	3	4	5	6	7	8

01. Lighting Fixture

Part	Part number	Description
1 Model	LGS-1	586 to 559 Lumens
	LGS-2	1118 to 1172 Lumens
	LGS-3	1677 to 1758 Lumens
	LGS-4	2236 to 2289 Lumens
2 Optic	W	Wide 100°
	N	Narrow 30° (DC version only)
3 Finish	BLK	Black
4 Colour	C	Cool White
	W	Warm White
5 Mount	A	Adjustable
	B	Carriage bolt
6 Power	12	11-16VDC
	24	21-28VDC
	120	120VAC
7 Location	HL	Hazardous location
8 Market		Canadian market
	US	US Market

Ordering form

Type:

Catalogue number:

Notes:

Hazlux® 8

FDL

An energy-efficient broad-beamed, high-intensity flood light designed to be used in hazardous, marine or low-bay outdoor conditions.

CLASSIFICATION

CLASS 1	
Division 2	Groups A, B, C, D
CLASS II	
Division 2	Group F, G

Contact your Thomas & Betts sales representative to verify classification

Selection of mounting styles

- Ceiling
- Pendant
- Yoke
- Wall
- Stanchion
- Angled stanchion

Multiple distribution patterns, type V



Designed for outdoor, hazardous, marine, low-bay and flood applications

50W (6400 lumens)
80W (9000 lumens)
105W (11000 lumens)

CERTIFICATIONS



UL 1598
UL 844



Hazlux® 8 FDL

Key features & benefits

Features

- Energy efficient alternative to hazardous location Metal Halide and High Pressure Sodium
- Designed for outdoor, hazardous, Marine, low-bay and flood applications
- Gray powder coat finish
- Multiple distribution patterns, Type V
- Selection of Frosted film, 16°, 70° or 120° Lens
- CCT of 5000K
- Selection of mounting style
- Tamper-proof screws
- > 120,000 hours Rated Lifetime Projection (L70)

Construction

- Cooper-free cast aluminum housing
- Captive stainless steel fasteners and insert
- 24 high-power LED's

Electrical

- 50W (6400 Lumens), 80W (9000 Lumens), 105W (11000 Lumens)
- 120-277V
- 277-480V (6400 Lumens only)

Options

- Mounting: Ceiling, Pendant, Yoke, Wall, Straight or Angled Stanchion
- Cord with Blunt End
- Lens Guard
- Black or White finish

Thermal Performance Data

Model	Rated Ambient oC	Class I, Div 2 Operating Temperature Code	Class II, Div 2 Operating Temperature Code
FDL05	50°C	T3C (160°C)	T5 (100°C)
FDL08	50°C	T3C (160°C)	T5 (100°C)
FDL10	50°C	T3C (160°C)	T5 (100°C)

Photometry

Reference data

Catalogue number	FDL10UNC1-N
Luminaire Lumens	12,059
Input Watt	106.6
NEMA Type	2 H x 2 V
Maximum Candela	117901
Maximum Candela Angle	0H 0V
Horizontal Beam Angle (50%)	15.3
Vertical Beam Angle (50%)	15.2
Horizontal Field Angle (10%)	28.6
Vertical Field Angle (10%)	28.3

Axial Candela Display

117901

88426

58951

29475

V

H

Reference data

Catalogue number	FDL10UNC1-M
Luminaire Lumens	10,714
Input Watt	106.1
NEMA Type	6 H x 6 V
Maximum Candela	9539.4
Maximum Candela Angle	0H 0V
Horizontal Beam Angle (50%)	68.2
Vertical Beam Angle (50%)	68.2
Horizontal Field Angle (10%)	100.1
Vertical Field Angle (10%)	100.5

Axial Candela Display

9539

7155

4770

2385

V

H

Reference data

Catalogue number	FDL10UNC1-W
Luminaire Lumens	11,025
Input Watt	107
NEMA Type	6 H x 6 V
Maximum Candela	4241
Maximum Candela Angle	0H -47.5V
Horizontal Beam Angle (50%)	87.3
Vertical Beam Angle (50%)	120.2
Horizontal Field Angle (10%)	106.4
Vertical Field Angle (10%)	129.6

Axial Candela Display

4241

3181

2121

1060

V

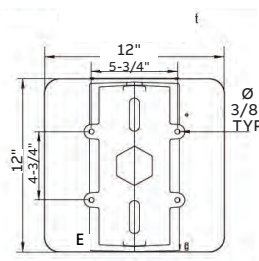
H



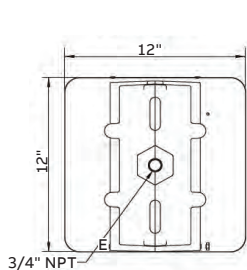
Hazlux® 8 FDL

Dimensions

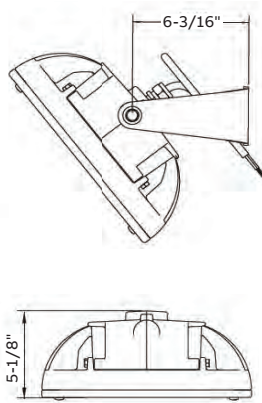
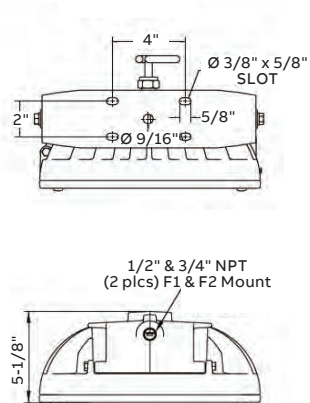
C1 and C2 Ceiling Mount (ceiling spacers provided)



