



Hazlux[®]

Hazardous location lighting
products and accessories

You can rely on Hazlux® to safely provide light where you need it, even under the harshest indoor and outdoor conditions. If safety, labor reduction, quality and reliability are your priorities, consider Hazlux® lighting products to reduce maintenance and prevent downtime.

Table of contents



Product matrix
2



General information
4



Applications selector
8

High bay and low bay



Hazlux® H3 LED
12



Hazlux® 5 HID
24



FMR LED
32



SMR LED
36

Flood and linear lighting



Hazlux® 8 FDL
42



Hazlux® 7 XFM LED
46



Hazlux® 6 DFP LED
50



WNL LED
54



LGS LED
58

Emergency lighting



VB LED
64



VC LED
65



VE LED
66



VR LED
67



**Hazardous location
battery unit**
68



**Hazardous location
remote fixture**
68



**Hazardous location
pictogram sign**
69



**Hazardous location
combo pictogram**
69

Classifications






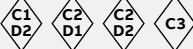


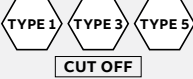

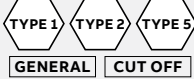
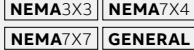







**Hazardous locations
classifications**
71






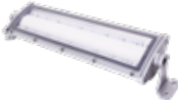















**Ignition temperatures and
group classifications**
72

Product matrix



	Area lighting		Area/Flood lighting
	Hazlux® H3 LED p. 12	Hazlux® H5 HID p. 24	FMR LED p. 32
	SMR LED p. 36		
			
Classification			
Optics - IESNA			
Optics - NEMA	-	-	
IP/NEMA		-	
DLC		-	
Certification			
Wattage	37-138W	50-400W	107-310W
Lumen	5,600-20,000lm	-	12,000-32,000lm
Voltage	120-277VAC, 50/60Hz 347-480VAC, 50/60Hz	120-277VAC, 50/60Hz 347-480VAC, 50/60Hz	120-277VAC, 50/60Hz 347-480VAC, 50/60Hz
Dimming	0-10V dimming	-	0-10V dimming
			SMR LED p. 36



Flood lighting		Linear lighting		
Hazlux® 8 FDL p. 42	Hazlux® 7 XFM LED p. 46	Hazlux® 6 DFP LED p. 50	WNL LED p. 54	LGS LED p. 58
				
				
-	GENERAL	GENERAL	GENERAL	WIDE NARROW CUT OFF
NEMA2X2 NEMA6X6	-	-	-	-
	Wet/Damp location			
-	-	-	-	-
				
50-105W	29-58W	29-87W	36-109W	12-41W
6,400-11,00lm	2,800-9,880lm	2,800-14,250lm	4,000-10,000lm	580-2,300lm
120-277VAC, 50/60Hz 347-480VAC, 60Hz	120-277VAC, 50/60Hz 347VAC, 60Hz	120-277VAC, 50/60Hz 347VAC, 60Hz	120-277VAC, 50/60Hz 347-480VAC, 50/60Hz	120VAC, 50/60Hz 12V or 24V DC
0-10V dimming	-	-	0-10V dimming	-

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 ABB sales team has been doing just that for close to a century.

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01 Since 2001, the ABB Hazlux® manufacturing facility has been ISO 9001, 1400 and 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, 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 Center of Excellence. We can easily accommodate both large and small production runs with a fast turnaround – no waiting for shipments from overseas.

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01



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A sustainable development policy is in effect at the ABB 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.

Environment 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 catalog 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: 392°F (200°C)
	Group F: 392°F (200°C)
	Group G: 329°F (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	842°F (450°C)
T2	572°F (300°C)
T2A	536°F (280°C)
T2B	500°F (260°C)
T2C	446°F (230°C)
T2D	419°F (215°C)
T3	392°F (200°C)
T3A	356°F (180°C)
T3B	329°F (165°C)
T3C	320°F (160°C)
T4	275°F (135°C)
T4A	248°F (120°C)
T5	212°F (100°C)
T6	185°F (85°C)

Hazardous locations applications

We have a fixture for virtually any condition

Hazlux lighting fixtures are built to withstand any hazardous application.

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
Power generation plants
Waste treatment facilities
Paint, chemical and plastic mixing/storage areas
Bulk truck terminals
Solvent/cleaning areas



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01

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01

Hose-down and wet locations

- Certified for wet locations – NEMA 4X, IP65, IP66, IP67/68 (indoor and outdoor); 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



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02

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02

High-ambient temperature areas

- All standard fixtures are tested and listed for at least 104°F (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
- Selection of high-ambient temperature rated fixtures – contact your ABB representative for fixtures certified for 131°F (55°C) and 149°F (65°C) applications
- Steam spray and thermal shock resistant



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03

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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 for maximum corrosion resistance
- Special HazCote® corrosion fighter finish available for extremely corrosive areas; consult your ABB representative for details

Hazlux® fixture applications



04

04

Ice and arctic conditions

- Gasketing system and finish allow for expansion and contraction through wide temperature variations
- High-strength mechanical mountings withstand extra ice loading
- Tempered glassware available for extra thermal shock safety margin



05

05

Vibration 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



06

06

Dust blanket

- Tested and listed by UL and CSA
- 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

07

Wind

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

Teflon is a registered trademark of The Chemours Company FC, LLC.

Product application

A wide range of products and features are available to suit the needs of specific hazardous locations. Consider the requirements of each space to select the best lighting fixtures:

- Average footcandles
- Average mounting height
- Lumen output required for the space
- Optics
- Type and number of units

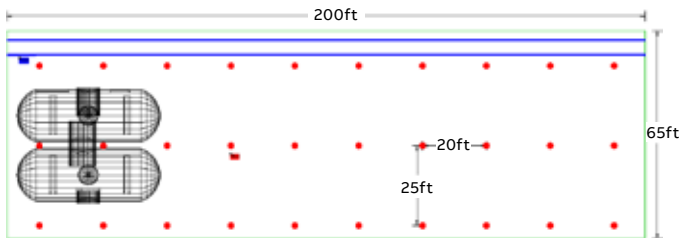
The following examples provide guidance for selecting the right fixtures according to different environments:

H3 LED



Machinery room

H3 LED		
Site	Room dimensions	200ft x 65ft
	Mounting height	25'
Photometric	AVG. Footcandle	30fc
	Reflectances	40-50-20
Product	Lumen output	20,000 lumens
	Wattage	138W
	Optics	TG – Thermal shock-resistant globe
	Part number	DL020EUNOTG
Quantity	Number of fixtures	30

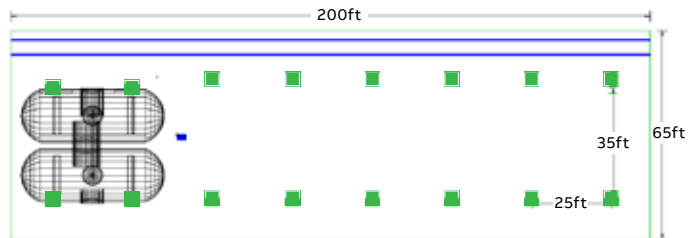


FMR LED



Machinery room

FMR LED		
Site	Room dimensions	200ft x 65ft
	Mounting height	25'
Photometric	AVG. Footcandle	30fc
	Reflectances	40-50-20
Product	Lumen output	32,000 lumens
	Wattage	312W
	Optics	CUT – Wide beam (no optics)
	Part number	FMR30-CUT-W-50-AC
Quantity	Number of fixtures	16



Product application

H3 LED



Inspection area

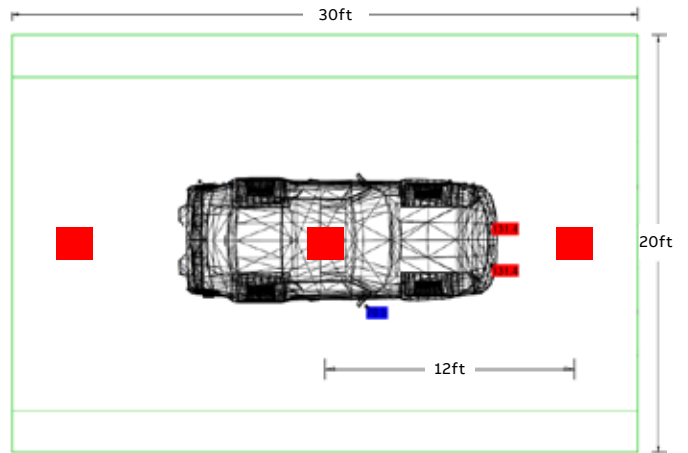
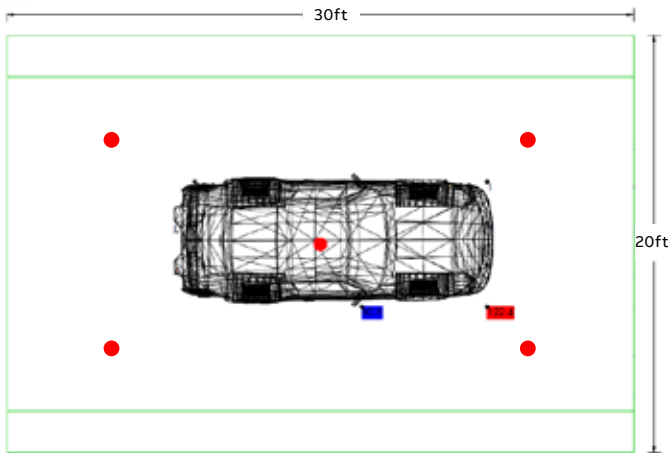
H3 LED		
Site	Room dimensions	30ft x 20ft
	Mounting height	16'
Photometric	AVG. Footcandle	108fc
	Reflectances	80-80-20
Product	Lumen output	20,000 lumens
	Wattage	138W
	Optics	TG – Thermal shock-resistant globe
	Part number	DL020EUNOTG
Quantity	Number of fixtures	5

FMR LED



Inspection area

FMR LED		
Site	Room dimensions	30ft x 20ft
	Mounting height	16'
Photometric	AVG. Footcandle	108fc
	Reflectances	80-80-20
Product	Lumen output	32,000 lumens
	Wattage	312W
	Optics	CUT – Wide beam (no optics)
	Part number	FMR30-CUT-W-50-AC
Quantity	Number of fixtures	3



Section A

Hazardous Location Lighting



Table of contents

High and low bay products



Hazlux® H3 LED
12



Hazlux® 5 HID
24



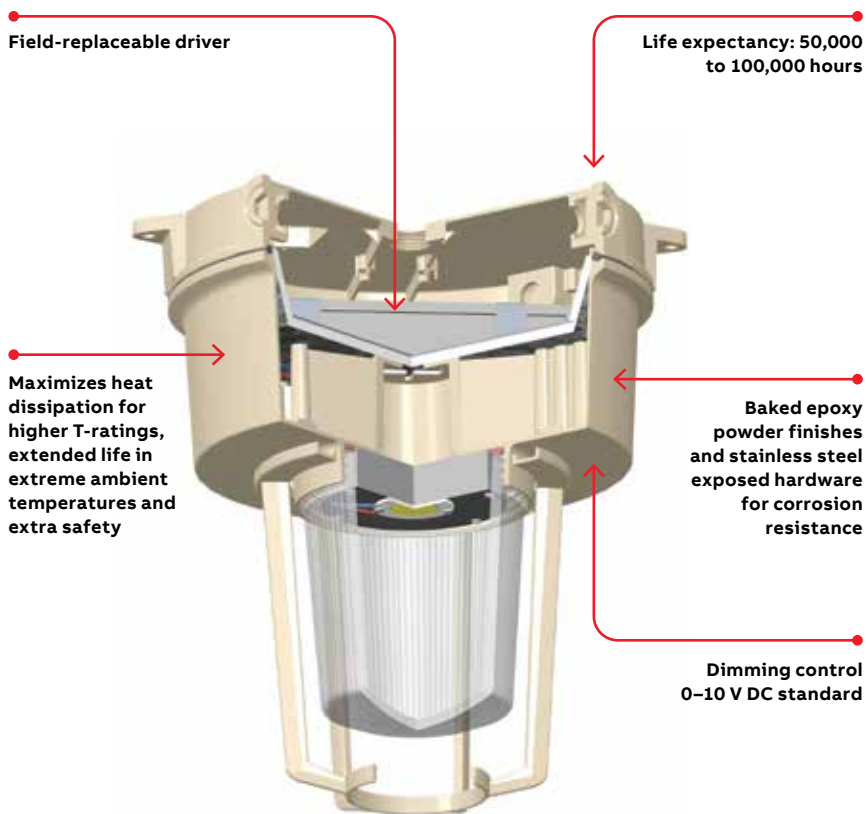
FMR LED
32



SMR LED
36

Hazlux® H3 LED

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



Light output from 5,600 up to 20,100 lumens



LED uses 75% less energy than HID, and 90% less energy than incandescent

CLASSIFICATION

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

*Contact your ABB sales representative to verify classification

CERTIFICATIONS AND RATINGS



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



4X



US



UL844
UL1598
UL8750

Applications

High mast
Parking lots
Tunnels
Swimming pools
High bay
Coolers and freezers
Inspection
Quality control areas
Packaging areas
Hangars
Storage facilities
Oil and gas processing
Agricultural
Chemical/industrial facilities

Hazlux® H3 LED

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 and Class II
Glass globe DL005, DL007, DL010				
Ambient temp. -40 to 104°F (-40 to 40°C)	T5	T5	T6	T5
Ambient temp. -40 to 131°F (-40 to 55°C)	T4	T4A	T6	T4A
Glass globe DL005, DL007, DL010 with internal reflector I3, I4, I6				
Ambient temp. -40 to 104°F (-40 to 40°C)	T4	T4A	T6	T4A
Glass globe DL015, DL017, DL020				
Ambient temp. -40 to 104°F (-40 to 40°C)	T4	T4A	T4A	T4A
Optic type cut DL005, DL007, DL010				
Ambient temp. -40 to 104°F (-40 to 40°C)	T5	T5	T5*	T5*
Ambient temp. -40 to 131°F (-40 to 55°C)	T4	T4A	T4A*	T4A*
Optic type cut DL015, DL017, DL020				
Ambient temp. -40 to 104°F (-40 to 40°C)	T4	T4A	T4A*	T4A*

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

Color temperature

Standard color temperature is 5000 K.

Other color temperatures: 2700 K, 3000 K, 3500 K, 4000 K

Color rendering index

Superior CRI: 70

Warranty

5 years

Surge suppression rating

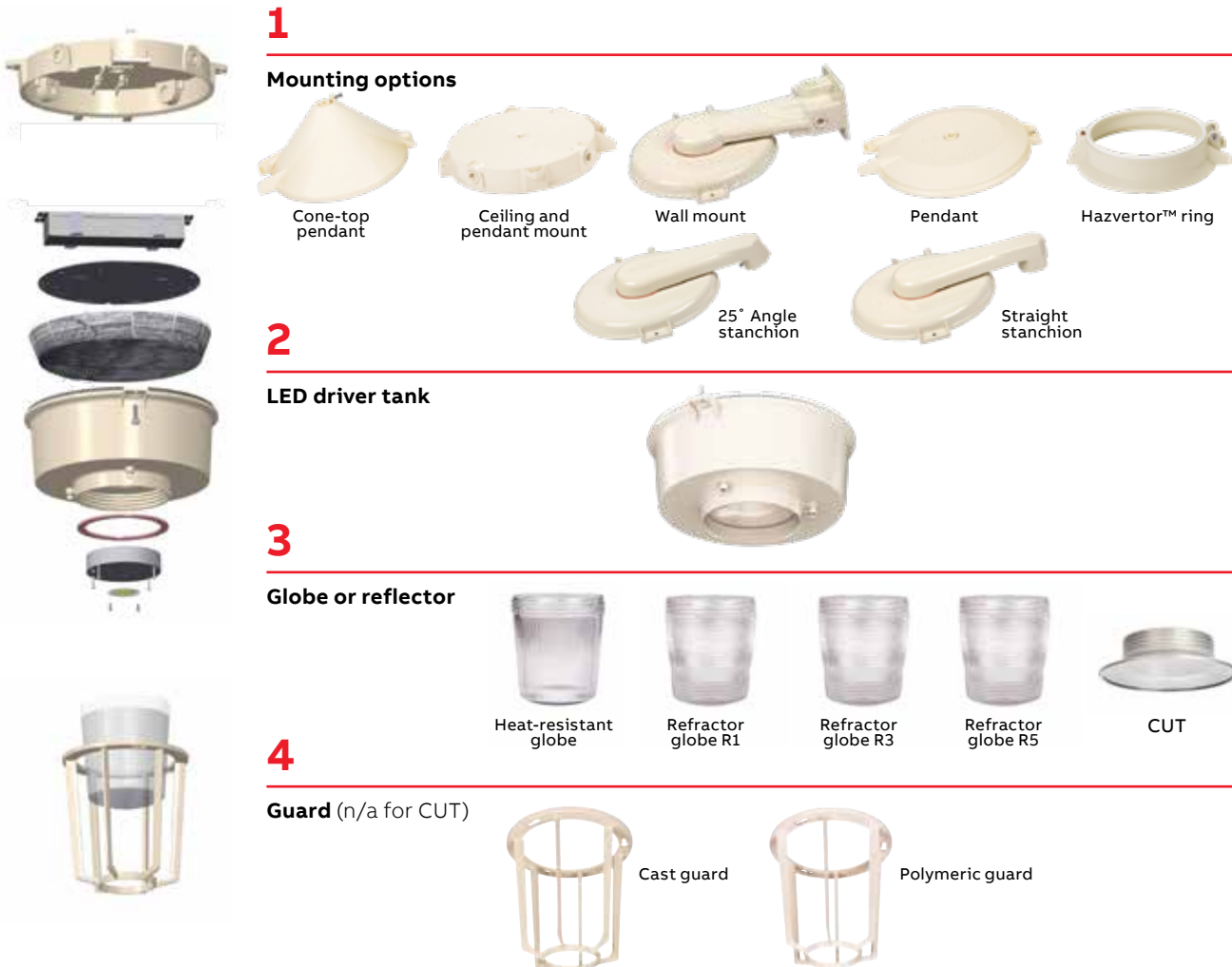
ANSI C82.77-5 CAT C low compliant – no external surge suppression device required.

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



Hazlux® H3 LED

Fixture assembly guide



Mounting accessories¹

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 refractors⁴

Part number	Description
VGT15 TG	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

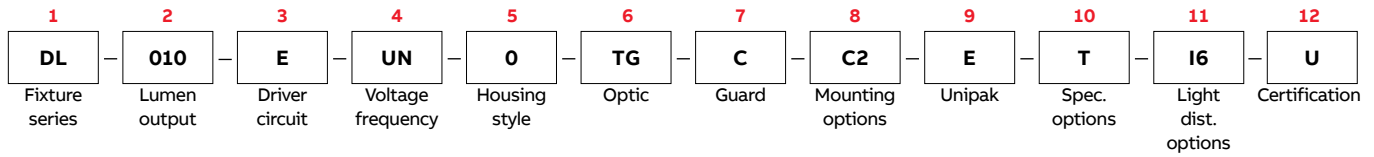
³ Some installations may not be compatible

⁴ Must be replaced by the same refractor.

Hazlux® H3 LED

Numbering system

Unipak™ = LED driver tank + optics and mountings + options (if necessary)



LED driver tank

Part	Part number	Description
1 Fixture series	DL	Hazlux H3 gen 2
2 Lumen output	005	5,600 lumens, 37 W
	007	7,500 lumens, 48 W
	010	10,500 lumens, 74 W
	015	15,800 lumens, 103 W
	017	17,300 lumens, 115 W
	020	20,100 lumens, 138 W
3 Driver circuit	E	Electronic LED driver with dimming 0–10 VDC
4 Voltage / Frequency	UN	Universal 120–277 V AC 50/60 Hz (voltage range includes 208 V, 220 V, 240 V etc.)
	UN2	Universal 347/480 V AC 50/60 Hz
5 LED driver housing style	O	Standard housing
	S	Standard housing with stainless-steel insert

Optics

Part	Part number	Description
6 Optic ¹	BLANK	No teflon coating
	S¹	Anti-shatter teflon coating ¹
	TG	Thermal shock-resistant glass globe
	R1	Type I glass refractor globe
	R3	Type III glass refractor globe
	R5	Type V glass refractor globe
	CUT²	Dark sky cut-off polycarbonate flat lens
7 Guard option	Blank	No guard
	C	Cast aluminum guard
	L	Polymeric guard

¹ For Teflon coating, add prefix "S" before the first digit (Ex: SR1)

Not applicable to CUT.

