

# ATX™ FNLED Series Nonmetallic LED Luminaires

## Standard Increased Safety

ATEX/IECEx:  
Zone 2 and 22  
II 3 GD  
IP66 – IK10

### Applications

- For use in locations where:
  - Hazardous areas are designated as Zone 2 and 22
  - A high degree of corrosion resistance is required
  - Protection against dirt, water and moisture is necessary
- Typical applications include:
  - Oil refineries
  - Petrochemical facilities
  - Food processing plants
  - Waste and water treatment plants
  - Underground tunnels
  - General manufacturing facilities

### Features

- Available in 5000K or 4000K Color Temperatures.
- Meets photobiological requirement for Risk Group 0 (RG0).
- Easy to retrofit in same mounting footprint as Appleton's FN series nonmetallic fluorescent luminaires.
- Full range of lumen outputs, with light distribution equivalent to Appleton's FN series fluorescent luminaires.
- Corrosion-resistant fiberglass reinforced polyester body and hinged polycarbonate lens.
- High impact resistance housing (20 Joules – IK10) from -30 °C to +55 °C (-22 °F to +131 °F) ambient temperature and wind profile for use in extreme offshore and onshore environments.
- 60,000+ hour LED life for years of maintenance free operation.
- Lightweight design, hinged cover with captive screws, and terminal block wiring for easy installation and maintenance.
- Contemporary, low profile design suitable for tight spaces.
- Standard screw-type terminal block can accept 1.5 to 6 mm<sup>2</sup> wire.
- Field replaceable LED driver.
- Industry-leading thermal management for safe, reliable operation over wide temperature range.
- Universal, high efficiency, drivers cover voltage requirements for 120-277 Vac, 125-300 Vdc, 50/60 Hz +/- 10%.
- High power factor electronic driver (>0.95).
- Standard 6KV surge suppression.
- M20 plug or M25 plug provided.
- Latch assembly and elastomer gasket seals against water and dust ingress, IP66.
- Easily accessed for maintenance using Allen key or straight blade screwdriver.
- Central opening with unique patented release system to prevent damage.
- Can be horizontally or vertically mounted.

### Standard Materials

- Housing: fiberglass reinforced polyester
- Lens: polycarbonate
- Diffuser: polycarbonate
- Gasket: elastomer
- Internal reflector: highly reflective white polycarbonate
- Mounting accessories available in different materials such as gray painted aluminum, zinc plated steel, galvanized steel or 316 stainless steel



### ATEX/IECEx Certifications and Compliances

- **Certification Type: FNLED**
  - Gas: Zone 2
    - Conforming to ATEX 2014/34/EU: II 3 G
    - Type of Protection: Ex ec IIC Gc
    - Temperature Class: T5 to T3
  - Dust: Zone 22
    - Conforming to ATEX 2014/34/EU: II 3 D
    - Type of Protection: Ex tc IIC Dc
    - Surface Temperature: +60 °C to +80 °C (+140 °F to +176 °F)
- Ambient Temperature: -30 °C up to +55 °C (-22 °F up to +131 °F)
- EU Declaration of Conformity: 50319
- ATEX Certificate: INERIS 19 ATEX 3005X
- IECEx Certificate: IECEx INE 19.0006X
- Index of Protection according EN/IEC 60529: IP66
- Impact Resistance (shock): IK10
- Photobiological Safety, IEC 62778 and IEC 62471: RG0 at 0.25 m mounting height