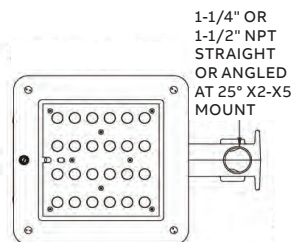
P2 Pendant Mount



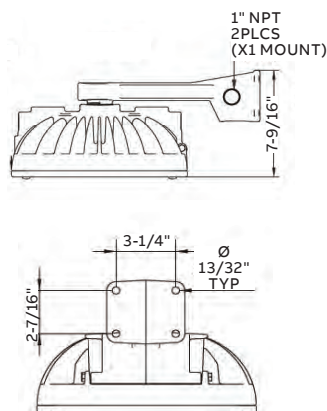
Y1 Yoke Mount



L4-S4 L5-S5 Wall/ Stanchion Mount



B3 Mount



Numbering system

Lighting fixture

FDL	10	UN	Y1	M	LG
1	2	3	4	5	6

01. Lighting Fixture

Part	Part number	Description
1 Fixture Series	FDL	Hazlux® Floodlights LED Class I Div 2
2 Lumen	05	6,400 Lumen (50 Watts)
	08	9,000 Lumen (80 Watts)
	10	11,000 Lumen (105 Watts)
3 Voltage	UN	120-277 V
	UN2	277-480 V (on 05 model only)
4 Mounting Style	C1	Ceiling 1/2"
	C2	Ceiling 3/4"
	P2	Pendant 3/4"
	Y1	Yoke Mount 1/2"
	B3	Wall Mount 1"
	L4	Stanchion 1-1/4"
	S4	Angled stanchion 1-1/4"
	L5	Stanchion 1-1/2"
	S5	Angled stanchion 1-1/2"
5 Optics	F	Frosted film
	N	Narrow 16° FWHM
	M	Medium 70° FWHM
	W	Wide 120° FWHM
6 Options	LG	Lens Guard
	PW	Pre-wired 3' cord with blunt end (Y1 mount only)
	GRY	Gray powder coat finish
	BLK	Black powder coat finish
	WHT	White powder coat finish

Ordering form

Type:

Catalogue number:

Notes:



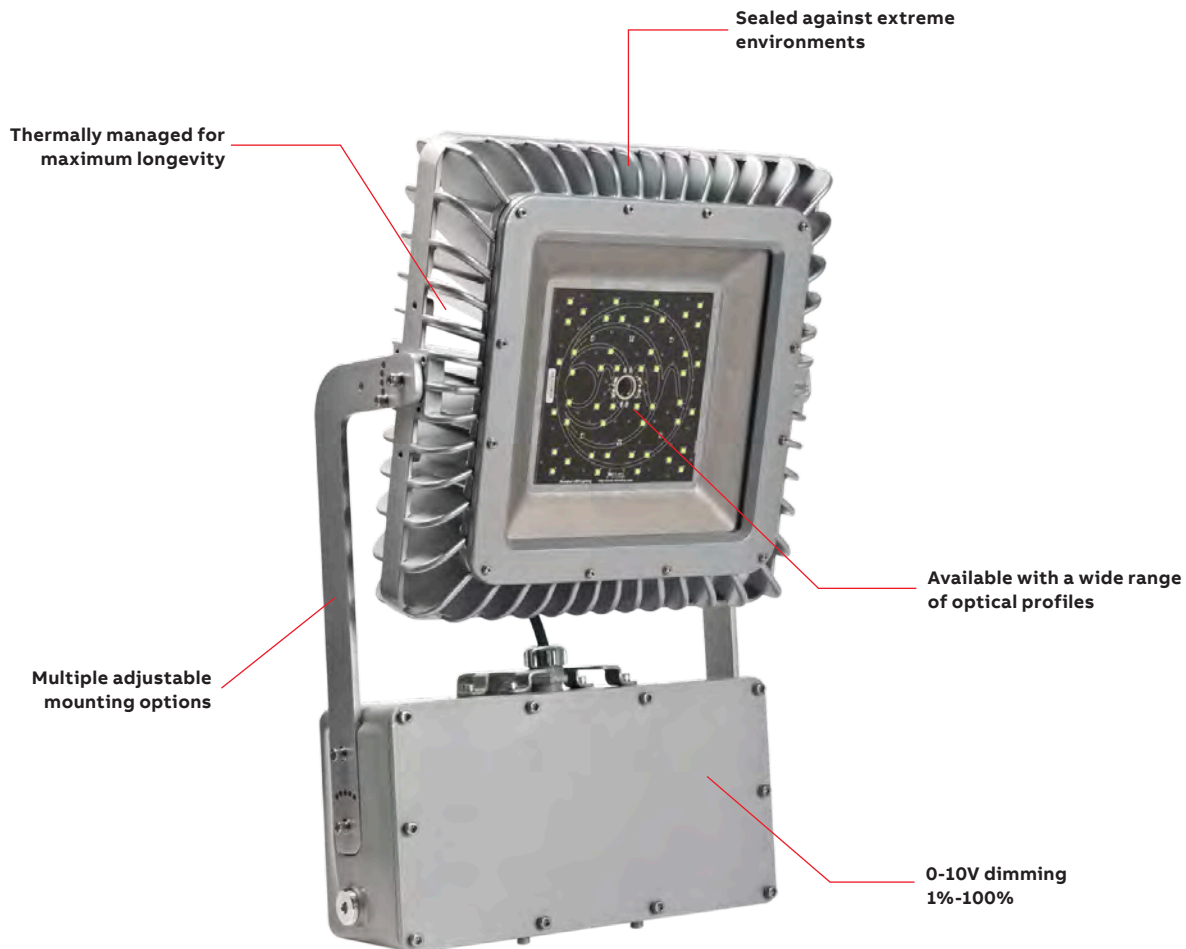
HRS LED

An adjustable, adaptable and versatile LED luminaire to replace and exceed the performance of the traditional 400W fixture in hazardous locations.

CLASSIFICATION

CLASS 1	
Division 2	Groups A, B, C, D
Zone 2	Groups IIC
Zone 22	
CLASS II	
Division 2	Group F, G
CLASS III	

Contact your Thomas & Betts sales representative to verify classification



CERTIFICATIONS



Not all DL Series are DLC qualified.
For all qualified products, please visit: www.designlights.org/qpl



UL 844
UL 1598
UL 1598A



HRS LED

Key features & benefits

Features

- Extremely robust
- Thermally managed for longevity
- Easy angle adjustment in the field
- Up to -40°C to +55°C ambient temperature range
- Lifespan up to 100,000 hours
- Sealed to IP66 and Marine Rated

Output

- 9908 to 28,560 lumens
- Standard 5000K colour temperature
(Additional colour temperatures available)

CREE LEDs

- Proven reliability
- High efficacy
- Superior CRI

Light Engine

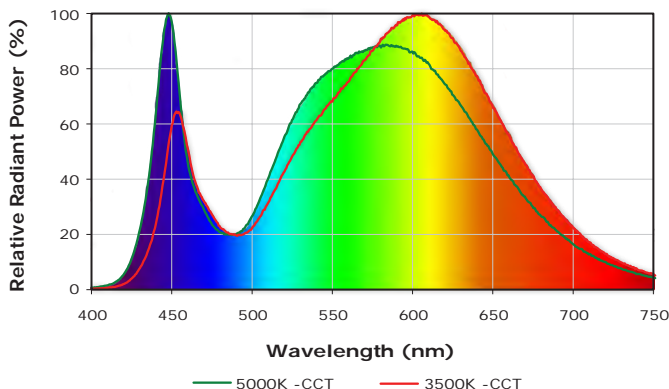
- Metal core PCB (MCPCB) with CREE LEDs
- Fault tolerant and fail-over design ensures reliability and resilience to damage

Junction Box

- Direct heat transfer from power supply to external case for optimal performance
- Plenty of wiring space for optional accessories (Contact for custom options)
- Four 3/4" NPT entries
- IP66 environmental protection

Colour temperature

Available standard 5,000K, with additional colour temperatures available from 2,700 to 6,500K.



Applications

- High-mast lighting
- High bay lighting
- Indoor lighting
- Tunnel lighting
- Industrial and hazardous location facilities
- Exterior/Interior marine applications

Power Supplies

- Built-in Temperature Control Module
- Utilizes industry leading LED drivers for high efficacy and long term durability for up to 100,000 hours of maintenance free operation

Thermal Management

- Ample surface area of head ensures LEDs are kept running at max efficacy, even in +55°C environments.
- Head is separate from Junction Box to further optimize thermal management
- Perimeter band adds ruggedness for hazardous locations and channels heat through fins with laminar flow principles



HRS LED

Key features & benefits

Bracket

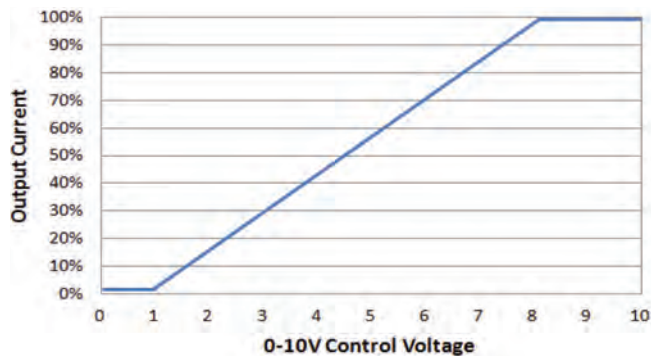
- Versatile bracket allows ceiling surface-mount and wall pack style mounting
- Standard with every High Bay and Wall Pack version
- 2-3/8" Pole mount available

Housing

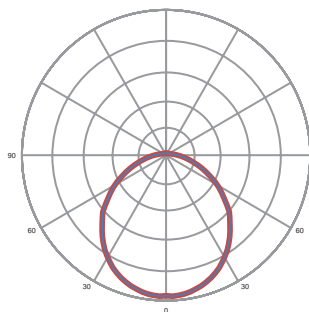
- Copper-free high pressure die-cast aluminum fixture head and box
- Polyester powder coating for protection
- Additional four 1/4"-20 mounting holes on back of head for custom applications

Optic options

Driver will source a maximum of 200 uA for control needs. A controller must sink current from 0-10V control leads.