CUT optics: 3000K < CCT. Cannot be used with 25° stanchion mount for dark sky.

² Not suitable for Class II, Division 1

Mounting

Part	Part number	Description
8 Mounting style	A2	¾" Cone-top pendant
	A3	1" Cone-top pendant
	B2	¾" Wall mount
	B3	1" Wall mount
	C2	¾" Ceiling mount / pendant
	C3	1" Ceiling mount / pendant
	HV3	Hazvertor™ adaptor ring Crouse-Hinds® ceiling, pendant ² and straight stanchion top hats ¹
	HV4	Hazvertor adaptor ring stanchion angle mount ¹
	HV5	Hazvertor adaptor ring wall mount ¹
	L4	1¼" Straight stanchion
	L5	1½" Straight stanchion
	P2	¾" Rigid pendant
	P3	1" Rigid pendant
	S4	1¼" 25° Angle stanchion
	S5	1½" 25° Angle stanchion
	Blank	No mounting (to replace existing fixt.)
9 Unipak	E	(Standard, Unipak with LED lamp)

¹ HV3, HV4 and HV5 hazvertors are CSA/CSAus certified

Options

Part	Part number	Description
10 Special options	T	Hazcote® black custom anti-corrosion coating (consult ABB rep) ¹
	G	Gray color option
11 Light distribution options	I3	Internal reflector 35° beam angle ²
	I4	Internal reflector 45° beam angle ²
	I6	Internal reflector 65° beam angle ²
	Blank	5000K
	K30³	3000K
	K35³	3500K
	K40³	4000K
12 Certification	U	U.S market
	Blank	Canadian market

¹ Hazcote® has to be combined with option S (Stainless-steel Insert).

² DL005, DL007 and DL010 only, maximum 40 °C (104 °F) ambient temperature, cannot be combined with refractors. Cannot be added in the field.

³ Option subject to extended lead time.

Hazvertor™ compatibility



01



02



03

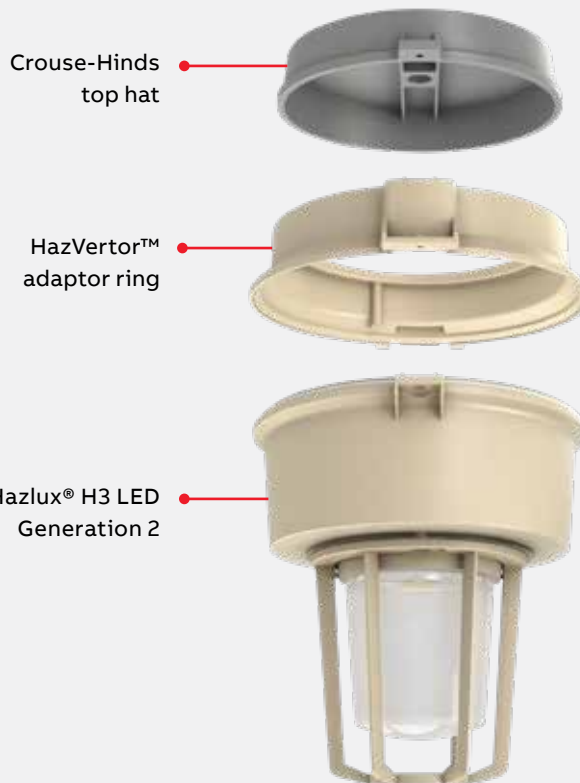
01 Hazvertor™ adaptor ring, model HV3

02 Hazvertor™ adaptor ring, angle machining, model HV4

03 Hazvertor™ adaptor ring, wall mount machining, model HV5

The Hazvertor™ adaptor ring is designed to let you quickly convert most Crouse-Hinds fixtures to Hazlux® H3 LED Generation 2 fixtures. It is available as an accessory or as an integral component to the Hazlux® H3 LED Generation 2 fixture.

Mounting	Crouse-Hinds model	Crouse-Hinds part number	Hazvertor™ model
Pendant	APM2 3/4 in.	APM2	HV3
	APM3 1 in.		
Ceiling	CM2 3/4 in.	APM3	HV3
	CM3 1 in.		
		CM2	HV3
Wall	TWM2 3/4 in.	TWM2	HV5
	TWM3 1 in.		
		TWM3	HV5
Stanchion	JM5 1-1/2 in.	JM5	HV4
	PM5 1-1/2 in.	PM5	HV3
Quad mount	QM25 3/4 in.	QM25	HV3



Hazlux® H3 LED

DLC summary of test results

Design Lights Consortium (DLC): summary of test results

Electrical, 120-277 VAC			
Model	Power (W)	Power factor	THD
DL005	37.7	0.91	13.5%
DL007	49.4	0.94	13.3%
DL010	71.9	0.97	10.1%
DL015	103.0	0.97	11.0%
DL017	115	0.97	11.8%
DL020	137	0.97	12.3%

Electrical, 347 VAC			
Model	Power (W)	Power factor	THD
DL005	36.7	0.98	10.2%
DL007	47.9	0.99	8.3%
DL010	70.2	0.99	7.1%
DL015	104.9	0.99	7.6%
DL017	116.7	0.99	7.1%
DL020	141.2	0.99	7.8%

Photometry, 120-277 VAC	
TG globe	
Lumens	Lm/W
5,747	155.3
7,607	156.6
10,706	147.8
16,063	155
17,549	151.7
20,468	147.2

Photometry, 347 VAC	
TG globe	
Lumens	Lm/W
-	-
-	-
10,582	147.7
-	-
-	-
21,284	149.6

Photometry, 120-277 VAC	
CUT reflector	
Lumens	Lm/W
5,237	141.5
6,832	140.8
9,814	135.4
14,564	140.7
16,140	139.7
18,782	135.3

Photometry, 347 VAC	
CUT reflector	
Lumens	Lm/W
-	-
-	-
9,659	134.9
-	-
-	-
19,065	134.1

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

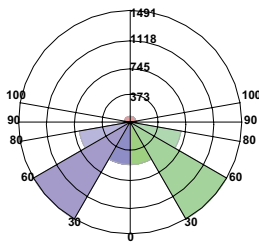


Hazlux® H3 LED

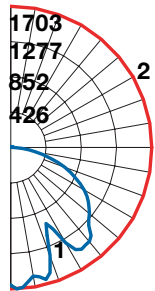
Optic selections

Standard globe	
Catalog 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



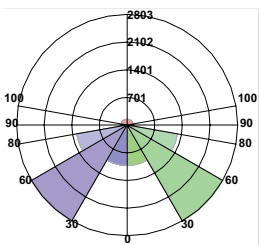
Candlepower curve



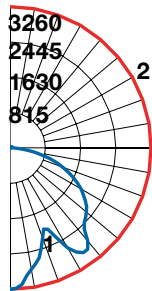
BUG rating : B2-U3-G1

Standard globe	
Catalog 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



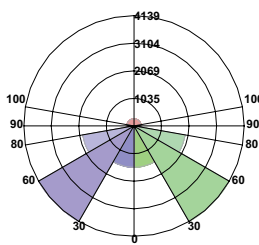
Candlepower curve



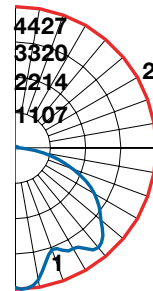
BUG rating : B3-U3-G2

Standard globe	
Catalog 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



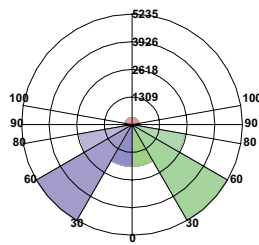
Candlepower curve



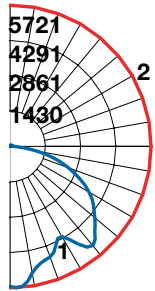
BUG rating : B3-U3-G3

Standard globe	
Catalog 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



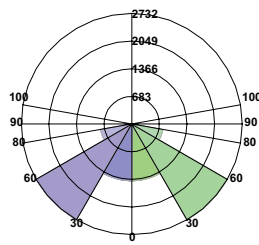
Candlepower curve



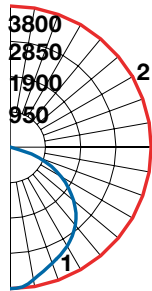
BUG rating : B4-U3-G3

CUT reflector	
Catalog 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



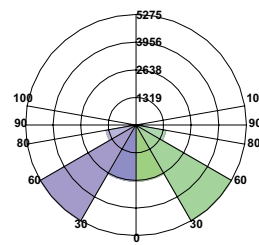
Candlepower curve



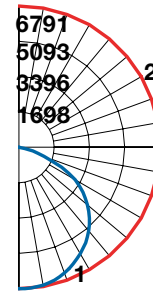
BUG rating : B3-U0-G1

CUT reflector	
Catalog 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



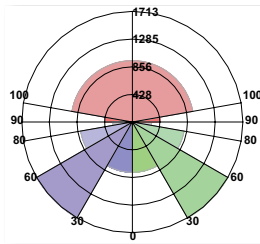
Candlepower curve



BUG rating : B4-U0-G1

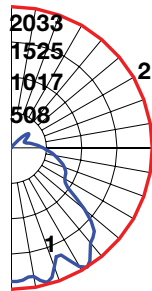
R5 globe	
Catalog number	DL010-R5
Luminaire lumens	9763
Luminaire efficacy rating (LER)	132
Input watts	75
Spacing criterion	1.42
Spacing criterion (90–270)	1.42
Spacing criterion (diagonal)	1.54

Luminaire classification system



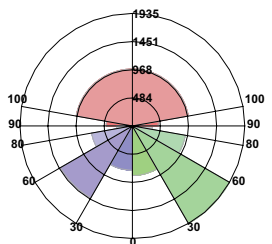
BUG rating : B2-U4-G3

Candlepower curve



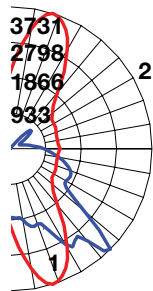
R3 globe	
Catalog number	DL010-R3
Luminaire lumens	9851
Luminaire efficacy rating (LER)	133
Input watts	75
Spacing criterion	1.40
Spacing criterion (90–270)	1.82
Spacing criterion (diagonal)	1.46

Luminaire classification system



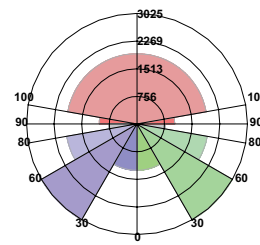
BUG rating : B2-U4-G3

Candlepower curve



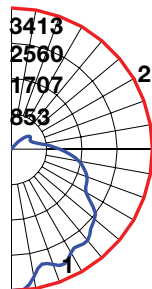
R5 globe	
Catalog number	DL020-R5
Luminaire lumens	18767
Luminaire efficacy rating (LER)	137
Input watts	137
Spacing criterion	1.44
Spacing criterion (90–270)	1.44
Spacing criterion (diagonal)	1.62

Luminaire classification system



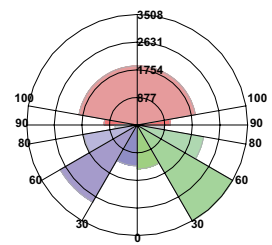
BUG rating : B2-U5-G5

Candlepower curve



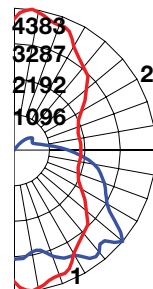
R3 globe	
Catalog number	DL020-R3
Luminaire lumens	18764
Luminaire efficacy rating (LER)	137
Input watts	137
Spacing criterion	1.40
Spacing criterion (90–270)	1.90
Spacing criterion (diagonal)	1.58

Luminaire classification system



BUG rating : B3-U5-G5

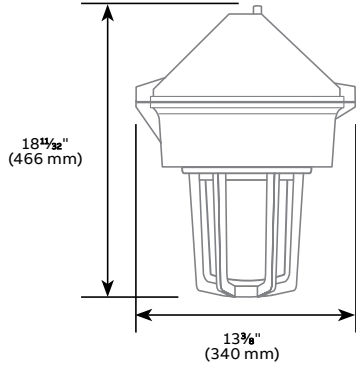
Candlepower curve



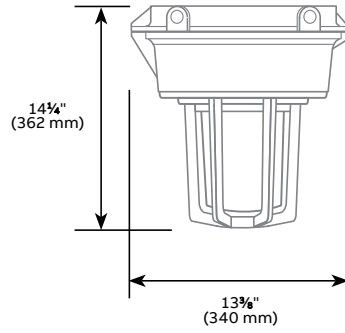
Hazlux® H3 LED

Mounting options

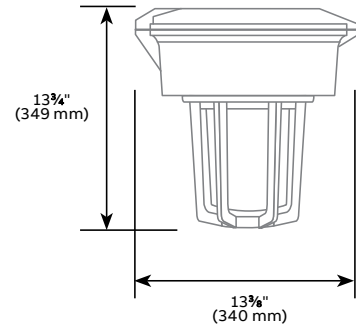
Cone-top pendant 7.3 kg | 16 lbs



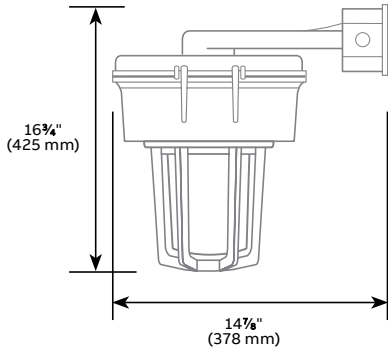
Ceiling and pendant mount 7.3 kg | 16 lbs



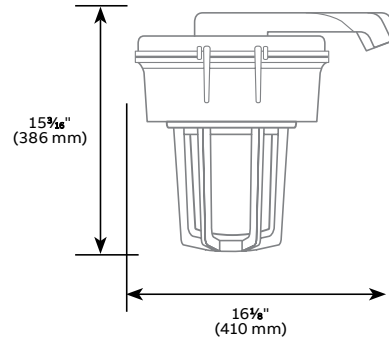
Pendant mount 6.8 kg | 15 lbs



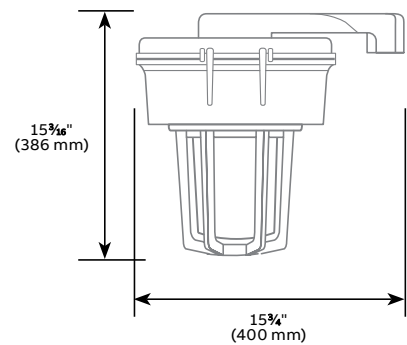
Wall mount 9.1 kg | 20 lbs



25° Angle stanchion 7.3 kg | 16 lbs



Straight stanchion 7.3 kg | 16 lbs



Quick pole assembly

Key features and benefits

Features and benefits

- Sphere-shaped, quick knuckle features round edges, preventing injuries and contaminant build-up on 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
- Supplied standard with unique fixture hanging hook

Quick pole assembly

- Operates in any kind of weather
- Overall length is 10' (3 m)
- Pole trade size is 1½" 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 loosened, 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
- Contact your sales representative.



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



Safety first

One-person operation

No ladders or lifts required

Simplified maintenance

Hot dipped galvanized steel and aluminum finishes

Frees up catwalks and walkways during maintenance

Suitable for 113 mph winds as per AASHTO LTS-4 2001

Maximum fixture weight capacity of 50 lbs.

Steel pole threads are treated and protected to prevent galvanic reaction as per AASHTO LTS-4 2001



Standard kit

- Overall height of 10' (3 m)
- 1½" NPT threads at both ends (1⅞" 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 (Galvanized steel 1⅞" O.D. pipe)
Q-P-A-5-10-N (Aluminum 2⅞" 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 1¼" NPT (1.66" OD) or 1½" NPT (1.90" OD) pipe

RQ-P-5-10-N (Galvanized steel 1⅞" O.D. pipe)
RQ-P-A-5-10-N (Aluminum 2⅞" O.D. pipe)
Retrofit Kit

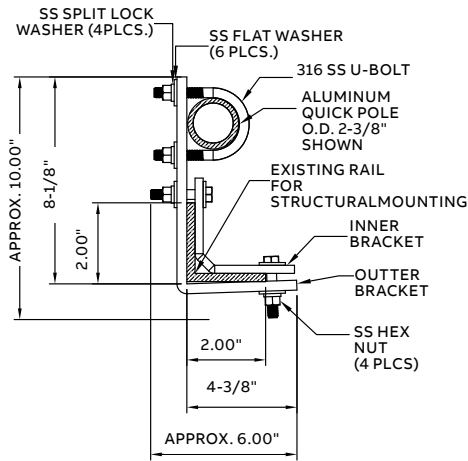
Customer existing pipe (not supplied)

Quick pole assembly

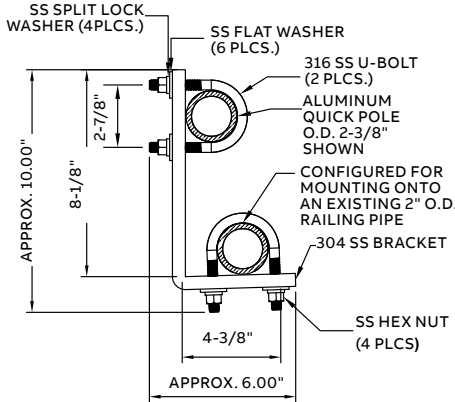
Universal bracket kit

STAINLESS STEEL (ALUMINIUM POLE)

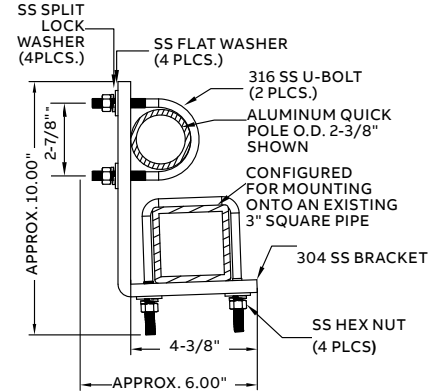
AMB-QP-A-BKT-N
Bracket for structural angle mounting



RMB-QP-A-BKT-N
Bracket for structural pole mounting

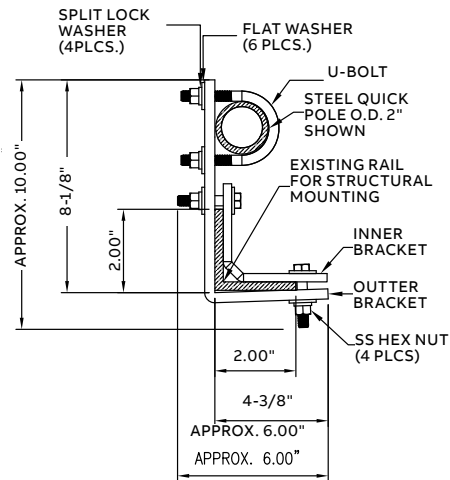


RMB-QP-A-BKT-3
Bracket for structural square mounting

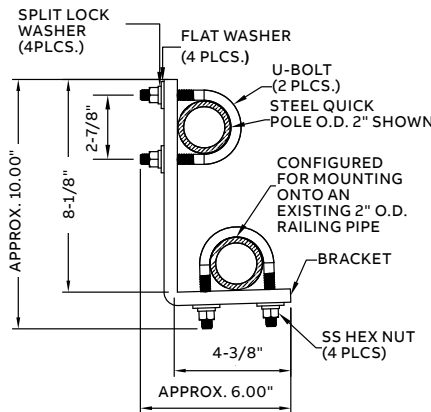


GALVANISED STEEL (GALVANIZED POLE)

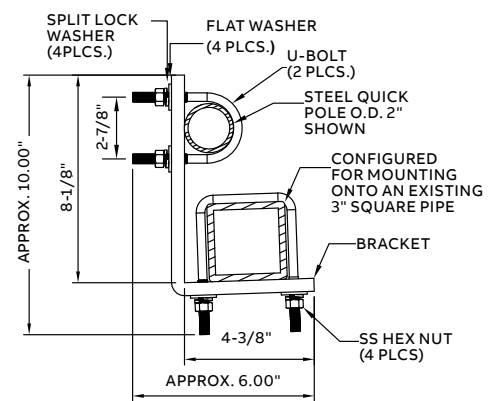
AMB-QP-BKT-N
Bracket for structural angle mounting



