



NICOR Proteus XPL1B Hazardous Location LED Linear Luminaire Owner's Manual

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NICOR Proteus XPL1B Hazardous Location LED Linear Luminaire



Specifications

- Electrical: 0.95
- Environmental:
- Class I, Division 2, Group A, B, C, D
- Class II, Division 1, Groups E, F, G

- Class III, Division 1
- Class II, Division 1, Group E, F, G

Finish:

- For EM Models only
- For non-EM Models only
- Consult Factory for Lead Time & MOQ

Product Description:

The Proteus – XPL1B is a Hazardous Location (C1D2) LED Linear Luminaire designed for use in various hazardous environments. It provides efficient lighting while ensuring safety in classified locations.

Installation

1. Ensure power is turned off before installation.
2. Mount the luminaire securely using appropriate fixtures and mounting hardware.
3. Connect the electrical wiring following the provided guidelines and local regulations.
4. Test the luminaire to ensure proper functionality before regular use.

Maintenance

Regularly clean the luminaire to prevent dust buildup that may affect performance. Check for any signs of damage and promptly replace any faulty components. Periodically inspect the connections for tightness.

Usage

Operate the luminaire within the specified voltage range to ensure optimal performance and longevity. Avoid exposing the luminaire to extreme temperatures or moisture.

FAQ

Q: What is the recommended voltage range for the Proteus – XPL1B luminaire?

A: The recommended voltage range is 120-277 VAC for optimal performance.

Proteus – XPL1B

Hazardous Location (C1D2) LED Linear Luminaire

Product Description

The Proteus Hazardous Location LED luminaire is designed for installations where moisture, dirt, corrosion and vibration may be present. For use in locations made hazardous by the presence of flammable vapors or gases as defined by the NEC, Proteus fixtures are available in class C1D2 in 40W with a two-foot length or in 80W with a four-foot length. Proteus Series is ideal for retrofit of existing HPS/MH & FL and offers higher efficacy for increased energy savings, lower maintenance costs and shorter paybacks.

Certifications

- Class I, Division 2, Group A, B, C, D
- Class II, Division 1, Group E, F, G
- Class III, Division 1
- UL 844 Hazardous Location

- UL 924 Emergency Lighting 1
- UL 1598 Wet Location 2
- UL 1598A Marine 2
- IP 66 Rated
- IK08
- 5G Vibration
- 1000 hrs Salt Spray
- CSA C22.2 No. 137-M1981
- IECEx Ex nR II C T6 Gc
- Meets FCC Part 15, Subpart B, Class B standards for conducted and radiated emissions

Construction

- Heavy duty die-cast copper-free aluminum housing
- Stainless steel hardware
- 3/4" NPT threaded conduit wires access ports
- Weight – 2': 13.6 lbs ; 4': 19.1 lbs ; 2'EM: 18.7 lbs ; 4'EM: 22.7 lbs
- RoHS Compliant
- Captive bolts on power supply cover

Optical System

- Heavy-duty tempered glass lens creates uniform light distribution and maximizes lumen output
- Diffused lens optional 3
- CCT: 5000K, 3000K 2,3, or 4000K 2,3
- CRI: 70

Electrical

- Input voltage of 120-277VAC or 347-480VAC 2
- Input frequency of 50/60Hz
- Power Factor of:
- Non-Emergency Models: ≥ 0.9
- Emergency Models: ≥ 0.95
- THD <20%
- 6Kv for 40W and 80W surge protection²
- Battery Backup Mode¹
- Output Power of 12W
- Charge Time of 24 hours
- Emergency Run Time of 90 min
- Reported L70 hours >120,000 Operation Hours @ 50°C 2