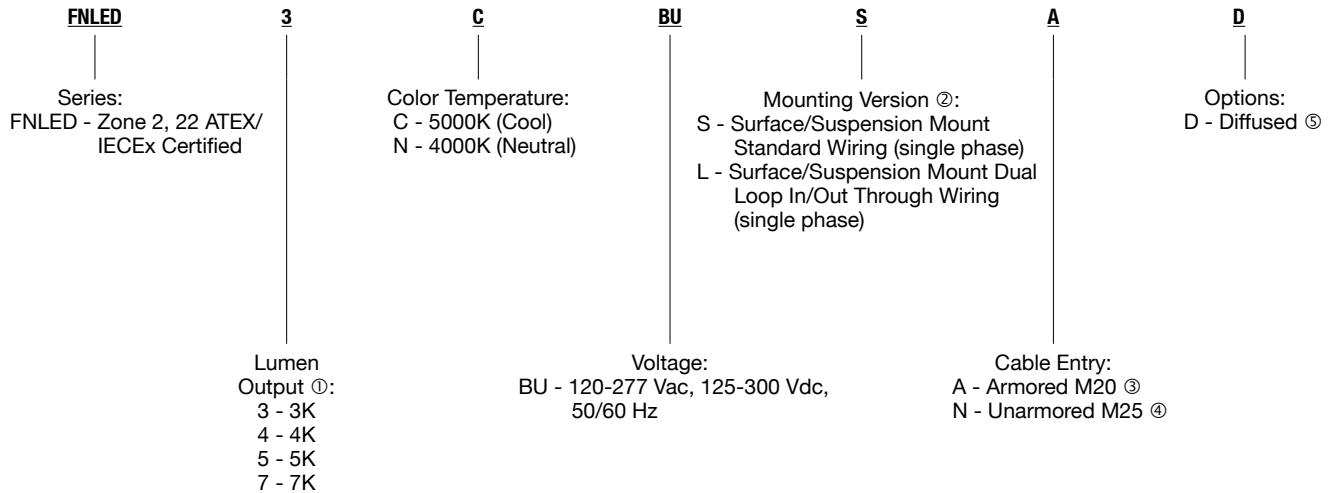
① Available for 5K lumen models only.

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Order using catalog numbering guide below or select catalog number from tables on following pages.



① All values displayed reflect typical values.

② Standard and Loop In/Out cable entries provide 3 entries; 1 at one and 2 at the other end of the housing.

③ Must order armored cable glands separately. M20 entries are with brass earth continuity plate for armored cable.

④ Cable glands provided in luminaires with unarmored hub entries.

⑤ Diffuser required for RG0 photobiological rating.

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Lumen Comparison Chart

Line Current Amps	Input Power (W)	Power Factor	Lumen Output (Lumens)	Efficacy (lm/w)	Correlated Color Temperature (CCT)	Color Rendering Index (CRI)	Length	Weight	Catalog Number
0.132 A at 230 Vac	30	> 0.9	3,300	110	5000K	80+	0,785 m (2,58 ft)	5 kg (11.0 lb)	FNLED3CBUxxD
			3,200	107	4000K				FNLED3NBUxxD
0.173 A at 230 Vac	40		4,300	108	5000K				FNLED4CBUxxD
			4,200	105	4000K				FNLED4NBUxxD
0.193 A at 230 Vac	43		5,100	119	5000K		1,39 m (4,56 ft)	8 kg (17.5 lb)	FNLED5CBUxxD
			5,000	116	4000K				FNLED5NBUxxD
0.296 A at 230 Vac	66	7,000	106	5000K	FNLED7CBUxxD				
		7,000	106	4000K	FNLED7NBUxxD				

LED/AREA: ATEX/IECEX ENCLOSED AND GASKETED/INCREASED SAFETY

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# ATX™ FNLED Series Nonmetallic LED Luminaires

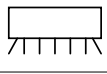
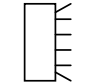
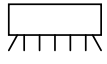
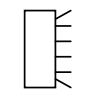
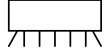
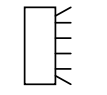
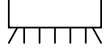
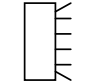
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II 3 GD  
IP66-IP10

LED/AREA: ATEX/IECEx ENCLOSED AND GASKETED/INCREASED SAFETY

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### Technical Data

Model Type	Position Horizontal / Vertical	Gas			Dust		
		T Rating			Surface T°		
		Ta = +40°C (+104°F)	Ta = +50°C (+122°F)	Ta = +55°C (+131°F)	Ta = +40°C (+104°F)	Ta = +50°C (+122°F)	Ta = +55°C (+131°F)
FNLED3		T4	T4	T4	60 °C (140 °F)	70 °C (158 °F)	75 °C (167 °F)
							