RMB-QP-BKT-N
Bracket for structural pole mounting

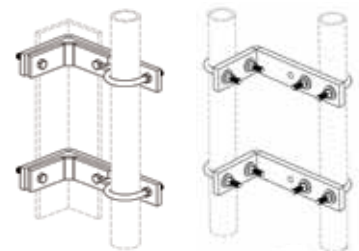


RMB-QP-BKT-3
Bracket for structural square mounting



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

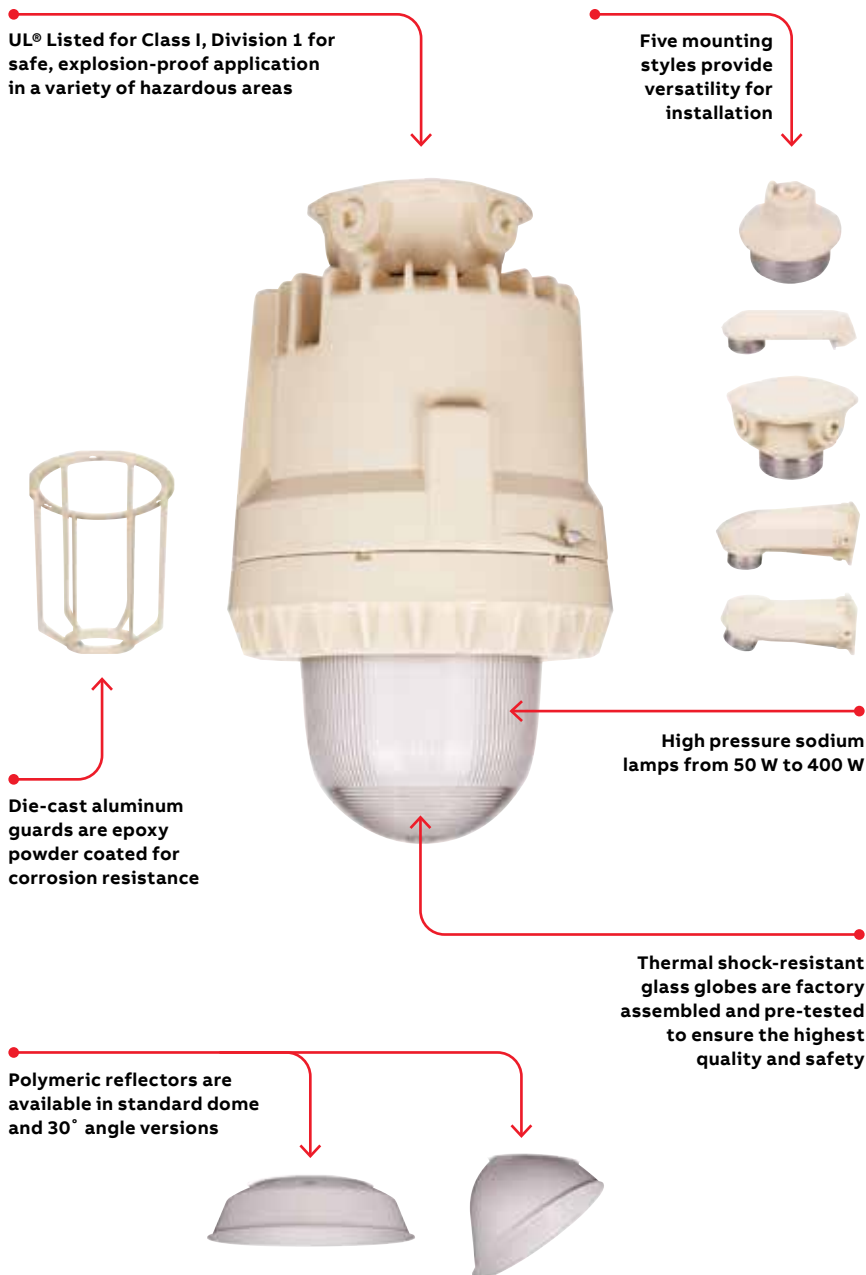




Hazlux® 5

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

Classification may vary upon light source and wattage. For details, see thermal performance chart on p. 30-31.

CERTIFICATIONS



Outdoor wet locations
Temperature range: -22°F to 104°F (-30°C to 40°C)

Applications

Chemical plants

Oil refineries

Waste treatment facilities

Automotive manufacturing plants

Paint manufacturing facilities

Paint spray locations

Chemical & plastic mixing and storage areas

Pipeline pumping stations

Oil and gas terminals

Defense and government facilities

Hazlux® 5 HID

Key features and 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 paint spray listed in wattages up to 100 watts

Wattages and voltages

- High-pressure sodium: 50–400 watts
- All luminaires: multi-tap standard (120, 208, 240, 277 V), wired 120 V (other voltages, 50/60 Hz 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

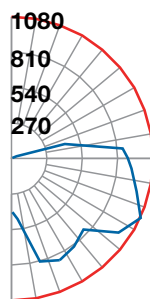
Warranty

- 1 year

Ceiling mount photometry

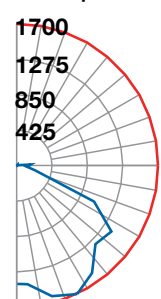
Reference data	
Catalog number	XSO10H090G-C2-E
Lamp	100W HPS ED23 1/2
Lamp lumens	9500
Input watts	130
Luminaire lumens	7162
Efficiency	75%
Efficacy rating (LER)	55.1
Spacing criterion (0–180)	2.66
Spacing criterion (90–270)	2.66
Spacing criterion (diagonal)	2.74

Candlepower curve



Reference data	
Catalog number	XSO10H090G-C2-E & VR31P
Lamp	100W HPS ED23 1/2
Lamp lumens	9500
Input watts	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

Fixture assembly guide

1

Mounting style



Pendant mount



Stanchion mount



Ceiling mount



Wall mount



Bulkhead mount

2

Globe assemblies



Up to 150 HPS



250 HPS and 400 HPS

3

Guards

Cast guard
up to 150 HPSCast guard
for 250 HPS
and 400 HPS

4

Optional reflectors (sold separately)



Standard dome



30° Angle reflector

Individual components

Mounting options

Part number	Description	Conduit hub size
XP2	Pendant mount	¾"
XP3	Pendant mount	1"
XS4	Stanchion mount	1¼"
XS5	Stanchion mount	1½"
XC2	Ceiling mount	¾"
XC3	Ceiling mount	1"
XB2	Wall mount	¾"
XB3	Wall mount	1"
XJ2	Bulkhead mount	¾"
XJ3	Bulkhead mount	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

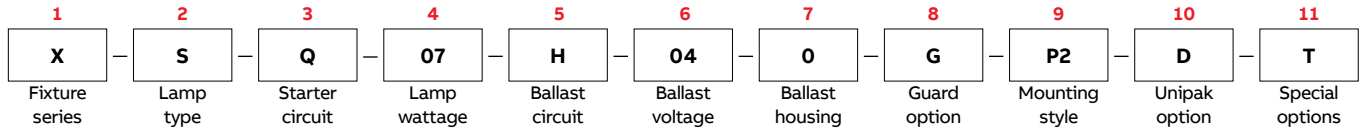
Part number	Description
VR31P	Standard dome, fiberglass-reinforced polyester
VRA31P	30° Angle reflector, fiberglass-reinforced polyester

Reflectors are shipped bulk unless specified.

Hazlux® 5 HID

Numbering system

Unipak™ = Ballast tank + optics and mountings + options (if necessary)



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 rated for Class 1 Div.1)
	R	Fixture with instant restart option (70, 100 and 150 HPS only)
4 Lamp wattage (high pressure sodium lamp)	05	50 W ED23 1/2
	07	70 W ED23 1/2
	10	100 W ED23 1/2
	15	150 W ED23 1/2
	25	250 W ED18
5 Ballast circuit	40	400 W ED18
	C	Constant wattage autotransformer (CWA)
	I	Constant wattage insulated transformer (CWI)
	H	High reactance
6 Ballast voltage	P	Reactor
	04	Multi-tap 120/208/240/277 volt
	09	120/277/347V Volt (CSA)
	12	120 Volt
	20	208 Volt
	24	240 Volt
	27	277 Volt, 60 Hz
7 Ballast housing style	34	347 Volt
	48	480 Volt
	Ø	Standard housing
	S	Standard housing with stainless steel inserts

Optics and mountings

Part	Part number	Description
8 Guard option	G	Cast guard (omit "G" if guard not required)
9 Mounting style	P2	¾" Pendant
	P3	1" Pendant
	C2	¾" Ceiling
	C3	1" Ceiling
	B2	¾" Wall
	B3	1" Wall
	J2	¾" Bulkhead
	J3	1" Bulkhead
	S4	1¼" 25° Stanchion
10 Unipak options	S5	1½" 25° Stanchion
	D	Unipak with dual arc lamp
	E	Unipak with clear lamp
	U	Unipak no lamp

Options

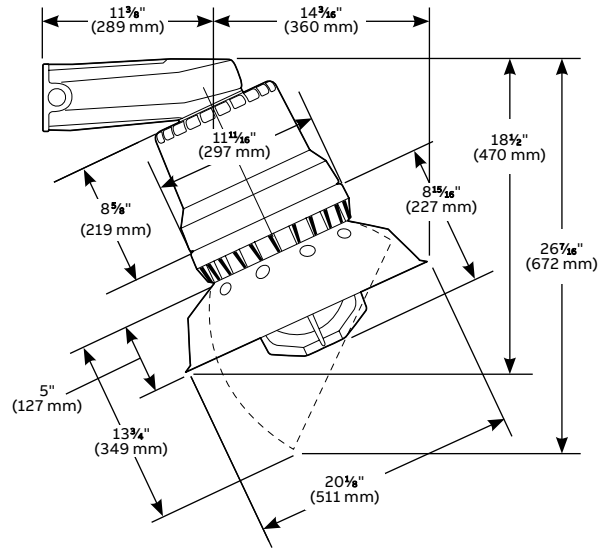
Part	Part number	Description
11 Special options	T	Hazcote® black custom anti-corrosion coating (consult ABB rep)
	PS	Paint spray label (100 W max.)
	F	Fuse block with fuse
	C	Canadian market
	Blank	U.S. market



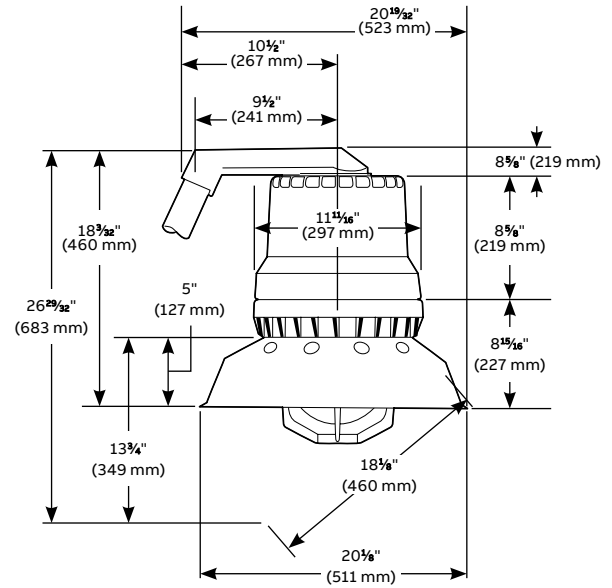
Hazlux® 5 HID

Dimensions

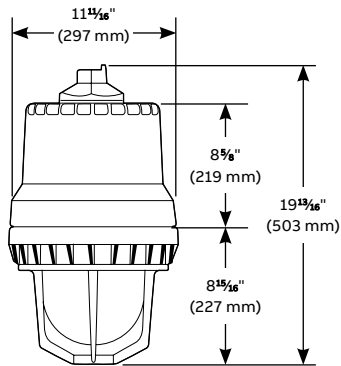
Bulkhead mount with globe, guard and reflector



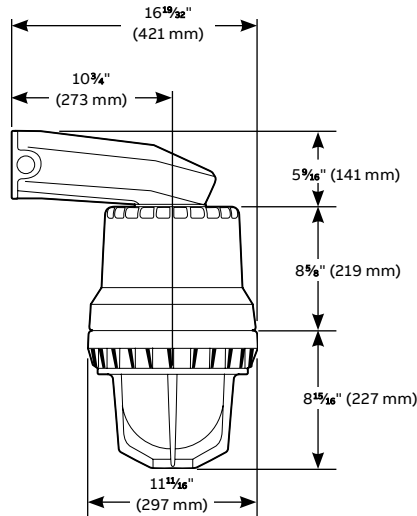
Stanchion mount with globe, guard and reflector



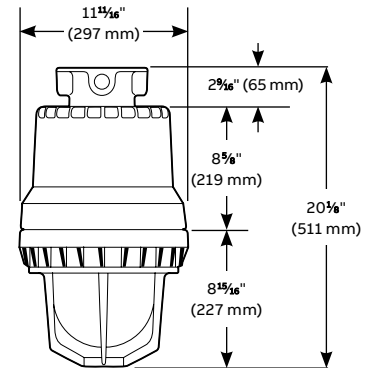
Pendant mount with globe and guard



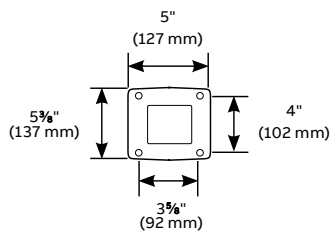
Wall mount with globe and guard



Ceiling mount with globe and guard



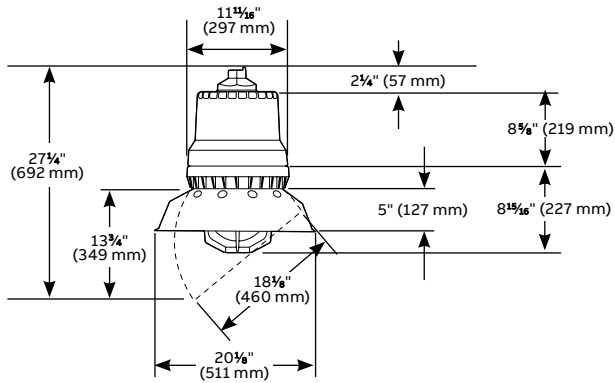
Template for bulkhead for wall mount



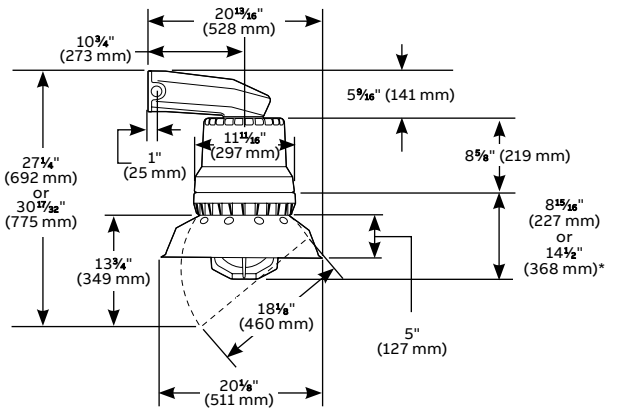
Hazlux® 5 HID

Dimensions

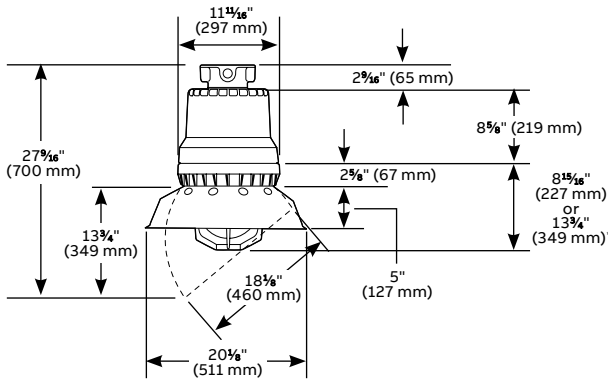
Pendant mount with globe, guard and reflector



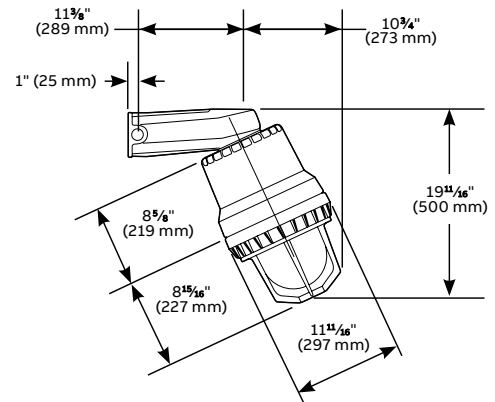
Wall mount with globe, guard and reflector



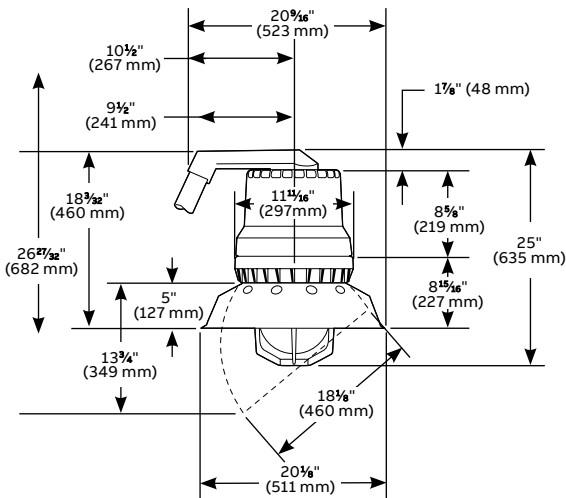
Ceiling mount with globe, guard and reflector



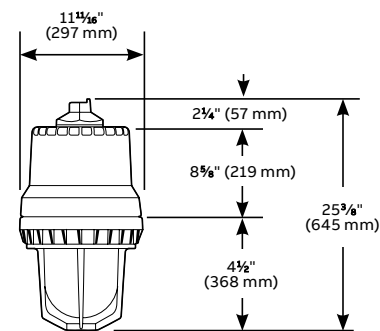
Bulkhead mount with globe and guard



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 104°F (40°C) | ambient in free air

High pressure sodium / nameplate marked with rating based on hottest fixture congestion									
Configuration		50 W (S68 lamp)		70 W (S62 lamp)		100 W (S54 lamp)		150 W (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.
Globe and guard	A	T6	T4A	T6	T4A	T5	T4	T4	T4A
Globe, guard and dome reflector	B	T6	T4A	T6	T4A	T5	T4	T4	T3C
Globe, guard and angle reflector	C	T6	T4A	T6	T4A	T5	T3C	T4	T3C

Class II & III*, Division 1 & 2 – Maximum external fixture temperature in 104°F (40°C) | ambient in free air

High pressure sodium / nameplate marked with rating based on hottest fixture congestion									
Configuration		50 W (S68 lamp)		70 W (S62 lamp)		100 W (S54 lamp)		150 W (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
Globe and guard	A	EFG	EFG	EFG	EFG	EFG	EF	EFG	EF
Globe, guard and dome reflector	B	EFG	EFG	EFG	EFG	EFG	EF	EFG	EF
Globe, guard and angle reflector	C	EFG	EFG	EFG	EFG	EFG	EF	EFG	EF

Class I, Division 1, Group C & D – Maximum external fixture temperature in 131°F (40°C) | ambient in free air

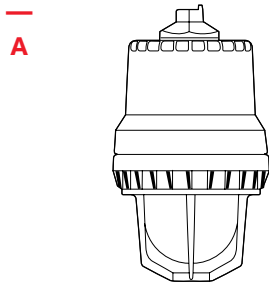
High pressure sodium / nameplate marked with rating based on hottest fixture congestion									
Configuration		50 W (S68 lamp)		70 W (S62 lamp)		100 W (S54 lamp)		150 W (S55 or S56 lamp)	
		Lamp	Lamp w/ auxiliary qtz.	Lamp	Lamp w/ auxiliary qtz.	Lamp	Lamp w/ auxiliary qtz.	Lamp	Lamp w/ auxiliary qtz.
			T no.		T no.		T no.		T no.
Globe and guard	A	T6	T4	T5	T4	T5	T4A	–	T4A
Globe, guard and dome reflector	B	T6	T4	T5	T4	T5	T4A	–	T4A
Globe, guard and angle reflector	C	T6	T4	T5	T4	T5	T4A	–	T4A