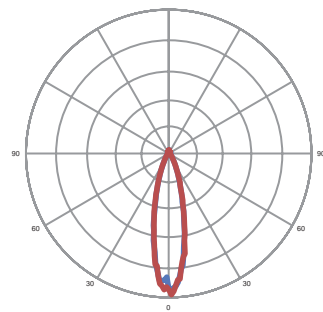


Optic options (standard offering)



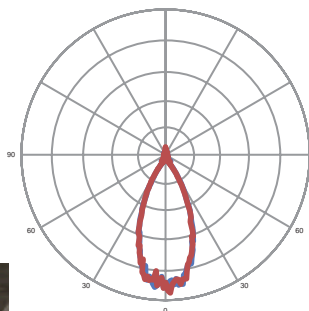
WF - Wide Beam (no optics)

Model	Lumens
HRS10	11000
HRS15	16420
HRS20	18557
HRS25	25112
HRS30	28560



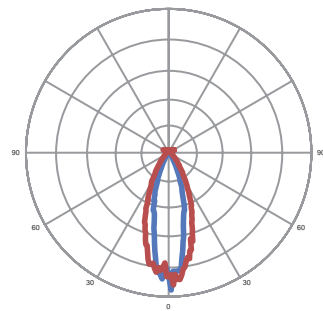
N - Narrow 25°

Model	Lumens
HRS10	9908
HRS15	14780
HRS20	18140
HRS25	NA
HRS30	NA



M - Medium 40°

Model	Lumens
HRS10	9908
HRS15	14780
HRS20	18140
HRS25	NA
HRS30	NA

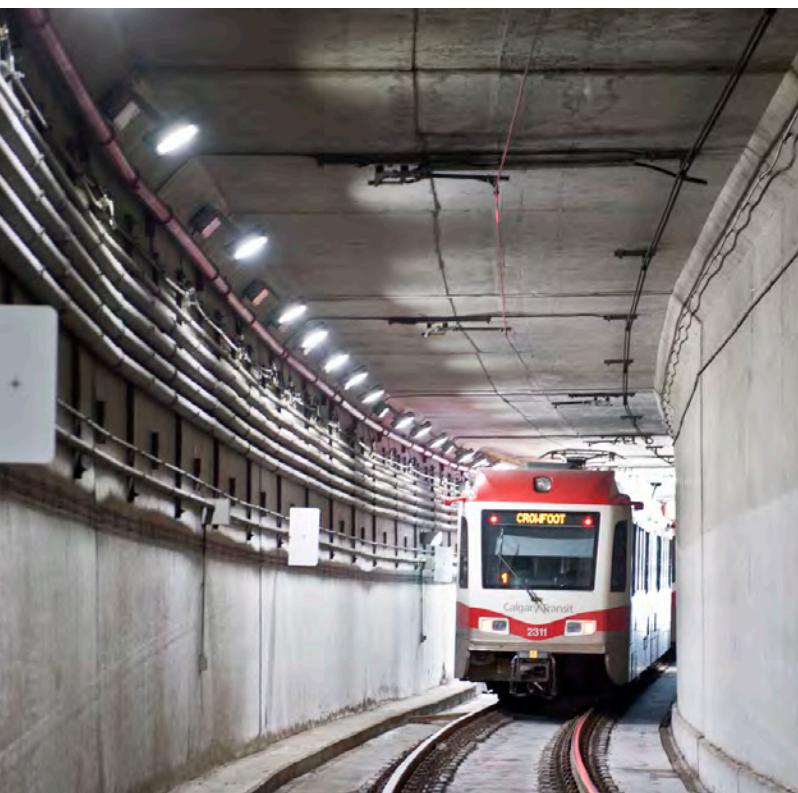
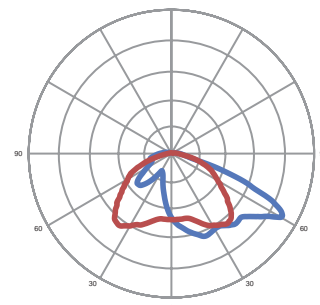


O - Oval 27° x 42°

Model	Lumens
HRS10	9908
HRS15	14780
HRS20	18140
HRS25	NA
HRS30	NA

2 - IESNA TYPE 2

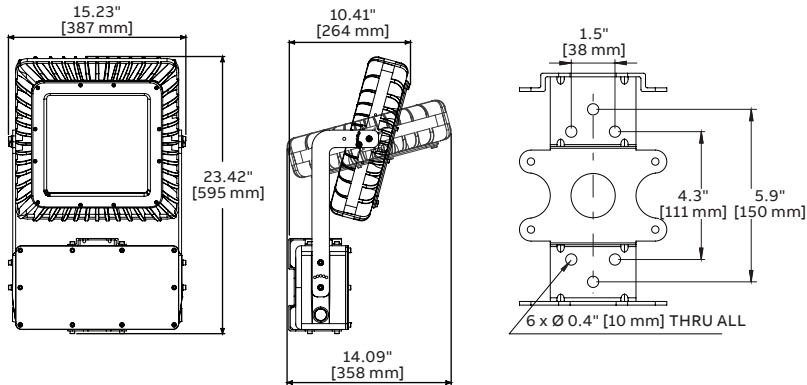
Model	Lumens
HRS10	9908
HRS15	14780
HRS20	18140
HRS25	NA
HRS30	NA