FNLED4		T4	T3		60 °C (140 °F)	70 °C (158 °F)	75 °C (167 °F)
			T4	T3			
FNLED5		T5	T4	T4	60 °C (140 °F)	70 °C (158 °F)	75 °C (167 °F)
					65 °C (149 °F)	75 °C (167 °F)	80 °C (176 °F)
FNLED7		T4	T4	T4	65 °C (149 °F)	75 °C (167 °F)	80 °C (176 °F)
							

### "T" Numbers Represent the Maximum Temperature

"T" #	T1	T2	T3	T4	T5	T6
Temp. Range °C (°F)	301-450 (547-842)	201-300 (394-572)	136-200 (277-392)	101-135 (214-275)	86-100 (187-212)	85 (185)

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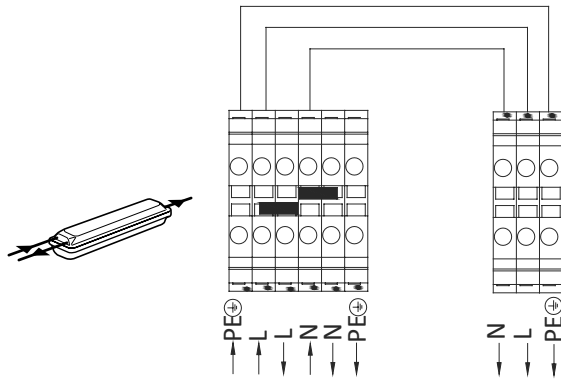
### Wiring Diagrams

#### Standard

##### Version : L

Dual Loop In/Out - Through Wiring (Single Phase)

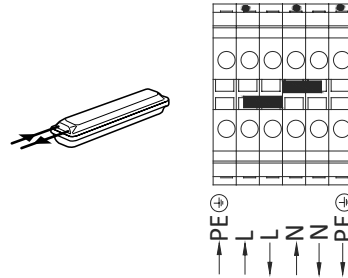
3 entries, 1 at one end and 2 at the other



##### Version : S

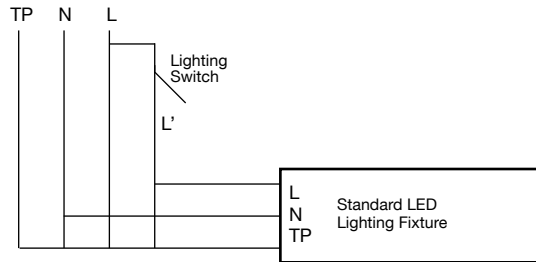
Standard (Single Phase)

3 entries, 1 at one end and 2 at the other



### Wiring Diagram

Mains



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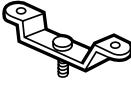



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LED/AREA: ATEX/IECEX ENCLOSED AND GASKETED/INCREASED SAFETY

### Accessories and Replacement Parts


	Description	Catalog Number
<b>Fixing Brackets</b>		
	Set of two brackets for surface installation  Zinc plated steel	<b>FEFBZ</b>
<b>Brackets for Surface Mounting</b>		
	Set of two  316 stainless steel	<b>FESBS</b>
<b>M8 Ring Bolts</b>		
	Set of two  Zinc plated steel	<b>FERBM8Z</b>
<b>Half Clamps Brackets for Pole Mounting</b>		
	Set of two	
	Diameter for 1-1/4 to 1-1/2" pole: 42 mm (1.65 in) to 49 mm (1.93 in)	
	Zinc plated steel	<b>FEHC49Z</b>
	316 stainless steel	<b>FEHC49S</b>
	Diameter for 2" pole: 60 mm (2.36 in)	
	Zinc plated steel	<b>FEHC60Z</b>
316 stainless steel	<b>FEHC60S</b>	
<b>Hinged Brackets</b>		
	Set of two brackets for adjusting luminaire	
	Aluminum	<b>FEHBA</b>
	316 stainless steel	<b>FEHBS</b>
<b>Fall Prevention Kit</b>		
	Safety chain retains fixture temporarily to ease installation	
	For M25 cable entry	<b>FESCM25</b>
	For M20 cable entry	<b>FESCM20</b>