Hazlux® 5 HID

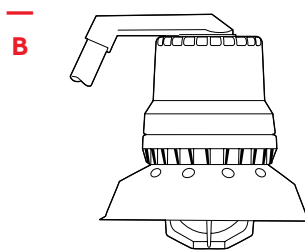
Thermal performance data

Class I, Division 1, Group C & D – Maximum external fixture temperature in 149°F (65°C) | ambient in free air

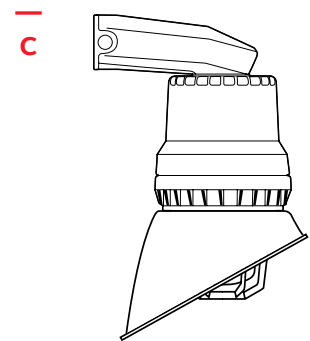
High pressure sodium / nameplate marked with rating based on hottest fixture congestion							
Configuration		50 W (S68 lamp)		70 W (S62 lamp)		100 W (S54 lamp)	
		Lamp	Lamp w/ auxiliary qtz.	Lamp	Lamp w/ auxiliary qtz.	Lamp	Lamp w/ auxiliary qtz.
		T no.	T no.	T no.	T no.	T no.	T no.
Globe and guard	A	T5	–	T4A	–	T4A	–
Globe, guard and dome reflector	B	T5	–	T4A	–	T4A	–
Globe, guard and angle reflector	C	T5	–	T4A	–	T4A	–



Globe and guard



Globe, guard and dome reflector



Globe, guard and angle reflector

Hazlite™ 5 (400 series) thermal data

This data includes globe, guard and reflector				
Lamp type	Ambient temperature	Groups	Class I Temp. code	Supply wire suitable temperature
250 Watt HPS type S50	104°F (40°C)	C, D	T4A	185°F (40°C)
400 Watt HPS type S51	104°F (40°C)	C, D	T4A	185°F (40°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 I	
Division 2	Groups A, B, C, D
Zone 2	Group IIC
Zone 22	Group IIIB
CLASS II	
Division 2	Groups F, G
CLASS III	

Contact your ABB sales representative to verify classification

CERTIFICATIONS AND RATINGS



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



Splash and non-food zones



UL844
UL1598A
UL8750



IP66/67

Applications

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

FMR LED

Key features and benefits

Features

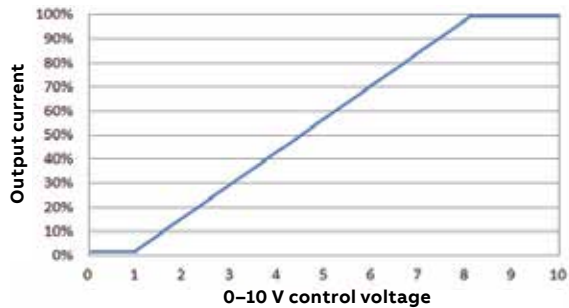
- 100% Field serviceable
- NSF Certified for use in Splash and Non-Food Zones
- Certified for use in Marine Locations (UL 1598A & ABS)
- Available with multiple distribution patterns
- Certified for Hazardous Locations, extreme water resistance, and corrosion protection for marine applications
- Thermally managed for maximum longevity
- Multiple mounting options
- Special powder coating for extreme resistance to chemical attack, aggressive cleaning agents and bio-cides used in food processing industries
- Low surface-energy coating and smooth surface texture prevent debris build-up and staining
- 90+ CRI available
- IDA Dark Sky Approved to protect the night time environment and reduce light pollution Features
- 3/4" NPT conduit entry
- Housing: Die-cast aluminum and polycarbonate lens

Color temperature

Available standard in 3500 K and 5000 K color temperatures, with additional color temperatures available from 2700 to 6500 K. Contact your sales representative for more information.

Dimming

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



Warranty

5 years

Temperature codes

Luminance	Input voltage	Optical models		Flood models	All models
		Ambient temp	Class I, Div 2 T-Codes	Ambient temp	Class II, Div 2 T-Codes
FMR10	AC	-40 to 131°F (-40 to 55°C)	T3C	-40 to 131°F (-40 to 55°C)	T5
FMR10	HV	-40 to 129°F (-40 to 54°C)	T3C	-40 to 123°F (-40 to 51°C)	T5
FMR15	AC	-40 to 131°F (-40 to 55°C)	T3C	-40 to 131°F (-40 to 55°C)	T5
FMR15	HV	-40 to 129°F (-40 to 54°C)	T3C	-40 to 123°F (-40 to 51°C)	T5
FMR20	AC	-40 to 131°F (-40 to 55°C)	T3C	-40 to 131°F (-40 to 55°C)	T5
FMR20	HV	-40 to 129°F (-40 to 54°C)	T3C	-40 to 123°F (-40 to 51°C)	T5
FMR25	AC	-40 to 123°F (-40 to 51°C)	T3C	-40 to 131°F (-40 to 55°C)	T5
FMR25	HV	-40 to 111°F (-40 to 44°C)	T3B	-40 to 122°F (-40 to 50°C)	T5
FMR30	AC	-40 to 109°F (-40 to 43°C)	T3	-40 to 108°F (-40 to 42°C)	T5
FMR30	HV	-40 to 109°F (-40 to 43°C)	T3	-40 to 104°F (-40 to 40°C)	T5

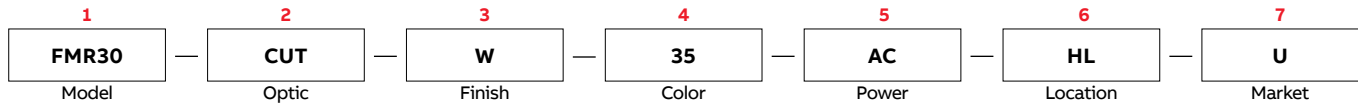
Power ratings

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
FMR10	HV	129	347–480	50/60	0.43–0.31
FMR15	AC	145	120–277	50/60	1.42–0.61
FMR15	HV	145	347–480	50/60	0.47–0.34
FMR20	AC	190	120–277	50/60	1.74–0.75
FMR20	HV	187	347–480	50/60	0.59–0.42
FMR25	AC	247	120–277	50/60	2.18–0.95
FMR25	HV	248	347–480	50/60	0.74–0.53
FMR30	AC	312	120–277	50/60	2.82–1.22
FMR30	HV	310	347–480	50/60	0.96–0.70

FMR LED

Numbering system

Lighting fixture



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	CUT	Wide beam (no optics)
	R2¹	IESNA Type 2
	OC¹	Oval, 26° x 108°
	SC¹	Spot 18°
3 Finish	W	White
4 Color	35¹	Warm white (3500 K)
	35H¹	Warm white, high CRI (3500 K)
	50	Cool white (5000 K)
	50H	Cool white, high CRI (5000 K)
5 Power	AC	120 to 277 V AC
	HV	347 to 480 V AC
6 Location	HL	Hazardous location
7 Market	U	U.S. market
	Blank	Canadian market

Mounting accessories (order separately)

Part	Part number	Description
Mounting type	FMR-WM-WT	Wall mount ²
	FMR-HK-WT	Hanging pendant
	FMR-PM-WT	Pole mount ²
	FMR-YM	Yoke mount ^{2,3}
	FMR-YK	High vibration yoke ^{2,3,4}
	FMR-CM	Conduit mount

Notes

- Option subject to extended lead time.
- IDA Fixture seal of approval only applies to fixtures with a CCT of 3000K or less, and that have fixed mounts aiming the fixture perpendicular to the ground.
- Yoke mount only available in stainless steel finish.
- Custom finishes and high vibration yoke mount are not available for NSF certified units.

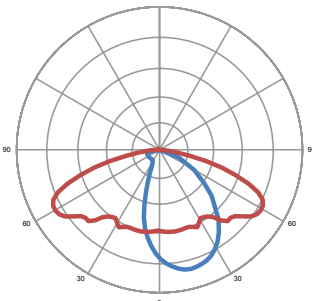
Modular optics (20 options)

R2 – IESNA Type 2		
Model	Lumens	Lumens/watts
FMR10	12370	132
FMR15	16340	130
FMR20	20560	125
FMR25	26090	117
FMR30	31670	109

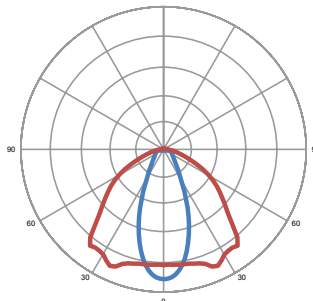
OC – Oval		
Model	Lumens	Lumens/watts
FMR10	12370	132
FMR15	16340	130
FMR20	20560	125
FMR25	26090	117
FMR30	31670	109

SC – Narrow 18°		
Model	Lumens	Lumens/watts
FMR10	12370	132
FMR15	16340	130
FMR20	20560	125
FMR25	26090	117
FMR30	31670	109

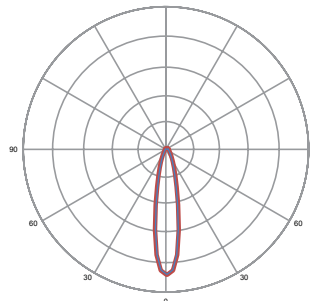
CUT – Wide beam		
Model	Lumens	Lumens/watts
FMR10	12370	132
FMR15	16340	130
FMR20	20560	125
FMR25	26090	117
FMR30	31670	109



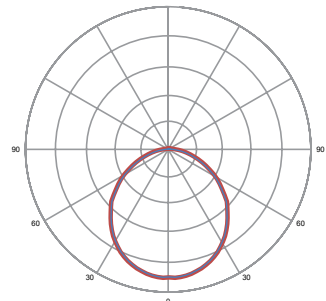
BUG rating : B4-U0-G4



BUG rating : B5-U1-G1



BUG rating : B5-U1-G1



BUG rating : B5-U0-G2

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

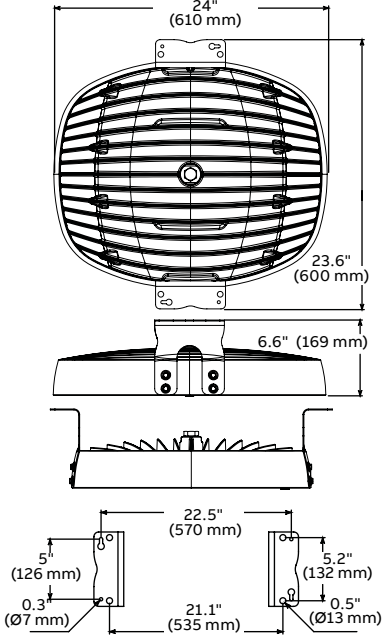
Contact sales representative for further details. Minimum order quantities, additional costs and lead times may incur.

FMR LED

Mounting options

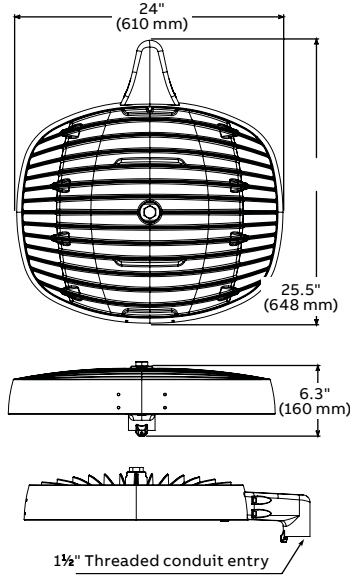
Surface/suspended mount (included standard)

16.8 kg | 37 lbs



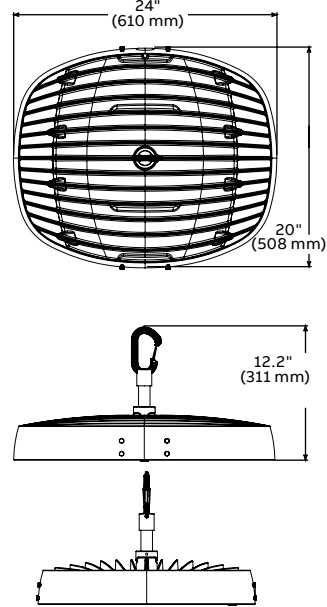
Pole mount FMR-PM (optional accessory)

17.3 kg | 38 lbs



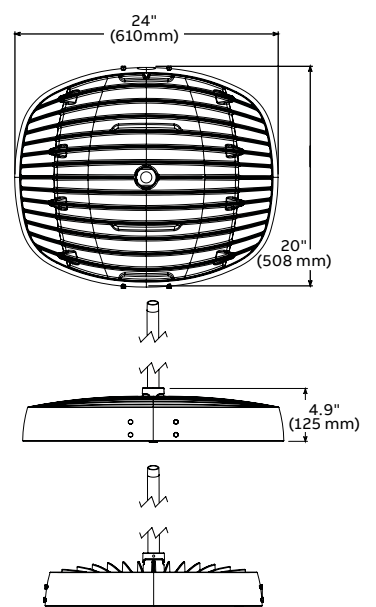
Hanging pendant FMR-HK (optional accessory)

16.4 kg | 36 lbs



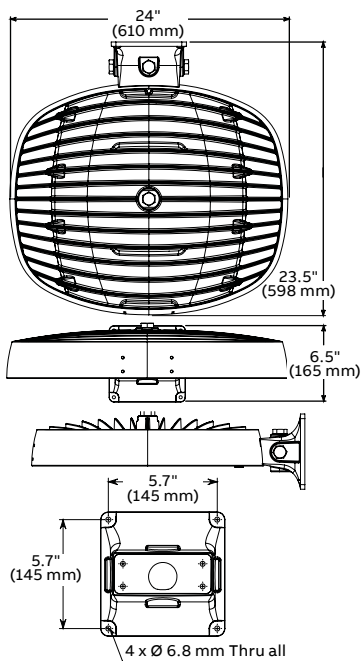
Conduit mount FMR-CM (optional accessory)

16.4 kg | 36 lbs



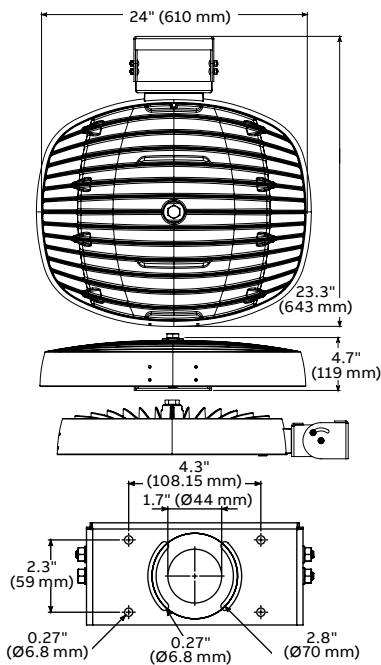
Wall mount FMR-WM (optional accessory)

17.7 kg | 39 lbs



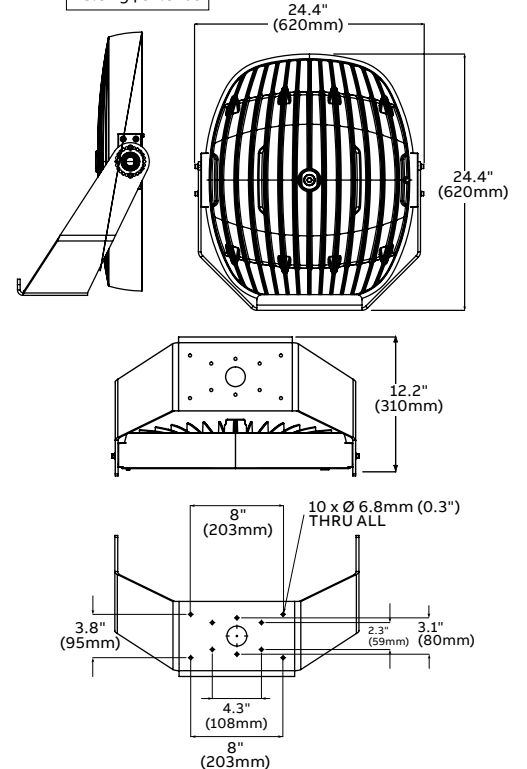
Yoke mount FMR-YM (optional accessory)

16.8 kg | 37 lbs



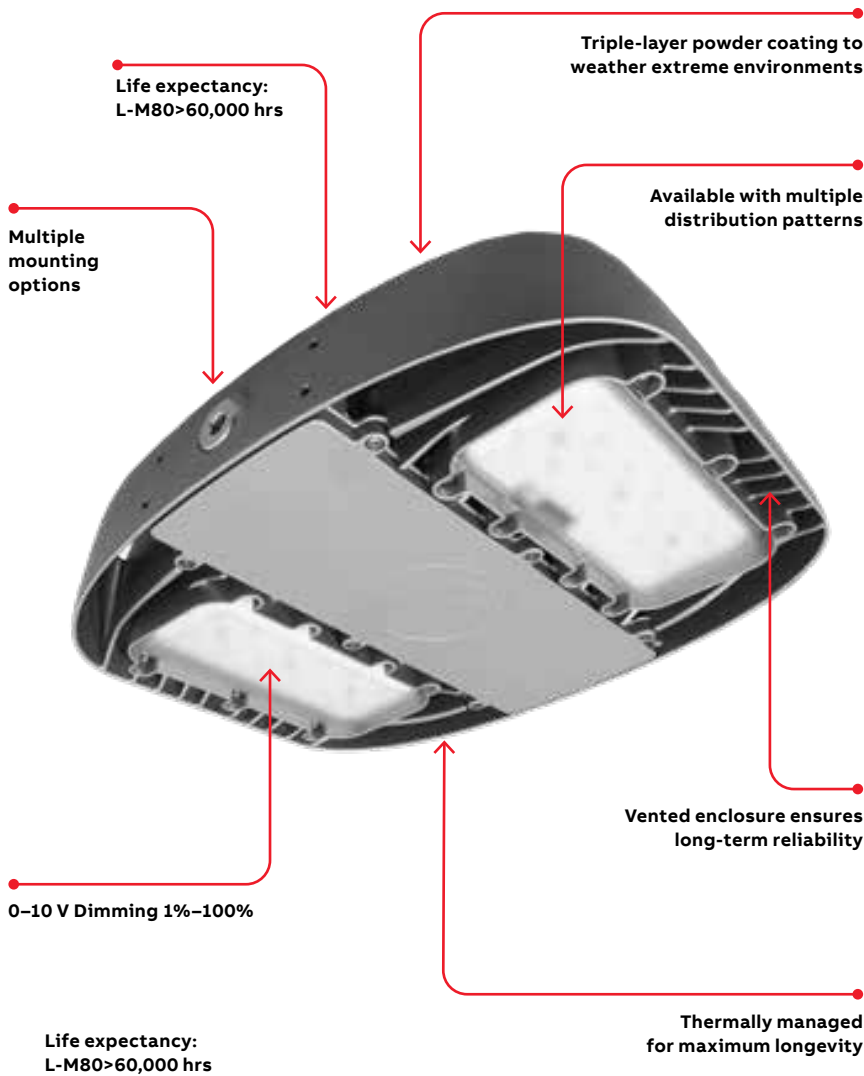
High vibration yoke FMR-YK (optional accessory)

23.8 kg | 52.5 lbs



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

Contact your ABB sales representative to verify classification

CERTIFICATIONS AND RATINGS

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



UL844
UL1598A
UL8750



Applications

- Hazardous locations
- Indoor lighting
- Tunnel lighting
- Industrial facilities
- Refinery and petrochemical facilities

SMR LED

Key features and benefits

Features

- Extremely robust
- Thermally managed for longevity
- Easy field angle adjustment
- Operating temperature -40°F to 131°F (-40°C to 55°C)
- 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 your ABB representative for custom options)
- ¾" 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 131°F (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

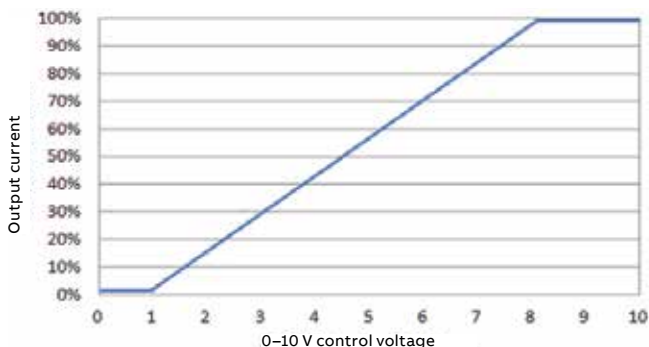
- Metal core PCB (MCPCB)
- Modular optics

Output

3050 to 6265 lumens

Dimming

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



Color temperature

Available standard 5000 K, with additional color temperatures available from 2700 to 6500 K.

