



Ex-Solutions™ Lighting

Hazardous location products and accessories

You can rely on Ex-Solutions™ 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 Ex-Solutions™ lighting products to reduce maintenance and prevent downtime.

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Linear lighting	LED	XLN7	50

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Linear lighting	LED	XLN7	50

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High bay and low bay	HPS	XSL5	26
Linear lighting	LED	XLN6	46
Linear lighting	LED	XLN7	50

Class III			
High bay and low bay	LED	XSL3	14
Linear lighting	LED	XLN6	46
Linear lighting	LED	XLN7	50

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 Ex-Solutions™ 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 under one roof, giving us unparalleled capabilities to customize lighting fixtures to meet your specific needs.

Reduced lead time

We produce what you need when you need it in our state-of-the-art North American 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.

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004–11 General information



013–043 High bay and low bay






























































045–065 Linear and flood lighting





























067–075 Emergency lighting













077–079 Classifications

Product matrix

Area lighting			Area/Flood lighting		
	XSL3 LED	XSL5 HID	XSL11 LED	XSL10 LED	
					
Classification	   	   	  	  	
Optics - IESNA	   		    	    	
Optics - NEMA	—	—	   	   	
IP/NEMA		—	 	 	
DLC		—			
Certification	 		   	  	
Wattage	37-138W	50-400W	107-310W	26-57W	
Lumen	5,600-20,000lm	—	12,000-32,000lm	3,000-6,300lm	
Voltage ac	120-277VAC, 50/60Hz 347-480VAC, 50/60Hz	120-277VAC, 50/60Hz 347-480VAC, 50/60Hz	120-277VAC, 50/60Hz 347-480VAC, 50/60Hz	120-277VAC, 50/60Hz 347-480VAC, 60Hz	
Dimming	0-10V dimming	—	0-10V dimming	0-10V dimming	

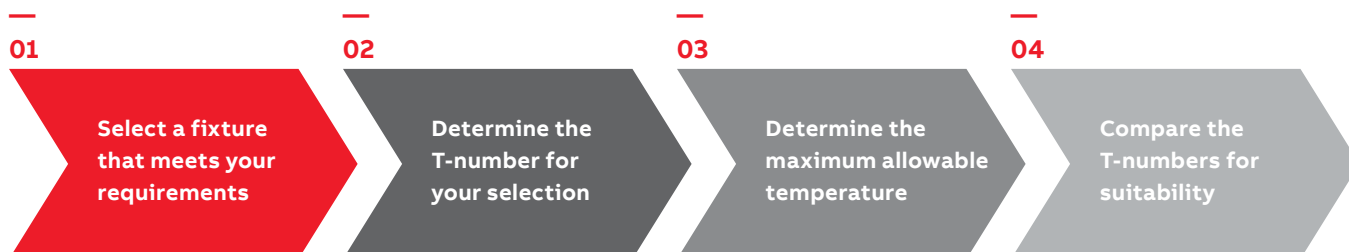
Linear lighting				Flood lighting
XLN6 LED	XLN7 LED	XLN13 LED	XLN12 LED	XFL8 LED
				
				
GENERAL	GENERAL	GENERAL	WIDE NARROW CUT OFF	
-	-	-	-	NEMA2X2 NEMA6X6
	Wet/damp location		  	
-	-	-	-	-
	 	 	  	 
29-87W	29-58W	36-109W	12-41W	50-105W
2,800-10,000lm	2,800-6,600lm	4,000-10,000lm	580-2,300lm	6,400-11,00lm
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	120-277VAC, 50/60Hz 347-480VAC, 60Hz
-	-	0-10V dimming	-	0-10V dimming

Product matrix

Emergency lighting				
	XEB LED	XEC LED	XES LED	XER LED
				
Classification				
Type	Self-Powered Remote capacity	Self-Powered Remote capacity	AC/DC Self-Powered	DC AC/DC
Features	Advanced Diagnostic Nexus® Time Delay	Advanced Diagnostic Nexus® Time Delay	Advanced Diagnostic Nexus®	—
Spacing	34'-89'	34'-89'	N/A	34'-89'
Certification				
Wattage	18W-72W	20W and 24W	1.5-2.5 W	4-6W
Lumen	200-540lm	200-540lm	N/A	200-540lm
Voltage ac	120/277VAC	120/277VAC	120-277VAC	DC: 6V/12V/24V/ 120VDC - 120VAC

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 ABB Ex-Solutions™ sales representative.

03

Determine the maximum allowable temperature for the hazardous materials.

Class I Gas	Ignition temperature for the specific gas (from NFPA497M)
Class II Dust	Group E: 200 °C
	Group F: 200 °C
	Group G: 165 °C
	Or ignition temperature of dust if lower
	Above from NEC table 500-3(F)

04

Compare T-number (from step 2) to maximum allowable temperature (from step 3).

- If T-number is cooler than the maximum allowable temperature, the selected fixture is suitable.
- If T-number is hotter than the maximum allowable temperature, the selected fixture is not suitable.

T-number table

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

ABB Ex-Solutions™ applications

We have a fixture for virtually any condition

ABB Ex-Solutions™ lighting fixtures are built to withstand the harsh environmental conditions that exist in real settings.

Examples of hazardous locations

Chemical manufacturing and processing plants
Oil refineries
Oil drilling rigs
Offshore platforms
Pipeline pumping stations
Pulp and paper plants
Aluminum and copper smelting
Steel mills and foundries
Mining operations
Grain handling facilities
Flour, sugar and starch processing
Food processing plants
Paint and rubber manufacturing facilities
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, IP66 (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 40 °C ambient – even under heavy dust blanket and no air flow
- Exclusive heat sink design results in a cool operating fixture, extended ballast/lamp life and lower maintenance costs
- Unmatched selection of high-ambient temperature rated fixtures – contact your ABB representative for fixtures certified for 55 °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

ABB Ex-Solutions™ fixture applications



04

04

Ice and arctic conditions

- Gasketing system and finish allow for expansion and contraction through wide temperature variations
- Metal halide ballasts start at -29 °C; high-pressure sodium ballasts start as low as -51 °C; consult your ABB representative for details
- 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
- Thermal performance is at 40 °C ambient; optional thermal performance to 55 °C ambient available (consult your ABB representative)
- 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.

Applications selector

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:

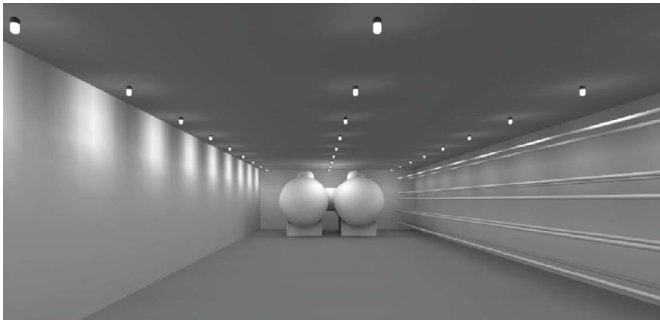
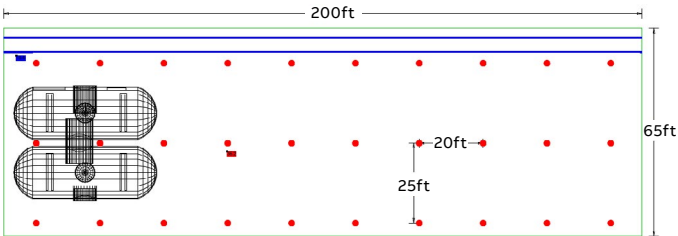
- Average footcandles
- Average mounting height
- Lumen output required for the space
- Optics
- Type and number of units

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

XSL3 LED



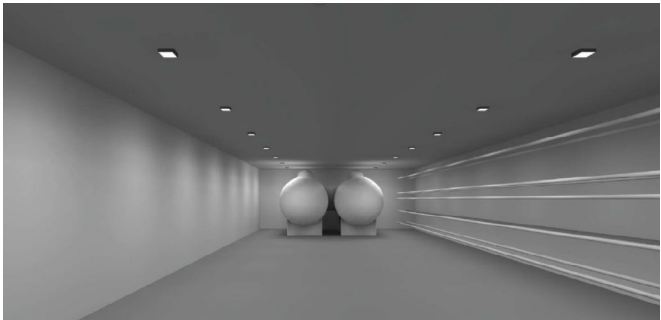
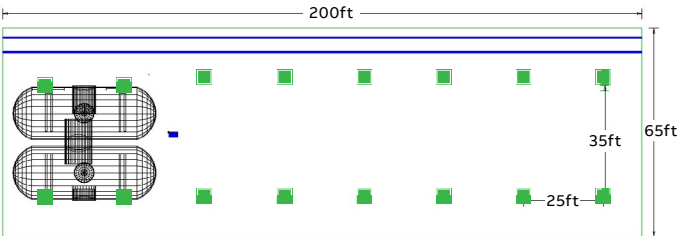
MACHINERY ROOM		
Site	Room dimensions	200ft x 65ft
	Mounting height	25'
Photometric	AVG. Footcandle	30fc
	Reflectances	40-50-20
Product	Lumen output	20,000 lumens
	Wattage	138W
	Optics	TG – Thermal shock-resistant globe
	Part number	XSL320UNTG
Quantity	Number of fixtures	30



XSL11 LED



MACHINERY ROOM		
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	XSL1130-CUT-W-50-AC
Quantity	Number of fixtures	16

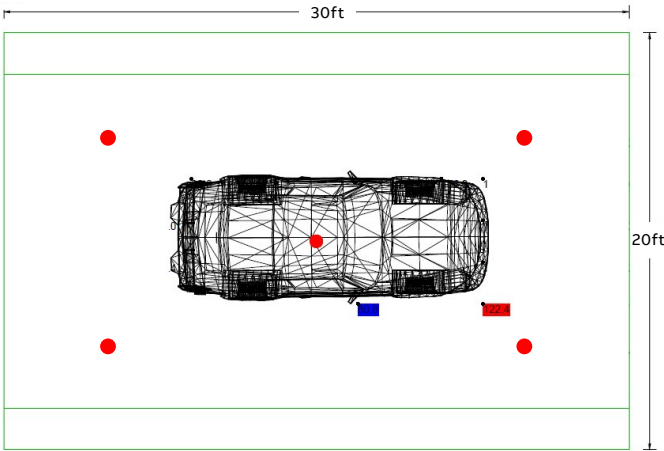


Applications selector

XSL3 LED



INSPECTION AREA		
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	XSL320UNTG
Quantity	Number of fixtures	5



XSL11 LED



INSPECTION AREA		
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	XSL1130-CUT-W-50-AC
Quantity	Number of fixtures	3

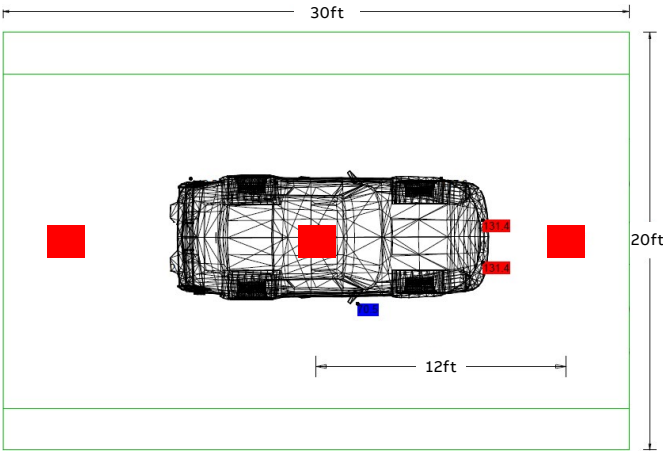


ABB-EX SOLUTIONS™ LIGHTING — HIGH BAY AND LOW BAY

We deliver highly versatile high and low bay solutions to a wide range of industries, with the protection and safety of human life being paramount.

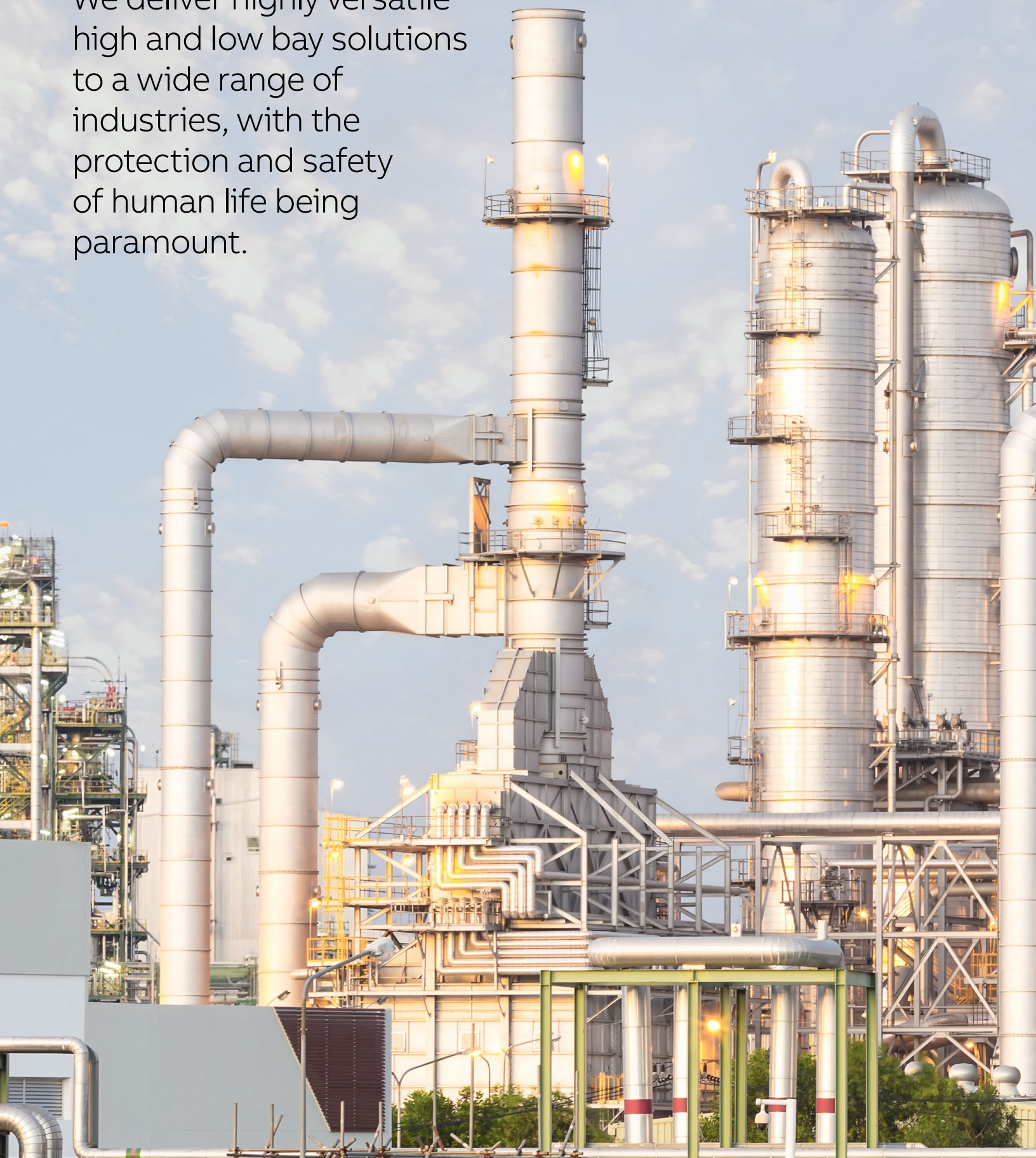


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High and low bay products



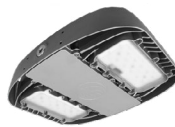
014–025 XSL3 LED Series



026–033 XSL5 HID Series



034–039 XSL11 LED Series

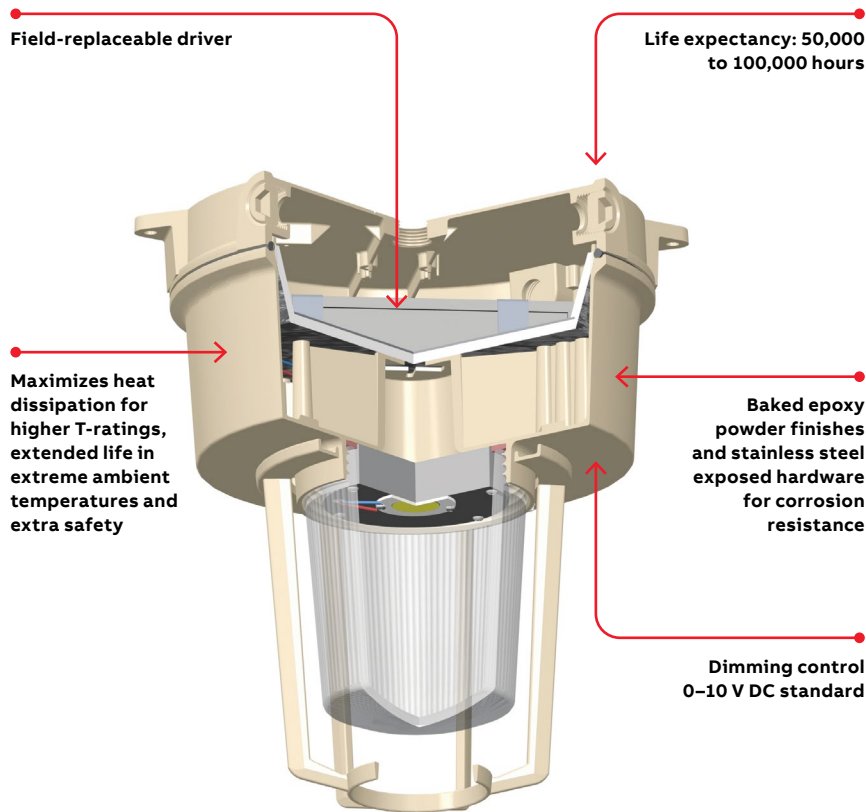


040–043 XSL10 LED Series

XSL3

LED Series

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



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



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

CERTIFICATIONS AND RATINGS



Not all XSL3 series are DLC qualified. For all qualified products, please visit: www.designlights.org/qpl



UL844
UL1598
UL8750

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

Applications

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

XSL3 LED Series

Key features and benefits

Hinged design for hands-free wiring

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

Robust construction

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

Field-replaceable driver

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

Impressive life expectancy

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

Color temperature

Standard color temperature is 5000 K. Other color temperatures available.

Color rendering index

Superior CRI (70).

Certifications

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

Versatile optics include internal reflector options for light distribution

The XSL3 LED Series fixture is available with a thermal-resistant globe and a variety of internal reflectors with 35°, 45° and 65° beam angles.

6 kV combi-wave surge rating

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

Combi-wave surge rating

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

High efficacy luminaire

Model	AC power (W)	Lumens	Lm/W
XSL3005	37	5,600	151
XSL3007	48	7,500	156
XSL3010	74	10,500	142
XSL3015	103	15,800	153
XSL3017	115	17,300	150
XSL3020	138	20,100	146

Improved temperature codes

With an exclusive design that maximizes heat dissipation, ABB LED fixtures' lower internal temperature allows for higher T-rating and extended LED and driver life in extreme ambient temperatures. With the entire luminaire acting as a heat sink, ABB LED fixtures allow for better performance.