Environmental

- Ambient Operating Temperature
- Non-Emergency Models: -40°F (-40°C) ~ 122°F (50°C)
- C1D2 T3C Class I, Division 2, Group A, B, C, D
- C2D1 T4A Class II, Division 1, Groups E, F, G
- C3D1 T4A Class III, Division 1
- Emergency Models: 32°F (0°C) ~ 122°F (50°C)
- C2D1 T6 Class II, Division 1, Group E, F, G
- C1D2 T4A/T4 Class I, Division 2, Group A, B, C, D
- Ambient Operating Humidity of 10%~90% RH2 and 5%~95% RH1

Finish

- RAL 7037 (Dusty Gray) polyester powder coat

Installation

- Prewired with 2' flying leads
- Allows wiring without opening power supply cover
- Integrated 3/4" NPT threaded hub for pendant mount
- Universal trunnion bracket available, with legacy bolt pattern (drill rigs)
- For installations where power surge may be possible, NICOR recommends installing additional surge protection at the electrical distribution panel

Warranty

- 5-year limited system warranty standard
- Warranty does not cover product failure due to an overvoltage event (power surge)

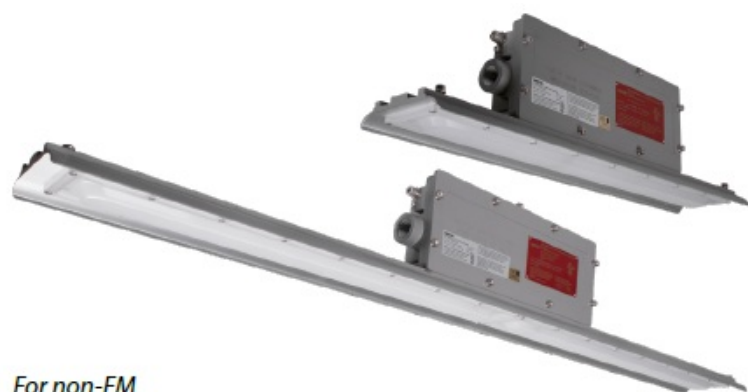
1. For EM Models only
2. For non-EM Models only
3. Consult Factory for Lead Time & MOQNICOR, Inc. 2200 Midtown Place NE, Albuquerque, NM 87107 P: 800.821.6283 F: 800.892.8393 www.nicorlighting.com November 29, 2023 Proteus C1D2 Page 1 of 2

Project

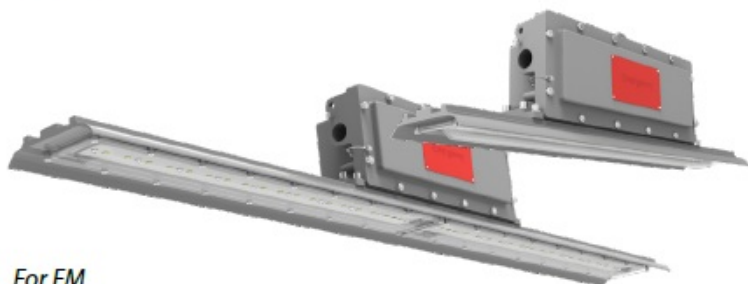
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Type

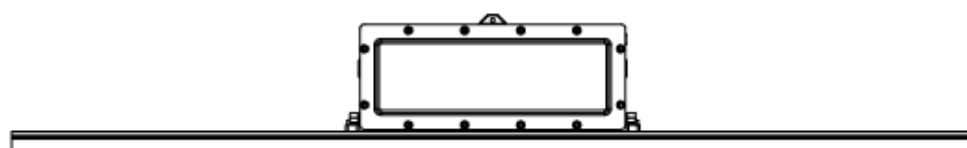
Date



For non-EM

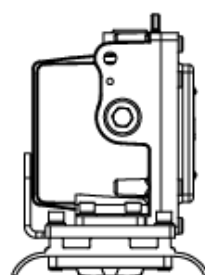
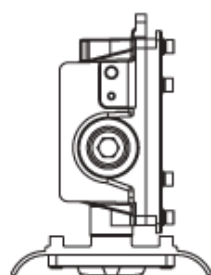


For EM



For non-EM

For EM



40W

40W-EM

Fixture Length (L)