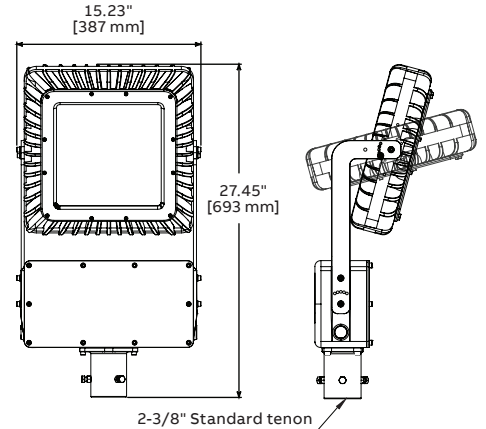
HRS LED

Mounting options

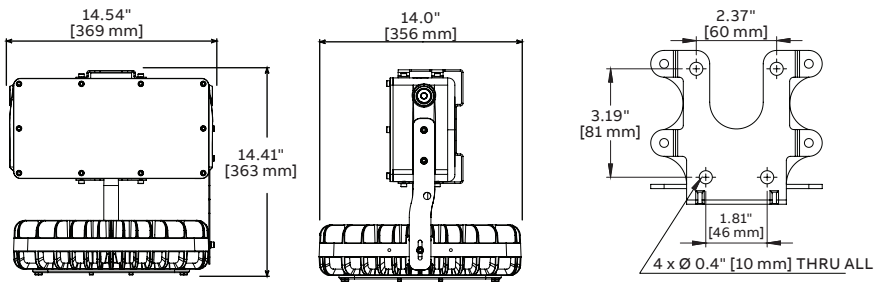
Wall Mount 16.3 kg | 36 lbs



Pole Mount 16.3 kg | 36 lbs

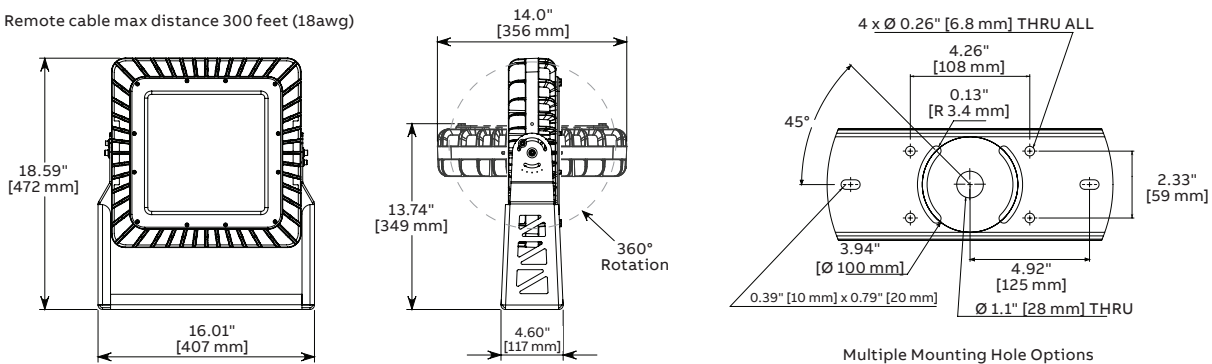


High Bay 16.3 kg | 36 lbs



Remote Mount 11.1 kg | 24.5 lbs (Head), 7.0 kg | 15.5 lbs (Power Supply) | General location only

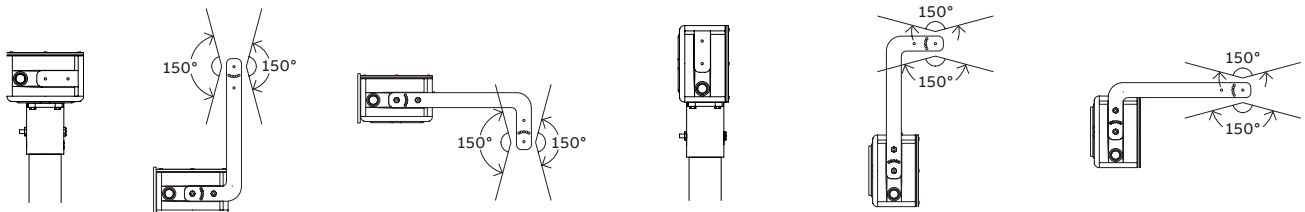
Remote cable max distance 300 feet (18awg)



Multiple Mounting Hole Options

Adjustable Brackets

Class II Division 2 orientations unable to be any further upwards than perpendicular to the horizon.