Temperature codes

	Class I Zone 2 Groups IIC, IIB, IIA	Class I Division 2 Groups A, B, C, D	Class II Groups E, F, G	Simultaneous Class I Division 2 and Class II
Glass globe XSL3005, XSL3007, XSL3010				
Ambient temp. 40°C	T5	T5	T6	T5
Ambient temp. 55°C	T4	T4A	T6	T4A
Glass globe XSL3005, XSL3007, XSL3010 with internal reflector I3, I4, I6				
Ambient temp. 40°C	T4	T4A	T6	T4A
Glass globe XSL3015, XSL3017, XSL3020				
Ambient temp. 40°C	T4	T4A	T4A	T4A
Optic type cut XSL3005, XSL3007, XSL3010				
Ambient temp. 40°C	T5	T5	T5*	T5*
Ambient temp. 55°C	T4	T4A	T4A*	T4A*
Optic type cut XSL3015, XSL3017, XSL3020				
Ambient temp. 40°C	T4	T4A	T4A*	T4A*

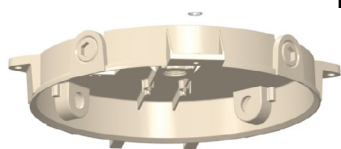
*Cut reflector: Class II, Division 2, Groups F, G

XSL3 LED Series

Fixture assembly guide

1

Mounting options



Cone-top
pendant



Ceiling and
pendant mount



Wall
mount



Rigid
pendant



Hazvertor™
ring



25° Angle
stanchion



Straight
stanchion

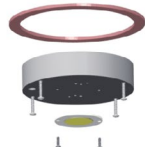
2

LED driver tank



3

Globe or reflector



Heat-resistant
globe



Refractor
globe R1



Refractor
globe R3



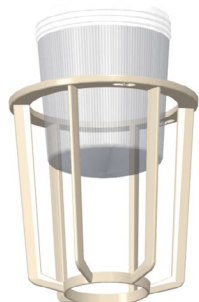
Refractor
globe R5



CUT

4

Guard (n/a for CUT)



Cast guard

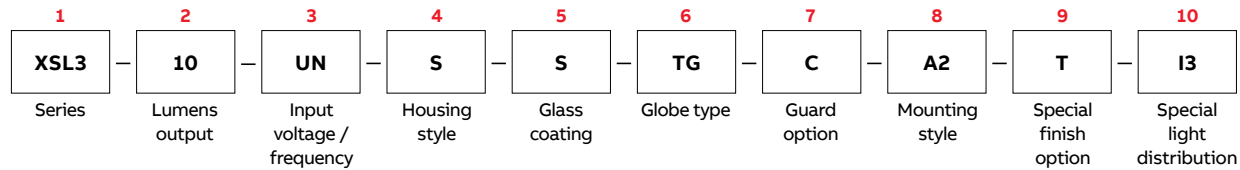


Polymeric guard

XSL3 LED Series

Numbering system

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



LED driver tank

Part	Part number	Description
1 Series	XSL3	Standard light 3 series
2 Lumens output (max. AC power)	05	5,600 lumens; 37 W
	07	7,500 lumens; 48 W
	10	10,500 lumens; 74 W
	15	15,800 lumens; 103 W
	17	17,300 lumens; 115 W
	20	20,100 lumens; 138 W
3 Input voltage / frequency	UN	120-277Vac, 50/60 Hz
	UN2	347-480 Vac, 50/60 Hz
4 Housing style	Blank	Standard
	S	With stainless steel insert

Optics

Part	Part number	Description
5 Glass coating	S ¹	Teflon coating ¹
6 Globe type	TG	Thermal shock resistant globe
	R1	Glass refractor, Type I
	R3	Glass refractor, Type III
	R5	Glass refractor, Type V
	CUT ²	Cut-off reflector, polycarbonate lens ²
7 Guard option (glass globe only)	Blank	No guard
	C ³	Cast guard
	L ³	Polymeric guard

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

Not applicable to CUT

² CUT optics: 3000K < CCT. Cannot be used with stanchion mount. Not suitable for Class II, Division I

³ Cannot be used with CUT

Mounting

Part	Part number	Description
8 Mounting style	Blank	No mounting
	A2	¾" Cone top pendant
	A3	1" Cone top pendant
	B2	¾" Wall mount
	B3	1" Wall mount
	C2	¾" Ceiling and pendant mount
	C3	1" Ceiling and pendant mount
	HV3	Hazvector™ Crouse-Hinds® straight stanchion ²
	HV4	Hazvector™ Crouse-Hinds® angle stanchion ²
	HV5	Hazvector™ Crouse-Hinds® wall mount ²
	L4	1¼" Straight stanchion ¹
	L5	1½" Straight stanchion ¹
	P2	¾" Rigid pendant
	P3	1" Rigid pendant
	S4	1¼" 25° Angle stanchion
	S5	1½" 25° Angle stanchion

¹ Not suitable for CUT or CBDL globe type

² cCSAus certification

Options

Part	Part number	Description
9 Special finish option	Blank	Standard ivory
	T	Hazcote® custom corrosion coating
10 Special light distribution	Blank	Standard no reflector
	I3	Internal reflector 35° beam angle ¹
	I4	Internal reflector 40° beam angle ¹
	I6	Internal reflector 60° beam angle ¹
	K	Special Kelvin color temperature
11 Certification	Blank	U.S market

¹ XSL305, XSL307 and XSL310 only, 40°C (104 °F) maximum operating temperature

XSL3

Individual components

Mounting options¹

Part number	Description	Conduit hub size (in.)
VA2	Cone-top pendant	$\frac{3}{4}$
VA3		1
VC2	Ceiling and pendant mount	$\frac{3}{4}$
VC3		1
VB2-VIB	Wall mount	$\frac{3}{4}$
VB3-VIB		1
P2	Rigid pendant	$\frac{3}{4}$
P3		1
VS4-VIB	25° Angle stanchion	$1\frac{1}{4}$
VS5-VIB		$1\frac{1}{2}$
VL4-VIB	Straight stanchion	$1\frac{1}{4}$
VL5-VIB		$1\frac{1}{2}$
HV3 ²	Hazvertor™ adapter ring ceiling, pendant ² and straight stanchion top hats (APM2, APM3, CM2, CM3, PM5, and QM25) ²	-
HV4 ²	Hazvertor™ adapter ring stanchion angle mount (JM5 style) ²	-
HV5 ²	Hazvertor™ adapter ring wall mount (TWM2 and TWM3 styles) ²	-



Globes or refractors

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



Guards

Part number	Description
VGU22	Cast Guard
VGU22P	Polymeric Guard



LED drivers

Part number	Driver
XSL305	183.0024-005
XSL307	183.0024-007
XSL310	183.0024-010
XSL315	183.0026-015
XSL317	183.0026-017
XSL320	183.0026-020

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

² HV3, HV4 and HV5 Hazvertors are CSA/CSAus certified and intended for use with Crouse-Hinds® top hats indicated. They are not compatible with HPM2 top hats.

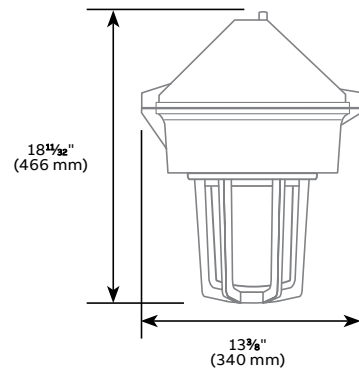
Crouse-Hinds® is a registered trademark of Cooper Technologies Company.

XSL3 LED Series

Dimensions – Housing with mounting top, globe and guard

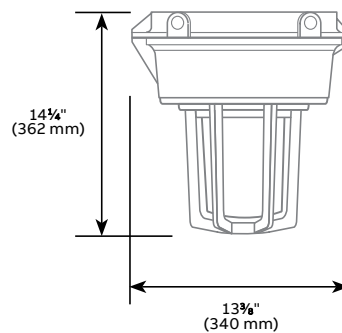
Cone-top pendant

7.3 kg | 16 lbs



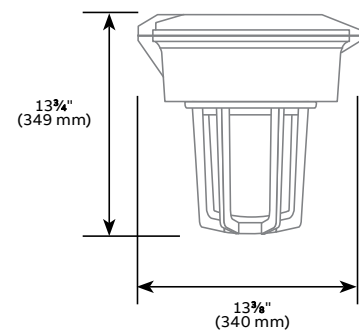
Ceiling and pendant mount

7.3 kg | 16 lbs



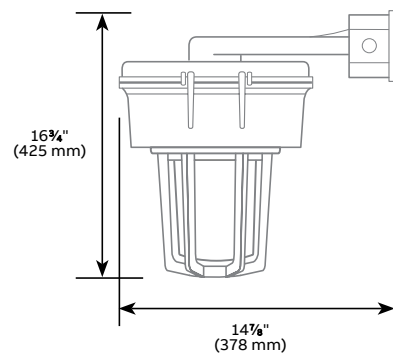
Rigid pendant mount

6.8 kg | 15 lbs



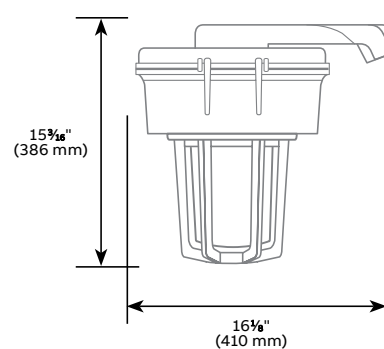
Wall mount

9.1 kg | 20 lbs



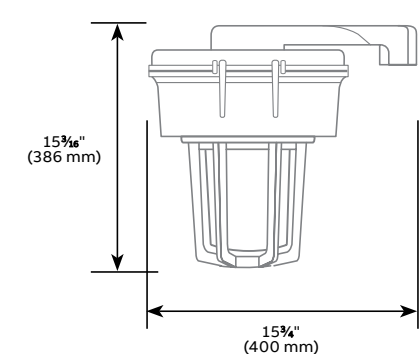
25° Angle stanchion

7.3 kg | 16 lbs



Straight stanchion

7.3 kg | 16 lbs



Design Lights Consortium (DLC): summary of test results

Electrical, 120-277 VAC

Model	Power (W)	Power factor	THD
XSL3005	37.7	0.91	13.5%
XSL3007	49.4	0.94	13.3%
XSL3010	71.9	0.97	10.1%
XSL3015	103.0	0.97	11.0%
XSL3017	115	0.97	11.8%
XSL3020	137	0.97	12.3%

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, 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

Electrical, 347 VAC

Model	Power (W)	Power factor	THD
XSL3005	36.7	0.98	10.2%
XSL3007	47.9	0.99	8.3%
XSL3010	70.2	0.99	7.1%
XSL3015	104.9	0.99	7.6%
XSL3017	116.7	0.99	7.1%
XSL3020	141.2	0.99	7.8%

Photometry, 347 VAC

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

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

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 quickly convert most Crouse-Hinds fixtures to XSL3 LED Series.

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

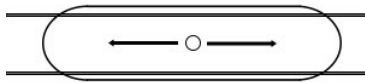


Refractor types

Type I

The type I distribution is great for lighting walkways, paths and sidewalks. This type of lighting is meant to be placed near the center of the pathway. This provides adequate lighting for smaller pathways.

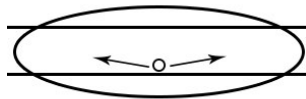
Type I is a two-way lateral distribution having a preferred lateral width of 15 degrees in the cone of maximum candlepower. The two principal light concentrations are in opposite directions along a roadway. This type is generally applicable to a luminaire location near the center of a roadway where the mounting height is approximately equal to the roadway width.



Type II

The type II distribution is used for wide walkways, on ramps and entrance roadways, as well as other long, narrow lighting. This type is meant for lighting larger areas and usually is located near the roadside. You'll find this type of lighting mostly on smaller side streets or jogging paths.

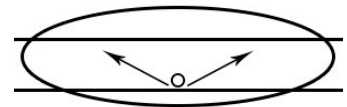
Type II light distributions have a preferred lateral width of 25 degrees. They are generally applicable to luminaires located at or near the side of relatively narrow roadways, where the width of the roadway does not exceed 1.75 times the designed mounting height.



Type III

The type III distribution is meant for roadway lighting, general parking areas and other areas where a larger area of lighting is required. Type III lighting needs to be placed to the side of the area, allowing the light to project outward and fill the area. This produces a filling light flow.

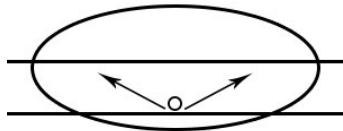
Type III light distributions have a preferred lateral width of 40 degrees. This distribution is intended for luminaires mounted at or near the side of medium width roadways or areas, where the width of the roadway or area does not exceed 2.75 times the mounting height.



Type IV

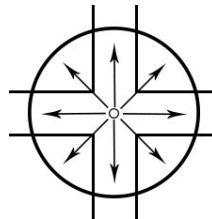
The type IV distribution produces a semicircular light meant for mounting on the sides of buildings and walls. It's best for illuminating the perimeter of parking areas and businesses. The intensity of the Type IV lighting has the same intensity at angles from 90 degrees to 270 degrees.

Type IV light distributions have a preferred lateral width of 60 degrees. This distribution is intended for side-of-road mounting and is generally used on wide roadways where the roadway width does not exceed 3.7 times the mounting height.



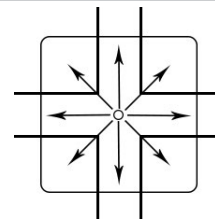
Type V

Type V produces a circular distribution that has the same intensity at all angles. This distribution has a circular symmetry of candlepower that is essentially the same at all lateral angles. It is intended for luminaire mounting at or near center of roadways, center islands of parkway, and intersections. It is also meant for large, commercial parking lot lighting as well as areas where sufficient, evenly distributed light is necessary



Type VS

Type VS produces a square distribution that has the same intensity at all angles. Type 5S (square) LED Distribution pattern. This distribution has a square symmetry of candlepower that is essentially the same at all lateral angles. It is intended for luminaire mounting at or near center of roadways, center islands of parkway, and intersections. It is also meant for large, commercial parking lot lighting as well as areas where sufficient, evenly distributed light is necessary. Type VS is used where the light pattern needs a more defined edge.



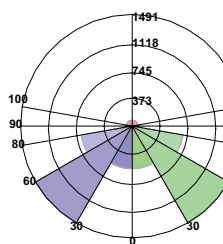
XSL3 LED Series

Optic selections

Standard globe

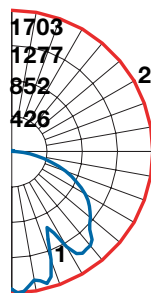
Catalog number	XSL3005EUN0-TGC2
Luminaire lumens	5,764
Luminaire efficacy rating (LER)	156
Input watts	37.01
Spacing criterion	0.88
Spacing criterion (90–270)	0.88
Spacing criterion (diagonal)	1.52

Luminaire classification system



BUG rating : B2-U3-G1

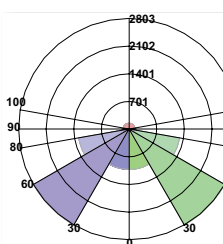
Candlepower curve



Standard globe

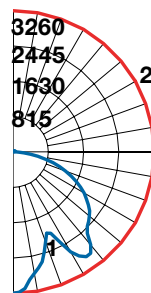
Catalog number	XSL3010EUN0-TGC2
Luminaire lumens	10,739
Luminaire efficacy rating (LER)	148
Input watts	72.44
Spacing criterion	0.82
Spacing criterion (90–270)	0.82
Spacing criterion (diagonal)	1.46

Luminaire classification system



BUG rating : B3-U3-G2

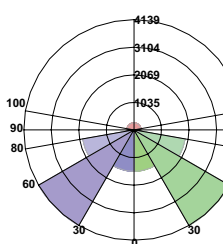
Candlepower curve



Standard globe

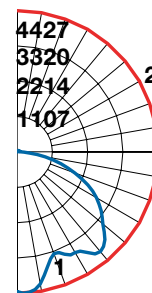
Catalog number	XSL3015EUN0-TGC2
Luminaire lumens	16,110
Luminaire efficacy rating (LER)	155
Input watts	103.66
Spacing criterion	1.32
Spacing criterion (90–270)	1.32
Spacing criterion (diagonal)	1.58

Luminaire classification system



BUG rating : B3-U3-G3

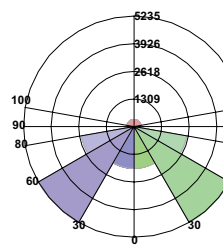
Candlepower curve



Standard globe

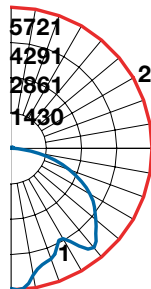
Catalog number	XSL3020EUN0-TGC2
Luminaire lumens	20,530
Luminaire efficacy rating (LER)	148
Input watts	139.02
Spacing criterion	1.10
Spacing criterion (90–270)	1.10
Spacing criterion (diagonal)	1.56

Luminaire classification system



BUG rating : B4-U3-G3

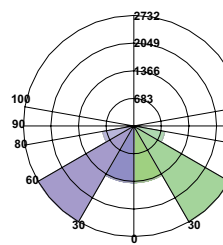
Candlepower curve



CUT reflector

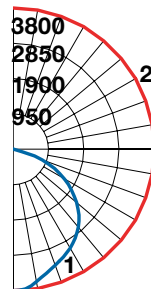
Catalog number	XSL3010EUN0-CUTC2
Luminaire lumens	9,846
Luminaire efficacy rating (LER)	136
Input watts	72.47
Spacing criterion	1.22
Spacing criterion (90–270)	1.22
Spacing criterion (diagonal)	1.38

Luminaire classification system



BUG rating : B3-U0-G1

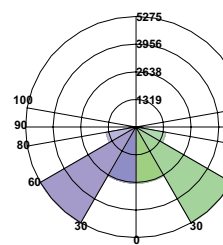
Candlepower curve



CUT reflector

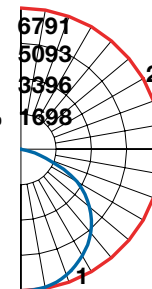
Catalog number	XSL3020EUN0-CUTC2
Luminaire lumens	18,841
Luminaire efficacy rating (LER)	136
Input watts	138.8
Spacing criterion	1.30
Spacing criterion (90–270)	1.30
Spacing criterion (diagonal)	1.42

Luminaire classification system



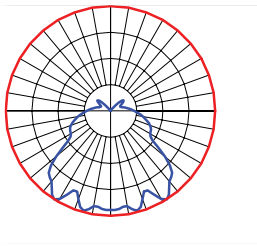
BUG rating : B4-U0-G1

Candlepower curve

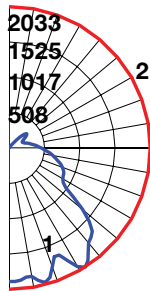


Standard globe

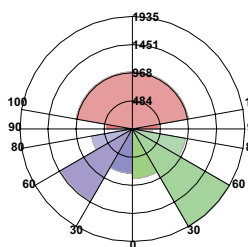
Catalog number	XSL3010-R5
Luminaire lumens	8587
Luminaire efficacy rating (LER)	98
Input watts	87.48
Spacing criterion	
Spacing criterion (90–270)	
Spacing criterion (diagonal)	

Luminaire classification system

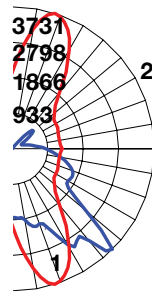
BUG rating : B2-U4-G3

Candlepower curve**Standard globe**

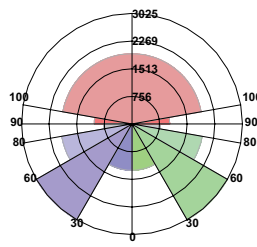
Catalog number	XSL3010-R3
Luminaire lumens	8649
Luminaire efficacy rating (LER)	99
Input watts	87.27
Spacing criterion	
Spacing criterion (90–270)	
Spacing criterion (diagonal)	

Luminaire classification system

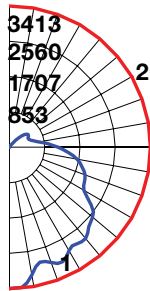
BUG rating : B2-U4-G3

Candlepower curve**CUT reflector**

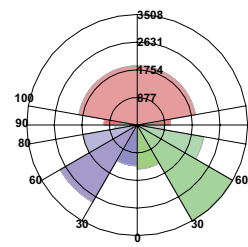
Catalog number	XSL3020-R5
Luminaire lumens	17,004
Luminaire efficacy rating (LER)	102
Input watts	166.3
Spacing criterion	
Spacing criterion (90–270)	
Spacing criterion (diagonal)	

Luminaire classification system

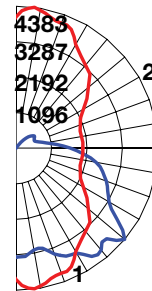
BUG rating : B2-U5-G5

Candlepower curve**CUT reflector**

Catalog number	XSL3020-R3
Luminaire lumens	17,343
Luminaire efficacy rating (LER)	104
Input watts	166.37
Spacing criterion	
Spacing criterion (90–270)	
Spacing criterion (diagonal)	

Luminaire classification system

BUG rating : B3-U5-G5

Candlepower curve

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

Quick pole assembly

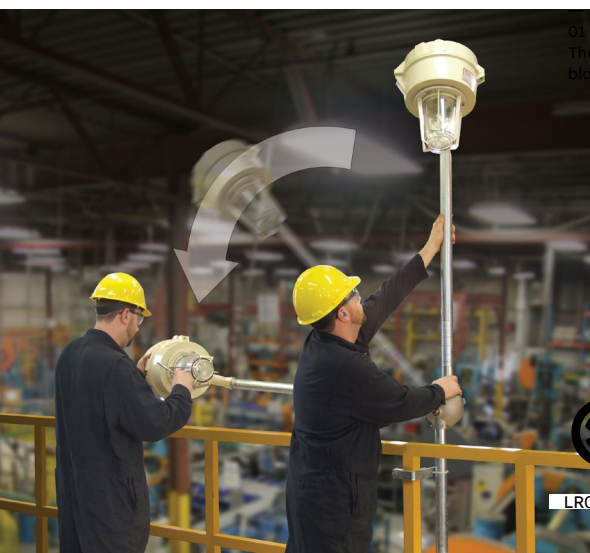
- Operates in any kind of weather
- Overall length is 10' (3 m)
- Pole trade size is 1½" threaded NPT
- Aluminum pole trade size is 2" threaded NPT
- Top pole section is 70" (1.78 m) long
- Lower pole section is 50" (1.27 m) long
- Set screws secure top and bottom section into the quick knuckle

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.