23.6 in (600mm)

23.6 in (600mm)

Fixture Width (W)

5 in (127 mm)

5 in (127 mm)

Fixture Height (H)

6.6 in (192 mm)

8.1 in (205 mm)

80W

80W-EM

Fixture Length (L)

47.2 in (1200mm)

47.2 in (1200mm)

Fixture Width (W)

5 in (127 mm)

5 in (127 mm)

Fixture Height (H)

6.6 in (192 mm)

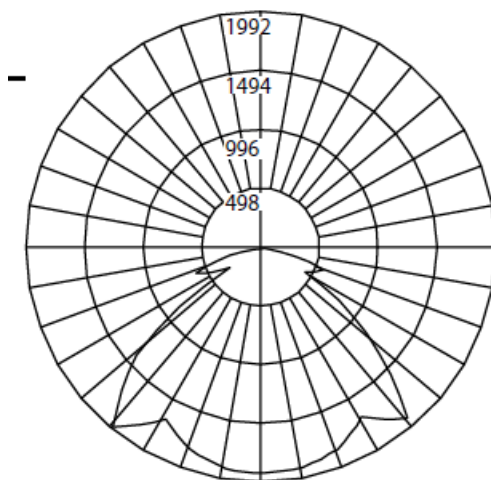
8.1 in (205 mm)



Photometric Data

XPL1B 40W 5000K

Input Voltage (VAC)	120-277
System Level Power (W)	40.9
120V Current (A)	0.341
277V Current (A)	0.148
Delivered Lumens (Lm)	5533
System Efficacy (Lm/W)	135.3
Correlated Color Temp (K)	5167
Color Rendering Index (CRI)	72
Power Factor	0.95
THD	<20%
Beam Angle	105.9°
Spacing Criteria	1.46



Intensity Summary (Candle Power)

Angle	Along	Across
0	1914	1914
5	1906	1914
15	1860	1872
25	1743	1771
35	1779	1602
45	1519	1396
55	775	1039
65	472	698
75	276	319
85	0	29
90	0	5

CCT Data Multiplier

XPL1B040U30GR	0.930
XPL1B040U40GR	0.952

Cone of Light Tabulation

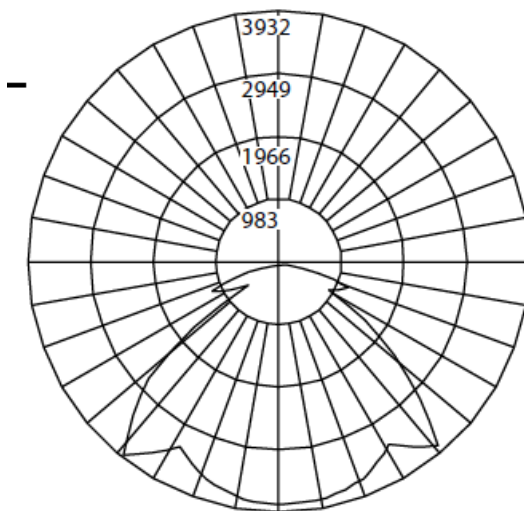
Mounted height (Feet)	Footcandles Beam Center	Diameter (Feet)
4	119.7	10.1
6	53.2	12.7
8	29.9	15.2
10	19.2	17.7
12	13.3	20.3
14	9.8	23.0
16	7.5	25.0

Zonal Lumen Summary

Zone	Lumens	% of Luminaire
0-30	1527	27.6%
0-40	2567	46.4%
0-60	4631	83.7%
0-90	5533	100.0%
90-180	0	0.0%
0-180	5533	100.0%

XPL1B 80W 5000K

- Input Voltage (VAC) 120-277
- System Level Power (W) 80.3
- 120V Current (A) 0.661
- 277V Current (A) 0.286
- Delivered Lumens (Lm) 11548
- System Efficacy (Lm/W) 143.8
- Correlated Color Temp (K) 5116
- Color Rendering Index (CRI) 72
- Power Factor 0.95
- THD <20%
- Beam Angle 111.5°
- Spacing Criteria 1.30