Temperature codes

T4	Class 1, Div 2, Groups A, B, C, D
	Class 1, Zone 2, Group IIC
T4A	Class II, Div. 2, Groups F, G

Nichia LEDs

- Proven reliability
- High efficiency
- Superior CRI (80+)

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 junction box with ¾" NPT entry

Frequency	120-277VAC 50/60 Hz 347VAC 60 Hz
Power	SMR3: 26 W (Cut) - 29 W (R2, OC, SF) SMR6: 51 W (Cut) - 57 W (R2, OC, SF)
Current	SMR3: AC - 0.25A@120 VAC HV - 010A@347 VAC SMR6: AC - 050A@120 VAC HV - 020A@347 VAC

Warranty

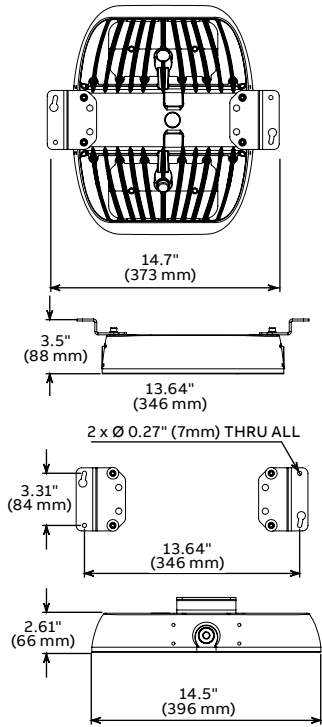
5 years

SMR LED

Mounting options

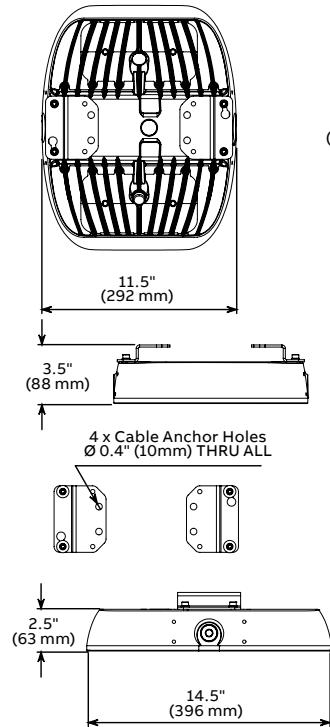
Surface mount (included standard)

5.3 kg | 11.7 lbs



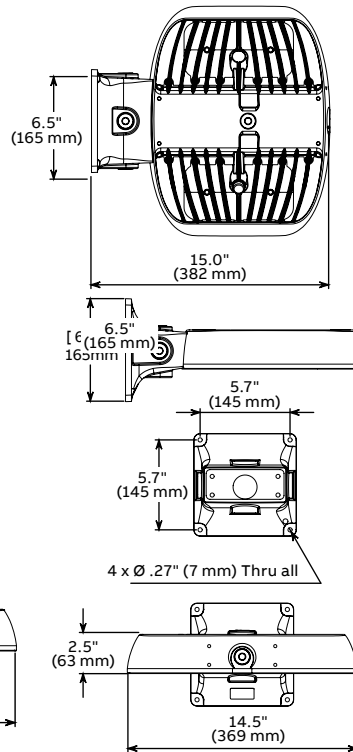
Suspended mount (included standard)

5.3 kg | 11.7 lbs



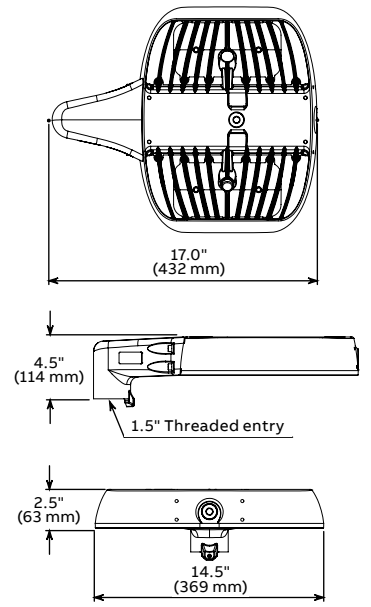
Wall pack mount SMR-WM (optional accessory)

6.8 kg | 15 lbs



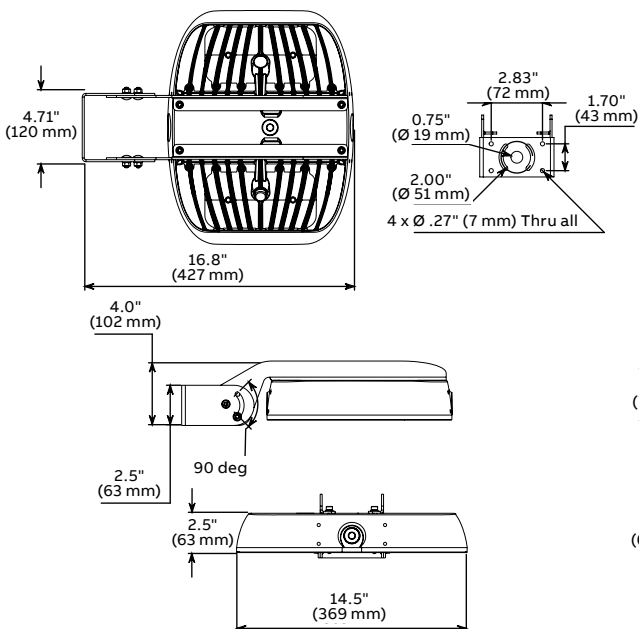
Pole mount SMR-PM (optional accessory)

5.6 kg | 12.4 lbs



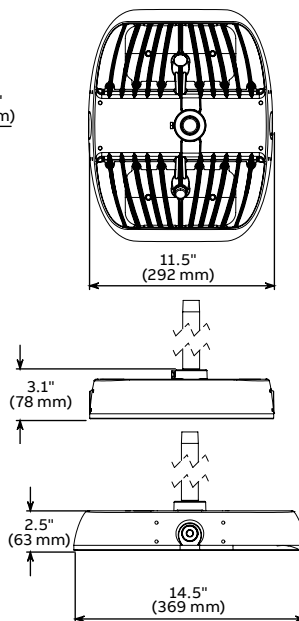
Yoke mount SMR-YM (optional accessory)

6.3 kg | 13.9 lbs



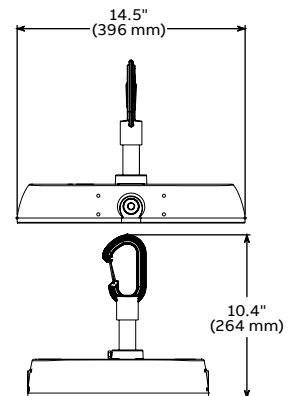
Conduit connection SMR-CC (optional accessory)

5.3 kg | 11.7 lbs

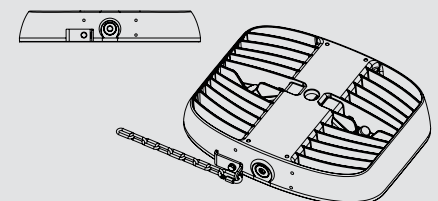


Hook pendant mount SMR-HK (optional accessory)

4.9 kg | 10.8 lbs



Secondary safety SMR-SS



SMR LED

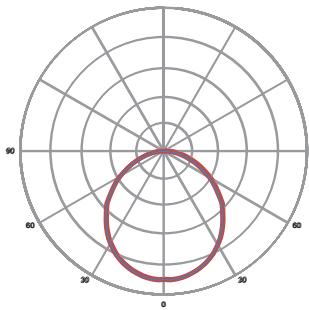
Optic options

CUT – Wide beam (no optic)	
Model	Lumen output (CW)
SMR3	3050
SMR6	5650

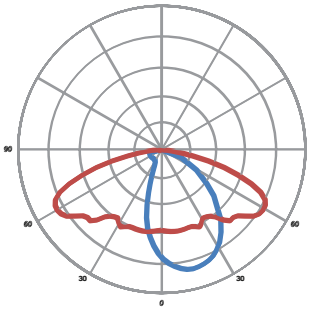
R2 – IESNA Type 2	
Model	Lumen output (CW)
SMR3	2980
SMR6	5520

OC – Oval 26° x 108°	
Model	Lumen output (CW)
SMR3	3290
SMR6	6090

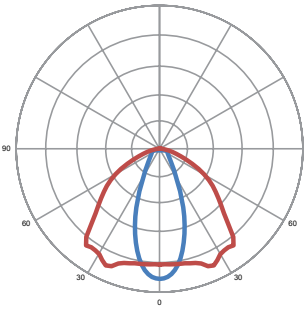
SF – Spot 18°	
Model	Lumen output (CW)
SMR3	3380
SMR6	6265



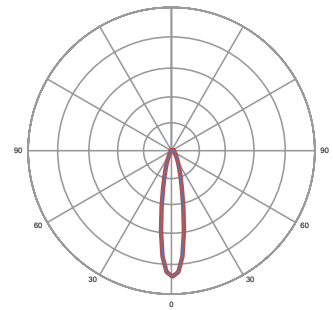
BUG rating : B2-U0-G1



BUG rating : B1-U0-G1



BUG rating : B3-U2-G1



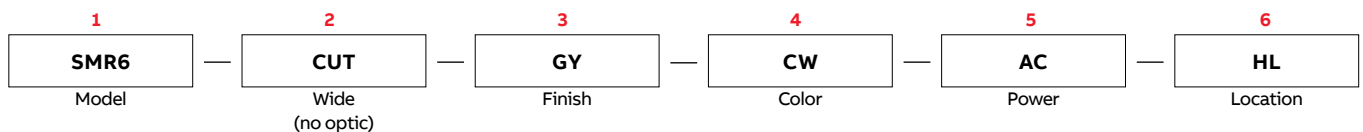
BUG rating : B4-U2-G1

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

Lighting fixture



Lighting fixture

Part	Part number	Description
1 Model	SMR3	2980 to 3380 Lumens
	SMR6	5520 to 6265 Lumens
2 Optic	R2 ¹	IESNA Type 2
	OC ¹	Oval 26° x 108°
	SF ¹	Spot 15°
	CUT	Wide (no optic)
3 Finish	GY	Gray
4 Color	CW	Cool white (5000 K)
5 Power	AC	120 to 277 V AC
	HV	347 V AC
6 Location	HL	Hazardous location
7 Market	U	U.S. market
	Blank	Canadian market

Accessories (sold separately)

SMR-WM-GY	Wall pack mount
SMR-PM-GY	Pole mount
SMR-YM ²	Yoke mount
SMR-CC-GY	Conduit connection
SMR-HK-GY	Hook pendant mount
SMR-SS	Secondary safety

¹Option subject to extended lead time

²Only available in stainless steel

A tall industrial distillation column in a refinery, illuminated by Hazlux lighting. The scene is set against a clear blue sky with some light clouds. The lighting highlights the metallic surfaces and the complex structure of the tower, including ladders, platforms, and various pipes. The overall atmosphere is industrial and professional.

HAZLUX® HAZARDOUS LOCATION LIGHTING

Hazlux® linear and flood lighting products are ideally suited for use in a broad range of industrial applications.

Table of contents

Flood and linear lighting products



Hazlux® 8 FDL
42



Hazlux® 7 XFM LED
46



Hazlux® 6 DFP LED
50



WNL LED
54



LGS LED
58

Hazlux® 8

FDL

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

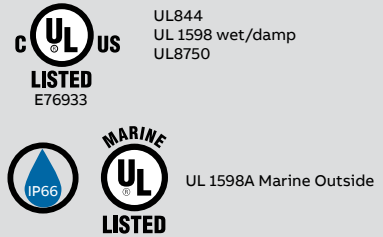


CLASSIFICATION

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

Contact your ABB sales representative to verify classification

CERTIFICATIONS AND RATINGS



Applications

- Water waste and water treatment facilities
- Hazardous location
- Petrochemical
- Industrial

Hazlux® 8 FDL

Key features and 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 standard
- Multiple distribution patterns, type V
- Selection of frosted film, 16°, 70° or 120° lens
- CCT of 4000 K, 5000 K and 7000 K available
- Selection of mounting style
- Tamper-proof screws
- > 120,000 hours rated lifetime projection (L70)
- CRI (75)
- Operating temperature -31 to 122°F (-35 to 50°C)

Construction

- Cooper-free cast aluminum housing
- Captive stainless steel fasteners and insert
- 24 high-power LEDs

Electrical

- 50 W (6400 lumens), 80 W (9000 lumens), 105 W (11,000 lumens)
- 120–277 V
- 277–480 V (6400 lumens only)

Options

- Mounting: ceiling, pendant, yoke, wall, straight or angled stanchion
- Cord with blunt end
- Lens guard
- Black or white finish

Warranty

5 years

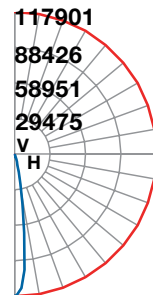
Thermal performance data

Model	Rated ambient temperature	Class I, Div 2 operating temperature code (320°F/160°C)	Class II, Div 2 operating temperature code (212°F/100°C)
FDL05	122°F/50°C	T3C	T5
FDL08	122°F/50°C	T3C	T5
FDL10	122°F/50°C	T3C	T5

Photometry

Reference data	
Catalog 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

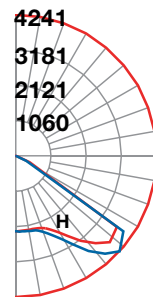
Axial candela display



BUG rating : B5-U0-G0

Reference data	
Catalog 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

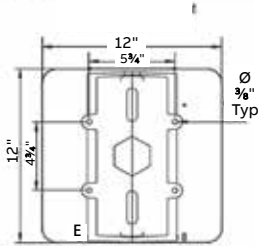


BUG rating : B3-U0-G0

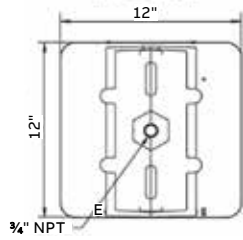
Hazlux® 8 FDL

Mounting options

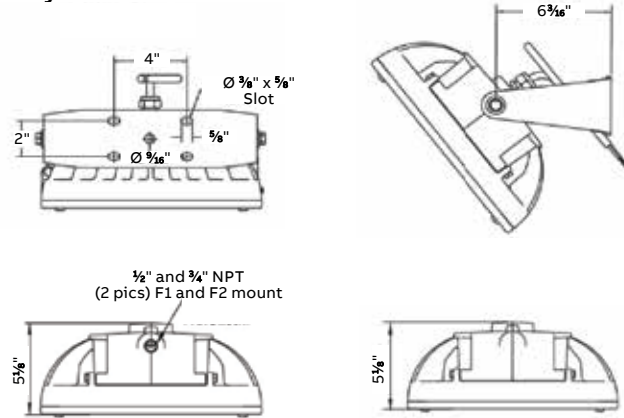
C1 and C2 ceiling mount (ceiling spacers provided)



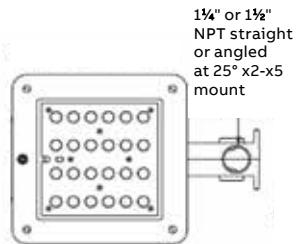
P2 pendant mount



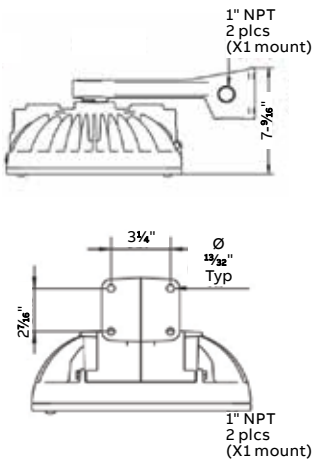
Y1 yoke mount



L4-S4 L5-S5 wall/stanchion mount



B3 mount



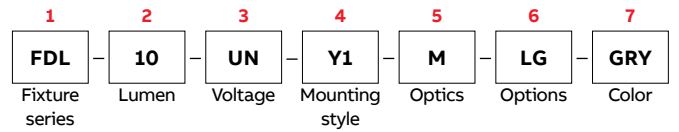
Angled stanchion



Hazlux® 8 FDL
Numbering system



Lighting fixture

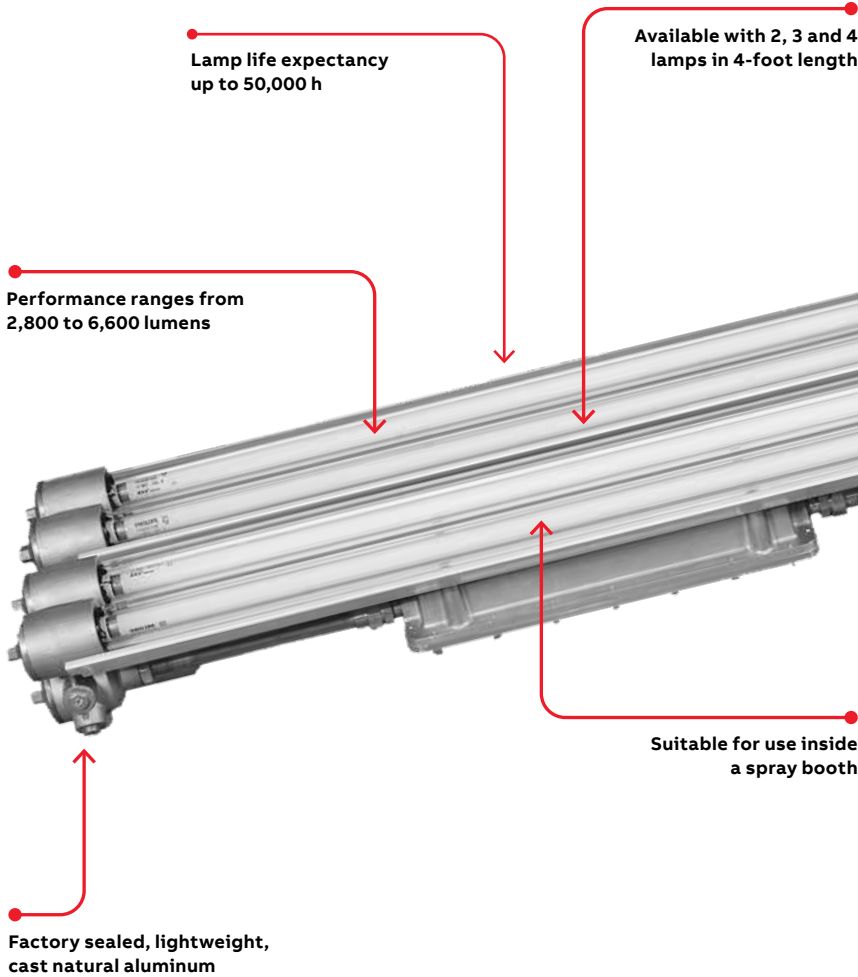


01. Lighting fixture

Part	Part number	Description
1 Fixture series	FDL	Hazlux flood light 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 ½"
	C2	Ceiling ¾"
	P2	Pendant ¾"
	Y1	Yoke mount ½"
	B3	Wall mount 1"
	L4	Stanchion 1¼"
	S4	Angled stanchion 1¼"
	L5	Stanchion 1½"
	S5	Angled stanchion 1½"
5 Optics	F	Frosted film
	N	Narrow 16° FWHM
	W	Wide 120° FWHM
6 Options	LG	Lens guard
	PW	Pre-wired 3' cord with blunt end (Y1 mount only)
	4K	4000 K CCT
	7K	7000 K CCT
	D	0-10V dimming (not with cord option)
7 Color	GRY	Gray powder-coat finish (standard)
	BLK	Black powder-coat finish
	WHT	White powder-coat finish

Hazlux® 7 XFM LED

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

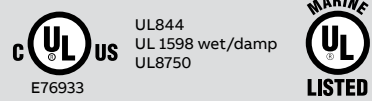


CLASSIFICATION

CLASS I	
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	
CLASS I and II Simultaneous Presence	

