

# Explosionproof Rigmaster™ LED Series Luminaires

Linear LED fixture for hazardous environments

## NEC/CEC:

Class I, Division 1, Groups C and D  
Class II, Division 1, Groups E, F, G  
Class III

## NEC/CEC:

Type 3R, 4, 4X, IP66  
Simultaneous Exposure  
Suitable for Use in Wet Locations

## NEC/CEC:

Marine Outside Type (Salt  
Water) – for US only  
American Bureau of Shipping (ABS) Certified

## Applications

- For use in locations where:
  - Flammable gases, dusts and ignitable vapors are continually present
  - A high degree of corrosion resistance is required
  - Protection against dirt, water and moisture is necessary
  - Access to relamp is difficult
  - Extreme temperature conditions are present
- Typical applications include:
  - Drilling rigs
  - Offshore rigs
  - Oil refineries
  - Petrochemical facilities
  - Foundries
  - Waste and sewer treatment
  - Mining and underground tunnels
  - Power generation
  - Paint booth

## Features

- Low fixture profile allows installation in compact spaces
- Two sizes and output options deliver up to 7530 lumens.

## Fluorescent Equivalent

Nominal Lumens ①	Lamp Wattage	Lamp Type	Quantity	Model Number
4310	32W	T8	2	ERM*2
7530	32W	T8	3	ERM*4

① Nominal lumen value for 5000K, clear Lens. detailed lumen information is provided in data tables

- Choice of color temperature (CCT): 5000K cool white, 4000K neutral white or 3000K warm white with minimum 80 CRI.
- Field replaceable lens and LED driver.
- Two unique mounting bracket options allow for mounting in any location and retrofitting third party fixtures.
- For ease of retrofitting, mounting brackets accommodate most bolt patterns for Crouse-Hinds™, Dialight and other manufacturers. See compatibility chart below on page 8.
- Power leads are shipped with wire-nuts as standard.
- Loop in/out wiring capability for interconnecting fixtures.
- Precision threaded wire cover provides hassle free access to wiring department for easy installation and maintenance.
- Up to 4 casted points for secondary safety retention.
- Standard 6kV surge protection.
- Fixture position locking mechanism provides ease and consistency of aiming.
- Rugged housing with superior thermal design translates to long luminaire life.
- Ambient Temperature: -40 °C to +65°C (-40°F to +149°F)
- LED L70 of 60,000 hours reported at +65°C (+149°F).
- Photometric data and electronic drawings available upon request.



## Options

- Brackets can be factory installed or purchased separately.
- Safety cable can be purchased separately or configured as an add on option to be shipped with the LED fixture.
- Standard 3/4" NPT threads with 1/2" option.

## Standard Materials

- Housing: copperfree (4/10 of 1% max.) aluminum
- Lens: thermal shock- and impact-resistant glass lens
- Gasket: silicone rubber
- Bolts: Highly corrosion resistant stainless steel (SS 316)
- Close up plugs: aluminum
- Mounting brackets: Zinc plated steel

## Standard Finishes

- Housing: gray epoxy powder coat finish, electrostatically applied for complete uniform protection

## NEC/CEC Certifications and Compliances

- UL Standard: UL 50 (13th Edition), UL 50E (2nd Edition), UL 844 (13th Edition), UL 1598 (4th Edition), UL 1598A (1st Edition), UL 8750 (2nd Edition)
- CSA Standard: CAN/CSA-C22.2 No. 94.1-07 (R2012), CAN/CSA-C22.2 No. 94.2-07 (R2012), CAN/CSA-C22.2 No. 137-M1981 (R2009), CAN/CSA-C22.2 No. 250.0-08 (R2013), CAN/CSA-C22.2 No. 250.13, CAN/CSA-C22.2 No. 60529-05 (R2010)
- ANSI Standard: ANSI/IEC 60529
- UL Certified, File Number: E10794

## Related Products

- Industrial Rigmaster LED Luminaires
- Hazardous CID2 Rigmaster LED Luminaires

## DesignLights™ Consortium

- Check DLC QPL for current list of products.

① The above information is strictly for guidance purposes and does not guarantee compatibility and fit. Please carefully review bolt patterns on each bracket to ensure it meets your needs

† Crouse-Hinds is a registered trademark of Eaton Corporation.

❖ Dialight is a registered trademark of Dialight.

