

NICOR Proteus-XPL1A Hazardous Location LED Linear Luminaire



# NICOR Proteus-XPL1A Hazardous Location LED Linear Luminaire Owner's Manual

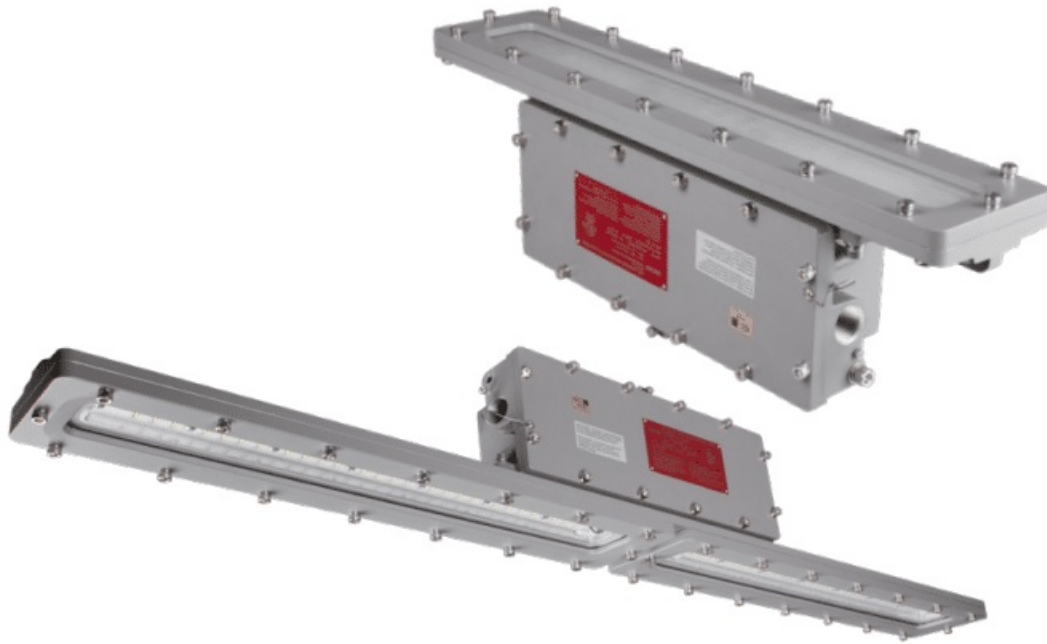
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**NICOR Proteus-XPL1A Hazardous Location LED Linear Luminaire**



## Specifications

- Product Name: Proteus – XPL1A
- Type: Hazardous Location (C1D1) LED Linear Luminaire
- Electrical: 0.95
- Finish: Refer to the manual for specific details
- Input Voltage: 120-277 VAC
- Delivered Lumens: 4426 lm
- Color Temperature: 4982 K
- Color Rendering Index (CRI): 72.3
- Power Factor: 0.95
- Total Harmonic Distortion (THD): 70

## Installation

1. Ensure the power source is turned off before installation.
2. Mount the fixture securely using the appropriate hardware.
3. Connect the electrical wires following the provided wiring diagram.
4. Secure all connections and ensure proper insulation.

## Operation

1. Turn on the power source.
2. Use the designated switches or controls to operate the luminaire.
3. Adjust the fixture as needed for optimal lighting conditions.

## Maintenance

1. Regularly clean the luminaire to remove dust and debris that may affect performance.
2. Inspect the fixture for any signs of damage or wear and replace components as necessary.
3. Consult the user manual for specific maintenance procedures.

## FAQ

1. **Q: What is the recommended input voltage for this luminaire?**

A: The recommended input voltage is 120-277 VAC.

2. **Q: How do I determine the appropriate mounting height for the fixture?**

A: Refer to the product catalog or consult with the factory for specific guidelines on mounting height based on the model.

3. **Q: Can this luminaire be used in non-hazardous locations?**

A: The XPL1A model is designed specifically for hazardous locations (C1D1); consult with the factory for alternative options for non-hazardous locations.