Contact your ABB sales representative to verify classification

CERTIFICATIONS AND RATINGS



Applications

- Chemical plants
- Oil refineries
- Waste treatment facilities
- Automotive manufacturing plants
- Paint manufacturing facilities
- Paint spray locations
- Chemical & plastic mixing and storage areas
- Pipeline pumping stations
- Oil and gas terminals
- Defense and government facilities

Hazlux® 7 XFM LED

Key features and benefits

Standard features

- Factory-sealed, lightweight cast natural aluminum
- 5 Different ½" NPT hubs entries at each end
- Center ballast placement for better balance and low profile
- Available with 2, 3 or 4 lamps in 4-foot length
- Operating temperature 0 to 104°F (-18 to 40°C)
- Lamp life expectancy: Up to 50,000 h
- One-piece painted aluminum reflector
- Suitable for use inside a spray booth

Construction

- Cast natural aluminum
- 0.189" wall borosilicate glass tubes

Electrical

- Available with standard or high ballast factor
- Wattage ranging from 29 W in the 2-lamp standard configuration, to 58 W in the 4-lamp configuration (see wattage table below)
- Voltage of 120 to 277 (50/60Hz) and 347 available
- Superior CRI (80+)
- Frequency: 120-277VAC, 50/60Hz, 347VAC, 60Hz

Color temperature

Available 4000 K and 5000 K

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

Warranty

5 years

Performance

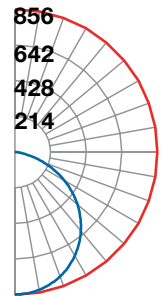
Lamp qty.	Source	Voltage (VAC) 50/60Hz	Input current (A)	Wattage (W)	Lumen output ¹ (Lm)	
					4 000K CCT	5 000K CCT
2 Lamp	S - Standard	120/277	.29 - .13	35	3820	
	H - High output		.41 - .18	49	4940	
3 Lamp	S - Standard	120/277	.45 - .19	53	5600	
4 Lamp	S - Standard	120/277	.58 - .26	70	7640	
	H - High output		.82 - .36	98	9880	

¹Nominal values

Photometry ceiling mount

Reference data	
Catalog number	XFMLEDS5K24UN
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

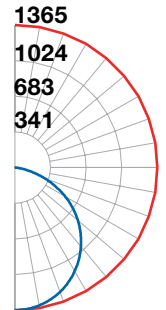
Candlepower curve



BUG rating : B2-U2-G2

Reference data	
Catalog number	XFMLEDS5K34UN
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



BUG rating : B2-U2-G2

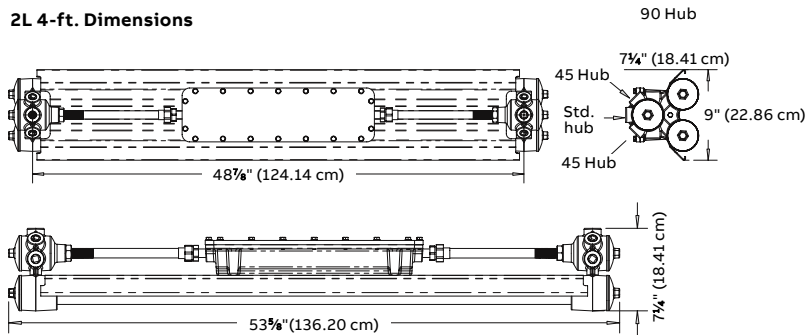
T-Ratings

Model	Rated ambient	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 I and II simultaneous presence
XFMLED	104°F/40°C	T6 (185°F/85°C)	T6 (185°F/85°C)	T4 (275°F/135°C)	T4 (275°F/135°C)	T4 (275°F/135°C)

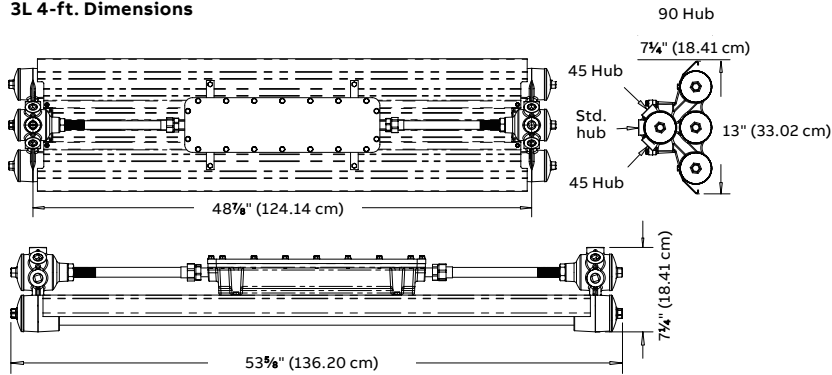
Hazlux® 7 XFM LED

Dimensions

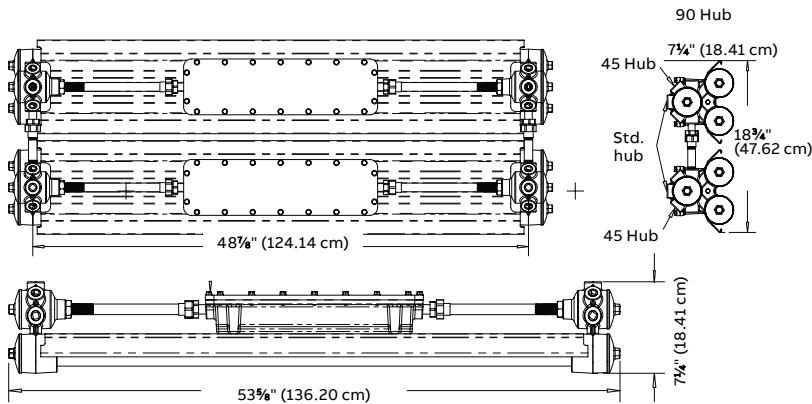
2L 4-ft. Dimensions



3L 4-ft. Dimensions

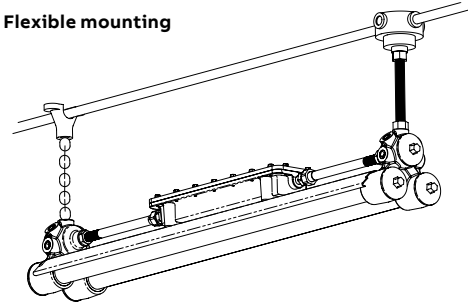


4L 4-ft. Dimensions

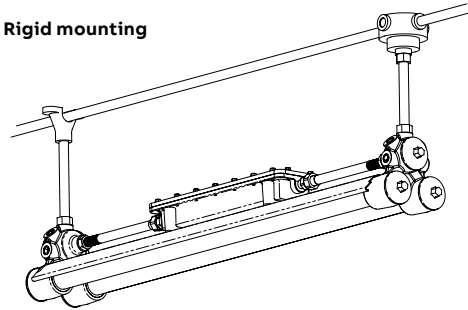


Mounting

Flexible mounting

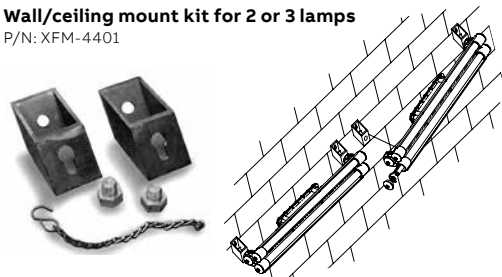


Rigid mounting



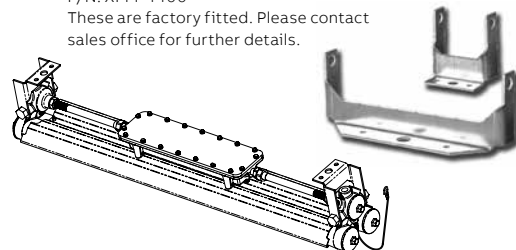
SPECIFY WHEN ORDERING

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.

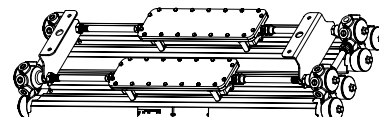


Drop-mount kit for 2 or 3 lamps

P/N: XFM-4405

For 4 lamps

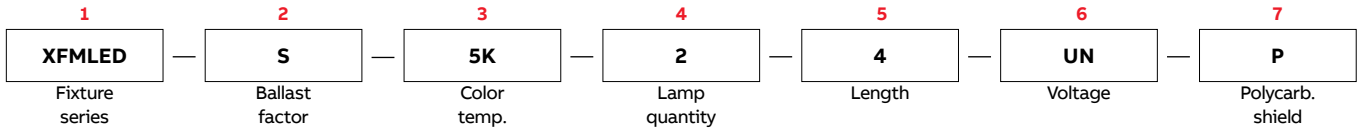
P/N: XFM-4403



Hazlux® 7 XFM LED

Numbering system

Lighting fixture



Lighting fixture

Part	Part number	Description
1 Fixture series	XFMLED	Hazlux vapor / dust proof lighting
2 Ballast factor	S	Standard ballast factor
	H	High output (2 lamp or 4 lamp fixtures only)
3 Color 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 120–277 Volt 50/60 Hz
	34	347 Volt 60 Hz

Options

Part	Part number	Description
7 Options	P	Polycarbonate shield
	WG	Stainless steel guard (not for use in paint spray applications)
	MK	Wall/ceiling mount kit (4 lamps)

Accessory list (order separately)

Part	Part number	Description
	XFM-4401	Wall/ceiling mounting kit for 2 or 3 lamps
	XFM-4211	Stainless steel guard 2 Lamps 4 Ft
	XFM-4457	Stainless steel guard 3 Lamps 4 Ft
	(2) XFM-4221	Stainless steel guard 4 Lamps 4 Ft
	XFM-4405	Drop mount kit for 2 or 3 lamps
	XFM-4403	Drop mount kit for 4 lamps
	XFM-4209	Polycarbonate shield 2 lamps 4 Ft
	XFM-4497	Polycarbonate shield 3 lamps 4 Ft
	(2) XFM-4209	Polycarbonate shield 4 lamps 4 Ft



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

Contact your ABB sales representative to verify classification

CERTIFICATIONS AND RATINGS



UL844
UL 1598 wet/damp
UL8750



Applications

- Petrochemical
- Hazardous location
- Vapor/Dust proof
- Industrial

Hazlux® 6 DFP LED

Key features and 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
- Operating temperature 0 to 104°F (-18 to 40°C)
- Lamp life expectancy: Up to 50,000 h
- Multiple hub locations can meet most wiring needs

Construction

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

Electrical

- Available with standard or high ballast factor
- Wattage ranging from 25 W in the 2-lamp low ballast factor, to 87 W in 6-lamp standard ballast factor configuration (see wattage table below)
- Through-feed wiring
- Voltage of 120 to 277 and 347 available
- Superior CRI (80+)
- Frequency: 120-277VAC, 50/60Hz, 347VAC, 60Hz

Color temperature

Available 4000 K and 5000 K

Options

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

Accessories

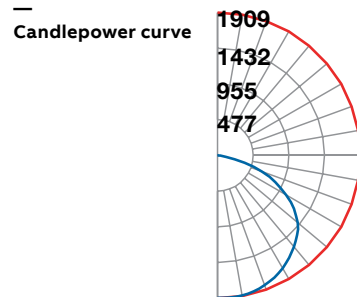
- Chain or cable mount kit
- Adjustable surface or vertical mounting bracket

Warranty

5 years

Photometry ceiling mount

Reference data	
Catalog 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



BUG rating : B2-U0-G1

T-Ratings

Model	Rated ambient	Class I	Class II	Class III
		Division 2 Groups A, B, C, D	Division 2 Groups F, G	
		T5	T4A	T4A
DFPLED	104°F/40°C	(212°F/100°C)	(248°F/120°C)	(248°F/120°C)

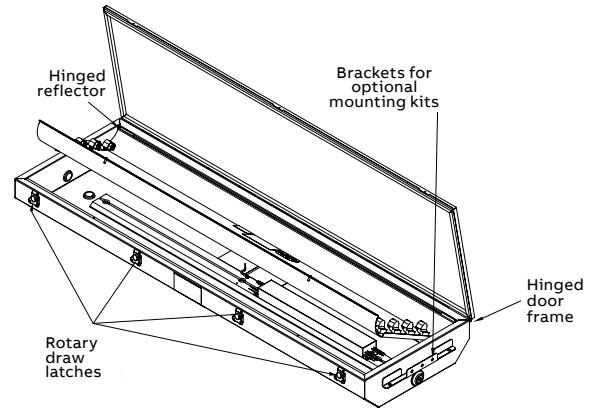
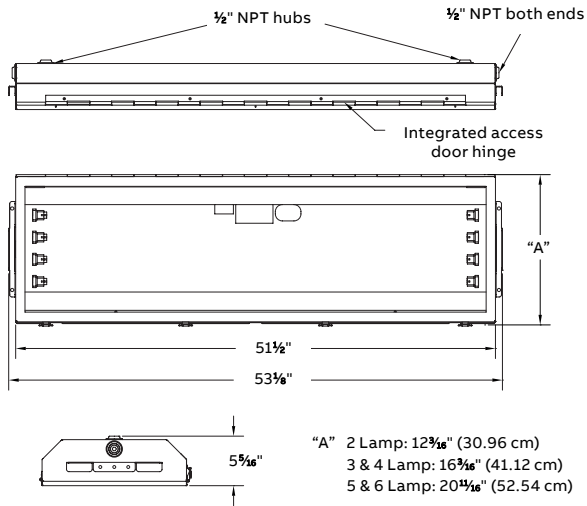
Performance

Tube lamp qty.	Source (Output)	Voltage (VAC) 50/60Hz	Input current (A)	Wattage (W)	Lumen output ¹ (Lm)	
					4 000K CCT	5 000K CCT
2 Lamp			.29 - .13	35	3560	
3 Lamp			.45 - .19	53	5340	
4 Lamp	S - Standard	120-277	.59 - .26	70	6810	
5 Lamp			.74 - .32	88	8550	
6 Lamp			.88 - .38	105	10260	
2 Lamp			.41 - .18	49	4630	
4 Lamp	H - High	120-277	.82 - .35	97	9460	
6 Lamp			1.22 - .53	145	14250	

¹Nominal values

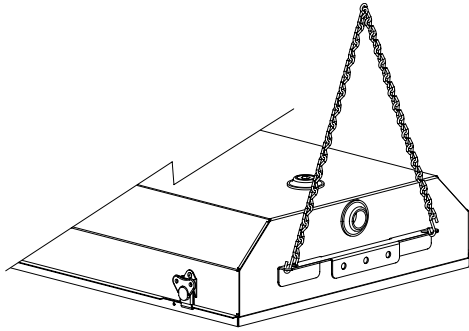
Hazlux® 6 DFP LED

Dimensions



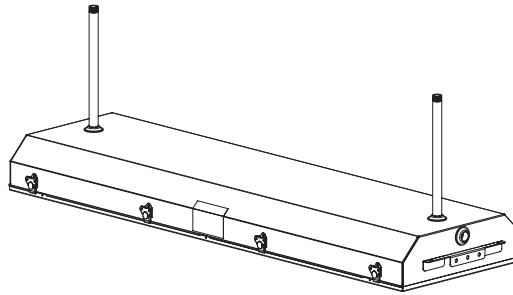
Mounting options

Chain kit



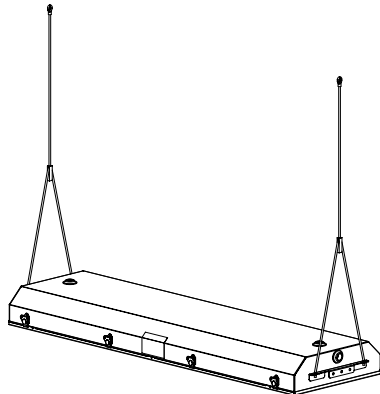
Pendant-style mounting (standard)

Note: Conduit supply by others
45" between conduit



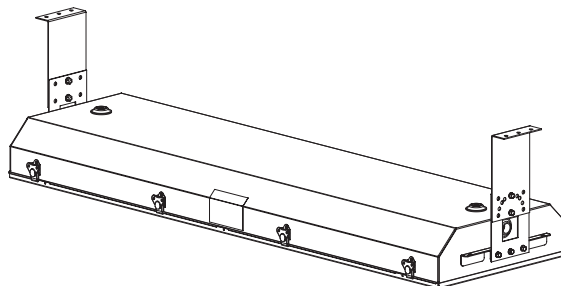
Cable hang kit (Zinc coated)

Qty 2 cables with toggle ends and qty 2 self-locking gripples



Adjustable surface-mounting bracket kit (Galvanized)

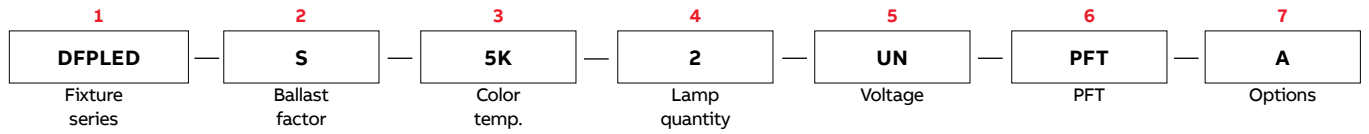
Toggle ends and qty 2 self-locking gripples



Hazlux® 6 DFP LED

Numbering system

Lighting fixture



Lighting fixture

Part	Part number	Description
1 Fixture series	DFPLED	Hazlux vapor / dust proof lighting
2 Ballast factor	S	Standard ballast factor
	H	High ballast factor
3 Color 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 120–277 volt 50/60 Hz
	34	347 Volt

Options

Part	Part number	Description
7 Options	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

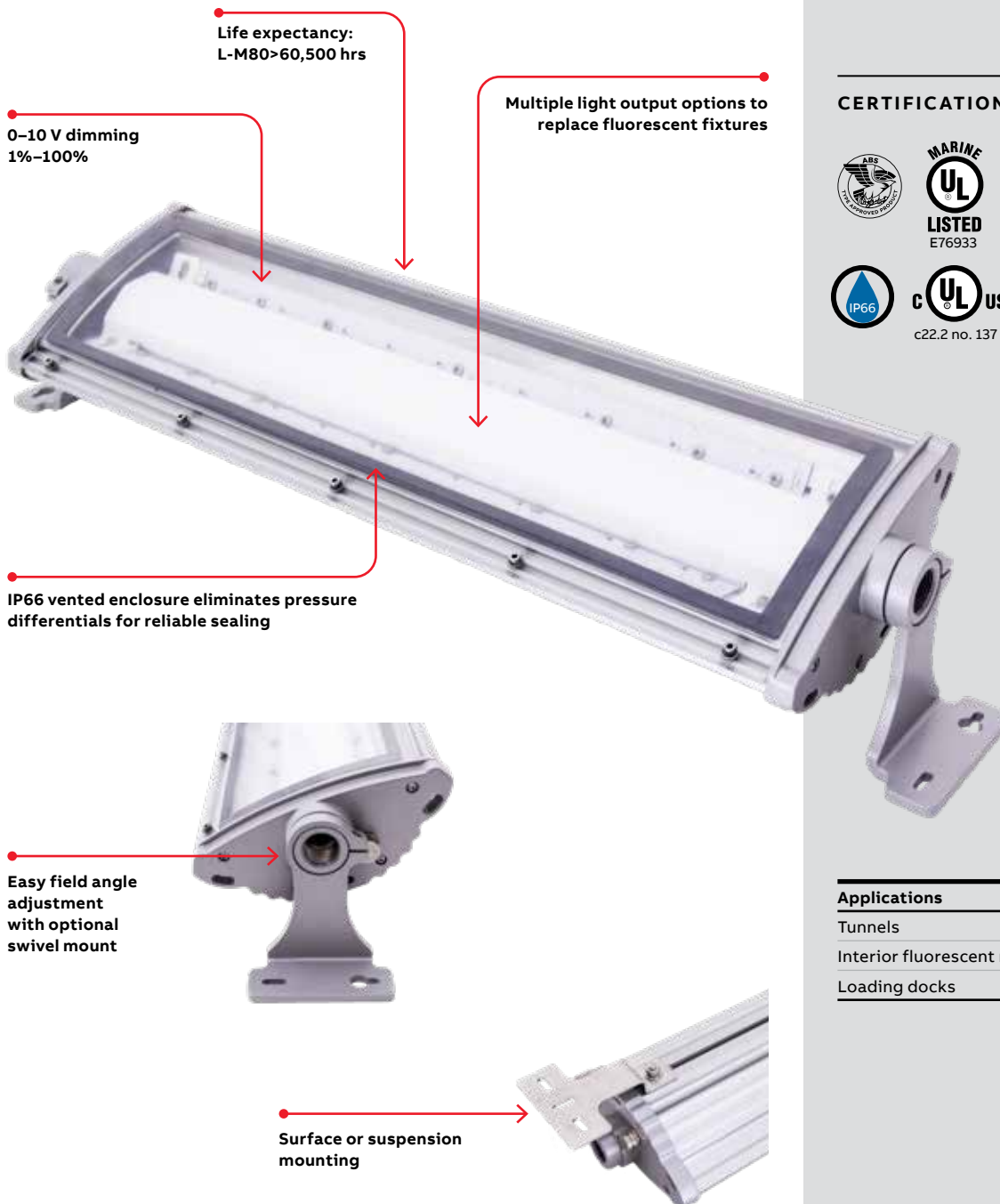
Mounting accessories (order separately)