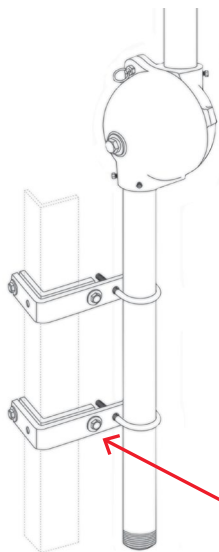


01
The quick pole assembly blocks at a 90° angle.



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
Epoxy-coated finishes available
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 (1½" 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 1½" O.D. pipe)
Q-P-A-5-10-N (Aluminum 2½" O.D. pipe)
Standard Kit

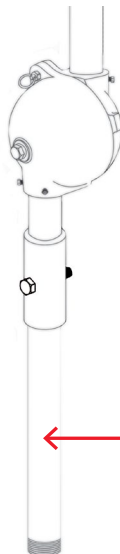
Bracket sold separately

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 1½" NPT (1.66" OD) or 1½" NPT (1.90" OD) pipe

RQ-P-5-10-N (Galvanized 1½" O.D. pipe)
RQ-P-A-5-10-N (Aluminum 2½" O.D. pipe)
Retrofit Kit

Customer existing pipe (not supplied)



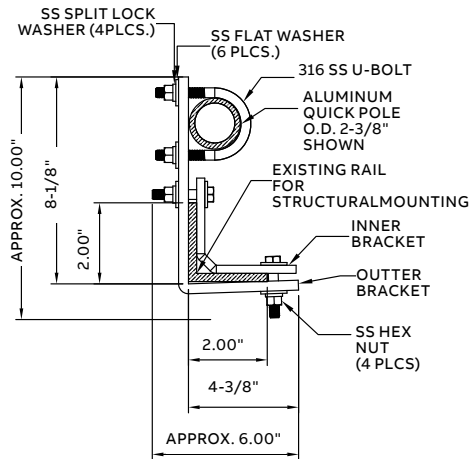
Quick pole assembly

Universal bracket kit

STAINLESS STEEL (ALUMINIUM POLE)

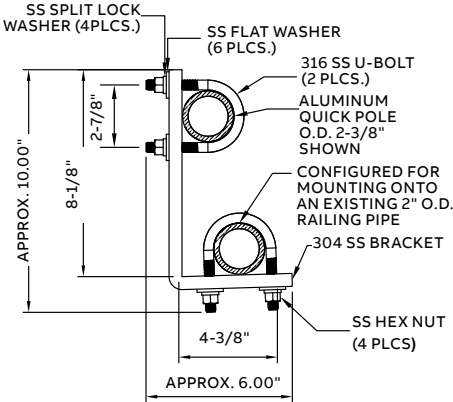
AMB-QP-A-BKT-N

Bracket for structural angle mounting



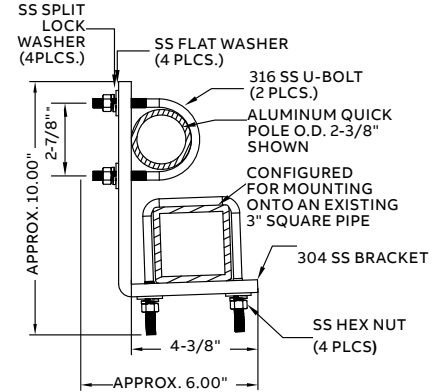
RMB-QP-A-BKT-N

Bracket for structural pole mounting



RMB-QP-A-BKT-3

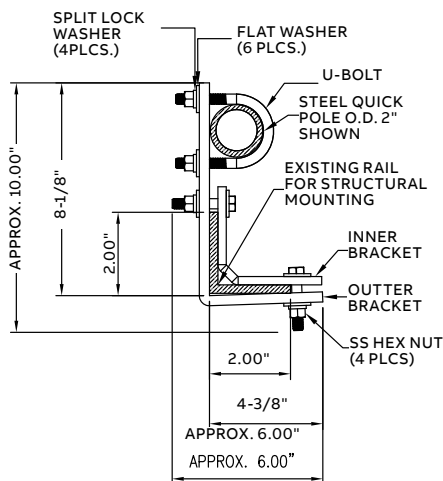
Bracket for structural square mounting



GALVANISED STEEL

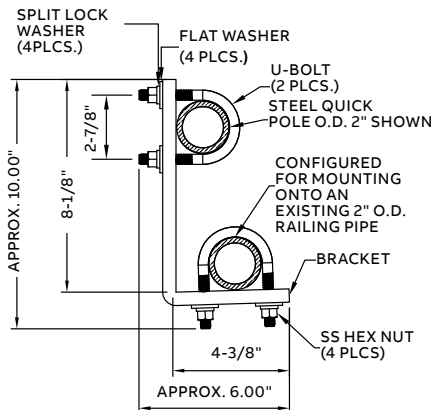
AMB-QP-BKT-N

Bracket for structural angle mounting



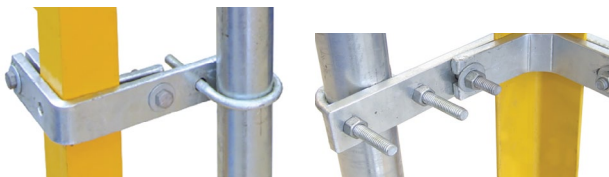
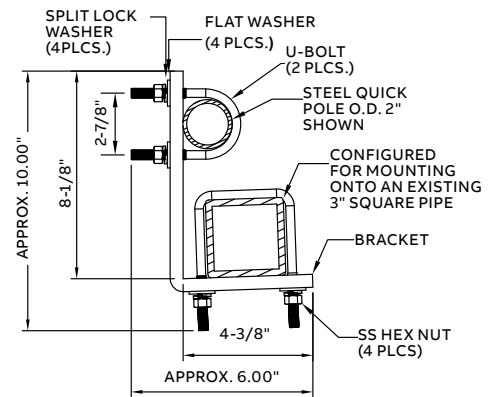
RMB-QP-BKT-N

Bracket for structural pole mounting



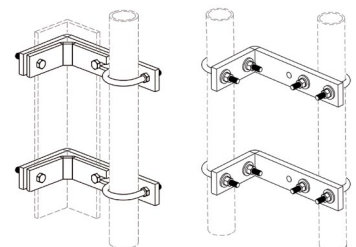
RMB-QP-BKT-3

Bracket for structural square mounting



Universal bracket kit

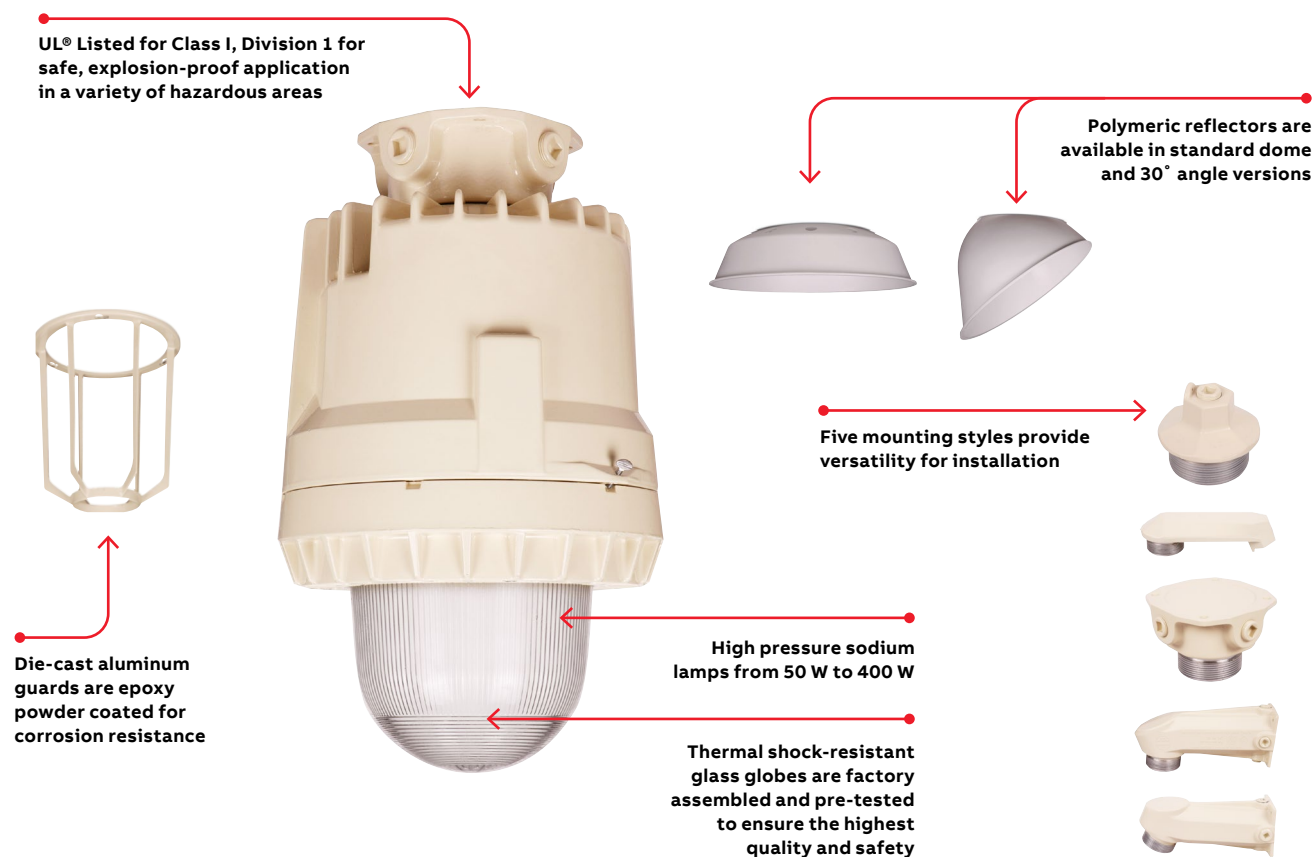
- Quick bolt-on installation, no welding or drilling
- Can be attached to angle iron guardrails up to 3"
- Supplied to be installed on tubular structures 2" O.D. or less but designed for up to 2-3/8" U-Bolt in both positions
- Allows the pole sections to rotate before final positioning



XSL5

HID Series

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



CERTIFICATIONS



UL844
UL1598A

Outdoor wet locations
Temperature range: -30 °C to 40 °C

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.

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

XSL5

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

Applications

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

Wattages and voltages

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

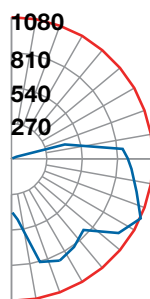
Materials and finishes

- Ballast housing: copper-free aluminum, powder finish
- Mounting modules: copper-free aluminum, powder finish
- Hardware: stainless steel
- Globes: tempered glass
- Guard: copper-free aluminum, powder finish
- Reflectors: fiberglass-reinforced

Ceiling mount photometry

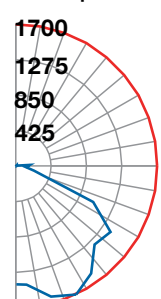
Reference data	
Catalog number	XSL5SO10H04G-C2-E
Lamp	100W HPS ED23 1/2
Lamp lumens	9500
Input watts	130
Luminaire lumens	7162
Efficiency	75%
Efficacy rating (LER)	55.1
Spacing criterion (0–180)	2.66
Spacing criterion (90–270)	2.66
Spacing criterion (diagonal)	2.74

Candlepower curve



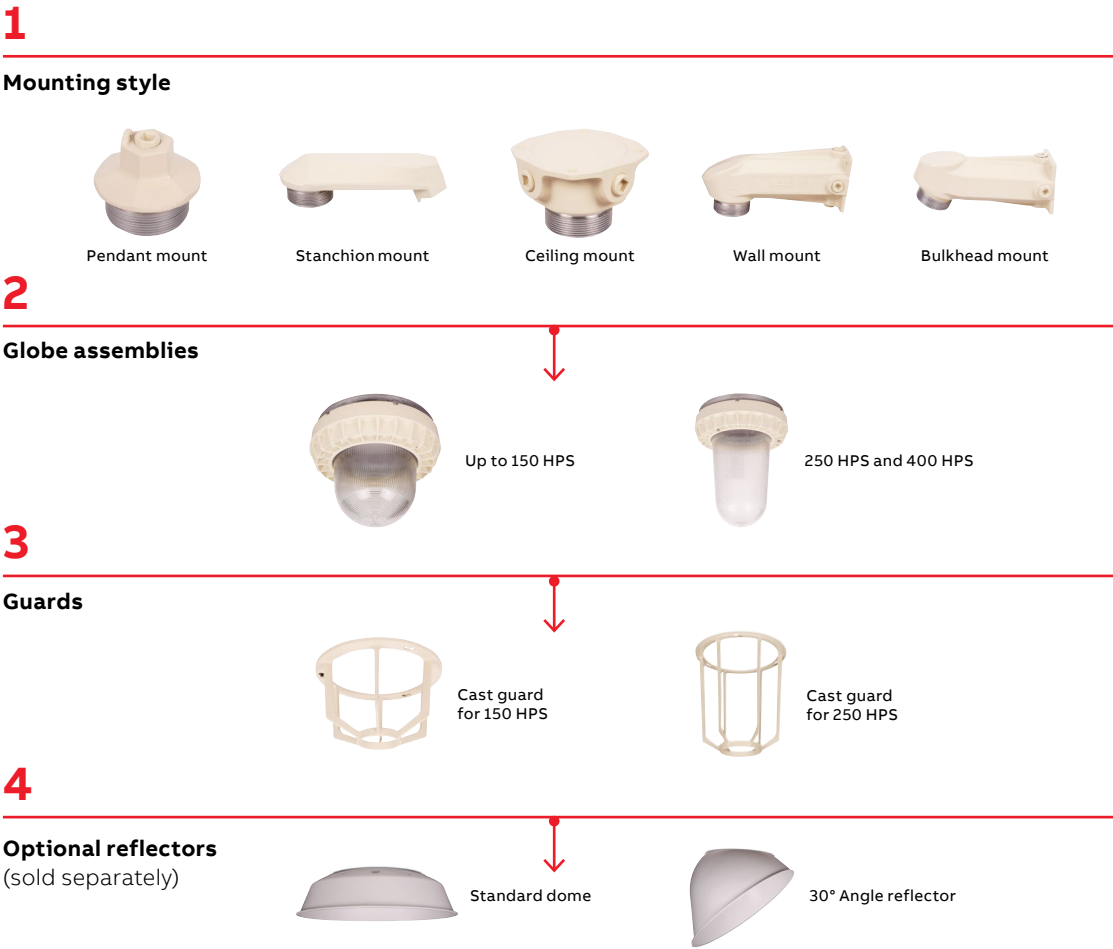
Reference data	
Catalog number	XSL5SO10H04G-C2-E + VR31P
Lamp	100W HPS ED23 1/2
Lamp lumens	9500
Input watts	130
Luminaire lumens	6254
Efficiency	66%
Efficacy rating (LER)	48.1
Spacing criterion (0–180)	1.60
Spacing criterion (90–270)	1.60
Spacing criterion (diagonal)	1.70

Candlepower curve



XSL5

Fixture assembly guide



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	Bulkead mount	¾"
XJ3	Bulkead mount	1"

Replacement globe assemblies¹

Part number	Description
XGSA44	XSL5 replacement globe assembly – up to 150 HPS
XGSA44A	XSL5 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

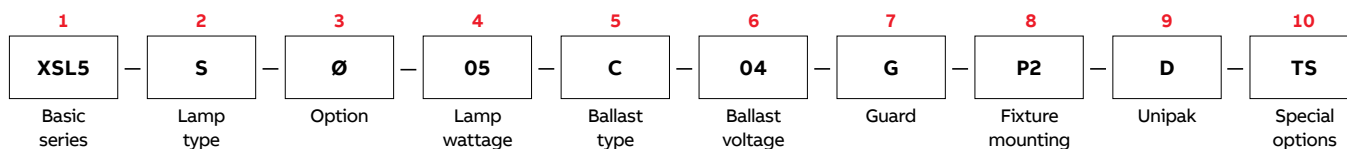
Part number	Description
VR31P	Standard dome, fiberglass-reinforced polyester
VRA31P	30° Angle reflector, fiberglass-reinforced polyester

Reflectors are shipped bulk unless specified.

XSL5

Numbering system

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



Ballast tank

Part	Part number	Description
1 Basic series	XSL5	XSL5 fixture
2 Lamp type	S	High-pressure sodium
3 Option	Ø	Standard no option
	Q	Quartz lamp (100 W maximum) (Class I, Div. 2 only)
	R	HPS fixture provided with instant restart starter as opposed to conventional ignitor
4 Lamp wattage	05	50 W HPS S68
	07	70 W HPS
	10	100 W HPS
	15	150 W HPS
	25	250 W HPS
	40	400 W HPS
5 Ballast type	C	Constant wattage autotransformer
	H	High power factor
6 Ballast voltage	04	120/208/240/277 V at 60 Hz
	12	120 V at 60 Hz
	20	208 V at 60 Hz
	24	240 V at 60 Hz
	27	277 Volt, 60 Hz
	34	347 V at 60 Hz
	48	480 V at 60 Hz

Optics and mountings

Part	Part number	Description
7 Guard	G	Cast globe guard
8 Fixture mounting	P2	¾" Pendant
	C3	1" Ceiling
	B4	1¼" Wall
	J5	1½" Bulkhead
	S	Stanchion
9 Unipak	D	Unipak with diffused lamp
	E	Unipak with clear lamp
	U	Unipak no lamp

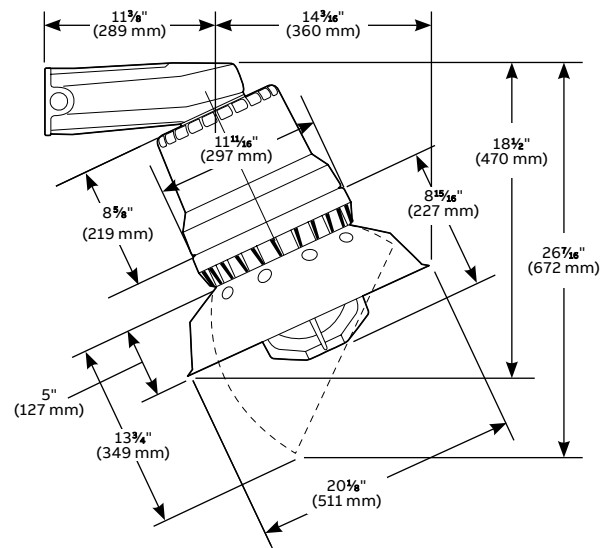
Options

Part	Part number	Description
10 Special options	PS	Paint spray label (100W max)
	TS	Silicon coated tempered glass globe

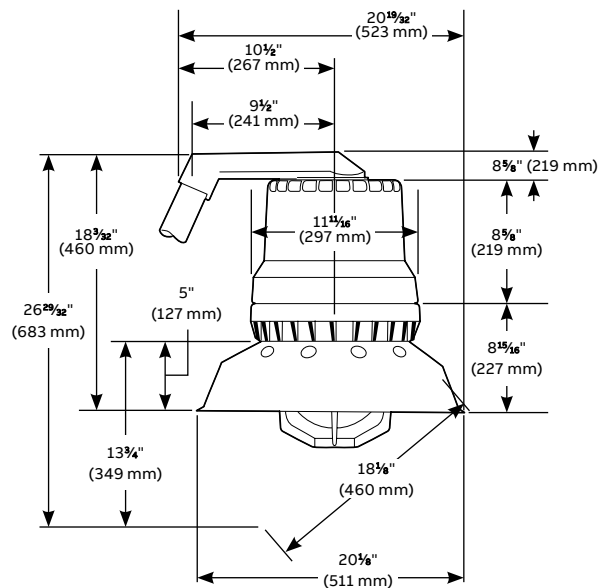
XSL5

Dimensions

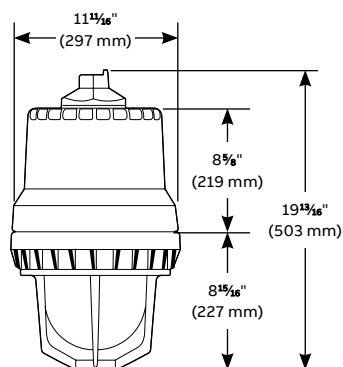
Bulkhead mount with globe, guard and reflector



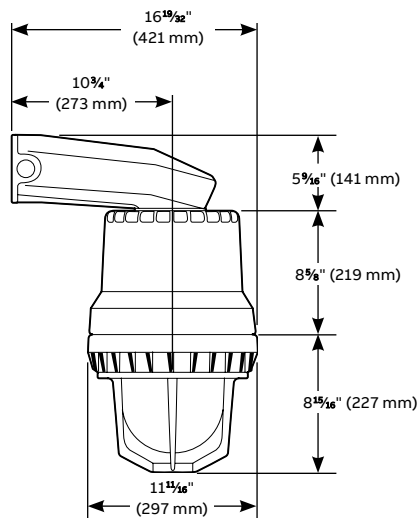
Stanchion mount with globe, guard and reflector