## Proteus – XPL1A

Hazardous Location (C1D1) LED Linear Luminaire

## Product Description

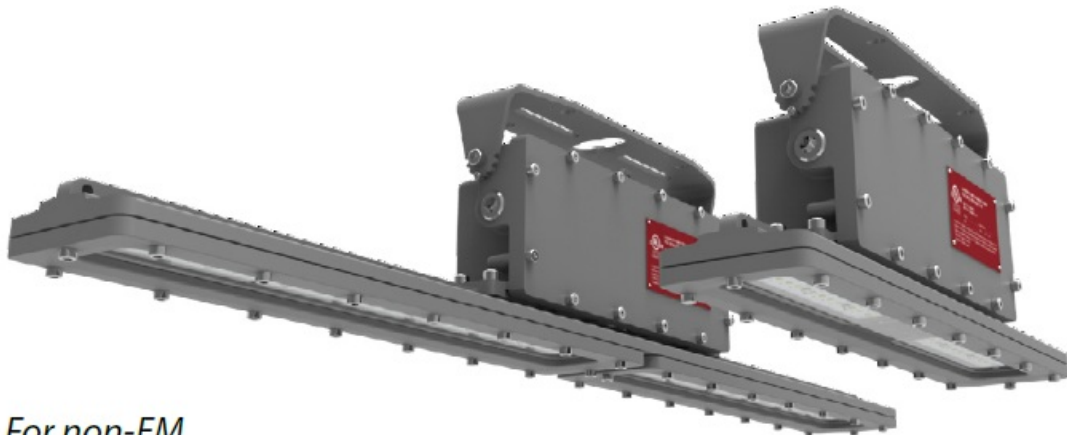
The Proteus Hazardous Location LED luminaire is designed for installations where moisture, dirt, corrosion and vibration may be present. For use in locations made hazardous by the presence of flammable vapors or gases as defined by the NEC, Proteus fixtures are available in class C1D1 in 40W with a two-foot 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.

Project
Catalog
Type
Date

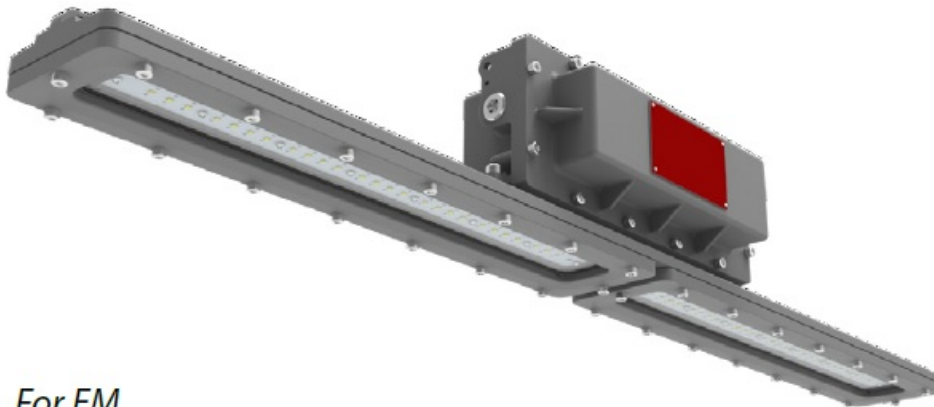
## Certifications

- Class I, Division 1, Group C,D
- Class I, Division 2, Group A, B, C, D 2
- UL 844 Hazardous Location
- UL 924 Emergency Lighting 1
- UL 1598 Wet Location 2
- UL 1598A Marine 2

- UL 8750 LED Safety 2
- IP 66 Rated
- IK07
- 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



*For non-EM*



*For EM*

## **Construction**

- Heavy duty die-cast copper-free aluminum housing
- Stainless steel hardware
- 3/4" NPT threaded conduit wires access ports
- Weight – 2': 17.9 lbs ; 4': 26.7 lbs ; 4'EM: 29.8lbs
- 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:  $\geq 0.9$
- Emergency Models:  $\geq 0.95$
- THD  $< 20\%$
- 6Kv for 40W and 10Kv for 80W surge protection<sup>2</sup>
- Battery Backup Mode<sup>1</sup>
- Output Power of 6W
- Charge Time of 24 hours
- Emergency Run Time of 90 min
- Reported L70 hours  $> 140,000$  Operation Hours @ 60°C 2

## **Environmental**

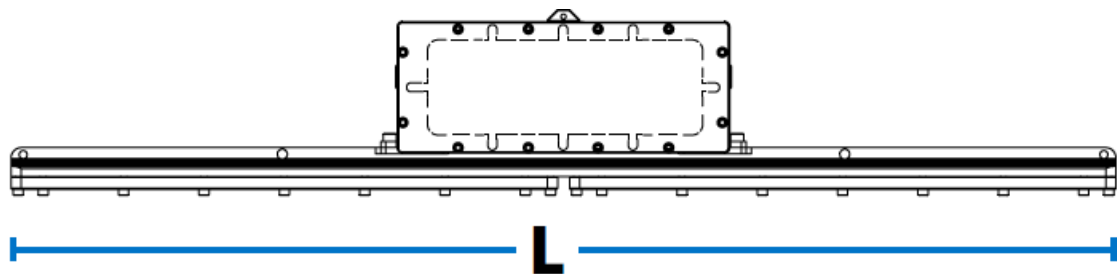
- Ambient Operating Temperature
- Non-Emergency Models: -40°F (-40°C) ~ 140°F (60°C)
- C1D1 T6 Class I, Division 1, Group C, D,
- C1D2 T3C Class I, Division 2, Group A, B, C, D,
- Emergency Models: -4°F (-20°C) ~ 113°F (45°C)
- C1D1 T6 Class I, Division 1, Group C, D,
- Ambient Operating Humidity of 10%~90% RH