HRS LED
Numbering system



Lighting fixture							
HRS30	WF	GY	CW	WL	AC	HL	
1	2	3	4	5	6	7	8

01. Lighting Fixture

Part	Part number	Description
1 Model	HRS10	9908 to 11000 Lumens
	HRS15	14780 to 16420 Lumens
	HRS20	18140 to 18557 Lumens
	HRS25	25112 Lumens
	HRS30	28560 Lumens
2 Optic	WF	WF - Wide (No Optic)
	M	M - Medium 40° *
	N	N - Narrow 25° *
3 Finish	GY	Grey
4 Colour	CW	Cool White (5000k)
5 Mount	WL	Wall Mount
	PL	Pole Mount
	HB	High Bay
6 Power	AC	120-277VAC
	HV	347-480VAC
7 Location	HL	Hazardous location
8 Market		Canadian Market
	U	US Market

* Not available for HRS25 and HRS30

Ordering form

Type:

Catalogue number:

Notes:

Quick pole assembly

Key features & benefits

Features & benefits

- 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 steel

Quick pole assembly

- Operates in any kind of weather
- Overall length is 10' (3 m)
- Pole trade size is 1-1/2" threaded NPT
- Aluminum pole trade size is 2" threaded 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

Safety First

One person operation

No ladders or lifts required

Simplified maintenance

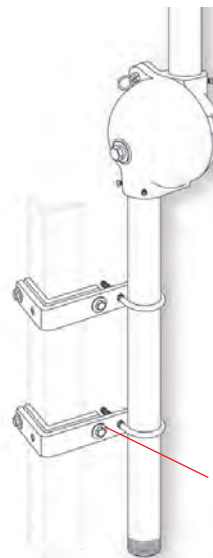
Hot dipped galvanized steel and aluminum finishes

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



Standard kit

- Overall height of 10' (3 m)
- 1-1/2" NPT treads at both ends (1-7/8" O.D. pipe)
- Rotating Quick Knuckle Assembly
- Installed with two rail Angle Iron Mounting Brackets allowing the pole section to rotate before final positioning

Q-P-5-10-N (Galvanised 1-7/8" O.D. pipe)
Q-P-A-5-10-N (Aluminum 2-3/8" O.D. pipe)
Standard Kit

Bracket sold separately



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
- Rotating Quick Knuckle Assembly
- Steel and aluminum adaptor sleeve (2"ID) fits over standard 1-1/4" NPT (1.66 OD) or 1-1/2" NPT (1.90 OD) pipe

RQ-P-5-10-N (Galvanised 1-7/8" O.D. pipe)
RQ-P-A-5-10-N (Aluminum 2-3/8" O.D. pipe)
Retrofit Kit

Customer existing pipe (not supplied)



—
 01
 The quick pole assembly
 blocks at a 90° angle.



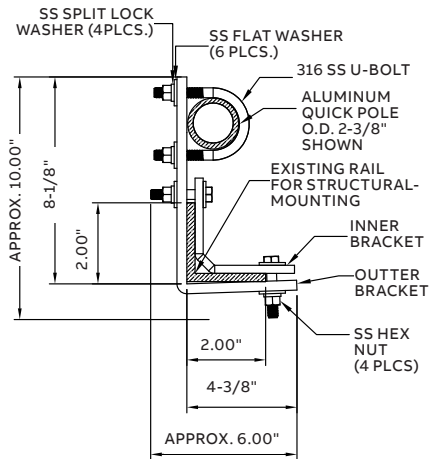
Quick pole assembly

Universal bracket kit

STAINLESS STEEL (ALUMINIUM POLE)