Intensity Summary (Candle Power)

Angle	Along	Across
0	3806	3806
5	3784	3799
15	3679	3702
25	3443	2485
35	3096	3146
45	2944	2691
55	1968	2096
65	905	1266
75	444	528
85	0	35
90	0	7

Cone of Light Tabulation

Mounted height (Feet)	Footcandles Beam Center	Diameter (Feet)
4	237.9	11.7
6	105.8	17.5
8	59.5	23.3
10	38.1	29.2
12	26.4	35.0
14	19.4	40.8
16	14.9	46.6

Zonal Lumen Summary

Zone	Lumens	% of Luminaire
0-30	3164	27.4%
0-40	5220	45.2%
0-60	9619	83.3%
0-90	11548	100.0%
90-180	0	0.0%
0-180	11548	100.0%

CCT Data Multiplier

XPL1B080U30GR	0.930
XPL1B040U40GR	0.952

Fixture tested per LM-79-08. Photometric data is of the performance of a representative fixture. Results may vary in the field.

Performance Data

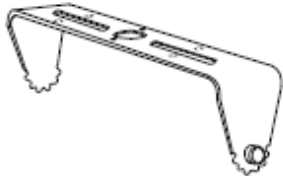





Model Number	Lumens	Watts	Lumens/Watt
XPL1B040U30GR	5146	41	125.8
XPL1B040U40GR	5267	41	128.8
XPL1B040U50GR	5533	41	135.3
XPL1B080U30GR	10740	80	133.7
XPL1B080U40GR	10994	80	136.9
XPL1B080U50GR	11548	80	143.8

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Ordering Information										Example: XPL1A080U50GRTDEM
Series	Version	Class/DIV	Wattage	Voltage	CCTs	Finish	Beam Angle	Lens	Mounting	Emergency
XPL	1	B (C1D2)	<input type="radio"/> 040 (40W)	U (120-277VAC)	<input type="radio"/> 50 (5000 K)	GR (Gray)	___ (110°)	<input type="radio"/> ___ (Clear)	<input type="radio"/> 3/4" Pendant	<input type="radio"/> ___ none
			<input type="radio"/> 080 (80W)		<input type="radio"/> 40 (4000 K) ^{2,3}			<input type="radio"/> D (Diffused) ^{2,3}		<input type="radio"/> EM ¹ (emergency)
					<input type="radio"/> 30 (3000 K) ^{2,3}			<input type="radio"/> T (Trunnion mount, factory installed)		

Specifications and dimensions subject to change without notice.

1. Emergency Models are available only for 5000K, 110°, Clear Lens, and 3/4" Pendant configuration.
2. Non-Emergency Models only
3. Consult factory for lead time and MOQ

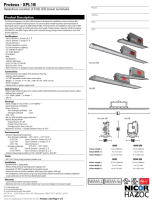
Accessories		Accessories sold separately
Trunnion Mount Bracket	XPL1BRACKET	
C1D2 Heavy Duty Drill Rig Kit	XPL1BRIGKIT-HD	
C1D2 Standard Single Point Retention Kit	XPL1BRETENTIONKIT	
C1D2 Standard Drill Rig Kit	XPL1BRIGKIT-STD	
3' Heavy Duty DS Safety Cable	XP1DSCABLE-3	
3' Standard Safety Cable	XP1SAFETYCABLE-3	

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Documents / Resources

	<p>NICOR Proteus XPL1B Hazardous Location LED Linear Luminaire [pdf] Owner's Manual Proteus XPL1B Hazardous Location LED Linear Luminaire, Proteus XPL1B, Hazardous Location LED Linear Luminaire, Location LED Linear Luminaire, LED Linear Luminaire, Linear Luminaire, Luminaire</p>
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References

-  [NICOR Lighting](#)
- [User Manual](#)

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