## **Finish**

- RAL 7037 (Dusty Gray) polyester powder coat

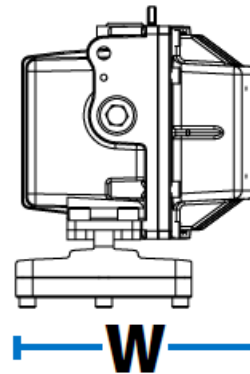
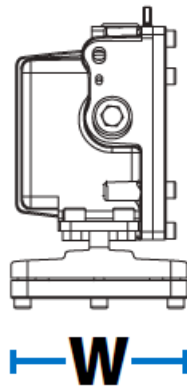
## **Installation**

- 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



*For non-EM*

*For EM*



	<b>40W</b>	<b>80W</b>	<b>80W-EM</b>
Fixture Length ( <b>L</b> )	21.4 in (544mm)	43.3 in (1100mm)	43.3 in (1100mm)
Fixture Width ( <b>W</b> )	4.3 in (108 mm)	4.3 in (108 mm)	5.4 in (138 mm)
Fixture Height ( <b>H</b> )	7.3 in (185 mm)	7.3 in (185 mm)	7.3 in (185 mm)

## Warranty

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

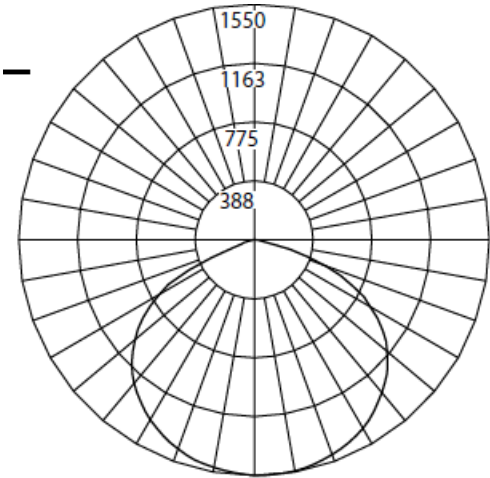


1. For EM Models only
2. For non-EM Models only
3. Consult Factory for Lead Time & MOQ  
 NICOR, Inc. 2200 Midtown Place NE, Albuquerque, NM 87107 P: 800.821.6283 F: 800.892.8393 [www.nicorlighting.com](http://www.nicorlighting.com) November 13, 2023 12:48 PM Proteus C1D1 Page 1 of 2

## Photometric Data

**XPL1A 40W 5000K**

Input Voltage (VAC)	120-277
System Level Power (W)	38.1
120V Current (A)	0.32
277V Current (A)	0.14
Delivered Lumens (Lm)	4426
System Efficacy (Lm/W)	116.3
Correlated Color Temp (K)	4982
Color Rendering Index (CRI)	72.3
Power Factor	0.95
THD	<20
Beam Angle	115.5°
Spacing Criteria	1.36



Intensity Summary (Candle Power)		
Angle	Along	Across
0	1550	1550
5	1549	1549
15	1530	1524
25	1466	1458
35	1360	1354
45	1207	1210
55	868	988
65	410	668
75	104	274
85	0	16
90	0	1

CCT Data Multiplier	
XPL1A040U30GR	0.906
XPL1A040U40GR	0.952

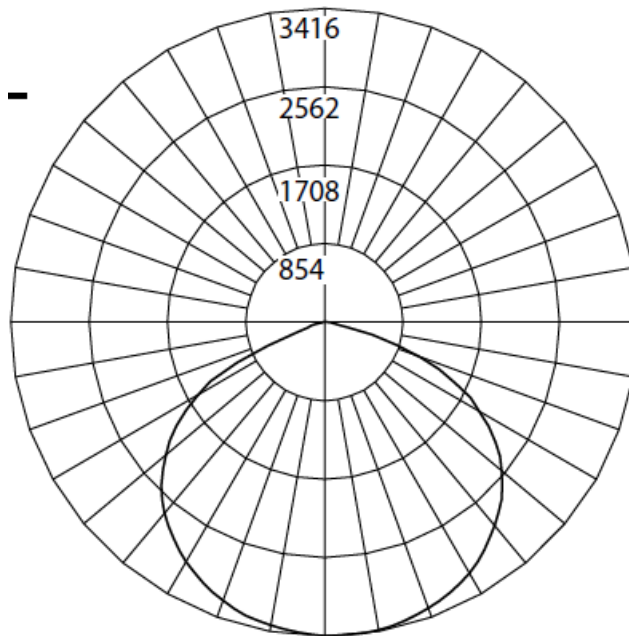
Cone of Light Tabulation		
Mounted height (Feet)	Footcandles Beam Center	Diameter (Feet)
4	119.7	12.7
6	53.2	19.0
8	29.9	25.4
10	19.2	31.7
12	13.3	38.0
14	9.8	44.4
16	7.5	50.7