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### Accessories and Replacement Parts

	Description	Catalog Number
<b>Replacement Drivers and Inverter</b>		
	FNLED3 Replacement Driver (1 each)	APMS050C135UD52
	FNLED4 Replacement Driver (1 each)	APMS050C135UD70
	FNLED5 Replacement Driver (1 each)	APMS050C135UD84
	FNLED7 Replacement Driver (1 each)	APMS050C135UD60
<b>Replacement Lens</b>		
	0.79 m (2.6 ft) clear polycarbonate external lens with gasket	Z00650
	1.39 m (4.6 ft) clear polycarbonate external lens with gasket	Z00651

LED/AREA: ATEX/IECEX ENCLOSED AND GASKETED/INCREASED SAFETY

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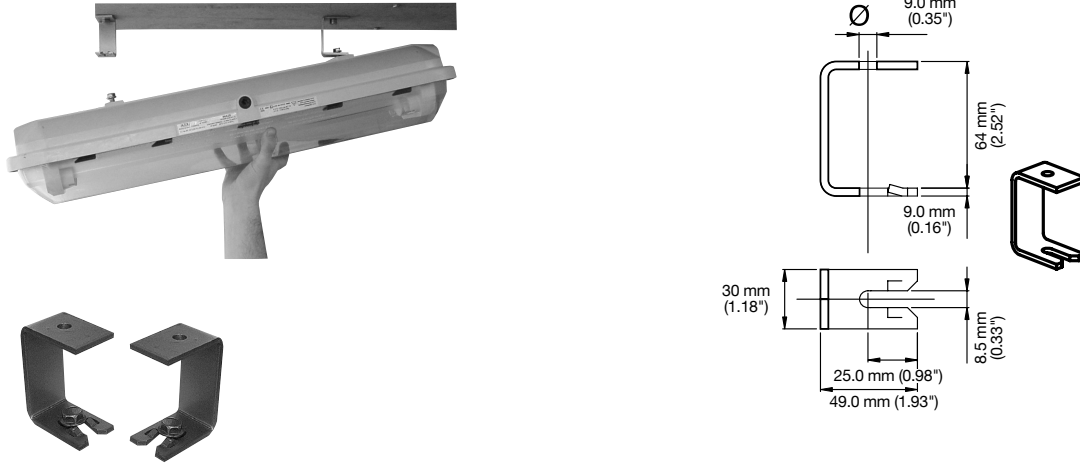
## Standard Increased Safety

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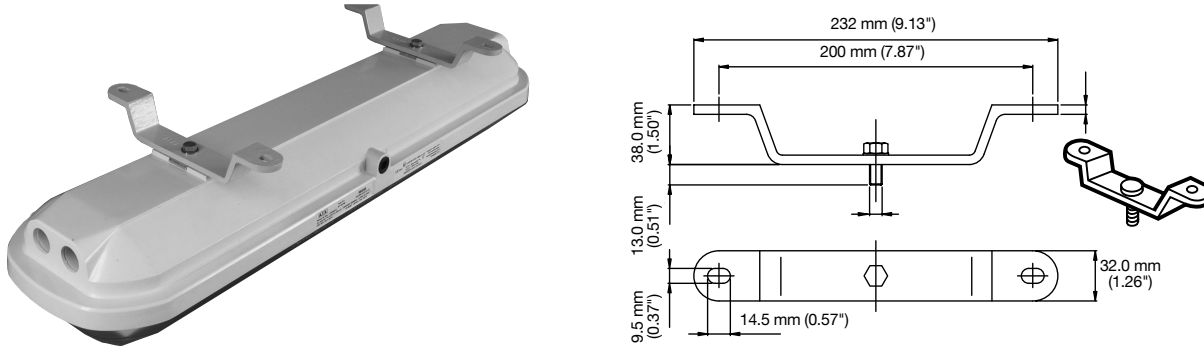
LED/AREA: ATEX/IECEX ENCLOSED AND GASKETED/INCREASED SAFETY