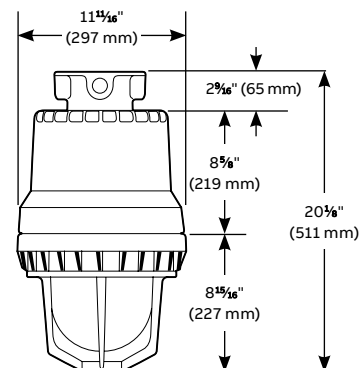
Pendant mount with globe and guard



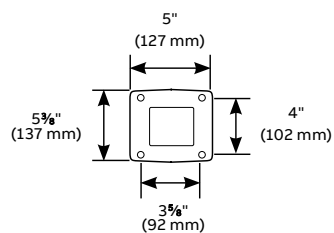
Wall mount with globe and guard



Ceiling mount with globe and guard



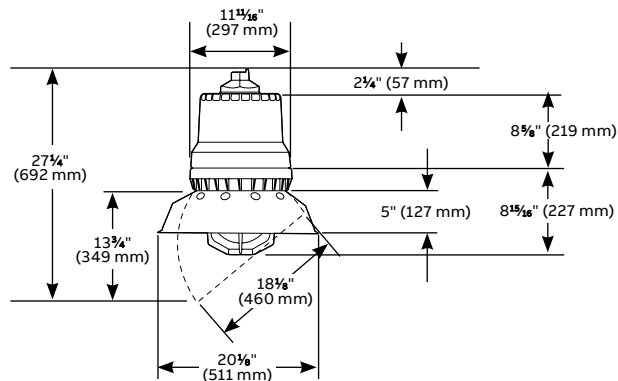
Template for bulkhead for wall mount



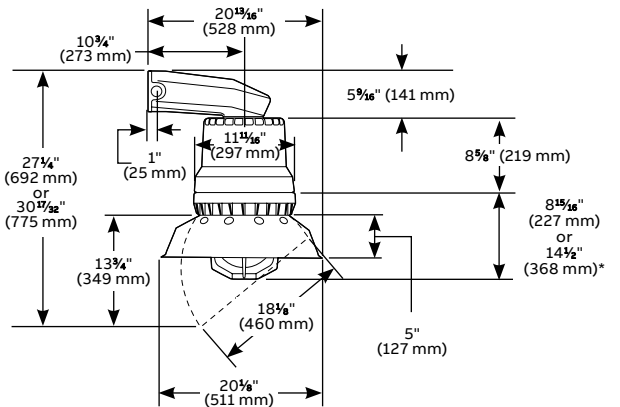
XSL5

Dimensions

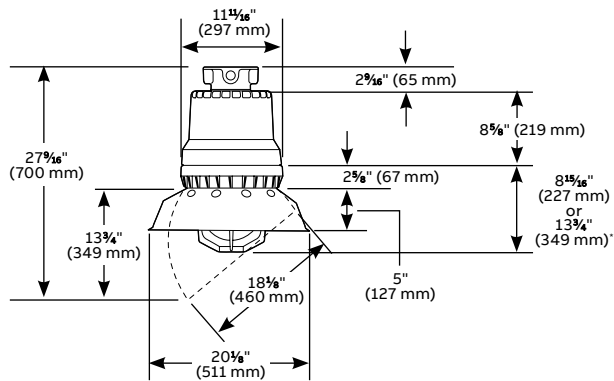
Pendant mount with globe, guard and reflector



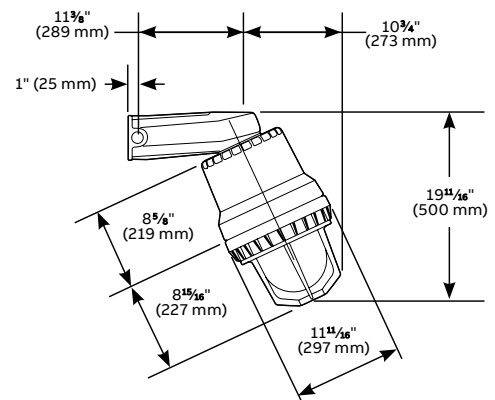
Wall mount with globe, guard and reflector



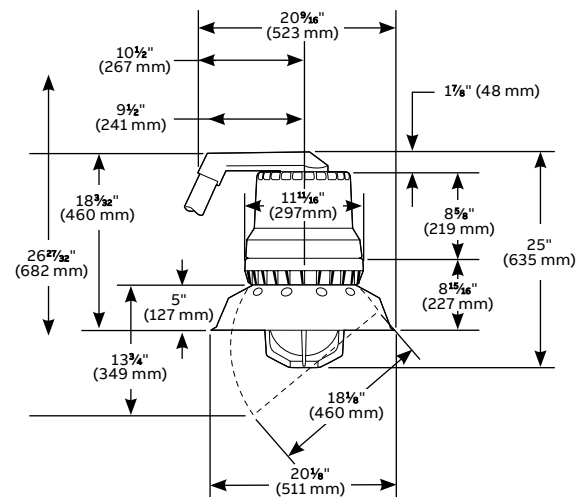
Ceiling mount with globe, guard and reflector



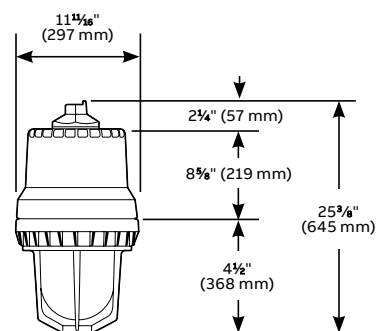
Bulkhead mount with globe and guard



Stanchion mount with globe, guard and reflector



Pendant mount with globe and guard



XSL5

Thermal performance data

Class I, Division 1, Group C & D – Maximum external fixture temperature in °C at 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 °C at 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	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 °C at 55°C | ambient in free air

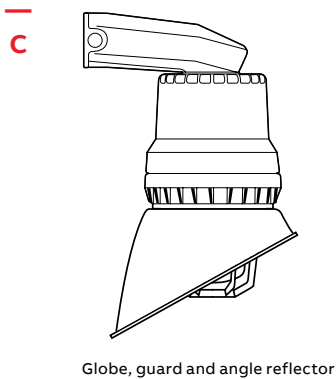
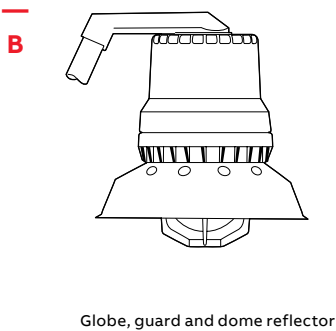
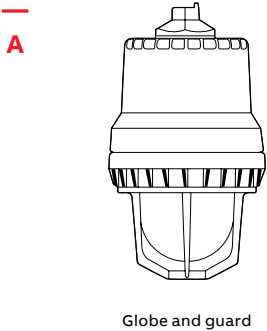
High pressure sodium / nameplate marked with rating based on hottest fixture congestion									
Configuration		50 W (S68 lamp)		70 W (S62 lamp)		100 W (S54 lamp)		150 W (S55 or S56 lamp)	
		Lamp	Lamp w/ auxiliary qtz.	Lamp	Lamp w/ auxiliary qtz.	Lamp	Lamp w/ auxiliary qtz.	Lamp	Lamp w/ auxiliary qtz.
			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

XSL5

Thermal performance data

Class I, Division 1, Group C & D – Maximum external fixture temperature in °C at 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.
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	–



Thermal data

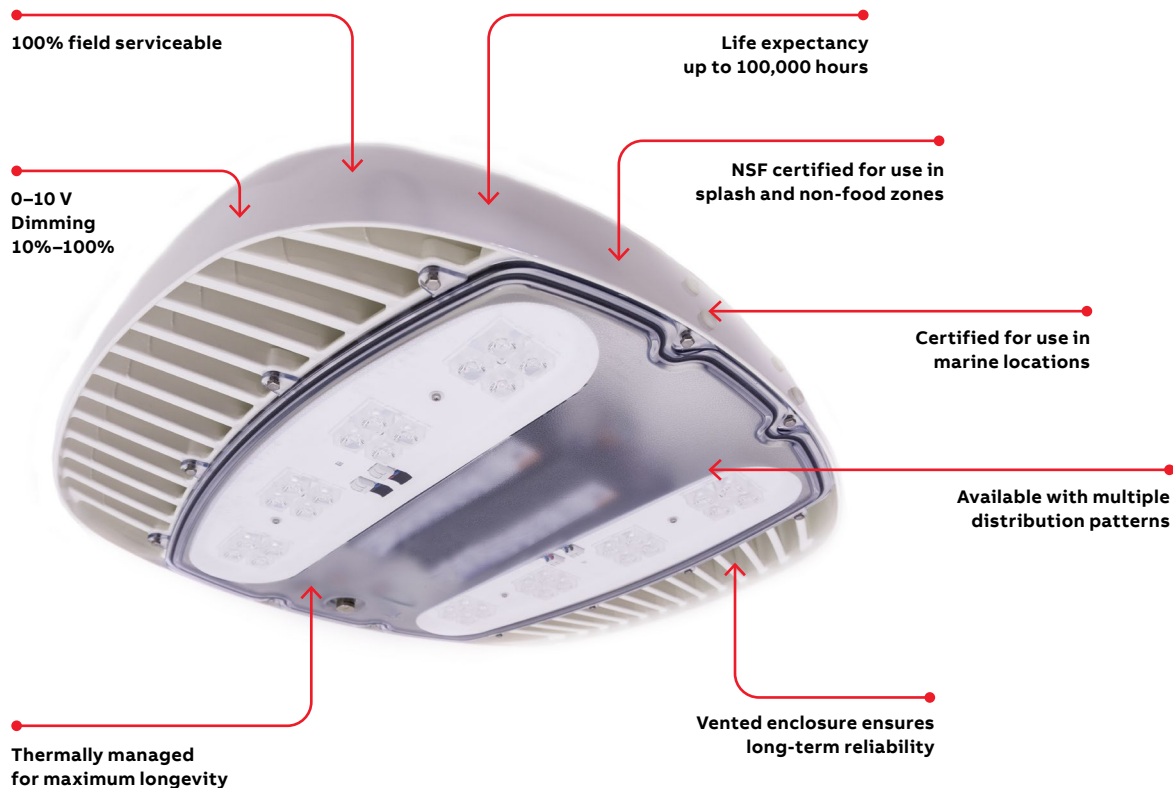
This data includes globe, guard and reflector				
Lamp type	Ambient temperature (°C)	Groups	Class I	Supply wire suitable temperature (°C)
			Temp. code	
250 Watt HPS type S50	40	C, D	T4A	85
400 Watt HPS type S51	40	C, D	T4A	85



XSL11

LED Series

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.



CERTIFICATIONS



Not all XSL11 series are DLC qualified. For all qualified products, please visit: www.designlights.org/qpl



Splash and non-food zones



UL844
UL1598A
UL8750



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

Applications

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

XSL11 LED

Key features and benefits

Housing

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

Finish

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

Thermal management

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

Power supplies

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

CREE LEDs

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

Electrical ratings

Luminance	Input voltage	Rated wattage (watts)	Rated voltage (volts)	Frequency (Hz)	Rated current (amps)
XSL1110	AC	107	120–277	50/60	1.11–0.48
XSL1110	HV	129	347–480	50/60	0.43–0.31
XSL1115	AC	145	120–277	50/60	1.42–0.61
XSL1115	HV	145	347–480	50/60	0.47–0.34
XSL1120	AC	190	120–277	50/60	1.74–0.75
XSL1120	HV	187	347–480	50/60	0.59–0.42
XSL1125	AC	247	120–277	50/60	2.18–0.95
XSL1125	HV	248	347–480	50/60	0.74–0.53
XSL1130	AC	312	120–277	50/60	2.82–1.22
XSL1130	HV	310	347–480	50/60	0.96–0.70



XSL11 LED

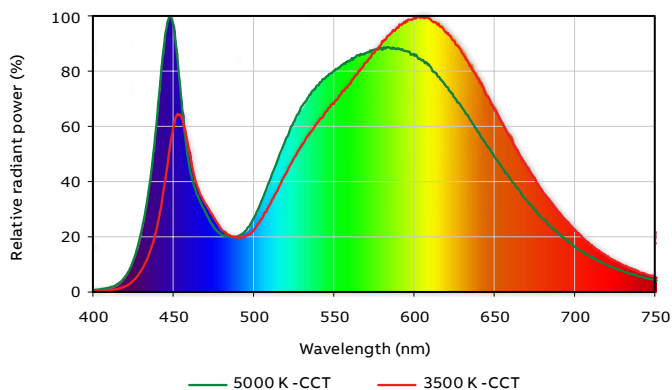
Key features and benefits

Temperature code chart

Luminance	Input voltage	Ambient temp (°C)	Optical models		Flood models		All models
			Class I, Div 2 T-Codes	Ambient temp (°C)	Class I, Div 2 T-Codes	Class II, Div 2 T-Codes	
XSL1110	AC	-40 to 55	T3C	-40 to 55	T4A	T5	
XSL1110	HV	-40 to 54	T3C	-40 to 51	T4	T5	
XSL1115	AC	-40 to 55	T3C	-40 to 55	T4A	T5	
XSL1115	HV	-40 to 54	T3C	-40 to 51	T4	T5	
XSL1120	AC	-40 to 55	T3C	-40 to 55	T4A	T5	
XSL1120	HV	-40 to 54	T3C	-40 to 51	T4	T5	
XSL1125	AC	-40 to 51	T3C	-40 to 55	T4A	T5	
XSL1125	HV	-40 to 44	T3B	-40 to 50	T4A	T5	
XSL1130	AC	-40 to 43	T3	-40 to 42	T4A	T5	
XSL1130	HV	-40 to 43	T3	-40 to 40	T3	T5	

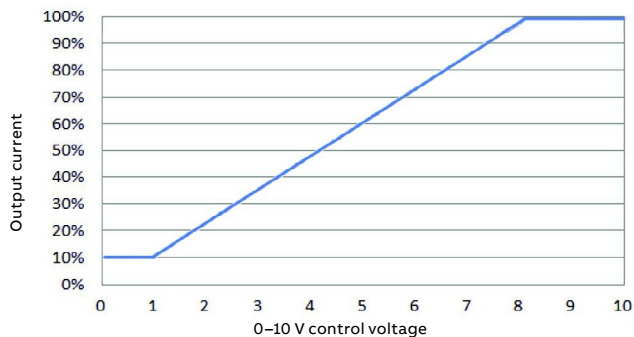
Color temperature

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

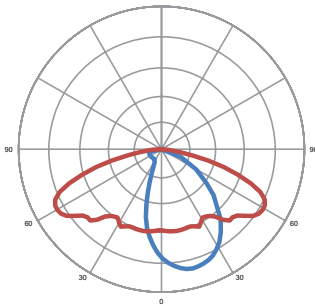
Driver will source a maximum of 200 μ A for control needs. A controller must sink current from 0–10 V control leads.



XSL11 LED

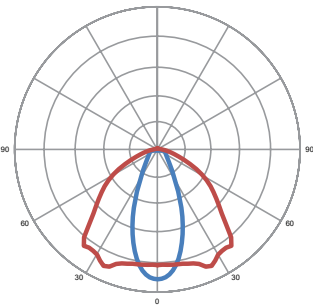
Key features and benefits

Modular optics (20 options)



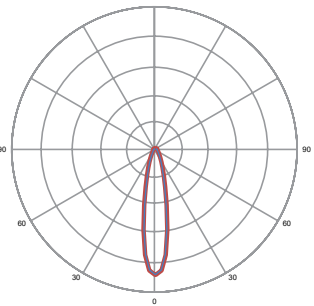
R2 – IESNA Type 2

Model	Lumens	Lumens/ watts
XSL1110	12370	132
XSL1115	16340	130
XSL1120	20560	125
XSL1125	26090	117
XSL1130	31670	109



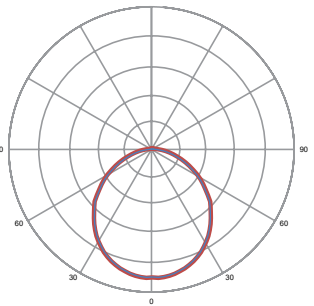
OC – Oval

Model	Lumens	Lumens/ watts
XSL1110	12370	132
XSL1115	16340	130
XSL1120	20560	125
XSL1125	26090	117
XSL1130	31670	109



SC – Narrow 18°

Model	Lumens	Lumens/ watts
XSL1110	12370	132
XSL1115	16340	130
XSL1120	20560	125
XSL1125	26090	117
XSL1130	31670	109



CUT – Wide beam

Model	Lumens	Lumens/ watts
XSL1110	12370	132
XSL1115	16340	130
XSL1120	20560	125
XSL1125	26090	117
XSL1130	31670	109

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

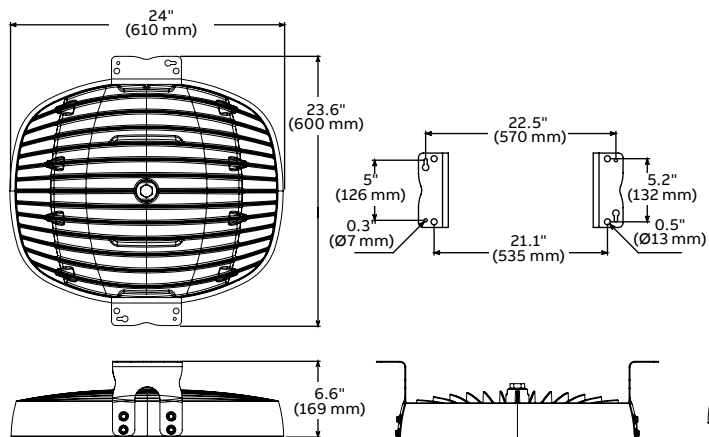


XSL11 LED

Mounting options

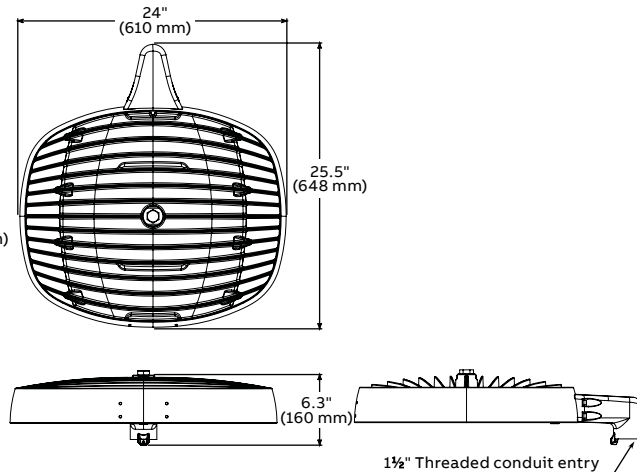
Surface/suspended mount (included standard)

16.8 kg | 37 lbs



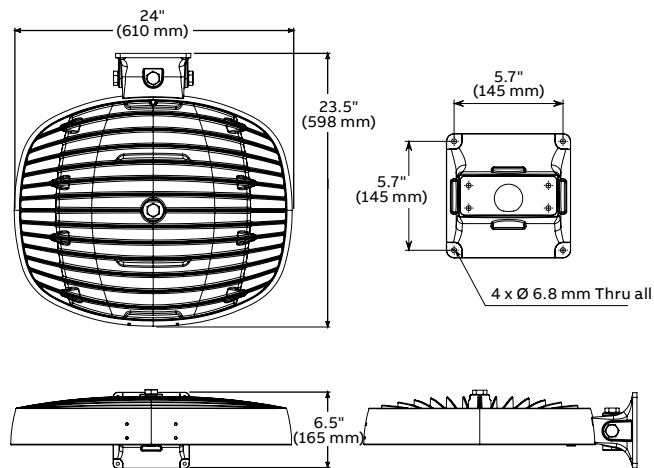
Pole mount XSL11-PM (optional accessory)

17.3 kg | 38 lbs



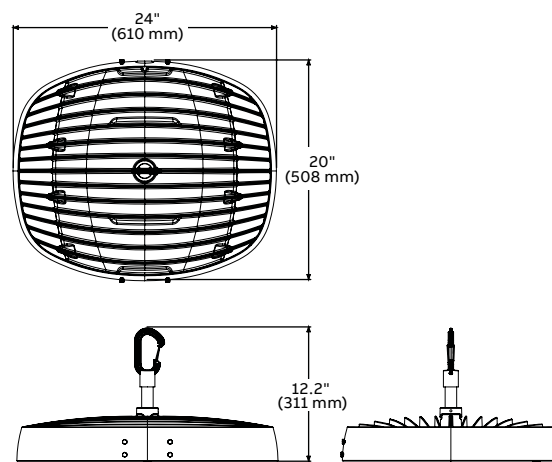
Wall mount XSL11-WM (optional accessory)

17.7 kg | 39 lbs



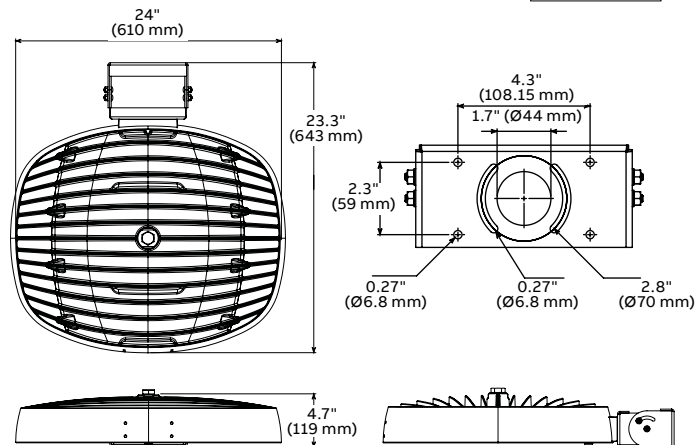
Hanging pendant XSL11-HK (optional accessory)