Part	Part number	Description
Chain hang kits & brackets	DFP-CHAIN	Chain hang kit
	DFP-Cable	Cable hang kit
	DFP-Surface	Adjustable surface mounting bracket



WNL LED

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



Life expectancy:
L-M80>60,500 hrs

0-10 V dimming
1%-100%

Multiple light output options to
replace fluorescent fixtures

IP66 vented enclosure eliminates pressure
differentials for reliable sealing

Easy field angle
adjustment
with optional
swivel mount

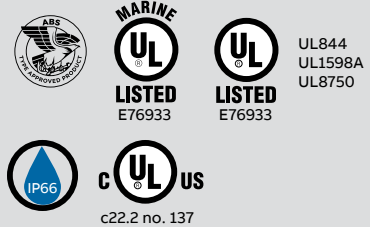
Surface or suspension
mounting

CLASSIFICATION

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

Contact your ABB sales representative
to verify classification

CERTIFICATIONS AND RATINGS



Applications

- Tunnels
- Interior fluorescent replacement
- Loading docks

WNL LED

Key features and benefits

Features

- 100% field serviceable
- Minimum CRI of 70
- Up to 115 lumen/watt delivered
- Operating temperature: -40 to 114°F (-40 to 46°C)
- IP66 vented enclosure

Finish

- Powder-coated end caps
- Polycarbonate lens resistant to impact 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 (IP66)
- Lens and case are designed to withstand severe impact and vibration
- Vented enclosure eliminates pressure differentials and ensures reliable sealing

Output

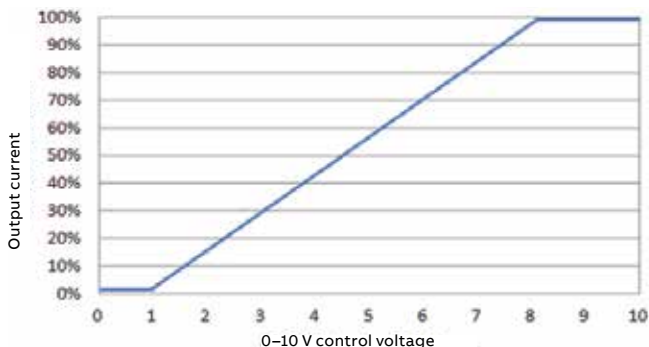
- 3,970 up to 10,000 lumens
- 0–10 V dimmable

Mounting

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

Dimming

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



Color temperature

Available standard in 3500 K and 5000 K color temperatures, with additional color temperatures available from 2700 to 6500 K.

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+)

Power supplies

- Two input power ranges for flexibility
- Over-voltage, over-temperature and short circuit protection
- Built-in junction box with 3/4" NPT entry for electrical termination within sealed cavity
- Transient/surge protection: IEEE C62.41 4 kV/4 kV
- Frequency: 120-277VAC, 50/60Hz, 347-480VAC, 60Hz

Warranty

5 years

WNL LED

Mounting options

Surface mount (standard)



Suspended mount (standard)



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

Angle adjustable mount (order separately)

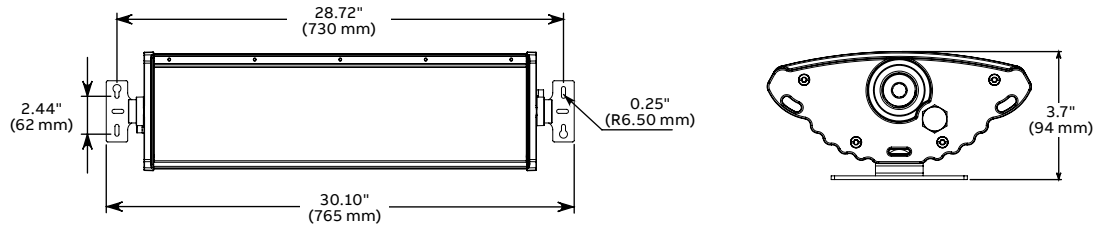


Easy field 360° angle adjustment with 3 mm hex key.

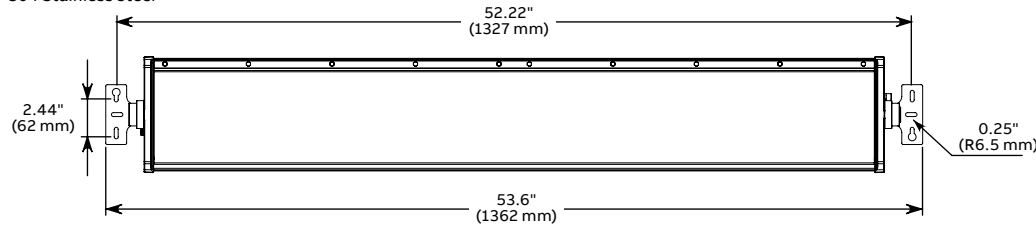
Surface/suspended mount (standard)

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



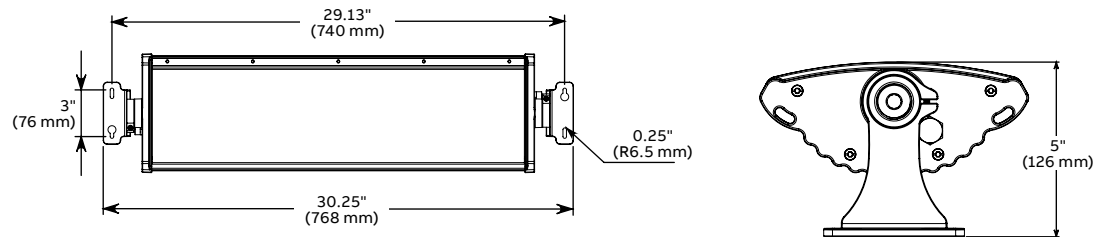
WNL4 – Surface mount 8.6 kg | 19 lbs (included standard)
304 Stainless steel



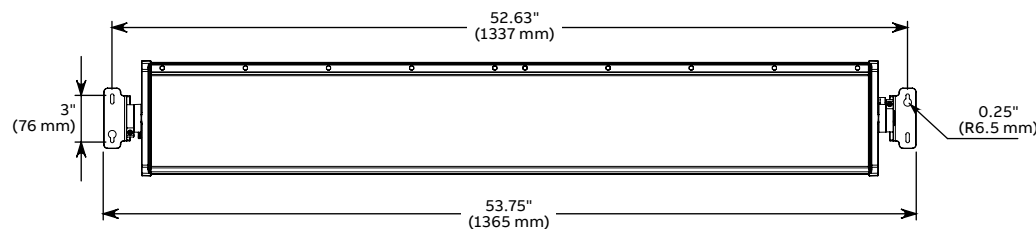
Adjustable mount (WNL-AM - optional)

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

Electrical ratings

Model	Input voltage	Rated wattage (Watts)	Rated voltage (Volts)	Frequency (Hz)	Ambient temp.	Total lumens (Class I Division 2)	T-codes (Class II Division 2)	T-codes (Class II Division 2)
WNL2S	AC	36	120-277	50/60	-40 to 131°F (-40 to 55°C)	3,970	T4A	T4
	HV	36	347-480	50/60	-40 to 129°F (-40 to 54°C)	3,970	T4A	T4
WNL2H	AC	52	120-277	50/60	-40 to 131°F (-40 to 55°C)	5,143	T4A	T4
	HV	52	347-480	50/60	-40 to 129°F (-40 to 54°C)	5,143	T4A	T4
WNL2X	AC	70	120-277	50/60	-40 to 126°F (-40 to 52°C)	7,965	T5	T4
	HV	82	347-480	50/60	-40 to 115°F (-40 to 46°C)	7,965	T5	T4A
WNL4S	AC	85	120-277	50/60	-40 to 131°F (-40 to 55°C)	8,697	T4A	T4A
	HV	90	347-480	50/60	-40 to 129°F (-40 to 54°C)	8,967	T4A	T4A
WNL4H	AC	105	120-277	50/60	-40 to 129°F (-40 to 54°C)	10,470	T4A	T4A
	HV	109	347-480	50/60	-40 to 126°F (-40 to 52°C)	10,470	T4A	T4A

Numbering system

Lighting fixture



Mounting accessory

Part number	Description
WNL-AM-GY	Adjustable mount (order separately)

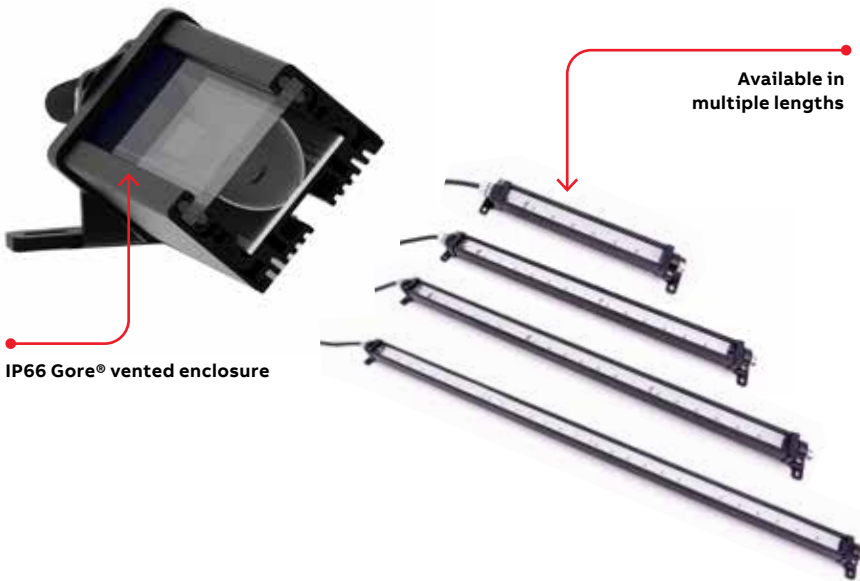
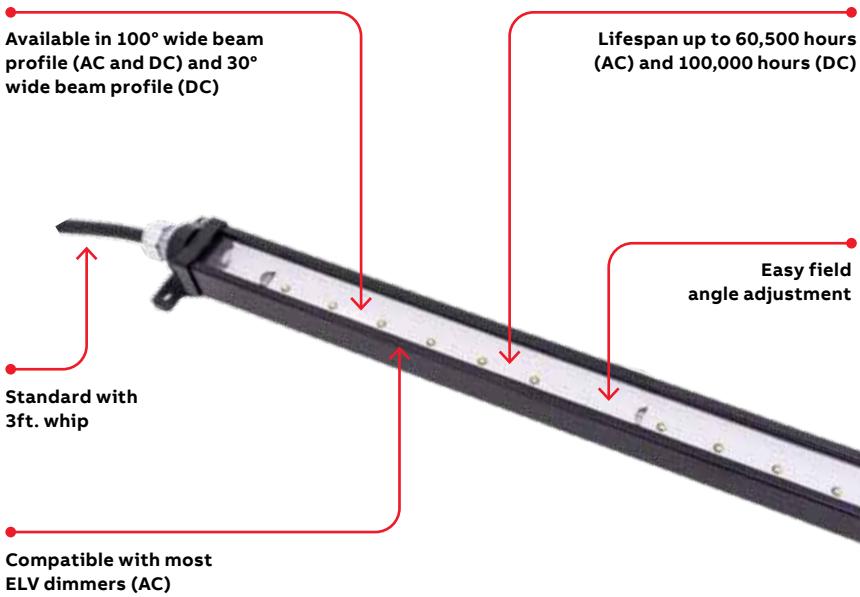
Lighting fixture

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 WNL4)
3 Optic	WC	Wide (no optics)
4 Finish	GY	Gray
	50	Cool white
5 Color	35 ¹	Warm white
	AC	120 to 277 V AC
6 Power	HV	347 to 480 V AC
	HL	Hazardous location
7 Location	BLANK	Canadian market
8 Market	U	US market

¹Option subject to extended lead time

LGS LED

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

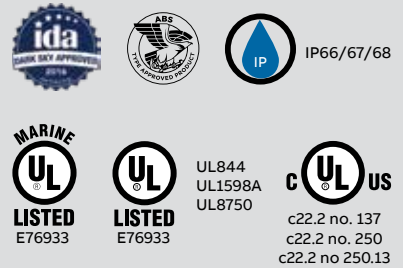


CLASSIFICATION

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

Contact your ABB sales representative to verify classification

CERTIFICATIONS AND RATINGS



Applications

- Vehicle/equipment
- Enclosures
- Tunnel lighting

LGS LED

Key features and 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 designed to withstand severe impact

CREE LEDs

- Proven reliability
- High efficiency
- Superior CRI (80+)
- Available in standard 5000 K and 3500 K with custom color and dual color 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
- 12 V or 24 V DC input options can run directly off of vehicle or facility low voltage DC
- High-efficiency internal reflector maximizes output
- Frequency 120 VAC, 50/60Hz

Thermal management

- Heat-sink designed for optimal heat dissipation

Color temperature

Available in 3500 K and 5000 K, with additional color temperatures available from 2700 to 6500 K.

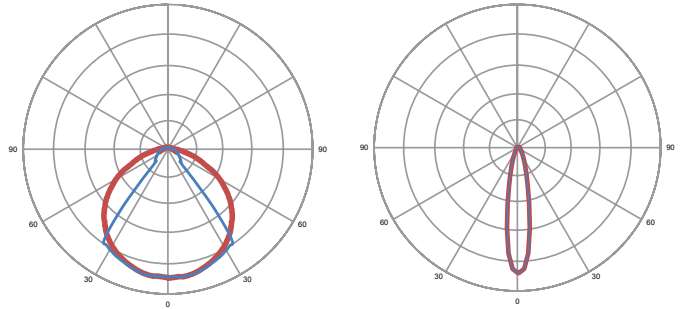
Temperature codes

T5	Class 1, Div 2, Groups A, B, C, D
T4A	Class II, Div. 2, Groups F, G

Operating temperature

- AC -40 to 149°F (-40 to 65°C)
- DC -40 to 140°F (-40 to 60°C)

Optic options



W – Wide 100°	
Model	Lumen output (CW)
LGS-1	586
BUG rating : B1-U0-G0	
LGS-2	1172
LGS-3	1758
LGS-4	2289
BUG rating : B2-U0-G0	

N – Narrow 30° (DC only)	
Model	Lumen output (CW)
LGS-1	559
BUG rating : B2-U0-G0	
LGS-2	1118
LGS-3	1677
LGS-4	2236
BUG rating : B3-U0-G0	

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

Warranty

5 years

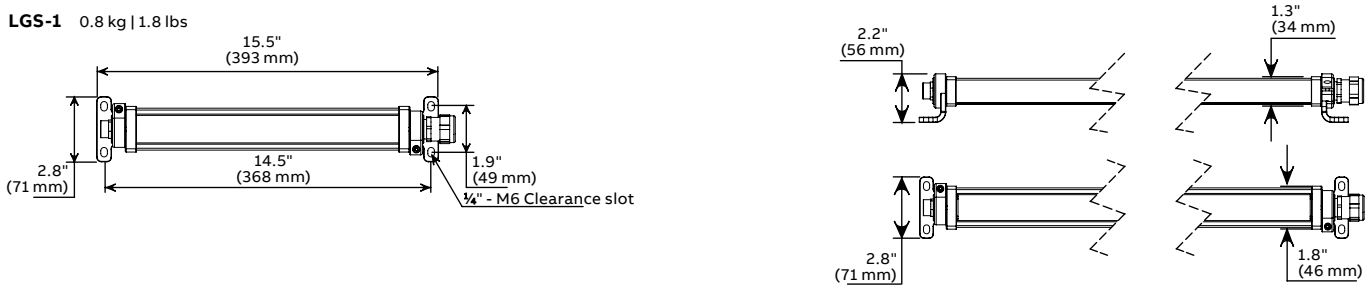
Power consumption

Model	LGS-1	LGS-2	LGS-3	LGS-4	
Power	12 VDC	12W	21W	36W	48W
	24 VDC	11W	21W	32W	42W
	120 VAC	10W	20W	31W	41W
Current	12 VDC	0.75A	1.5A	2.3A	3.0A
	24 VDC	0.40A	0.75A	1.1A	1.5A
	120 VAC	0.09A	0.17A	0.23A	0.34A

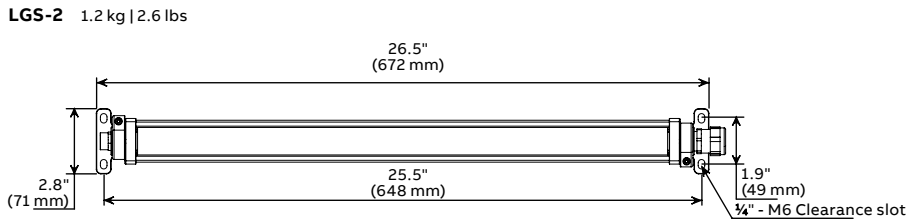
LGS LED

Dimensions

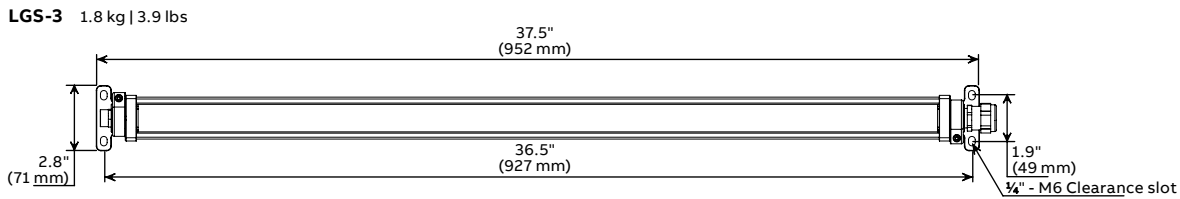
LGS-1 0.8 kg | 1.8 lbs



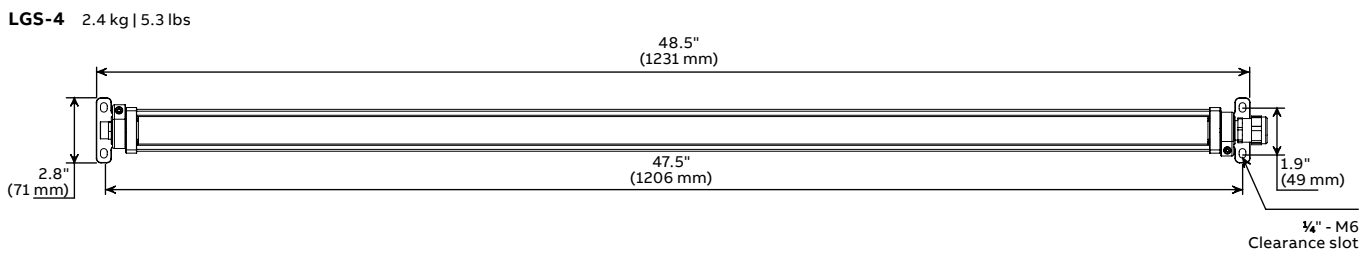
LGS-2 1.2 kg | 2.6 lbs



LGS-3 1.8 kg | 3.9 lbs



LGS-4 2.4 kg | 5.3 lbs

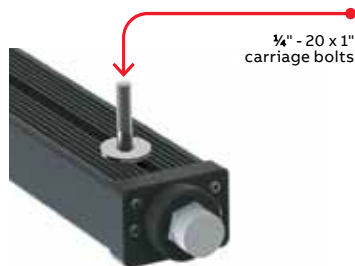


Mounting options

A - Adjustable mounting bracket (optional)