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## Illustrated Features

### Flexibility and Ease of Use



Precision threaded wirebox and cover allows hassle free access to power leads for easy wiring and maintenance in challenging conditions. Cover is secured with a safety chain to prevent accidental disengagement and enhances workplace safety



Notched position locking mechanism enables multiple fixtures to be aimed consistently without spending significant time



Rigmaster offers a NPT hub on each end for through wiring. The power leads are placed inside the wiring compartment and can be easily accessed by removing the tool-less wire box cover

Choose from **three color temperatures** (CCT): 3000K, 4000K, and 5000K

**Standard linear light distribution pattern:** wide distribution maximizes spread and work plane brightness to optimize number of luminaires needed

### Configurable Options



**Mounting Brackets** ①: Choose to mount your Rigmaster using one of these distinctly designed brackets to best suit your installation needs. All brackets can be factory installed to save time in the field or purchased separately.



**ERMLSB Large Swivel Bracket:** Can be used to tilt and aim the fixture up to 90 degrees in increments of 15 degrees using the pre-notched locking mechanism



**ERMLPB Low Profile Bracket:** This fixed position bracket can be used to lower overall mounting profile in low ceiling applications

### Safety Features



**Safety cables** ①: can be purchased separately or included with fixture to reduce ordering and receiving complexity



Up to four points for secondary retention provide protection against in-field vibration.

① Brackets and safety cables can be ordered separately or included with fixture. See Ordering Table for more information.

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Order using catalog numbering guides below.

<p><b>ERM</b></p> <p>Series:</p> <p>ERM - Explosionproof              Rigmaster              Linear LED              CID 1</p> <p>Mounting ③:</p> <p>N - If None (Use if Ordering              Appleton Bracket Separately)              B - Large Swivel Bracket              L - Low Profile Bracket</p>	<p><b>B</b></p>	<p><b>4</b></p> <p>Lumen (nominal) ②:</p> <p>2 - 4,310 Lumens (2')              4 - 7,530 Lumens (4')</p>	<p><b>2</b></p> <p>Hub Size ①:</p> <p>1 - (4) 1/2" NPT              2 - (4) 3/4" NPT</p>	<p><b>C</b></p> <p>Color Temperature:</p> <p>C - Cool 5000K              N - Neutral 4000K              W - Warm 3000K</p>	<p><b>C</b></p> <p>Lens Material:</p> <p>C - Clear Glass</p>	<p><b>L</b></p> <p>Light Distribution              Pattern:</p> <p>L - Linear Pattern              (non-optic)              (standard)</p>	<p><b>BU</b></p> <p>Voltage:</p> <p>BU - 120-277 Vac;              125-300 Vdc              BH - 347-480 Vac</p>	<p><b>N</b></p> <p>Emergency:</p> <p>N - If None (Standard)</p>	<p><b>G</b></p> <p>Color:</p> <p>G - Appleton Gray              (Standard)</p>	<p><b>W</b></p> <p>Wiring Method:</p> <p>W - Wire Nuts (Standard)</p>	<p><b>2</b></p> <p>Option ③:</p> <p>Blank - If None              1 - (1) Safety Cable              2 - (2) Safety Cables</p>
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**APPLETON™**  
 EXPLOSION PROOF LED LINEAR: NEC/CEC

① 3 close up plugs are provided for conduit hubs.  
 ② For lumen output information, see Lumen Values Table.  
 ③ Brackets and safety cables can be ordered separately or included with fixture. See Ordering Table for more information.

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Lumen Values Table ①

Configuration	Lumen Output (Efficacy) for Clear Glass Lens			
	ERM*2		ERM*4	
	Lumens	Efficacy	Lumens	Efficacy
5000K, 80 CRI, Clear Glass Lens	4310	133	7530	136
4000K, 80 CRI, Clear Glass Lens	4125	128	7200	130
3000K, 80 CRI, Clear Glass Lens	4070	126	7100	128

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EXPLOSION PROOF LED LINEAR: NEC/CEC

① All lumen values are typical (tolerance +/- 10%)

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## Electrical Ratings ①

	Voltage	Input Power	Input Current (amp)	Power Factor	THD	Model
<b>BU</b>	120 Vac	33	0.28	>0.9	<20	ERM*2
	277 Vac	33	0.12	>0.9	<20	
	125 Vdc	33	0.27	NA	NA	
	300 Vdc	33	0.11	NA	NA	
<b>BH</b>	347 Vac	36	0.11	>0.9	<20	
	480 Vac	36	0.08	>0.9	<20	
<b>BU</b>	120 Vac	55	0.47	>0.9	<20	ERM*4
	277 Vac	55	0.20	>0.9	<20	
	125 Vdc	55	0.44	NA	NA	
	300 Vdc	55	0.18	NA	NA	
<b>BH</b>	347 Vac	56	0.16	>0.9	<20	
	480 Vac	56	0.12	>0.9	<20	

① All values are typical (tolerance +/-10%).