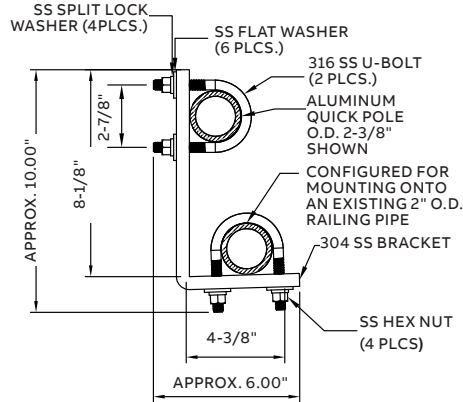
AMB-QP-A-BKT-N

Bracket for structural angle mounting



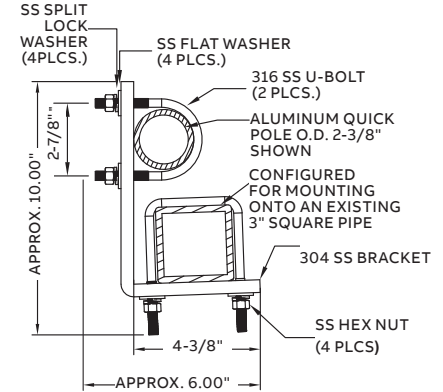
RMB-QP-A-BKT-N

Bracket for structural pole mounting



RMB-QP-A-BKT-3

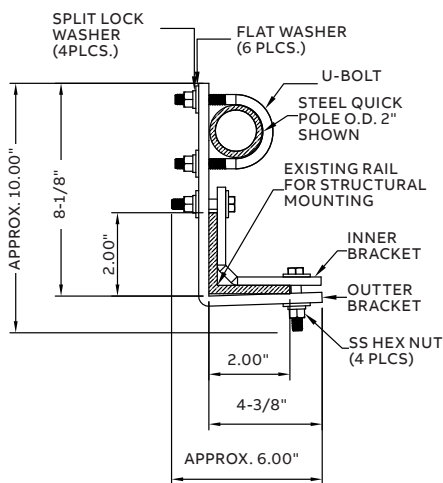
Bracket for structural square mounting



GALVANISED STEEL

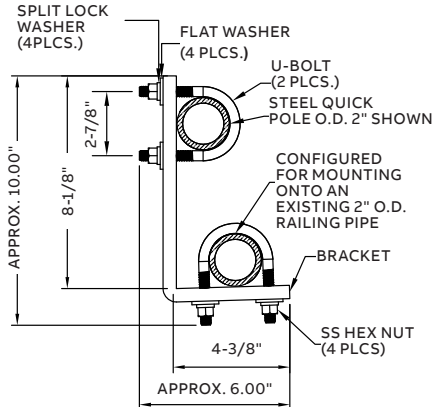
AMB-QP-BKT-N

Bracket for structural angle mounting



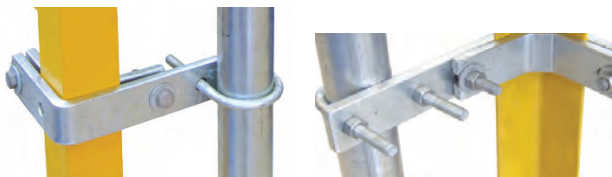
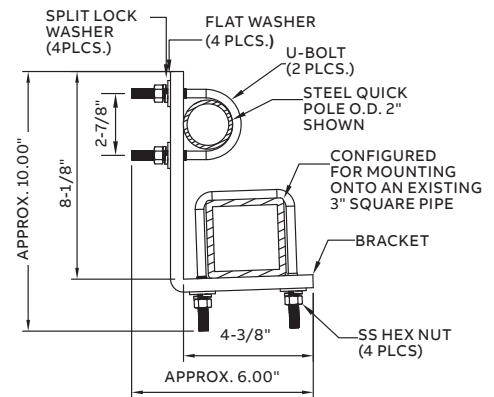
RMB-QP-BKT-N

Bracket for structural pole mounting



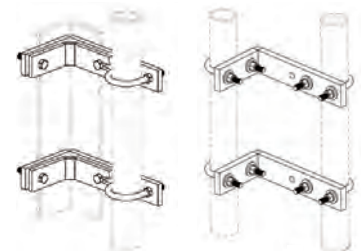
RMB-QP-BKT-3

Bracket for structural square mounting



Universal bracket kit

- Quick bolt-on installation, no welding or drilling
- Can be attached to angle iron guardrails up to 3"
- Supplied to be installed on tubular structures 2" O.D. or less but designed for up to 2-3/8" U-Bolt in both positions
- Allows the pole sections to rotate before final positioning



Hazardous locations

Classification

Areas where the possibility of explosion and fire is created by the presence of flammable gases, vapors, liquids, dust, fibers or flyings.

Class I - Gases, vapors or liquids

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 - Combustible dusts

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 & Flyings

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

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

Hazardous gases, vapors or dusts are present under normal operation conditions or during frequent repair and maintenance activity.

Groups A, B, C, 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

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

Hazardous gases, vapors or dusts are not present under normal operating conditions.

Area classification | Divisions versus Zones

Continuous Hazard	Intermittent Hazard	Hazard under Abnormal Conditions
Zone 0	Zone 1	Zone 2
Division 1		Division 2

These are simplified definitions. Complete data is in the U.S. National Electrical Code (N.E.C.) and the Canadian Electrical Code (C.E.C.)

Ignition Temperatures &
Group Classifications

Ignition Temperatures and Group Classifications for Flammable Gases and Vapors							
Material	Group	Autoignition Temperature		Material	Group	Autoignition Temperature	
		Degrees F	Degrees C			Degrees F	Degrees C
Acetaldehyde	C	347	175	Di-N-Propylamine	C	570	299
Acetic Acid	D	867	464	Diacetone Alcohol	D	1118	603
Acetic Anhydride	D	600	316	o-Dichlorobenzene	D	1198	647
Acetone	D	869	465	1,1-Dichloroethane	D	820	438
Acetone Cyanohydrin	D	1270	688	1,2-Dichloroethylene	D	860	460
Acetonitrile	D	975	524	Dicylopentadiene	C	937	503
Acetylene	A	581	305	Diethyl Benzene	D	743–842	395–450
Acrolein (Inhibited)	B (C)	455	285	Diethyl Ether	C	320	160
Acrylic Acid	D	820	438	Diethylamine	C	594	312
Acrylonitrile	D	898	481	Diethylene Glycol Monobutyl Ether	C	442	228
Allyl Alcohol	C	713	378	Diethylene Glycol Monomethyl Ether	C	465	241
Allyl Chloride	D	905	485	n-n-Dimethyl Aniline	C	700	371
Alpha-Methyl Styrene	D	1066	574	Dimethyl Formamide	D	833	455
Ammonia	D	928	498	Dimethyl Sulfate	D	370	188
n-Amyl Acetate	D	680	360	Dimethylamine	C	752	400
Aniline	D	1139	615	1,4-Dioxane	C	356	180
Benzene	D	928	498	Dipentene	D	458	237
Benzyl Chloride	D	1085	1085	Dodecene	D	491	255
1,3-Butadiene	B (D)	788	420	Du-Isopropylamine	C	600	316
Butane	D	550	288	Epichlorohydrin	C	772	411
1-Butanol	D	650	343	Ethane	D	882	472
2-Butanol	D	761	405	Ethanol	D	685	363
n-Butyl Acetate	D	790	421	Ethyl Acetate	D	800	427
n-Butyl Acrylate (Inhibited)	D	559	293	Ethyl Acetate (Inhibited)	D	702	372
Butylamine	D	594	312	Ethyl Benzene	D	810	432
Butylene	D	725	385	Ethyl Chloride	D	966	519
n-Butyraldehyde	C	425	218	Ethyl Formate	D	851	455
n-Butyric Acid	D	830	443	2-Ethyl Hexanol	D	448	231
Carbon Disulfide	*	194	90	2-Ethyl Hexyl Acrylate	D	485	252
Carbon Monoxide	C	1128	609	Ethyl Mercaptan	C	572	300
Chlorobenzene	D	1099	593	Ethylamine	D	725	385
Cresol	D	1038–1110	559–599	Ethylene	C	842	450
Crotonaldehyde	C	450	232	Ethylene Chlorohydrin	D	797	425
Cumene	D	795	424	Ethylene Dichloride	D	775	413
Cyclohexane	D	473	245	Ethylene Glycol Monobutyl Ether	C	460	238
Cyclohexanol	D	572	300	Ethylene Glycol Monobutyl Ether Acetate	C	645	340
Cyclohexanone	D	473	245	Ethylene Glycol Monoethyl Ether	C	455	235
Cyclohexene	D	471	244	Ethylene Glycol Monoethyl Ether Acetate	C	715	379
Cyclopropane	D	938	503	Ethylene Glycol Monomethyl Ether	D	545	285
p-Cymene	D	817	436	Ethylene Oxide	B (C)	804	429
n-Decanol	D	550	288	Ethylenediamine	D	725	385
Decene	D	455	235	Ethylenimine	C	608	320
Di-Isobutyl Ketone	D	745	396	2-Ethylhexaldehyde	C	375	191
Di-Isobutylene	D	736	391	Formaldehyde (Gas)	B	795	429