Zonal Lumen Summary		
Zone	Lumens	% of Luminaire
0-30	1243	28.1%
0-40	2080	47.0%
0-60	3791	85.6%
0-90	4426	100.0%
90-180	0	0.0%
0-180	4426	100.0%

#### XPL1A 80W 5000K

- Input Voltage (VAC) 120-277
- System Level Power (W) 80.8
- 120V Current (A) 0.67
- 277V Current (A) 0.29
- Delivered Lumens (Lm) 9160
- System Efficacy (Lm/W) 113.4
- Correlated Color Temp (K) 4864
- Color Rendering Index (CRI) >70
- Power Factor 0.94
- THD <20%
- Beam Angle 111.1°
- Spacing Criteria 1.34





### Intensity Summary (Candle Power)

Angle	Along	Across
0	3415	3415
5	3409	3412
15	3349	3329
25	3178	3160
35	2893	2888
45	2494	2478
55	1673	1965
65	736	1316
75	201	577
85	0	54
90	0	3

### Cone of Light Tabulation

Mounted height (Feet)	Footcandles Beam Center	Diameter (Feet)
4	228.9	11.7
6	101.7	17.5
8	57.2	23.3
10	36.6	29.2
12	25.4	35.0
14	18.7	40.8
16	14.0	46.6

### Zonal Lumen Summary

Zone	Lumens	% of Luminaire
0-30	2705	29.5%
0-40	4478	48.9%
0-60	7903	86.3%
0-90	9160	100.0%
90-180	0	0.0%
0-180	9160	100.0%

### CCT Data Multiplier

XPL1A080U30GR	0.906
XPL1A080U40GR	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
XPL1A040U30GR	4011		105.3
XPL1A040U40GR	4213	38.1	110.6
XPL1A040U50GR	4426		116.3
XPL1A080U30GR	8280		102.5
XPL1A080U40GR	8723	80.8	107.9
XPL1A080U50GR	9160		113.4

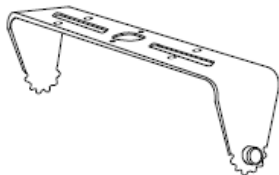



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Ordering Information										Example: XPL1A080U50GRTDEM
Series	Version	Class/DIV	Wattage	Voltage	CCTs	Finish	Beam Angle	Lens	Mounting	Emergency
XPL	1	A (C1D1)	<input type="radio"/> 040 (40W)	<input type="radio"/> U (120-277VAC)	<input type="radio"/> 50 (5000 K)	GR (Gray)	<input type="radio"/> 110°	<input type="radio"/> (Clear)	<input type="radio"/> 3/4" Pendant	<input type="radio"/> none
			<input type="radio"/> 080 (80W)	<input type="radio"/> H (347-480V) <sup>2,3</sup>	<input type="radio"/> 40 (4000 K) <sup>2,3</sup>		<input type="radio"/> 60 (60°) <sup>2,3</sup>	<input type="radio"/> D (Diffused) <sup>2,3</sup>	<input type="radio"/> T (Trunnion mount, factory installed)	<input type="radio"/> EM <sup>1</sup> (emergency)
					<input type="radio"/> 30 (3000 K) <sup>2,3</sup>		<input type="radio"/> T2 (Type II/Aisle) <sup>2,3</sup>			

Specifications and dimensions subject to change without notice.

1. Emergency Models are available only for 80W, 120-277VAC only, 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	
C1D1 Drill Rig Kit	XPL1ARIGKIT	
C1D1 Heavy Duty Dual Point Retention Kit	XPL1ARETENTIONKIT	
3' Heavy Duty DS Safety Cable	XP1DSCABLE-3	

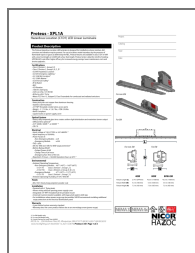
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

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.

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## Documents / Resources



[NICOR Proteus-XPL1A Hazardous Location LED Linear Luminaire](#) [pdf] Owner's Manual  
Proteus-XPL1A Hazardous Location LED Linear Luminaire, Proteus-XPL1A, Hazardous  
Location LED Linear Luminaire, Location LED Linear Luminaire, LED Linear Luminaire, Linear  
Luminaire, Luminaire

## References

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

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