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## NEC/CEC Temperature Codes ①

Ambient Temperature °C (°F)	Supply wire Temperature °C (°F)	Class I, Division 1 Groups C and D	Class II, Division 1, Groups E, F and G	Class I, Division 2, and Class II, Division 2	Model
40 (104)		T6	T6	T6	
55 (131)	90 (194)	T6	T6	T6	ERM*2
65 (149)		T6	T5	T5	
40 (104)		T6	T6	T6	
55 (131)	90 (194)	T6	T6	T6	ERM*4
65 (149)		T6	T5	T5	

## "T" Numbers Represent the Maximum Internal Temperature ② or Maximum Surface Temperature ③

"T" #	NEC/CEC															
	T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
Temp. Range °C (°F)	351 - 450 (664 - 842)	326 - 350 (619 - 662)	301 - 325 (574 - 617)	281 - 300 (538 - 572)	261 - 280 (448 - 500)	231 - 260 (448 - 500)	216 - 230 (421 - 446)	201 - 215 (394 - 419)	181 - 200 (358 - 392)	166 - 180 (331 - 356)	161 - 165 (322 - 329)	136 - 160 (277 - 320)	121 - 135 (250 - 275)	101 - 120 (214 - 248)	86 - 100 (187 - 212)	85 - 185 (185 - 185)

① Ambient Temperature Range: -40 °C to +65 °C (-40 °F to +149 °F).

② T numbers represent the maximum internal temperature for Class I Division 1 and Class II Division 1 locations designated by the NEC.

③ T numbers represent the maximum surface temperature under a dust blanket for Class II, Division 2 as designated by the NEC.

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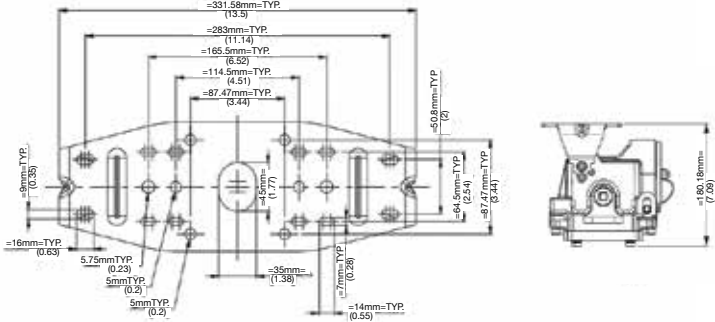

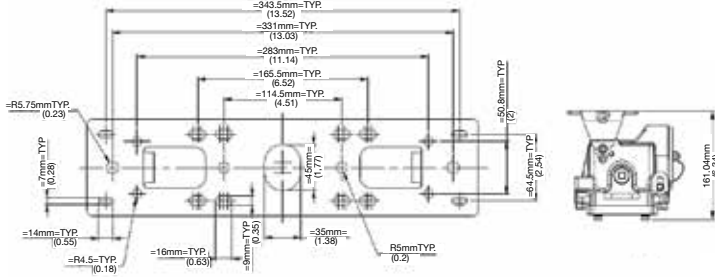
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## Standard Mounting Brackets

	Dimensions mm (in)	Description	Weight kg (lbs)	Catalog Number
		Large Swivel Bracket	1.5 (3.3)	ERMLSB
		Low Profile Bracket	1.3 (2.8)	ERMLPB

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## Retrofit Bracket Compatibility Chart ①

For customers trying to retrofit an existing fixture, use the table below as a guide to select the best bracket to suit your needs

Manufacturer	Part Number	Appleton Part Number	
		ERMLSB Large Swivel Bracket	ERMLPB Low profile Bracket
Crouse Hinds™+	DP1057MTK	X	X
Dialight™* ⚡	LTXW4	X	—
	LSXW5	—	X
AZZ™® Rig-A-Lite™®	53050	X	—
Appleton Accessories	GRFC75A junction box	X	—

## Other Accessories and Replacement Parts

Description	Catalog Numbers
<b>Safety Cables</b>	
 Stainless Steel Safety Cables	<b>LEDSC</b>

## Replacement Drivers

Catalog Number	Voltage	Constant Current Settings	Wattage	Luminaire Model
APM050C135UD060	BU	600mA	50W	ERM*2
APM050C135HD060	BH	600 mA	50W	ERM*2
APM050C135UD104	BU	1040 mA	50W	ERM*4
APM050C135HD104	BH	1040 mA	50W	ERM*4

## Replacement Lenses

Description	Luminaire Model	Quantity per luminaire	Catalog Number
Clear Glass Lens	ERM*2	1	<b>ERMCL</b>
	ERM*4	2	

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\* Dialight is a registered trademark of Dialight.