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

Ignition Temperatures & Group Classifications

Ignition Temperatures and Group Classifications for Flammable Gases and Vapors							
Material	Group	Autoignition Temperature		Material	Group	Autoignition Temperature	
		Degrees F	Degrees C			Degrees F	Degrees C
Fuel Oils	D	410–765	210–407	Monoethanolamine	D	770	410
Furfural	C	600	316	Monoisopropanolamine	D	705	374
Furfuryl Alcohol	C	915	490	Monomethyl Aniline	C	900	482
Gasoline	D	536–880	280–471	Monomethyl Hydrazine	C	382	194
Heptane	D	399	204	Morpholine	C	590	310
Heptene	D	500	260	Naphtha (Coal Tar)	D	531	277
Hexane	D	437	225	Naphtha (Petroleum)	D	550	288
2-Hexanone	D	795	424	Nitrobenzene	D	900	482
Hexenes	D	473	245	Nitroethane	C	778	414
Hydrazine	C	74–518	23–270	Nitromethane	C	785	418
Hydrogen	B	968	520	2-Nitropropane	C	802	428
Hydrogen Cyanide	C	1000	538	1-Nitropropane	C	789	421
Hydrogen Sulfide	C	500	260	Nonane	D	401	205
Iso-Butyl Acetate	D	790	421	Octane	D	403	206
Iso-Octyl Aldehyde	C	387	197	Octene	D	446	230
Isoamyl Acetate	D	680	360	Pentane	D	470	243
Isoamyl Alcohol	D	662	350	1-Pentanol	D	572	300
Isobutyl Acrylate	D	800	427	2-Pentanone	D	846	452
Isobutyraldehyde	C	385	196	1-Pentene	D	527	275
Isophorone	D	860	460	Propane	D	842	450
Isoprene	D	428	220	2-Propanol	D	750	399
Isopropyl Acetate	D	860	460	1-Propanol	D	775	413
Isopropyl Ether	D	830	443	Propionaldehyde	C	405	207
Isopropylamine	D	756	402	Propionic Acid	D	870	466
Kerosene	D	410	210	Propionic Anhydride	D	545	285
Liquified Petroleum Gas	D	761–842	405–450	N-Propyl Acetate	D	842	450
Mesityl Oxide	D	652	344	N-Propyl Ether	C	419	215
Methane	D	999	537	Propyl Nitrate	B	347	175
Methanol	D	725	385	Propylene	D	851	455
Methyl Acetate	D	850	454	Propylene Dichloride	D	1035	537
Methyl Acrylate	D	875	468	Propylene Oxide	B (C)	840	449
Methyl Ether	C	662	350	Pyridine	D	900	482
Methyl Ethyl Ketone	D	759	404	Styrene	D	914	490
Methyl Formal	C	460	238	Tetrahydrofuran	C	610	321
Methyl Formate	D	840	449	Tetrahydronaphthalene	D	725	385
Methyl Isobutyl Ketone	D	840	449	Toluene	D	896	480
Methyl Isocyanate	D	994	534	Turpentine	D	488	253
Methyl Methacrylate	D	792	422	Unsymmetrical Dimethyl Hydrazine (Udmh)	C	480	249
Methyl N-Amyl Ketone	D	740	393	Valeraldehyde	C	432	222
2-Methyl-1-Propanol	D	780	416	Vinyl Acetate	D	756	402
2-Methyl-2-Propanol	D	892	478	Vinyl Chloride	D	882	472
Methylamine	D	806	430	Vinyl Toluene	D	921	494
Methylcyclohexane	D	482	250	Vinylidene Chloride	D	1058	570
Methylcyclohexanol	D	565	296	Xylenes	D	867–984	464–529

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