16.4 kg | 36 lbs



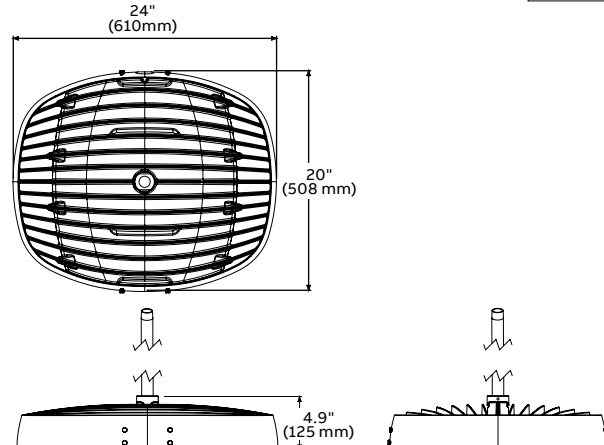
Yoke mount XSL11-YM (optional accessory)

16.8 kg | 37 lbs



Conduit mount XSL11-CM (optional accessory)

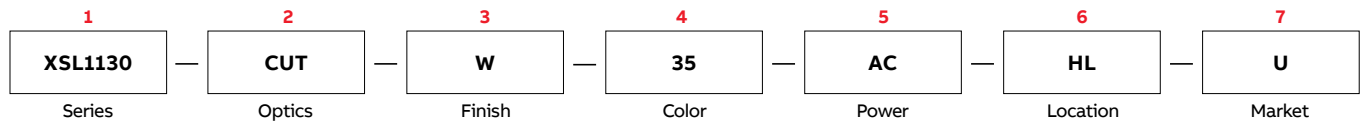
16.4 kg | 36 lbs



XSL11 LED

Numbering system

Lighting fixture



Fixture

Part	Part number	Description
1 Series	XSL1110	12260 to 12370 lumens
	XSL1115	16200 to 16490 lumens
	XSL1120	20730 to 23800 lumens
	XSL1125	25860 to 26610 lumens
	XSL1130	31400 to 31670 lumens
2 Optics	CUT	Wide beam (no optics)
	R2	IESNA Type 2
	OC	Oval, 26° x 108°
	SC	Spot 18°
3 Finish	W	White
4 Color	35	Warm white (3500 K)
	35H	Warm white, high CRI (3500 K)
	50	Cool white (5000 K)
	50H	Cool white, high CRI (5000 K)
5 Power	AC	120 - 277 V AC
	HV	347 - 480 V AC
6 Location	HL	Hazardous location
7 Market	Blank	Canadian market
	U	US market

Mounting options (order separately)

Part	Part number	Description
Mounting type	XSL11-WM-WT	Wall mount, white finish ⁵
	XSL11-HK-WT	Hanging pendant mount, white finish
	XSL11-PM-WT	Pole mount, white finish ⁵
	XSL11-YM-SS	Yoke mount, stainless steel ^{4,5}
	XSL11-YK-SS	High vibration yoke ^{2,4,5}
	XSL11-CM	Conduit mount

Notes

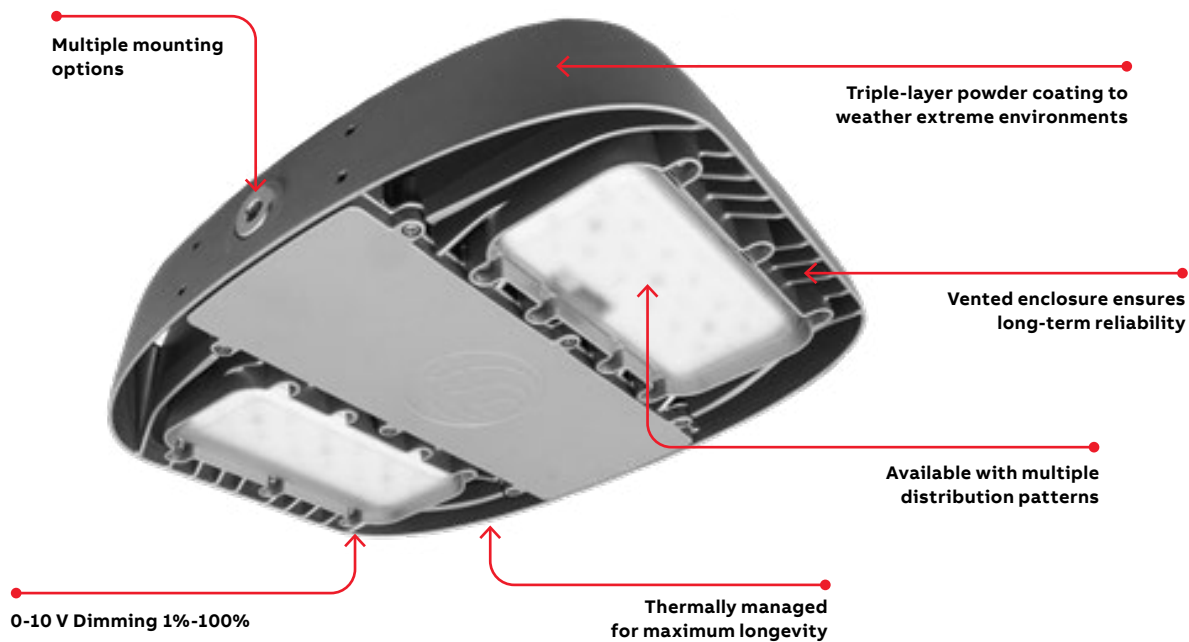
1. Minimum order quantities, additional costs and lead times may incur.
2. Custom finishes and high vibration yoke mount are not available for NSF certified units.
3. Hazardous location.
4. Yoke mount only available in stainless steel finish.
5. IDA Fixture seal of approval only applies to fixtures with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



XSL10

LED Series

The unique combination of flexibility and robust design allows the implementation of this light fixture in various new or existing facilities. The XSL10 not only exceeds the expectations of an HID replacement, but establishes a new benchmark in versatility for industrial LED lighting.



CERTIFICATIONS



Not all XSL10 series are DLC qualified. For all qualified products, please visit: www.designlights.org/qpl



UL844
UL1598A
UL8750
LISTED
E76933

MARINE



LISTED
E76933



IP66/67

CLASSIFICATION

CLASS I

Division 2 Groups A, B, C, D

Zone 2 Group IIC

Zone 22

CLASS II

Division 2 Groups F, G

Contact your ABB sales representative to verify classification

Applications

Hazardous locations

Indoor lighting

Tunnel lighting

Industrial facilities

Refinery and petrochemical facilities

XSL10 LED

Key features and benefits

Features

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

Junction box

- Direct heat transfer from power supply to external case for optimal performance
- Plenty of wiring space for optional accessories (contact your ABB representative for custom options)
- ¾" NPT entry
- IP 66/67 rated, suitable for wet locations

Thermal management

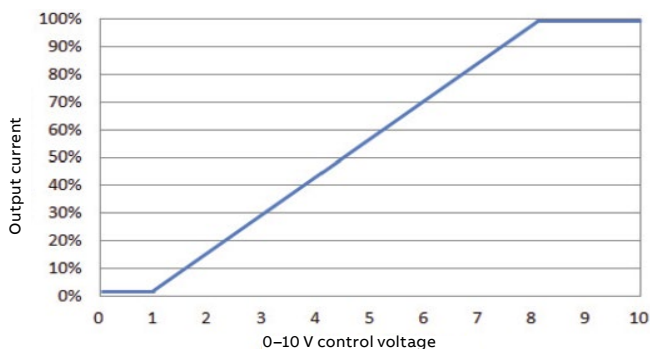
- Ample surface area of head ensures LEDs are kept running at maximum efficiency, even at 55 °C temperature
- Unique heat sink design creates increased airflow for optimal LED and power supply operating temperature
- Physical separation of electronics for increased system reliability
- Perimeter band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

Output

3050 to 6265 lumens

Dimming

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

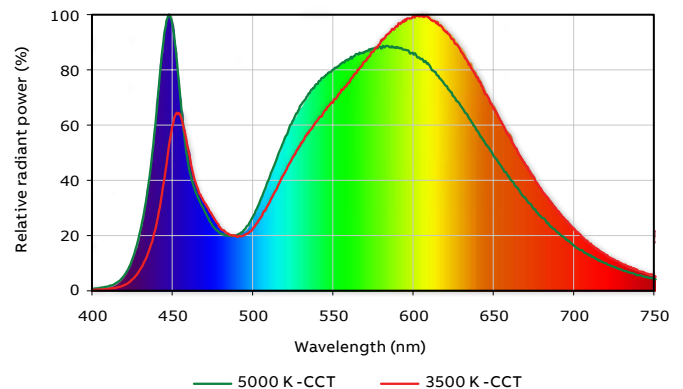


Applications

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

Color temperature

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



Nichia LEDs

- Proven reliability
- High efficiency
- Superior CRI (80+)
- Several CCT options for added design flexibility

Housing

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

Power supplies

- Two input ranges for ultimate flexibility
- Utilizes high performance LED drivers for better efficiency and up to 100,000 hours of maintenance-free operation
- Built-in junction box with ¾" NPT entry

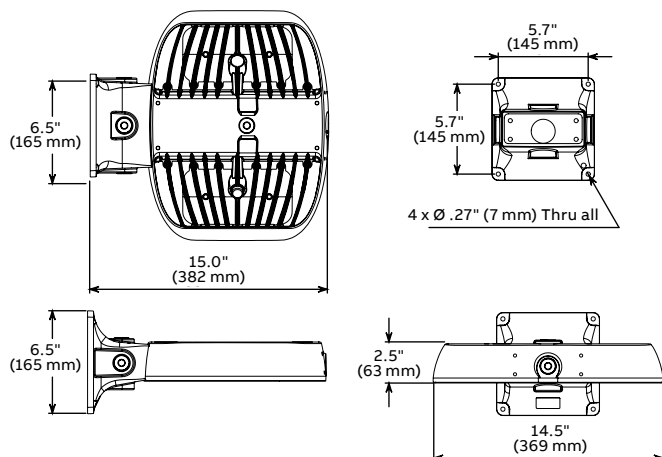
Power	XSL103: 26 W (WF) - 29 W (2F, OF, SF)	
	XSL106: 51 W (WF) - 57 W (2F, OF, SF)	
Current	XSL103: AC - 0.25A@120 VAC	HV - 010A@347 VAC
	XSL106: AC - 050A@120 VAC	HV - 020A@347 VAC

XSL10 LED

Mounting options

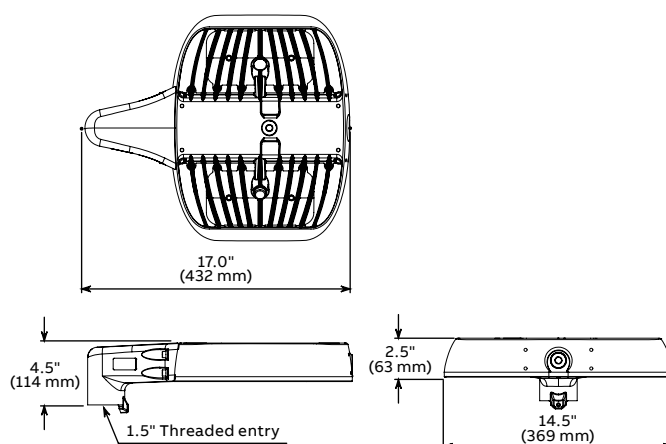
Wall pack mount XSL10-WM

6.8 kg | 15 lbs



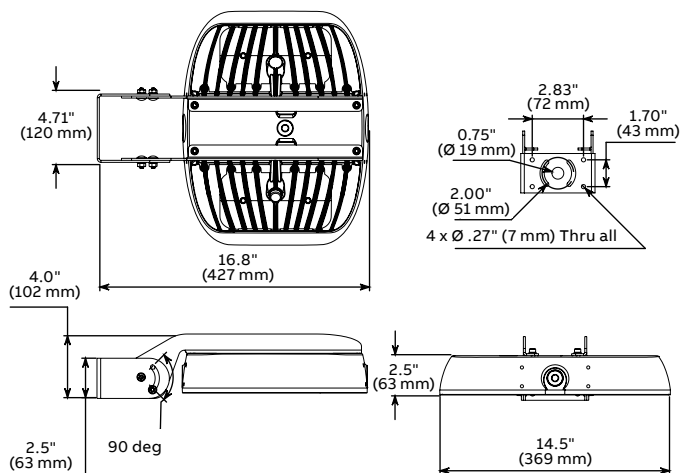
Pole mount XSL10-PM

5.6 kg | 12.4 lbs



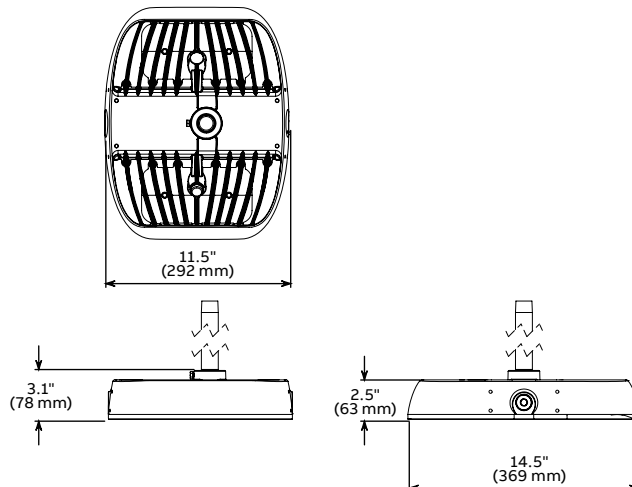
Yoke mount XSL10-YM

6.3 kg | 13.9 lbs



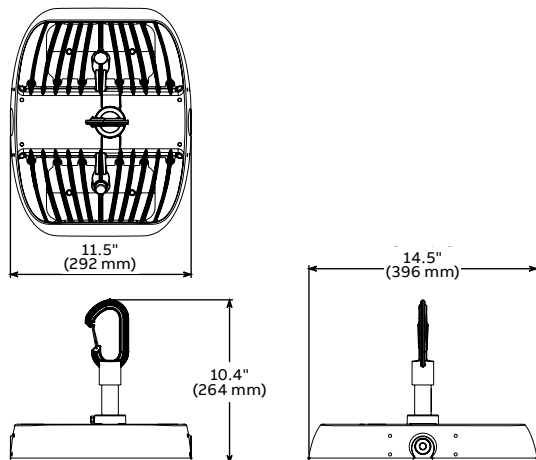
Conduit connection XSL10-CC

5.3 kg | 11.7 lbs

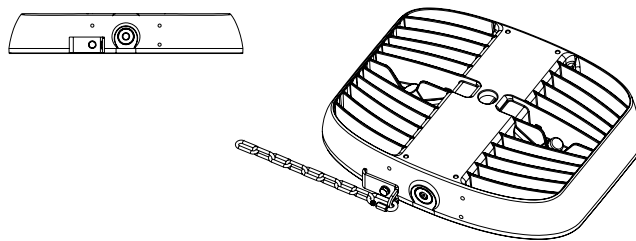


Hook pendant mount XSL10-HK

4.9 kg | 10.8 lbs

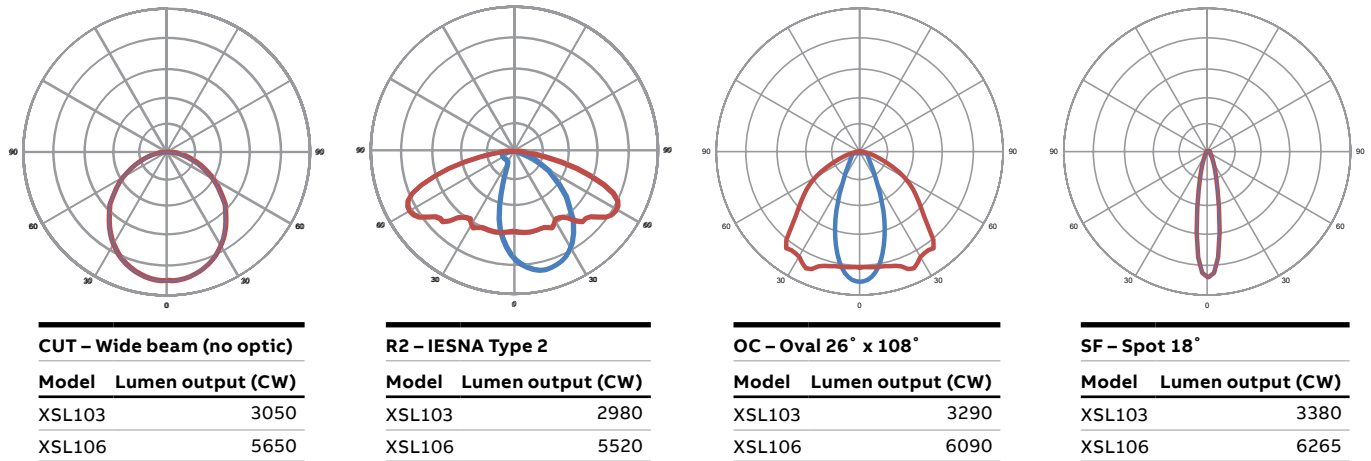


Secondary safety XSL10-SS



XSL10 LED

Optic options



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 Series	XSL1003	2980 to 3380 lumens
	XSL1006	5520 to 6265 lumens
2 Optics	SF	Spot 18°
	R2	IESNA Type 2
	OC	Oval 26° x 108°
	CUT	Wide (no optic)
3 Finish	GY	Gray
4 Color	CW	Cool white (5000 K)
5 Power	AC	120 - 277 VAC
	HV	347 VAC
6 Location	HL	Hazardous location
7 Market	Blank	US market

Mounting options (order separately)

XSL10-WM-GY	Wall mount, gray finish
XSL10-PM-GY	Pole mount, gray finish
XSL10-YM	Yoke mount ¹
XSL10-CC-GY	Conduit connection
XSL10-HK-GY	Hook pendant mount
XSL10-SS	Secondary safety

¹Only available in stainless steel

A detailed photograph of an industrial plant, likely a refinery or chemical processing facility. The image shows a complex network of large, silver-colored metal pipes and vessels. Red safety railings are prominent throughout the structure, indicating multiple levels and walkways. In the upper left, there's a tall vertical vessel. The foreground is dominated by large horizontal pipes, some with U-bends. The background shows more industrial equipment under a clear sky. The overall scene is one of a large-scale industrial operation.

ABB-EX SOLUTIONS™ LIGHTING

ABB-Ex Solutions™ linear and flood lighting products are ideally suited for use in a broad range of industrial applications.

Table of contents

Linear and flood lighting products



046–049 XLN6 LED Series



050–053 XLN7 LED Series



054–057 XLN13 LED Series



058–061 XLN12 LED Series

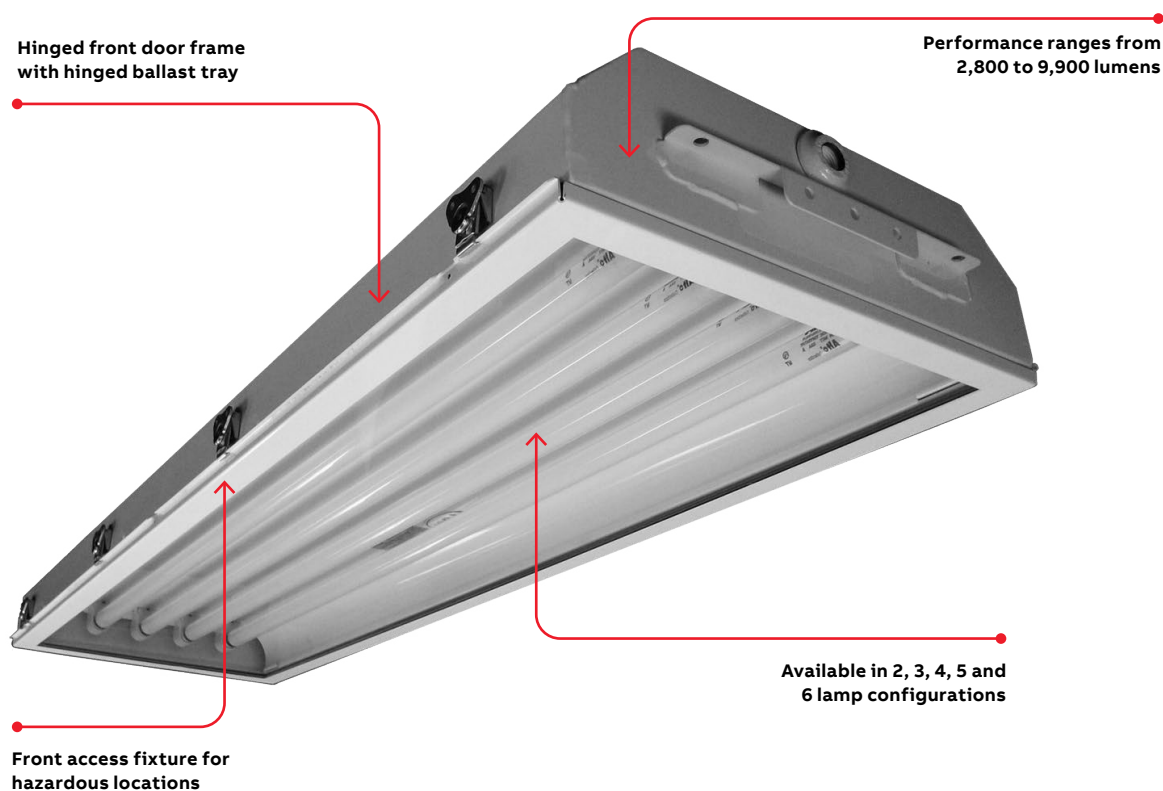


062–065 XFL8 LED Series

XLN6

LED Series

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.