### Mounting Options Dimensions in Millimeters (Inches)

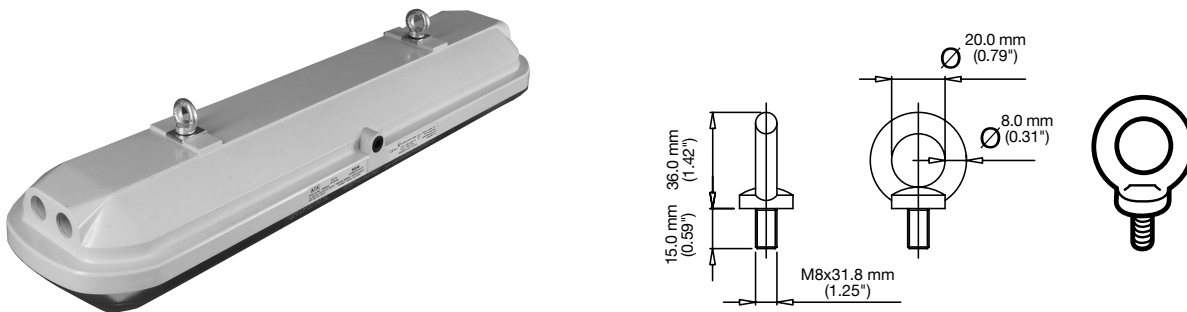
**FEFBZ:** zinc plated steel — Set of two quick fixing brackets for ease of surface mounting



**FESBS:** 316 stainless steel — Set of two brackets for surface mounting



**FERBM8Z:** zinc plated steel — Set of two ring bolts





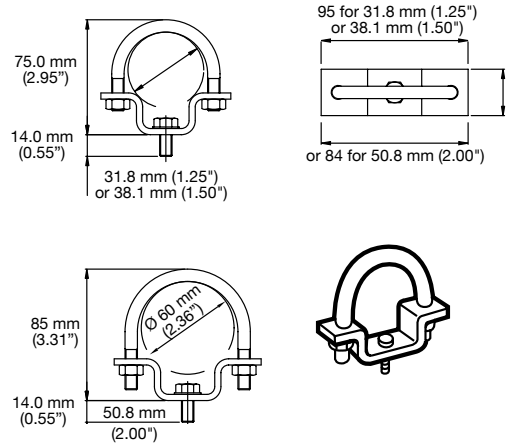
# ATX™ FNLED Series Nonmetallic LED Luminaires

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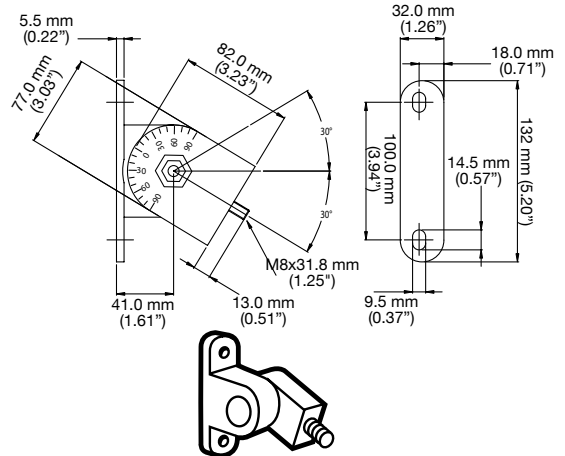
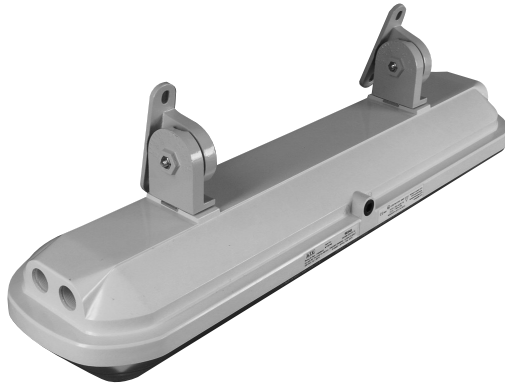
ATEX/IECEx:  
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### Mounting Options Dimensions in Millimeters (Inches)

FEHC49Z: zinc plated steel or FEHC49S: 316 stainless steel – Set of two clamps for pole diameter 42 mm to 49 mm (for 1-1/4" to 1-1/2" pole).  
 FEHC60Z: zinc plated steel or FEHC60S: 316 stainless steel – Set of two clamps for pole diameter 60 mm (for 2" pole).