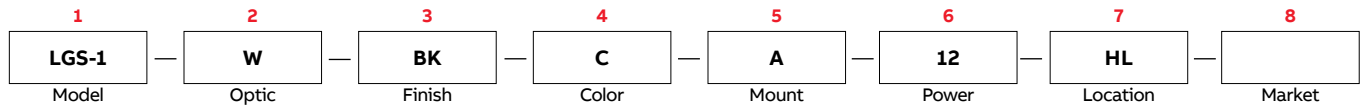
B - Carriage bolt/surface mount (optional)



LGS LED

Numbering system

Lighting fixture



Lighting fixture

Part	Part number	Description
1 Model	LGS-1	559 to 586 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	BK	Black
4 Color	C	5000 K Cool white
	W ¹	3500 K Warm white
5 Mount	A	Adjustable
	B	Carriage bolt
6 Power	12	11–16 V DC
	24	21–28 V DC
	120	120 V AC, 50/60Hz
7 Location	HL	Hazardous location
8 Market	BLANK	Canadian market
	U	US market

¹Option subject to extended lead time



Section B

Emergency Lighting Products



Table of contents

Emergency lighting products



VB LED
64



VC LED
65



VE LED
66



VR LED
67



**Hazardous location
battery unit**
68



**Hazardous location
remote fixture**
68



**Hazardous location
pictogram sign**
69



**Hazardous location
combo pictogram**
69

VB LED

Hazardous location battery unit



Key features and benefits

Housing

- Class I Division 2, Groups A, B, C and D
- Vandal-resistant UV stabilized polycarbonate lamp cover
- Front and back plates are of a heavy duty aluminum
- Stainless steel tamper-proof screws

Mounting:

- Surface wall mount only
- Includes mounting lugs on each side of the housing
- Universal J-box mounting
- 1/2 inch entry on both sides and top of housing

Lamp type

- Choice of MR16 LED lamp wattages

Electronics

- Pulse plus charger
- Low voltage disconnect
- Automatic brownout protection
- Battery lock-out
- Fused output circuit
- Magnetic test switch
- Standard Advanced Diagnostics (non-audible)
- Optional Nexus® monitoring system
- 120/277 60Hz

Battery type

- 6 or 12V lead-calcium battery

Approvals

- CSA-US (to UL 924 standards)
- Evaluated to the UL 844 Standard for Class I Division 2, Groups A, B, C and D
- NEC, OSHA and NEMA compliant for above Classes and Groups
- Damp and wet location 10 to 40°C (50 to 104°F)

Warranty

- Unit has a five-year limited warranty

CLASSIFICATION

CLASS I

Division 2

Groups A, B, C, D

Contact your ABB sales representative to verify classification

CERTIFICATIONS



UL844
UL924

US
LR111065

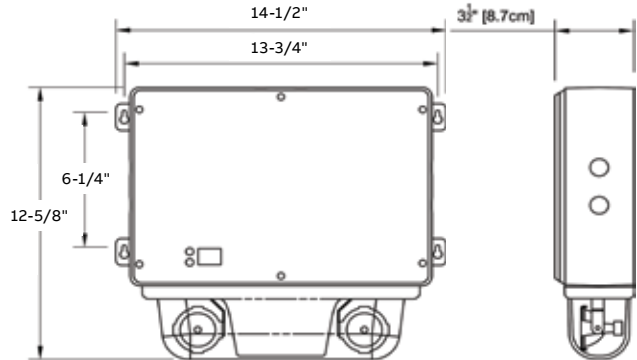


FEATURES



nexus®

Dimensions



Lighting fixture

Part	Part number	Description
1 Series	VB0618	6V 18W lead-calcium
	VB1236	12V 36W lead-calcium
	VB1260	12V 60W lead-calcium
	VB1272	12V 72W lead-calcium
2 Lamps	L1	2 x MR16 LED 6V 4W
	L2	2 x MR16 LED 6V 5W
	L7	2 x MR16 LED 12V 4W
	L9	2 x MR16 LED 12V 5W
	L10	2 x MR16 LED 12V 6W
3 Voltage	03	120/277V 60 HZ
4 Color	-G	Gray housing
5 Charger type	Blank	Advanced Diagnostics non-audible
	DA	Advanced Diagnostics audible
	NEX	Nexus® wired
	NEXRF	Nexus® wireless
6 Options	Blank	No option
	-T3	Time delay 15 minutes

VC LED

Hazardous location combination unit



CLASSIFICATION

CLASS I

Division 2

Groups A, B, C, D

Contact your ABB sales representative to verify classification

CERTIFICATIONS



UL844
UL924

US
LR111065



CERTIFIED
FOR U.S. ONLY

FEATURES



nexus[®]

Key features and benefits

Construction

- Fully gasketed housing frame
- Faceplate: heavy-duty, vandal-resistant polycarbonate
- Backplate: heavy-duty aluminum
- Vandal-resistant UV stabilized polycarbonate lamp cover
- Stainless steel tamper-proof screws
- 6 inch EXIT lettering legend, available in red or green
- Field-selectable chevrons

Mounting

- Surface wall mount only
- Backplate features universal knockouts for a standard 4 inch junction box, and four mounting eyelets used in wall mount applications
- 1/2 inch conduit entry on top and sides.

Lamp type

- Choice of MR16 LED lamp wattages

Battery type

- VC Model, nickel-cadmium battery, 6V-20W total battery capacity
- VC12N Model, nickel-cadmium battery, 12V-24W total battery capacity

Electronics

- Magnetic test switch
- Standard Advanced Diagnostics (non-audible)
- Optional Nexus[®] monitoring system
- 120/277 60Hz

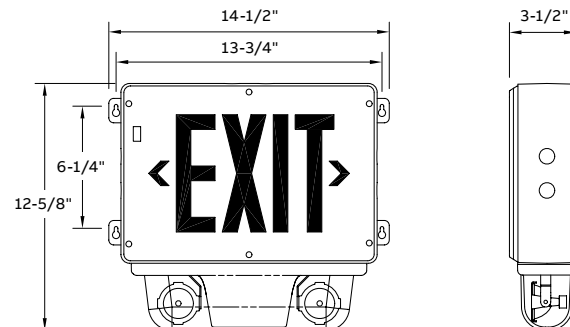
Approvals

- CSA-US (to UL 924 standards)
- Evaluated to the UL 844 Standard for Class I Division 2, Groups A, B, C and D
- NEC, OSHA and NEMA compliant for above Classes and Groups
- Damp and wet location 10 to 40°C (50 to 104°F)
- Temperature code T4A (Max. temperature 120°C/ 248°F)
- Meets NFPA101 (Life Safety Code), NFPA 70-NEC and OSHA illumination standards

Warranty

- Five-year limited warranty

Dimensions



Lighting fixture

Part	Part number	Description
1 Series/capacity	VC	6V-20W, NICD
	V12N	12V-24W, NICD
2 Lamp/wattage	L1	2 x MR16 LED 6V 4W
	L2	2 x MR16 LED 6V 5W
	L7	2 x MR16 LED 12V 4W
	L9	2 x MR16 LED 12V 5W
	L10	2 x MR16 LED 12V 6W
3 Voltage	03	120/277V 60 HZ
4 Housing/face color	GG	Gray/gray
5 Legend color	R	Red legend
	G	Green legend
6 Diagnostics	Blank	Advanced Diagnostics non-audible
	DA	Advanced Diagnostics audible
	NEX	Nexus [®] wired
	NEXRF	Nexus [®] wireless

VE LED

Hazardous location exit sign



Key features and benefits

Construction

- Fully gasketed housing frame
- Faceplate: heavy-duty, vandal-resistant polycarbonate
- Backplate: heavy-duty aluminum
- Stainless steel tamper-proof screws
- 6 inch EXIT lettering legend, available in red or green
- Field-selectable chevrons

Mounting

- Surface mount
- Junction box included for wall, end or ceiling mount applications
- 1/2 inch conduit knock-out entry on top and sides.

Electronics

- Magnetic test switch
- Standard Advanced Diagnostics (non-audible)
- Optional Nexus® monitoring system
- 120/277 60Hz

Approvals

- CSA-US (To UL 924 standards)
- Evaluated to the UL 844 Standard for Class I Division 2, Groups A, B, and D
- NEC, OSHA and NEMA compliant for above Classes and Groups
- Damp and wet location 10 to 40°C (50 to 104°F)
- Meets NFPA101 (Life Safety Code), NFPA 70-NEC and OSHA illumination standards

Warranty

- Five-year limited warranty

CLASSIFICATION

CLASS I

Division 2

Groups A, B, C, D

Contact your ABB sales representative to verify classification

CERTIFICATIONS



UL844
UL924

US
LR111065



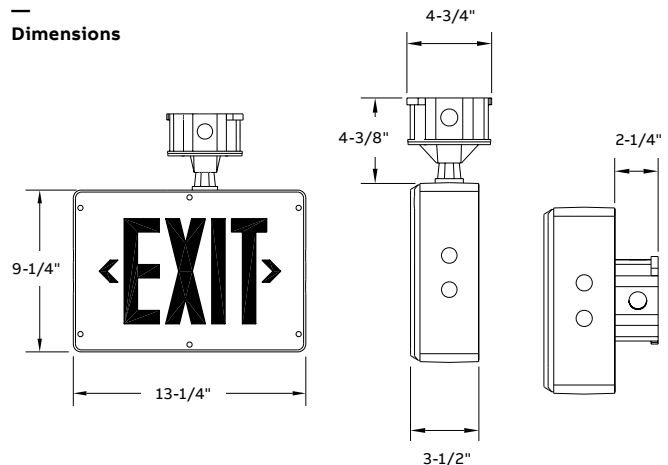
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FEATURES



nexus®

Dimensions



Lighting fixture

Part	Part number	Description
1 Series	VE	AC/DC (50° to 104°F Amb)
	VEN	Self-powered (NiCad) (50° to 104°F)
2 Face(s)	1	Single (ceiling/wall mount)
	2	Double (ceiling mount only)
3 Voltage	03	120/277V 60 Hz
4 Color of body/face	GA	Gray ¹
5 Legend	R	Red
	G	Green
6 Diagnostic	Blank	Advanced Diagnostics (non-audible)
	NEX	Nexus® wired
	NEXRF	Nexus® wireless
7 Options	CW	Cold weather (-4° to 104°F Amb) ²

¹Other colors available

²Available with VEN only

VR LED

Hazardous location remote fixture



CLASSIFICATION

CLASS I

Division 2

Groups A, B, C, D

Contact your ABB sales representative to verify classification

CERTIFICATIONS



UL844
UL924

US
LR111065



Key features and benefits

Description

- Available with single or double lamp heads
- Die-cast aluminum back plate with gasket
- Vandal-resistant UV stabilized polycarbonate lamp cover
- Comes standard with tamper-proof screws and bit
- Universal J-box mounting
- Extreme operational temperature range: 10 to 40°C (50 to 104°F)

Mounting

- Surface mount
- Conduit entry 1/2" NPT

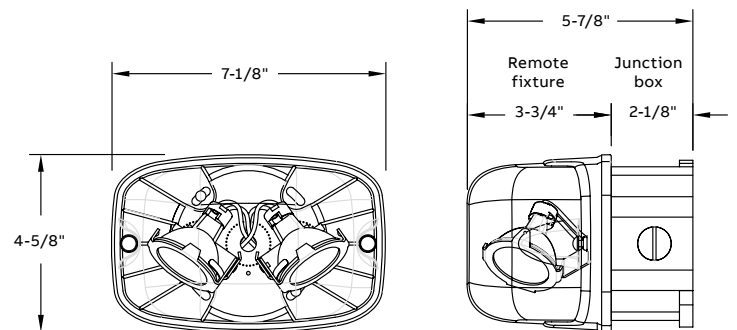
Approval

- CSA-US (to UL 924 standards)
- Evaluated to the UL 844 Standard for Class I Division 2, Groups A, B, C and D

Warranty

- Five-year limited warranty

Dimensions



Lighting fixture

Part	Part number	Description
1 Series	VR	Single C1D2
	VRD	Double C1D2
2 Lamp type/wattage	L1	6V 4W, MR16 LED
	L2	6V 5W, MR16 LED
	L7	12V 4W, MR16 LED
	L9	12V 5W, MR16 LED
	L10	12V 6W, MR16 LED
	L13	24V 4W, MR16 LED
3 Color	L26	120V 4W, MR16 LED cw wires
	-G	Gray

Hazardous location battery unit



Key features and benefits

- Includes the addition of Class II Div 1&2 Groups E, F and G as well as Class III ratings
- Certified Class I Zone 2, Groups IIA, IIB and IIC
- Certified Class I Division 2, Groups A, B, C and D as per CSA C22.2 No.137-M1981
- Certified temperature codes for several types of emergency lamps
- Suited for areas with the risk of flammable gases, vapors or liquids that can create an explosive atmosphere
- Heavy-duty 1/8" thick aluminum back plate with keyholes for secure wall-mount installation
- Two LED lamps, shielded by a cast aluminum housing and a polycarbonate cover
- 6W LED emergency lights provide 100 ft of egress illumination on a 6-foot wide path
- Sealed, maintenance-free, Lead-Calcium batteries with up to 150W emergency power
- Built-in microcontroller-based battery charger and auto-diagnostics circuitry
- 1/2" electrical conduit entry on both sides and at the top
- Auto-testing capabilities (specific load requirements)
- Meets or exceeds CSA C22.2 No.141-15

CLASSIFICATION

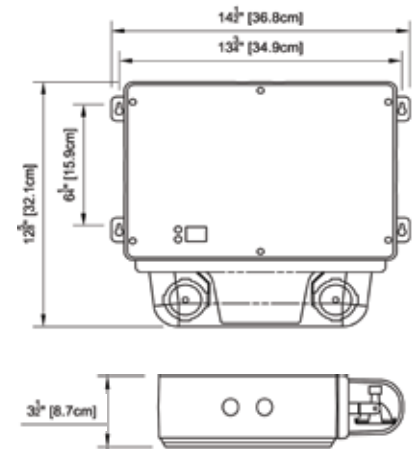
CLASS I	
Division 2	Groups A, B, C, D
CLASS II	
Division 1 & 2	Groups E, F, G
CLASS III	

Contact your ABB sales representative to verify classification

CERTIFICATIONS



Dimensions



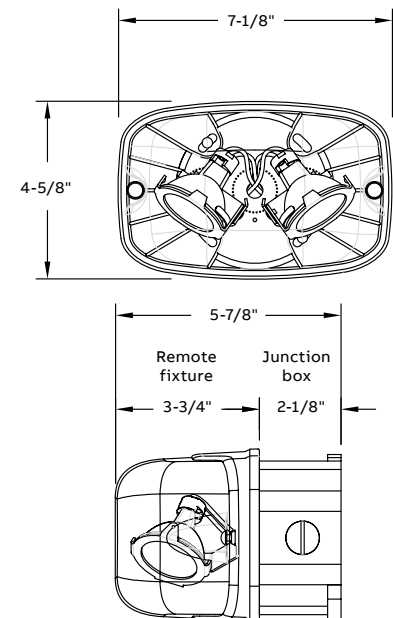
Hazardous location remote fixture



Key features and benefits

- Quality illumination requires fewer fixtures
- Certified Class I Zone 2, Groups IIA, IIB and IIC
- Certified Class I Division 2, Groups A, B, C and D as per CSA C22.2 No.137-M1981
- Temperature Codes: T4, T4A and T5 as per Canadian Electrical Code, Part I and CSA C22.2 No.137-M1981
- Extreme operational temperature range: -40°C (-40°F)
- Choice of single- or double-lamp models
- High-efficacy LED lamps of 4W, 5W and 6W
- Input voltage: 6V, 12V, 24V or 120V
- Fully gasketed die-cast aluminum back plate
- Clear polycarbonate cover, UV and impact resistant
- Easy installation on a 4-inch octagonal box (included)
- Comes standard with tamper-proof screws and bit
- Certified to CSA 22.2 No.141-15

Dimensions



Hazardous location pictogram sign



Key features and benefits

- Compliant Class I Division 2, Groups A, B, C and D as per CSA C22 .2 No .137-M1981
- Includes the addition of Class II Div . 1&2 Groups E, F and G as well as Class III ratings
- Temperature Code T6 (maximum + 85°C (185°F)) as per Canadian Electrical Code, Part I and CSA C22 .2 No.137-M1981
- High-impact thermo-plastic frame with built-in gasket to secure against liquid leaks
- Sealed, heavy-duty, vandal-resistant polycarbonate face plate(s)
- Concealed pilot light and test switch with magnetic action
- Long-life white LED light source is warranted for 10 years
- Supplied standard with two pictogram films per face, for direction selection
- Universal AC input: two-wire 120 to 347VAC; standard DC input: two-wire 6 to 24VDC
- Energy efficient – consumes less than 2.5 Watts in AC or DC-remote mode
- Self-Powered models come standard with auto-test functions and deliver two hours of back-up legend illumination
- Suitable for cold-weather: -40°C (-40°F) for AC/DC and -20°C (-4°F) for Self-Powered models (option: -CW)
- Meets or exceeds CSA 22 .2 No . 141-15

Hazardous location combo pictogram



Key features and benefits

- Certified Class I Division 2, Groups A, B, C and D as per CSA C22 .2 No .137-M1981
- Includes the addition of Class II Div 1&2 Groups E, F and G as well as Class III ratings
- Certified temperature Codes for several types of emergency lamps
- Polyvinyl chloride frame, with built-in gasket to prevent water infiltration
- Heavy-duty 1/8-inch thick aluminum back plate with key-holes for wall-mount installation
- Sealed, polycarbonate vandal-resistant faceplate
- Legend illuminated by long-life white LEDs is warranted for 10 years
- Comes standard with two pictogram films for direction selection
- Two LED lamps shielded by a clear polycarbonate cover
- Sealed, maintenance-free Lead-Calcium or Nickel-Cadmium batteries
- Comes standard with auto-test, non audible
- Remote load capacity: covers with LED lights 200 ft up to 500 ft of egress illumination
- Cold-weather option: -40°C (-40°F) with only 14W extra power consumption
- Auto-testing capabilities (specific load requirements)
- Meets or exceeds CSA C22 .2 No .141-15

CLASSIFICATION

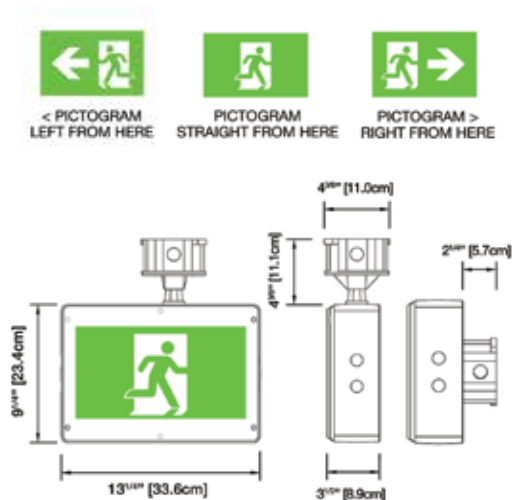
CLASS I	
Division 2	Groups A, B, C, D
CLASS II	
Division 1 & 2	Groups E, F, G
CLASS III	

Contact your ABB sales representative to verify classification

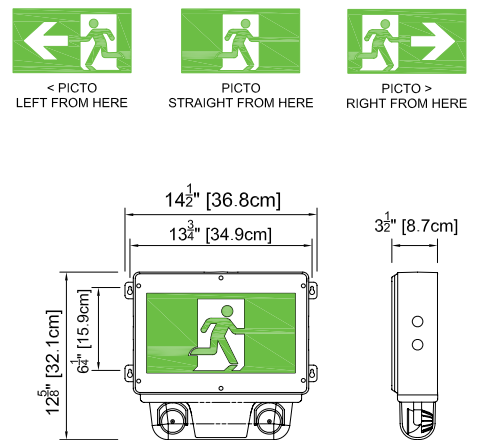
CERTIFICATIONS



Dimensions



Dimensions





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 and 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 (NEC) and the Canadian Electrical Code (CEC).

Ignition temperatures

Group classifications

Ignition temperatures and group classifications for flammable gases and vapors

Material	Group	Autoignition temperature		Material	Group	Autoignition temperature	
		° F	° C			° F	° 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-Ethylehexaldehyde	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	Autoignition temperature			Material	Autoignition temperature		
	Group	° F	° C		Group	° F	° 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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