CERTIFICATIONS



UL844
UL 1598 wet/damp
UL8750



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

XLN6 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
- Multiple hub locations can meet most wiring needs

Construction

- Sturdy 18 gauge steel white powder-coated housing
- $\frac{3}{16}$ " tempered glass lens
- Zinc latches

Electrical

- Available standard 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

Color rendering index

- Superior CRI (80+)

Options

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

Accessories

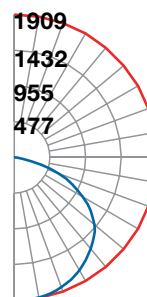
- Chain or cable mount kit
- Adjustable surface or vertical mounting bracket

Photometry ceiling mount

Reference data

Catalog number	XLN6S4K434PFT
Luminaire lumens	5,737 Lumens (4 Lamps)
Luminaire efficacy rating (LER)	97
Input watt	59.03
Spacing criterion (0-180)	1.26
Spacing criterion (90-270)	1.36
Spacing criterion (diagonal)	1.44

Candlepower curve



T-Ratings

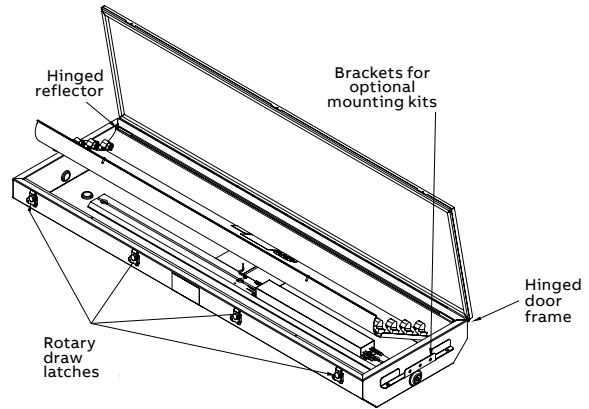
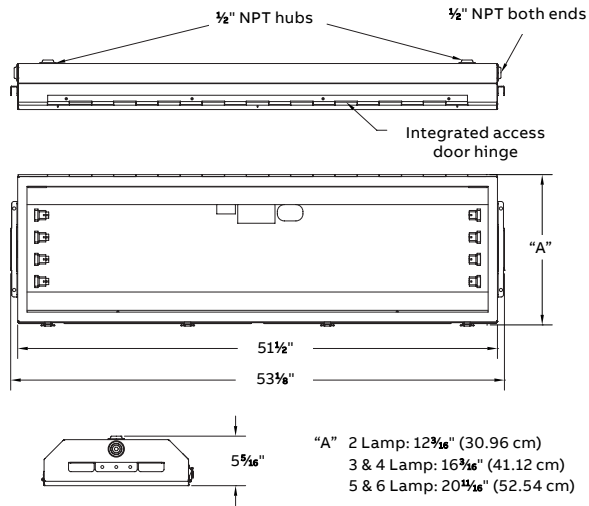
Model	Rated ambient (°C)	Class I	Class II	Class III
		Division 2 Groups A, B, C, D	Division 2 Groups F, G	
XLN6	40	T5 (100 °C)	T4A (120 °C)	T4A (120 °C)

Performance

Lamp qty.	Source (ballast factor)	Average system watts	Initial lumen output	Color temperature
2 Lamp	S - Standard	29	3200, 3300	4000K, 5000K
3 Lamp	S - Standard	43.5	4800, 4950	4000K, 5000K
4 Lamp	S - Standard	58	6400, 6600	4000K, 5000K
5 Lamp	S - Standard	72.5	8000, 8250	4000K, 5000K
6 Lamp	S - Standard	87	9600, 9900	4000K, 5000K

XLN6 LED

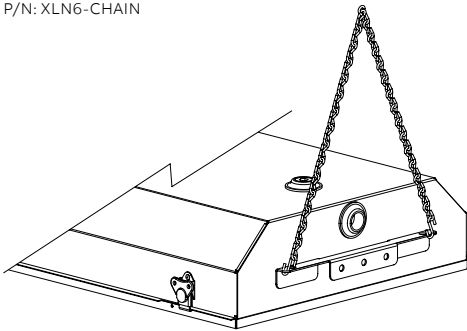
Dimensions



Mounting options

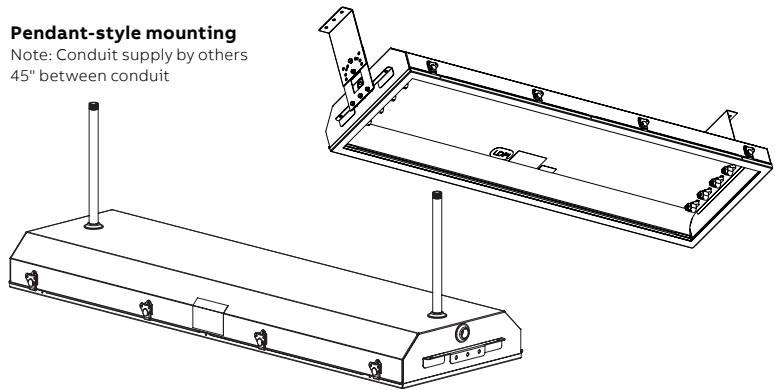
Chain kit

P/N: XLN6-CHAIN



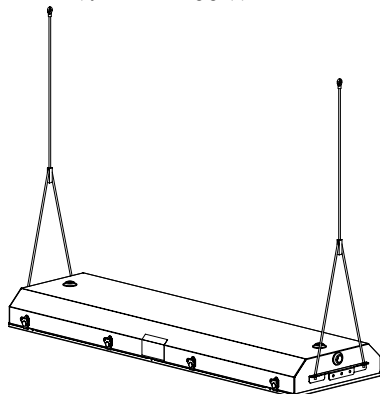
Pendant-style mounting

Note: Conduit supply by others
45" between conduit



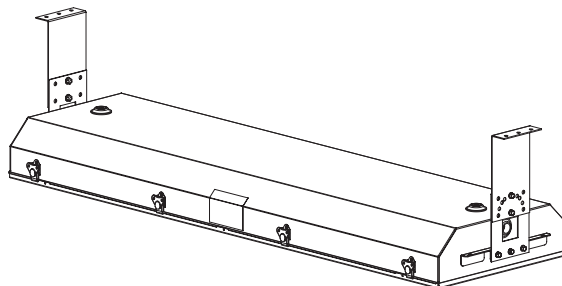
Cable hang kit

P/N: XLN6-CABLE (zinc coated), Qty 2 cables with toggle ends and qty 2 self-locking gripples



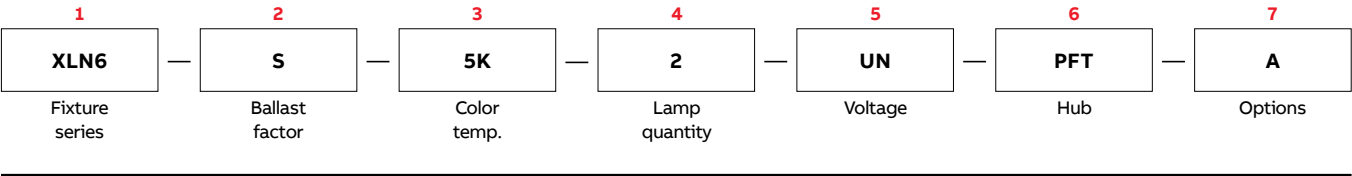
Adjustable surface-mounting bracket kit

P/N: XLN6-SURFACE (galvanized), toggle ends and qty 2 self-locking gripples



XLN6 LED
Numbering system

Lighting fixture



Lighting fixture

Part	Part number	Description
1 Fixture series	XLN6	ABB-EX Solutions Linear Luminaire 6 Series
2 Ballast factor	S	Standard 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 voltage 120 - 277, 50/60 Hz
	34	347 Volts
6 Hub	PFT	½" NPT hubs on top and side

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

Accessories

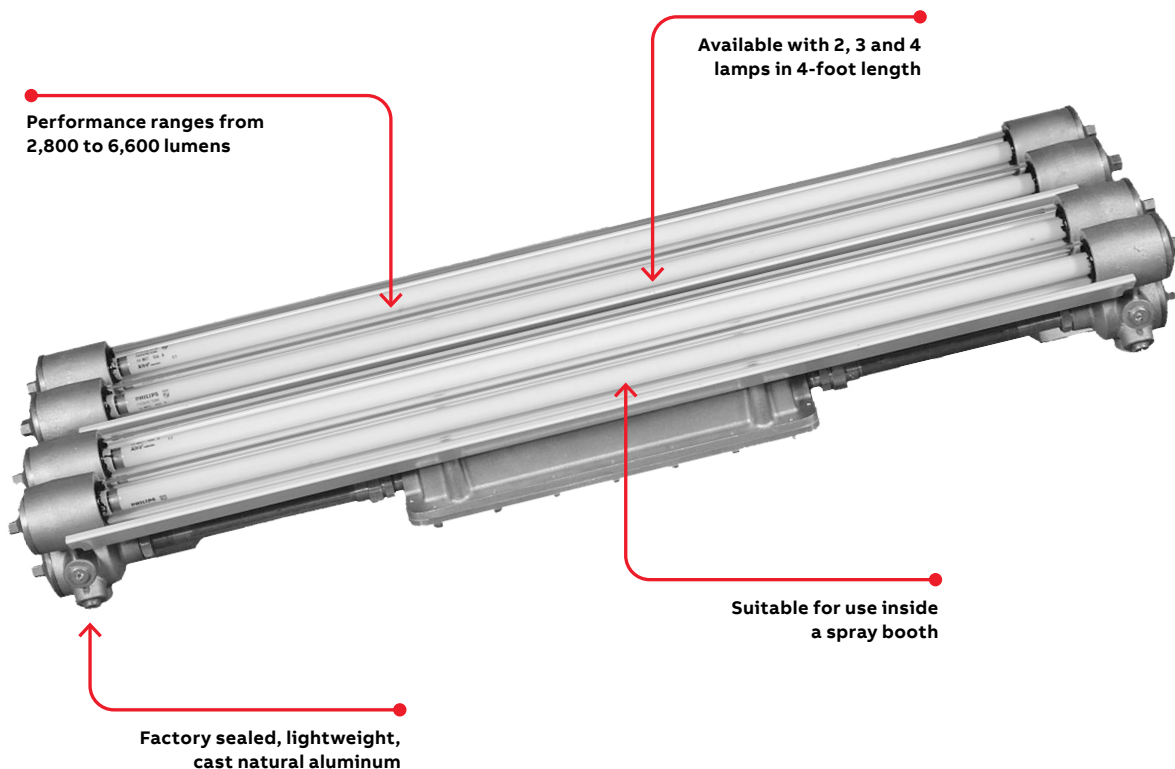
Part number	Description
XLN6-CHAIN	Chain hang kit
XLN6-CABLE	Cable hang kit
XLN6-SURFACE	Adjustable surface mounting bracket



XLN7

LED Series

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



CERTIFICATIONS



UL844
UL 1598 wet/damp
UL8750



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

XLN7 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
- 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 low or standard 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

Color rendering index

- Superior CRI (80+)

Options

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

Accessories

- Wall, ceiling and drop mount kit

Performance

Lamp qty.	Source (ballast factor)	Average system watts	Initial lumen output	Color temperature
2 Lamp	S - Standard	29	3200, 3300	4000K, 5000K
3 Lamp	S - Standard	43.5	4800, 4950	4000K, 5000K
4 Lamp	S - Standard	58	6400, 6600	4000K, 5000K

Photometry ceiling mount

Reference data		Candlepower curve
Catalog number	XLN7S5K24UN	856
	3,024 Lumens (2 lamps)	642
Luminaire lumens		428
Luminaire efficacy rating (LER)	105	214
Input watt	28.68	
Spacing criterion (0-180)	1.26	
Spacing criterion (90-270)	1.40	
Spacing criterion (diagonal)	1.48	

Reference data		Candlepower curve
Catalog number	XLN7S5K34UN	1365
	4,803 Lumens (3 lamps)	1024
Luminaire lumens		683
Luminaire efficacy rating (LER)	110	341
Input watt	43.72	
Spacing criterion (0-180)	1.26	
Spacing criterion (90-270)	1.40	
Spacing criterion (diagonal)	1.48	

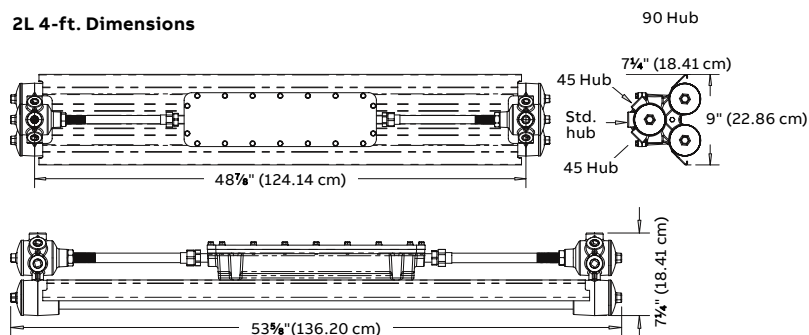
T-Ratings

Model	Rated ambient (°C)	Class I, Division 1 Groups C, D	Class I, Division 2 Groups A, B, C, D	Class II, Division 1 Groups E, F, G	Class II, Division 2 Groups E, F, G	Class I and II simultaneous presence
XLN7	40	T6 (85°C)	T6 (85°C)	T4 (135°C)	T4 (135°C)	T4 (135°C)

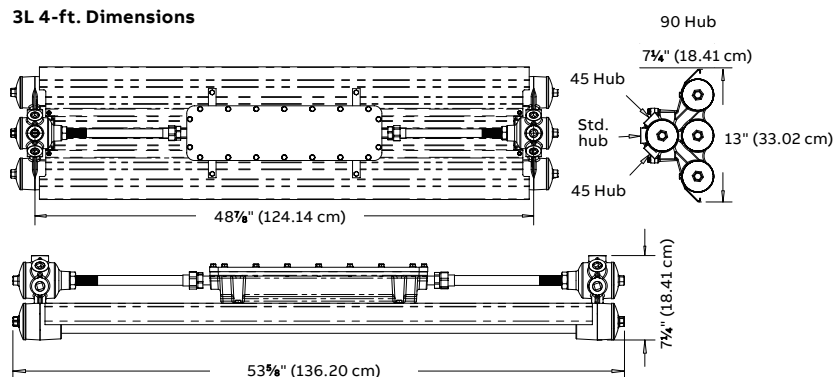
XLN7 LED

Dimensions

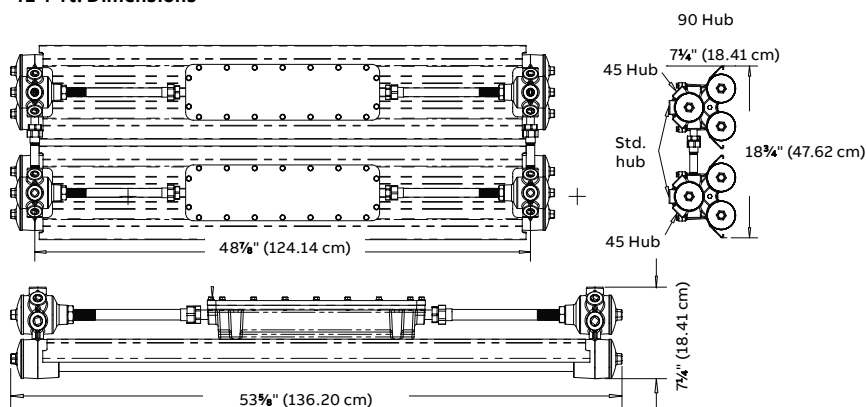
2L 4-ft. Dimensions



3L 4-ft. Dimensions



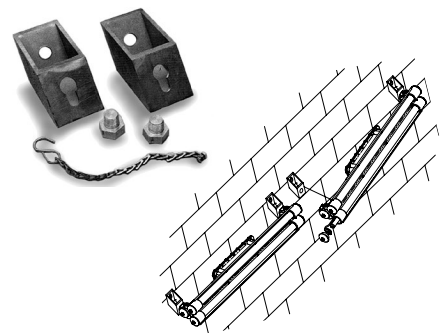
4L 4-ft. Dimensions



Mounting options

Wall/ceiling mount kit for 2 or 3 lamps

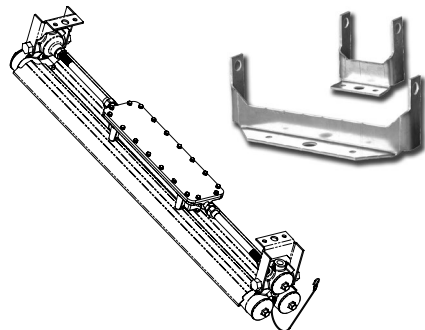
P/N: XLN7-4401



Wall/ceiling mount kit for 4 lamps

P/N: XLN7-4400

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

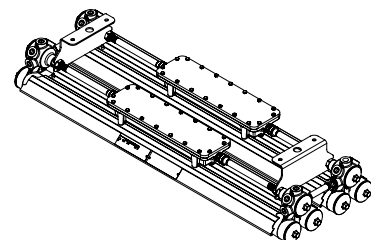


Drop-mount kit for 2 or 3 lamps

P/N: XLN7-4405

For 4 lamps

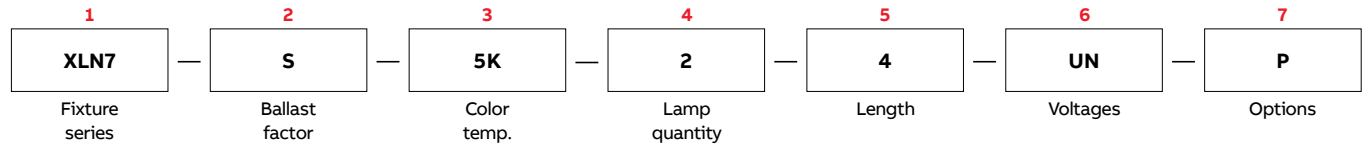
P/N: XLN7-4403



XLN7 LED

Numbering system

Lighting fixture



Lighting fixture

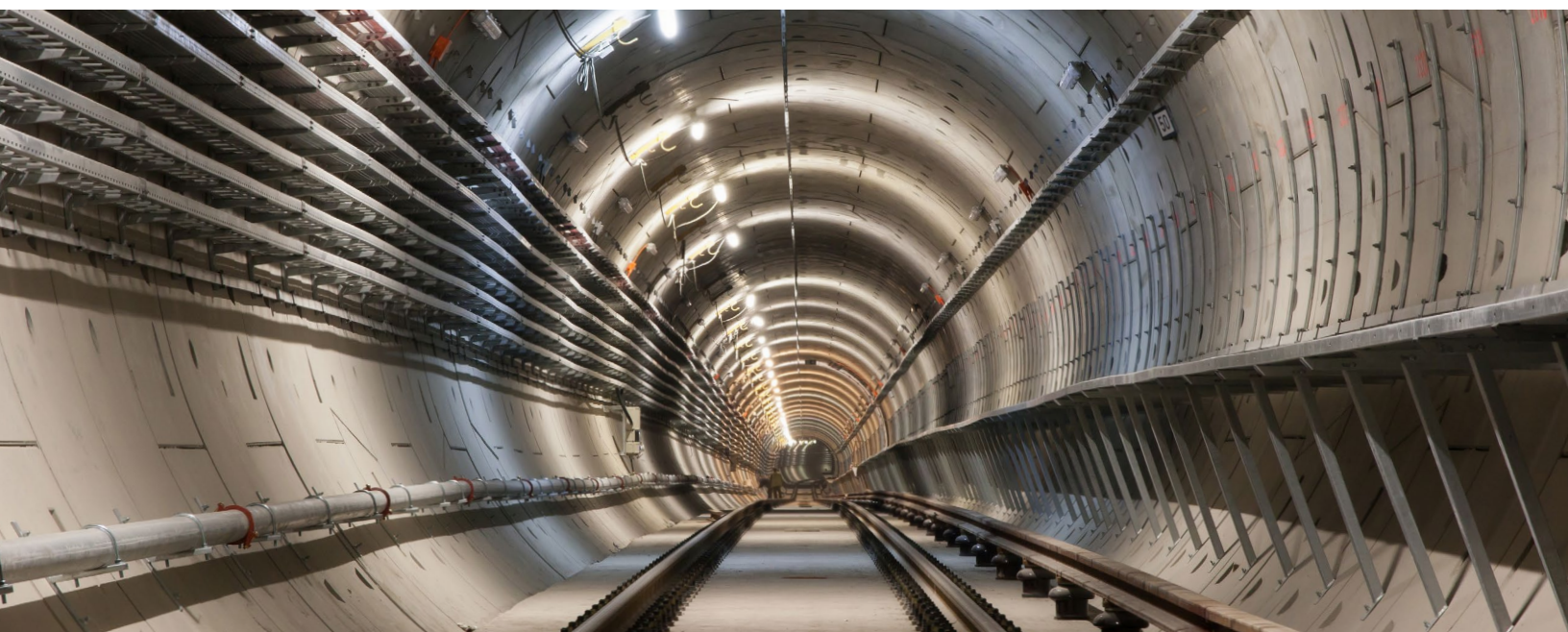
Part	Part number	Description
1 Fixture series	XLN7	ABB-EX Solutions Linear Luminaire 7 Series
2 Ballast factor	S	Standard ballast factor
3 Color temperature	4K	4000K
	5K	5000K
4 Lamp quantity	2	2 lamp configuration, 4' length
	3	3 lamp configuration, 4' length
	4	4 lamp configuration, 4' length
5 Length	4	4' length
6 Voltages	UN	Universal voltage 120–277 50/60 Hz
	34	347 Volt