FEHBA: aluminum or FEHBS: 316 stainless steel – Set of two hinged brackets for adjusting luminaire.



LED/AREA: ATEX/IECEx ENCLOSED AND GASKETED/INCREASED SAFETY

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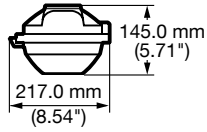
# ATX™ FNLED Series Nonmetallic LED Luminaires

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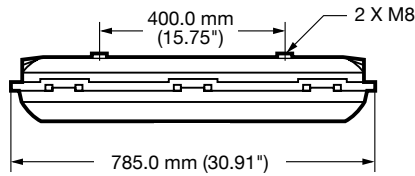
ATEX/IECEX:  
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LED/AREA: ATEX/IECEX ENCLOSED AND GASKETED/INCREASED SAFETY

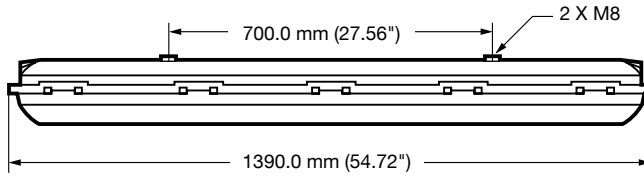
### Luminaire Dimensions in Millimeters (Inches)



End View



Side View — 0.785 m (2.58 ft)



Side View — 1.39 m (4.56 ft) Version

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# ATX™ FNLED Series Nonmetallic LED Luminaires

## Standard Increased Safety

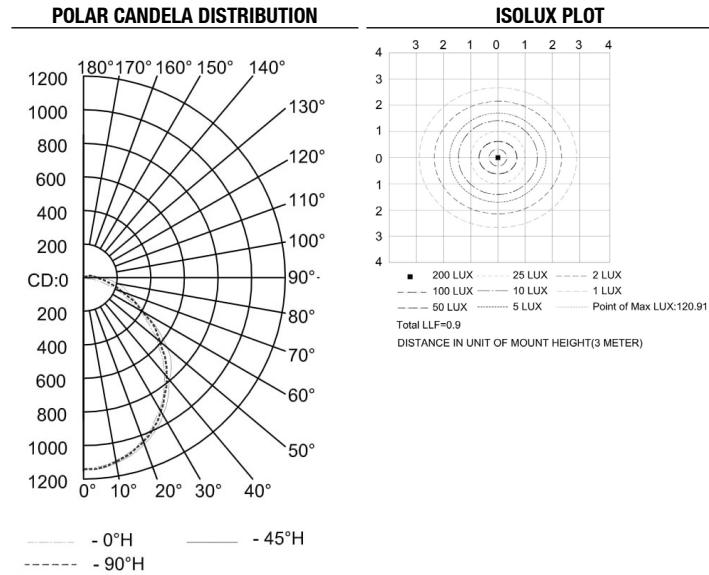
ATEX/IECEX:  
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### Photometric Data – DATA SHOWN IS ABSOLUTE