Options

Part	Part number	Description
7 Options	P	Polycarbonate shield 2 lamps 4'
	WG	Stainless steel guard
	MK	Wall/ceiling mount kit (4 lamps)

Accessories (order separately)

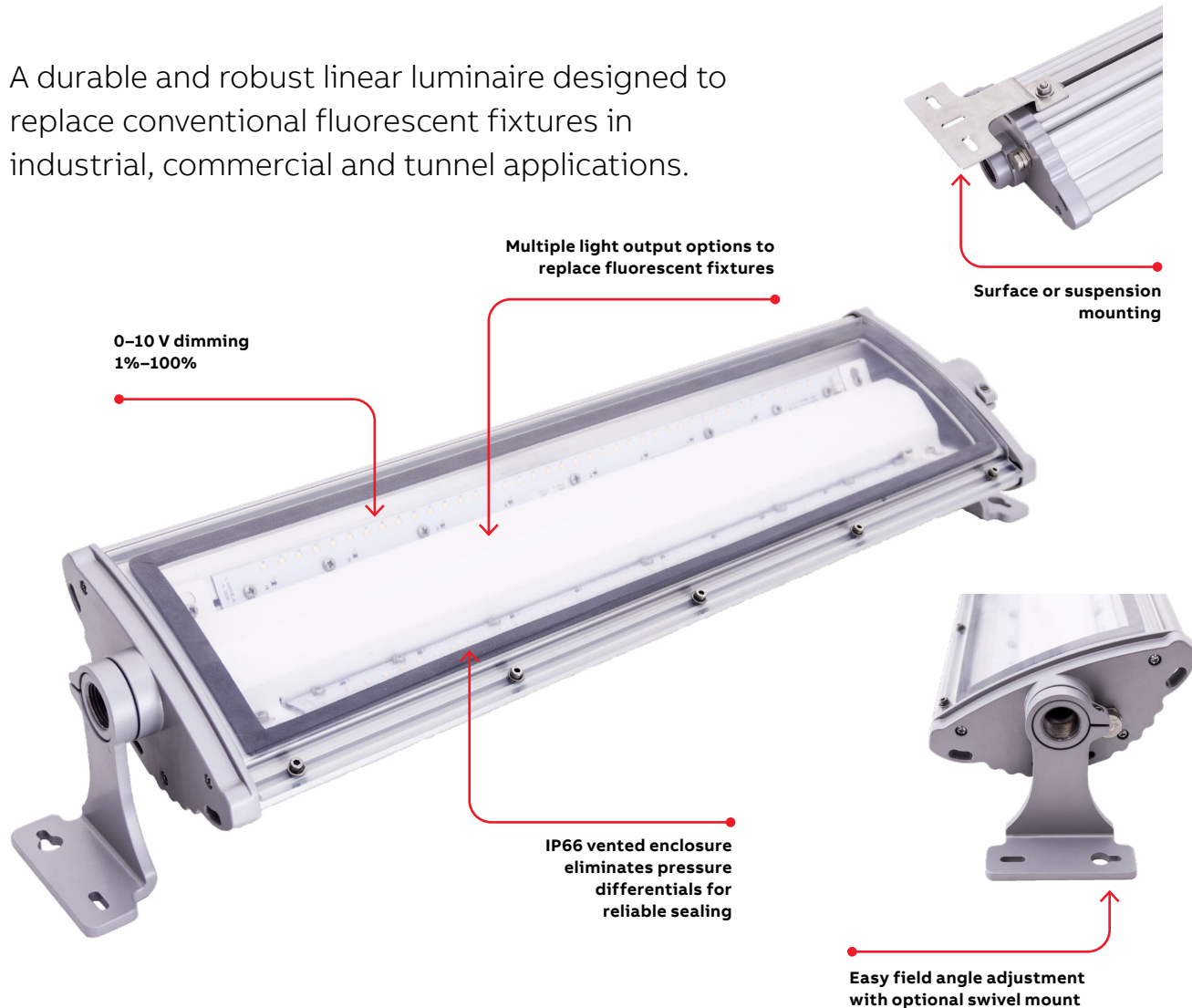
Part number	Description
XLN7-4401-EX	Wall and ceiling hanger kit 2 or 3 lamp
XLN7-4405-EX	Drop hanger kit 2 or 3 lamp
XLN7-4403-EX	Drop hanger kit 4 lamp
XLN7-4211-EX	Stainless steel guard 2 lamp 4'
XLN7-4557-EX	Stainless steel guard 3 lamp 4'
(2)XLN7-4211-EX	Stainless steel guard 4 lamp 4'
XLN7-4209-EX	Polycarbonate shield 2 lamp 4'
XLN7-4497-EX	Polycarbonate shield 3 lamp 4'
(2) XLN7-4209-EX	Polycarbonate shield 4 lamp 4'



XLN13

LED Series

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



CERTIFICATIONS



UL844
UL1598A
UL8750



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

Applications

Tunnels
Interior fluorescent replacement
Loading docks

XLN13 LED

Key features and benefits

Features

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

Finish

- Powder-coated end caps
- Polycarbonate lens resistant to 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

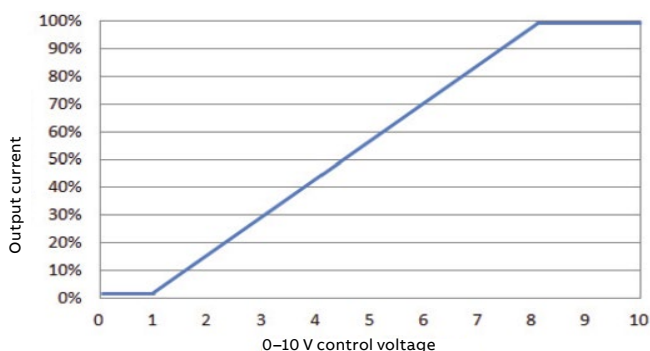
- 3,970 up to 10,000 lumens
- 0–10 V dimmable

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.

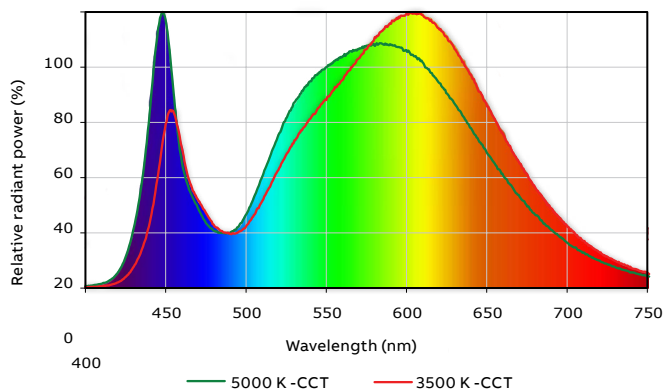


Applications

Tunnels
Interior fluorescent replacement
Loading docks

Color temperature

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



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

XLN13 LED

Mounting options

Surface mount



Suspended mount



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

Angle adjustable mount (optional)



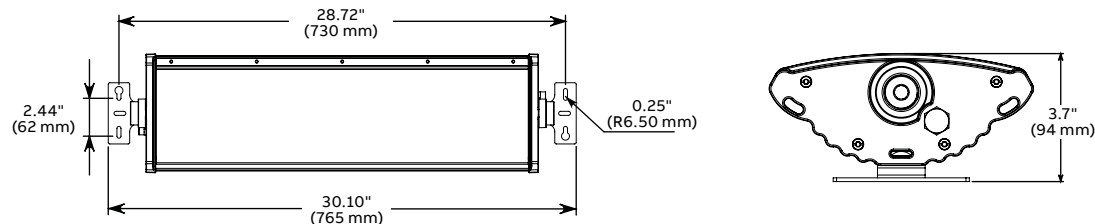
Easy field 360° angle adjustment with 3 mm hex key.

Surface/suspended mount (standard)

NL2 : 5.1 kg | 11.3 lbs NL4 : 10 kg | 22 lbs

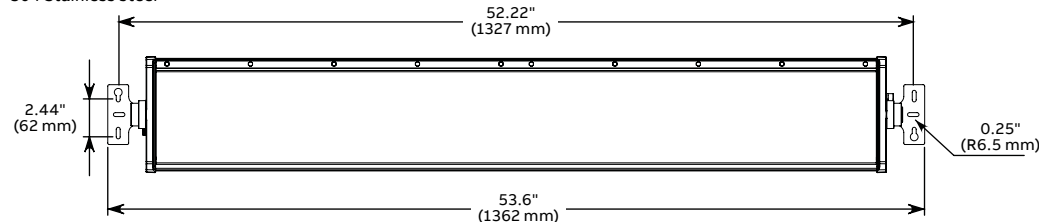
XLN132 – Surface mount 5.3 kg | 12 lbs (included standard)

304 Stainless steel



XLN134 – Surface mount 8.6 kg | 19 lbs (included standard)

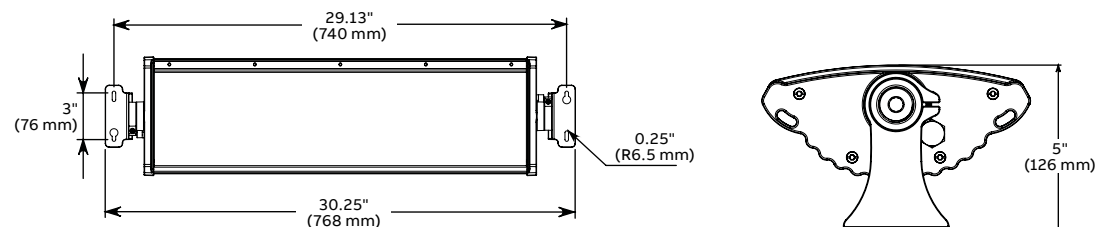
304 Stainless steel



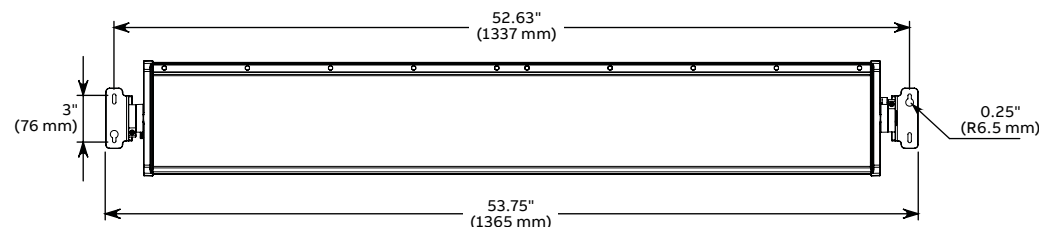
Adjustable mount (XLN13-AM - optional)

NL2 : 5.1 kg | 11.3 lbs NL4 : 10 kg | 22 lbs

XLN132 – Angle adjustable mount (XLN13-AM) 5.3 kg | 12 lbs (optional accessory)



XLN134 – Angle adjustable mount (XLN13-AM) 8.6 kg | 19 lbs (optional accessory)



XLN13 LED

Fixture comparison

Size	T12								T8		T5					
	4 foot		8 foot		4 foot				8 foot		4 foot					
Length																
Rating	Standard		Standard	High output	Standard			High output	Standard	High output	Standard			High output		
Lamp quantity	2-Lamp	4-Lamp	2-Lamp	2-Lamp	2-Lamp	4-Lamp	6-Lamp	2-Lamp	2-Lamp	2-Lamp	2-Lamp	4-Lamp	6-Lamp	2-Lamp	4-Lamp	
Est. power (W)	74	133	158	237	62	112	184	86	112	153	59	118	117	120	240	
Est. lumens LED cross	3,200	6,400	6,000	8,100	3,200	6,400	8,600	4,300	8,800	9,100	3,200	6,400	9,600	6,600	13,200	
Model	Lumens															
XLN132-S	3,970	X		X				X				X				
XLN132-H	5,143	X														
XLN132-X	7,965	X		X		X								X	X	
XLN134-S	8,697	X		X		X		X	X		X			X		
XLN134-H	10,470											X		X		

Electrical ratings

Model	Input voltage	Rated wattage (Watts)	Rated voltage (Volts)	Frequency (Hz)	Ambient temp. (°C)	Total lumens	T-codes (Class I Division 2)	T-codes (Class II Division 2)
XLN132S	AC	36	120-277	50/60	-40 to 55	3,970	T4A	T4
	HV	36	347-480	50/60	-40 to 54	3,970	T4A	T4
XLN132H	AC	52	120-277	50/60	-40 to 55	5,143	T4A	T4
	HV	52	347-480	50/60	-40 to 54	5,143	T4A	T4
XLN132X	AC	70	120-277	50/60	-40 to 52	7,965	T5	T4
	HV	82	347-480	50/60	-40 to 46	7,965	T5	T4A
XLN134S	AC	85	120-277	50/60	-40 to 55	8,697	T4A	T4A
	HV	90	347-480	50/60	-40 to 54	8,967	T4A	T4A
XLN134H	AC	105	120-277	50/60	-40 to 54	10,470	T4A	T4A
	HV	109	347-480	50/60	-40 to 52	10,470	T4A	T4A

Numbering system

Lighting fixture

1	2	3	4	5	6	7	8
XLN134	X	WC	GY	50	AC	HL	U
Series	Output	Optics	Finish	Color	Power	Location	Market

Options

Part number	Description
XLN13-AM-GY-EX	Adjustable mount (order separately)

Lighting fixture

Part	Part number	Description
1 Series	XLN132	2 foot
	XLN134	4 foot
2 Output	S	Standard
	H	High output
	X	Extra high output ¹
3 Optics	WC	Wide (no optics)
4 Finish	GY	Gray
5 Color	50	Cool white
	35	Warm white
6 Power	AC	120 to 277 VAC
	HV	347 to 480 VAC
7 Location	HL	Hazardous location
8 Market	Blank	Canadian market
	U	US market

¹Not available with XLN134

XLN12

LED Series

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



CERTIFICATIONS



IP66/67/68



UL844
UL1598A
UL8750

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

XLN12 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

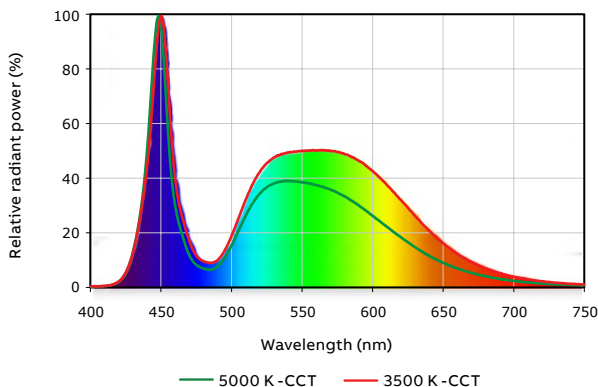
- Utilizes high performance LED drivers for better efficiency and up to 100,000 hours of maintenance-free operation
- 12 V or 24 V DC input options can run directly off of vehicle or facility low voltage DC
- High-efficiency internal reflector maximizes output

Thermal management

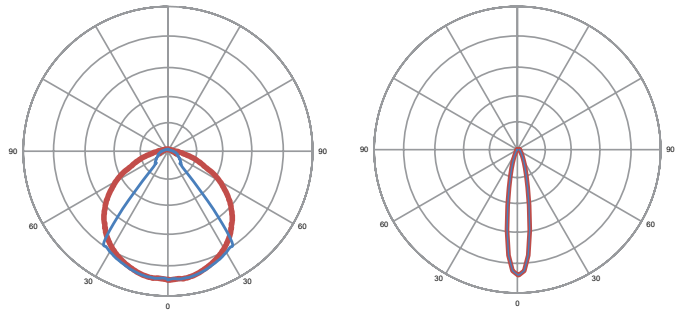
- Heat-sink designed for optimal heat dissipation

Color temperature

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



Optic options



W – Wide 100°

Model	Lumen output (CW)
XLN12-1	586
XLN12-2	1172
XLN12-3	1758
XLN12-4	2289

N – Narrow 30° (DC only)

Model	Lumen output (CW)
XLN12-1	559
XLN12-2	1118
XLN12-3	1677
XLN12-4	2236

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

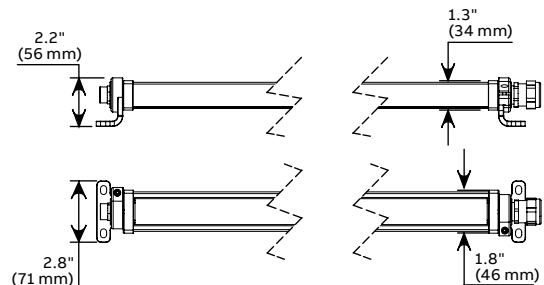
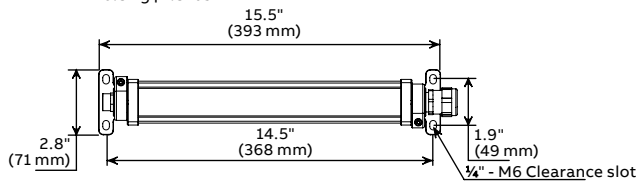
Power consumption

Model		XLN12-1	XLN12-2	XLN12-3	XLN12-4
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

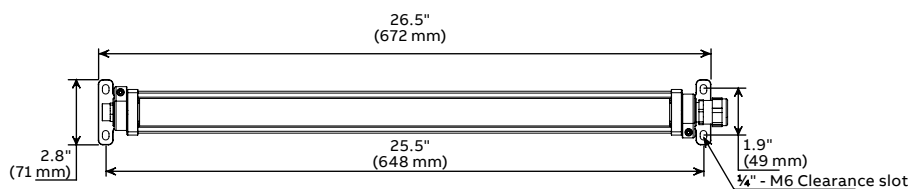
XLN12 LED

Dimensions

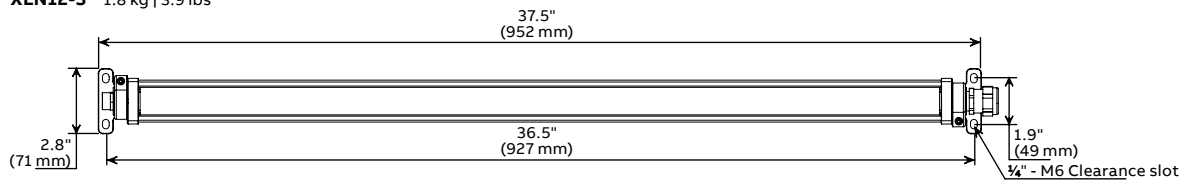
XLN12-1 0.8 kg | 1.8 lbs



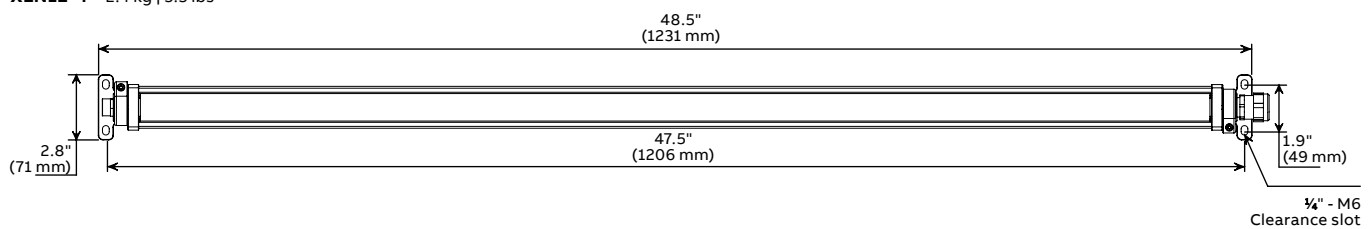
XLN12-2 1.2 kg | 2.6 lbs



XLN12-3 1.8 kg | 3.9 lbs

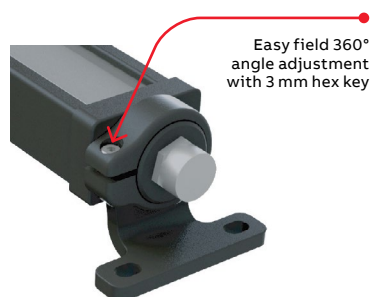


XLN12-4 2.4 kg | 5.3 lbs

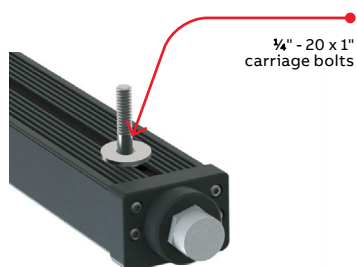


Mounting options

A - Adjustable mounting bracket

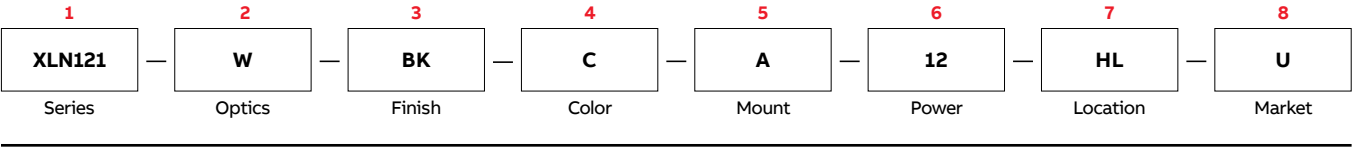


B - Carriage bolt/surface mount



XLN12 LED
Numbering system

Lighting fixture



Lighting fixture

Part	Part number	Description
1 Series	XLN121	1 Foot
	XLN122	2 Foot
	XLN123	3 Foot
	XLN124	4 Foot
2 Optics	N	Narrow 30° ¹
	W	Wide 100°
3 Finish	BK	Black
4 Color	C	Cool white
	W	Warm white
5 Mount	A	Adjustable
	B	Carriage bolt
6 Power	12	11–16 VDC
	24	21–28 VDC
	120	120 VAC
7 Location	HL	Hazardous location
8 Market	Blank	Canadian market
	U	US market

¹Available in DC only



XFL8

LED Series

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



CERTIFICATIONS



UL844
UL 1598 wet/damp
UL8750



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

XFL8

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
- Multiple distribution patterns, type V
- Selection of frosted film, 16°, 70° or 120° lens
- CCT 4000 K, 5000 K and 7000 K available
- Selection of mounting style
- Tamper-proof screws
- > 120,000 hours rated lifetime projection (L70)
- CRI (75)

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

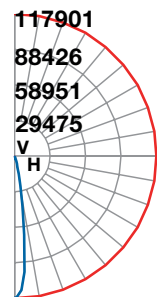
Thermal performance data

Model	Rated ambient temperature (°C)	Class I, Div 2 operating temperature code (160 °C)	Class II, Div 2 operating temperature code (100 °C)
XFL805	50	T3C	T5
XFL808	50	T3C	T5
XFL810	50	T3C	T5

Photometry

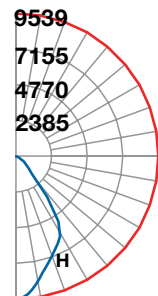
Reference data	
Catalog number	XFL810UNC1-N
Luminaire lumens	12,059
Input watt	106.6
NEMA type	2 H x 2 V
Maximum candela	117901
Maximum candela angle	0H 0V
Horizontal beam angle (50%)	15.3
Vertical beam angle (50%)	15.2
Horizontal field angle (10%)	28.6
Vertical field angle (10%)	28.3

Axial candela display



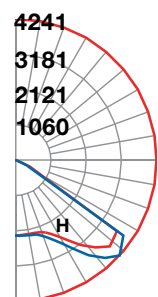
Reference data	
Catalog number	XFL810UNC1-M
Luminaire lumens	10,714
Input watt	106.1
NEMA type	6 H x 6 V
Maximum candela	9539.4
Maximum candela angle	0H 0V
Horizontal beam angle (50%)	68.2
Vertical beam angle (50%)	68.2
Horizontal field angle (10%)	100.1
Vertical field angle (10%)	100.5

Axial candela display



Reference data	
Catalog number	XFL810UNC1-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

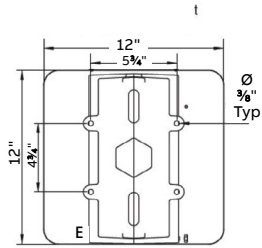
Axial candela display



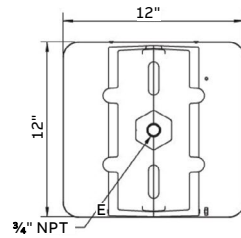
XFL8

Dimensions

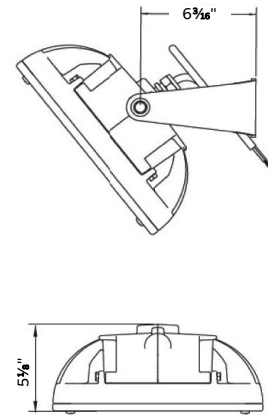
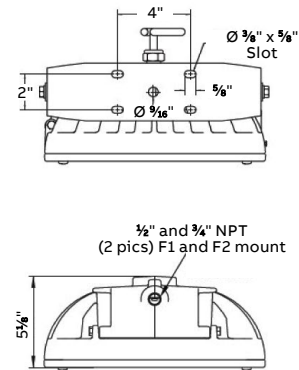
C1 and C2 ceiling mount (ceiling spacers provided)



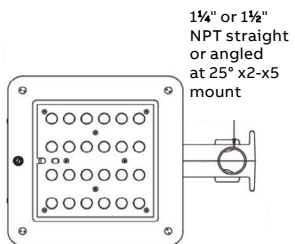
P2 pendant mount



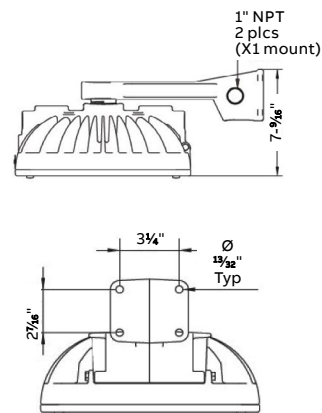
Y1 yoke mount



L4-S4 L5-S5 wall/stanchion mount



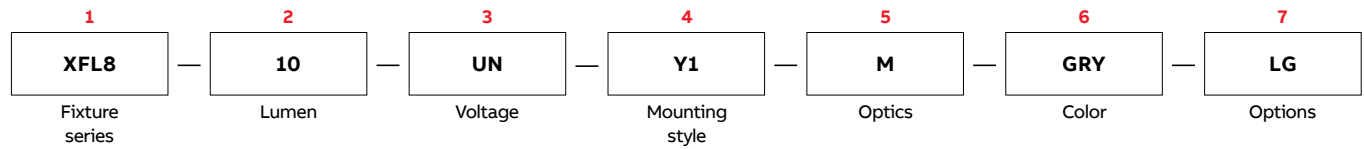
B3 mount



XFL8

Numbering system

Lighting fixture



Lighting fixture

Part	Part number	Description
1 Fixture series	XFL8	ABB-EX Solutions Flood Light 8 Series
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"
5 Optics	S5	Angled stanchion 1½"
	F	Type V frosted film
	N	Type V narrow 16° FWHM
	M	Type V narrow 70° FWHM
6 Color	W	Type V narrow 120° FWHM
	GRY	Gray powder-coat finish (standard)

Options

Part	Part number	Description
7 Options	LG	Lens guard
	PW	Pre-wired 3' cord with blunt end
	BLK	Black powder-coat finish
	WHT	White powder-coat finish
	4K	4000 K
	7K	7000 K
	G	Lens guard
	D	0-10V Dimming (not with cord option)



ABB-EX SOLUTIONS™ — EMERGENCY LIGHTING

Rely on ABB-Ex Solutions™
emergency lighting in areas
where a potential for explosion or
fire exists, due to the presence of
certain gases, liquid vapors,
combustible dusts or fiber
particles suspended in the air.



Table of contents

Emergency lighting products



068–069 XEB LED Series



070–071 XEC LED Series



072–073 XES LED Series



074–075 XER LED Series

XEB LED Series

Class I Division 2,
Groups A, B, C and D
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)
- 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 (50°F 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

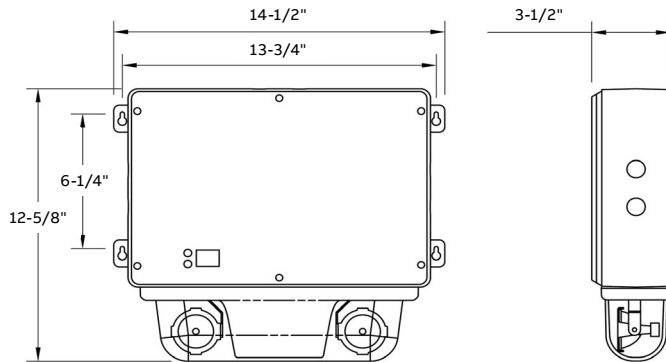


US
LR111065

FEATURES



Dimensions



Temperature codes

Lamp rating ¹	Temperature code	Max. temperature	Replacement part #
6V-4W	T4A	120°C	580.0097-EX
12V-4W	T4A	120°C	580.0080-EX
12V-5W	T4A	120°C	580.0104-EX
12V-6W	T4A	120°C	580.0106-EX

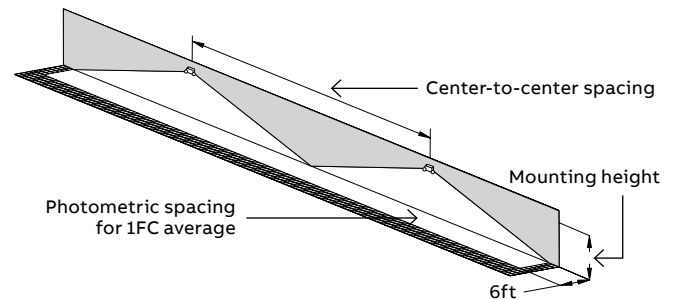
¹Use qualified replacement lamps to avoid risk of over-heating

Power consumption and unit rating

Model	AC specs	Battery capacity in watts				
		1-1/2 hrs	2 hrs	3 hrs	4 hrs	8 hrs
XEB18	120/277VAC	0.17 / 0.09 Amp	18	12	9	—
12XEB36		0.30 / 0.15 Amp	36	27	18	—
12XEB60		0.30 / 0.15 Amp	60	45	30	12
12XEB72		0.30 / 0.15 Amp	72	54	36	14

Photometric performance

Lamp	Spacing center-to-center (feet)	
	7' mounting height	15' mounting height
L1	39'	34'
L7	49'	39'
L9	68'	54'
L10	89'	80'



Numbering system

Lighting fixture

1	2	3	4	5	6
XELB0618	L1	03	-G	DA	-T3
Series	Lamps	Voltage	Color	Charger type	Options

Lighting fixture

Part	Part number	Description
1 Series	XELB0618	6V 18W lead-calcium
	XELB1236	12V 36W lead-calcium
	XELB1260	12V 60W lead-calcium
	XELB1272	12V 72W lead-calcium
2 Lamps	L1	2 x MR16 LED 6V 4W
	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
6 Options	Blank	No option
	-T3	Time delay 15 minutes

XEC LED Series

Class I Division 2,
Groups A, B, C and D
hazardous location
combination unit

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

- XEC Model, nickel-cadmium battery, 6V-20W total battery capacity
- XEC12N Model, nickel-cadmium battery, 12V-24W total battery capacity

Electronics

- Magnetic test switch
- Standard Advanced Diagnostics (non-audible)
- 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 (50°F to 104°F)
- Temperature code T4A (Max. temperature 248°F/120°C)
- 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



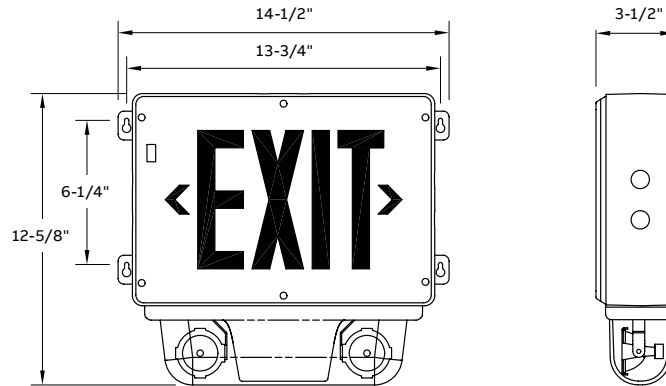
US
LR111065

UL844
UL924

FEATURES



Dimensions

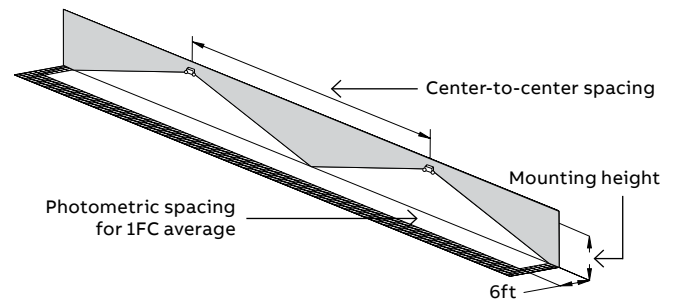


Power consumption and unit rating

Model	AC Input	Current	Power	Maximum	Stand-by	Battery capacity in watts			
				Current	Power	1-1/2 hrs	2 hrs	3 hrs	4 hrs
XEC	120/277VAC	0.15/0.07A	16W	0.09/0.03A	8W	20	15	–	–
XEC12N	120/277VAC	0.30/0.08A	29W	0.13/0.05A	10W	24	18	12	–

Photometric performance

Lamp	Spacing center-to-center (feet)	
	7' mounting height	15' mounting height
L1	39'	34'
L7	49'	39'
L9	68'	54'
L10	89'	80'



Numbering system

Lighting fixture

1	2	3	4	5	6
XELC	L1	03	GG	R	DA
Series/capacity	Lamp/wattage	Voltage	Housing face/color	Legend color	Diagnostics

Lighting fixture

Part	Part number	Description
1 Series/capacity	XELC	6V-20W, NICD
	XELC12N	12V-24W, NICD
2 Lamp/wattage	L1	2 x MR16 LED 6V 4W
	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

Accessories (order as a separate item)

Description	Part number
Additional special bit for tamper-proof screws	690.0454-EX

XES LED Series

Class I Division 2,
Groups A, B, C and D,
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)
- 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 (50°F to 104°F)
- Meets NFPA101 (Life Safety Code), NFPA 70-NEC and OSHA illumination standards

Warranty

- Five-year limited warranty
- ### 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 (50°F to 104°F)
 - Meets NFPA101 (Life Safety Code), NFPA 70-NEC and OSHA illumination standards

CLASSIFICATION

CLASS I

Division 2

Groups A, B, C, D

Contact your ABB sales representative
to verify classification

CERTIFICATIONS



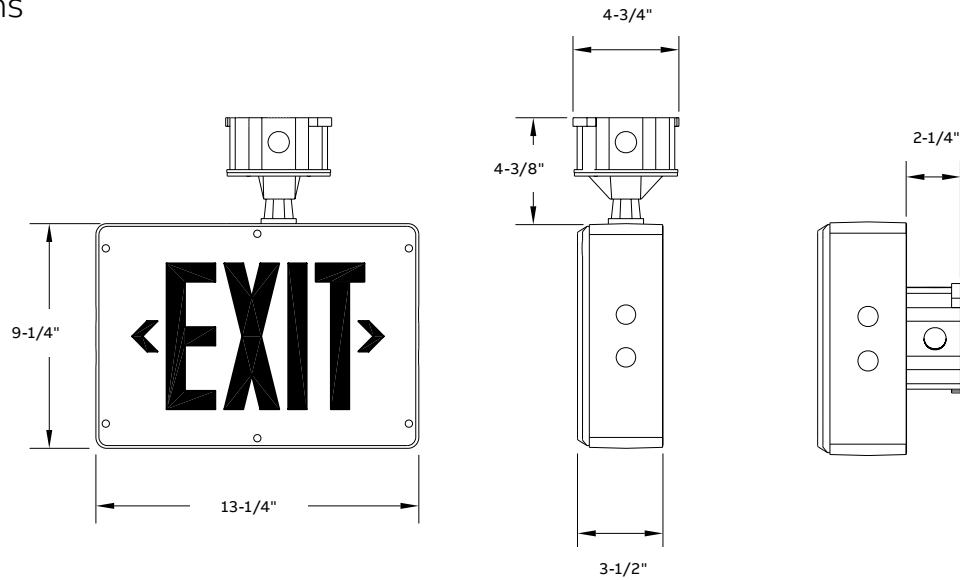
US
LR111065

UL844
UL924

FEATURES



Dimensions



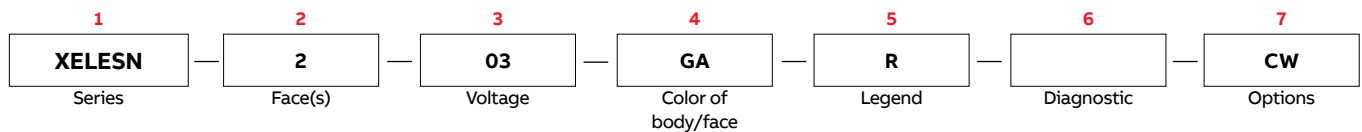
Power consumption¹

Model		AC specs	DC specs	
AC-only red	120 to 277VAC	Less than 2W	–	–
AC-only green	120 to 277VAC	Less than 1.5W	–	–
Self-powered red	120 to 277VAC	Less than 2W	Ni-Cd battery	Min. 90 minutes
Self-powered green	120 to 277VAC	Less than 2.5W	Ni-Cd battery	Min. 90 minutes

¹Cold-weather option does not consume additional power

Numbering system

Lighting fixture



Lighting fixture

Part	Part number	Description
1 Series/capacity	XELES	AC/DC (50° to 104°F Amb)
	XELESN	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)
7 Options	CW	Cold weather (-4° to 104°F Amb) ²

¹Other colors available

²Available with XELESN only

Accessories (order as a separate item)

Description	Part number
Tamper-proof bit (extra)	690.0454-EX
Convert single to double face, red ¹	DFKR-GY-EX
Convert single face to double face, green ¹	DFKG-GY-EX

¹In the field

XER LED Series

Class I Division 2,
Groups A, B, C and D
hazardous location
remote fixture



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:
-40°F 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
- 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 (50°F to 104°F)
- Meets NFPA101 (Life Safety Code), NFPA 70-NEC and OSHA illumination standards

CLASSIFICATION

CLASS I	
Division 2	Groups A, B, C, D

Contact your ABB sales representative
to verify classification

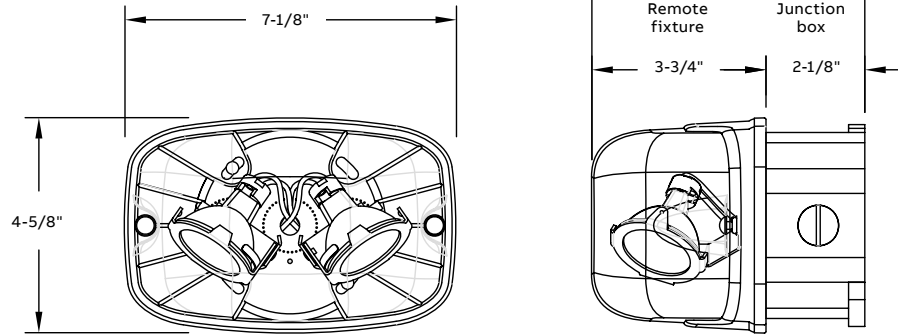
CERTIFICATIONS



US
LR111065

UL844
UL924

Dimensions

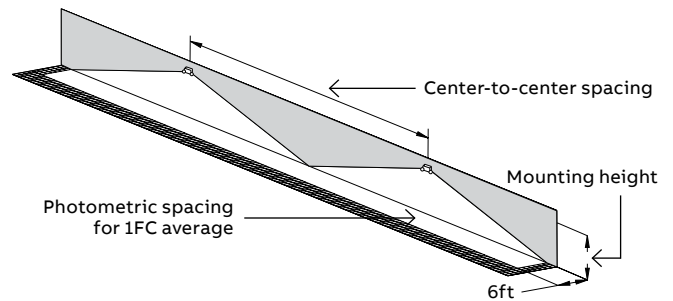


Lamp selection chart and temperature code

Lamp suffix	Voltage	Wattage	Lumens	Replacement #	Temperature code	Max temperature
L1	6	4	200	580.0097-EX	T4A	120°C
L7	12	4	220	580.0093-EX	T5	100°C
L9	12	5	340	580.0104-EX	T4A	120°C
L10	12	6	540	580.0106-EX	T4	135°C
L13	24	4	220	580.0098-EX	T5	100°C
L26	120	4	230	580.0113-EX	T4A	120°C

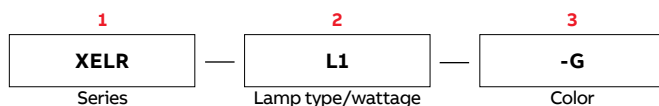
Photometric performance

Lamp	Spacing center-to-center (feet)	
	7' mounting height	15' mounting height
L1	39'	34'
L7	49'	39'
L9	68'	54'
L10	89'	80'
L13	51'	39'



Numbering system

Lighting fixture



Lighting fixture

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



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

Autoignition temperature				Autoignition temperature			
Material	Group	° F	° C	Material	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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