5000K CCT, With Diffuser

REPORT NUMBER: FNLED3CBUxxD

Luminaire Lumens: 3,333



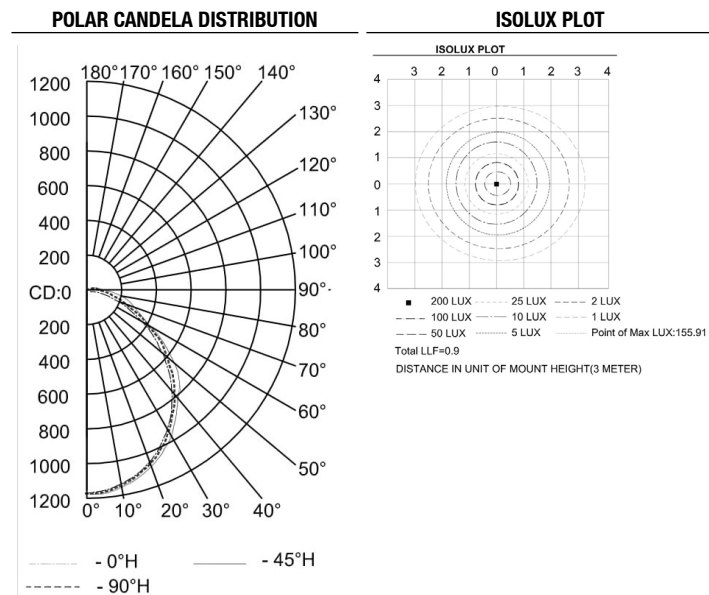
ZONAL LUMEN SUMMARY			
Zone	Lumens	% Lamp	% Luminaire
0-30	921.2	27.6%	27.6%
0-40	1,485.3	44.6%	44.6%
0-60	2,529.8	75.9%	75.9%
60-90	654.9	19.6%	19.6%
70-100	377.6	11.3%	11.3%
90-120	131.3	3.9%	3.9%
0-90	3,184.7	95.5%	95.5%
90-180	148.4	4.5%	4.5%
0-180	3,333.0	100%	100%

LUMENS PER ZONE					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	114.4	3.4%	90-100	57.2	1.7%
10-20	324.4	9.7%	100-110	43.2	1.3%
20-30	482.3	14.5%	110-120	30.9	0.9%
30-40	564.1	16.9%	120-130	10.6	0.3%
40-50	565.8	17.0%	130-140	2.3	0.1%
50-60	478.8	14.4%	140-150	1.6	0%
60-70	334.5	10.0%	150-160	1.3	0%
70-80	206.9	6.2%	160-170	0.9	0%
80-90	113.4	3.4%	170-180	0.3	0%

5000K CCT, With Diffuser

REPORT NUMBER: FNLED4CBUxxD

Luminaire Lumens: 4,294



ZONAL LUMEN SUMMARY			
Zone	Lumens	% Lamp	% Luminaire
0-30	1,186.7	27.6%	27.6%
0-40	1,913.0	44.6%	44.6%
0-60	3,258.4	75.9%	75.9%
60-90	844.0	19.7%	19.7%
70-100	486.8	11.3%	11.3%
90-120	168.3	3.9%	3.9%
0-90	4,102.4	95.5%	95.6%
90-180	190.8	4.4%	4.4%
0-180	4,293.2	100%	100%

LUMENS PER ZONE					
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	147.4	3.4%	90-100	73.8	1.7%
10-20	418.0	9.7%	100-110	55.1	1.3%
20-30	621.3	14.5%	110-120	39.5	0.9%
30-40	726.3	16.9%	120-130	13.9	0.3%
40-50	729.5	17.0%	130-140	3.0	0.1%
50-60	616.0	14.3%	140-150	2.1	0%
60-70	431.0	10.0%	150-160	1.7	0%
70-80	267.0	6.2%	160-170	1.3	0%
80-90	146.0	3.4%	170-180	0.5	0%

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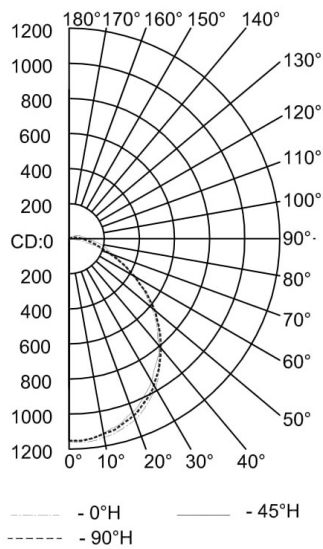
### Photometric Data – DATA SHOWN IS ABSOLUTE

5000K CCT, With Diffuser

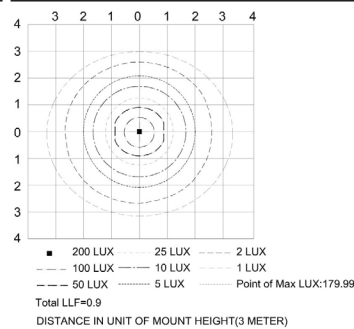
REPORT NUMBER: FNLED5CBUxxD

Luminaire Lumens: 5,094

#### POLAR CANDELA DISTRIBUTION



#### ISOLUX PLOT



#### ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Luminaire
0-30	1,393.3	27.4%	27.4%
0-40	2,263.1	44.4%	44.4%
0-60	3,874.4	76.1%	76.1%
60-90	999.6	19.6%	19.6%
70-100	566.8	11.1%	11.1%
90-120	196.1	3.8%	3.8%
0-90	4,874.0	95.7%	95.7%
90-180	219.2	4.3%	4.3%
0-180	5,093.2	100%	100%

#### LUMENS PER ZONE

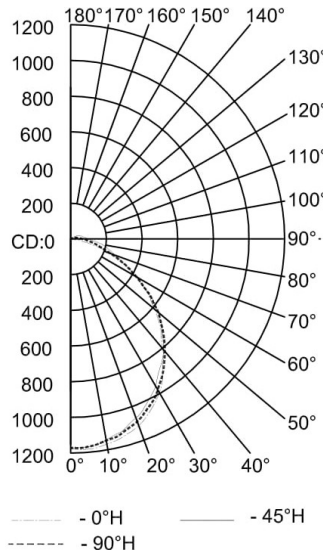
Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	170.6	3.4%	90-100	83.6	1.6%
10-20	488.2	9.6%	100-110	63.7	1.3%
20-30	734.5	14.4%	110-120	48.7	1%
30-40	869.8	17.1%	120-130	15.8	0.3%
40-50	874.4	17.2%	130-140	2.7	0.1%
50-60	736.9	14.5%	140-150	1.8	0%
60-70	516.4	10.1%	150-160	1.4	0%
70-80	314.7	6.2%	160-170	1.0	0%
80-90	168.5	3.3%	170-180	0.4	0%

### TCC 5000 K sin difusor

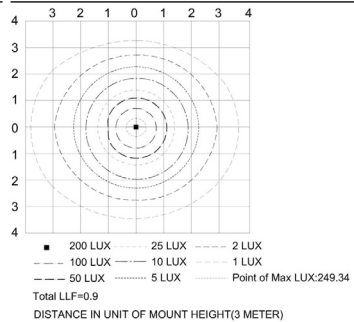
REPORT NUMBER: FNLED7CBUxxD

Luminaire Lumens: 7,038

#### POLAR CANDELA DISTRIBUTION



#### ISOLUX PLOT



#### ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Luminaire
0-30	1,927.1	27.4%	27.4%
0-40	3,129.4	44.5%	44.5%
0-60	5,354.9	76.1%	76.1%
60-90	1,378.2	19.6%	19.6%
70-100	781.8	11.1%	11.1%
90-120	271.9	3.9%	3.9%
0-90	6,733.2	95.7%	95.7%
90-180	304.2	4.3%	4.3%
0-180	7,037.4	100%	100%

#### LUMENS PER ZONE

Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	236.0	3.4%	90-100	115.6	1.6%
10-20	675.4	9.6%	100-110	88.6	1.3%
20-30	1,015.7	14.4%	110-120	67.7	1%
30-40	1,202.3	17.1%	120-130	22.0	0.3%
40-50	1,208.0	17.2%	130-140	3.8	0.1%
50-60	1,017.5	14.5%	140-150	2.5	0%
60-70	712.0	10.1%	150-160	2.0	0%
70-80	433.6	6.2%	160-170	1.4	0%
80-90	232.7	3.3%	170-180	0.5	0%