® AZZ and Rig-A-Lite are registered trademarks of AZZ.

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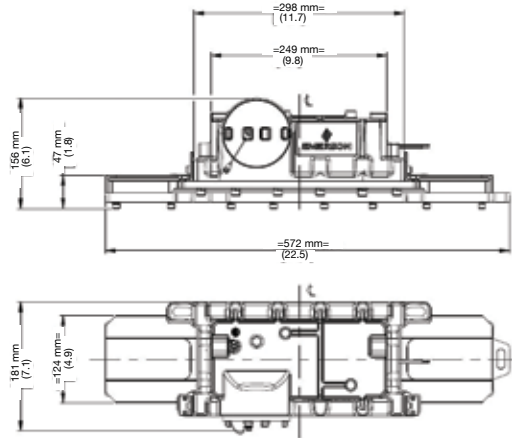
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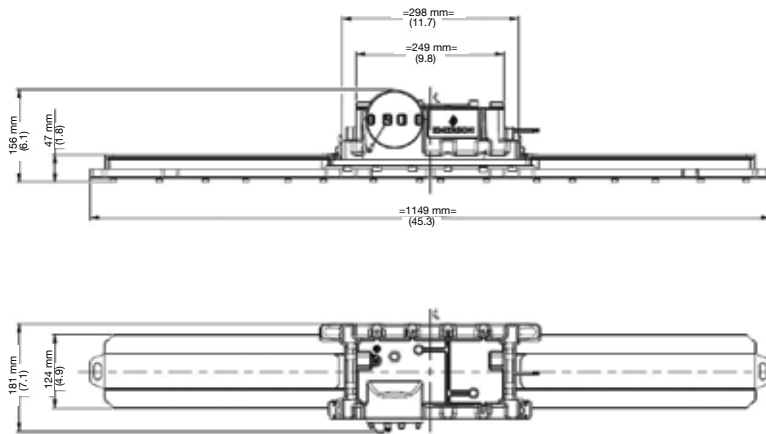
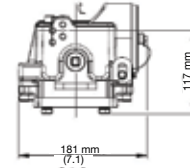
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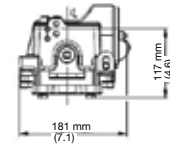
## Dimensions in Millimeters (Inches)



ERM\*2



ERM\*4



## Product Weight and Length

Model #	Lumens	Weight kg (lb)	Length m (ft)
ERM*2	4310	8.9 (19.6)	0.57 (22.5)
ERM*4	7530	13.4 (29.5)	1.15 (45.3)

Note: weight of brackets are not included

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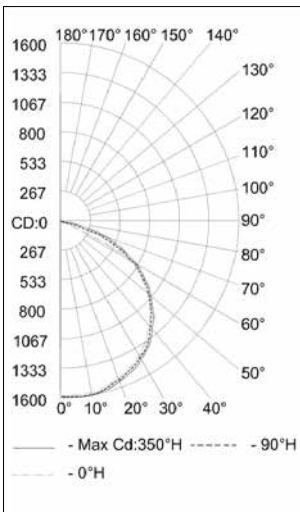
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## Photometric Data – DATA SHOWN IS ABSOLUTE

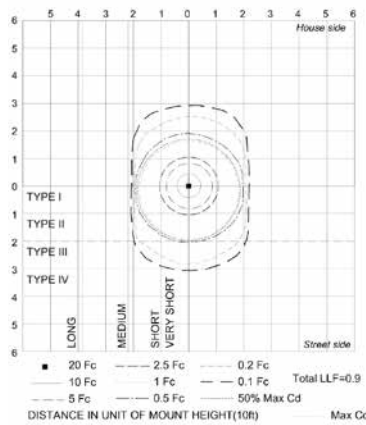
2ft, Clear Glass Lens, 5000K CCT

Luminaire Lumens 4326.5

### POLAR CANDELA DISTRIBUTION



### ISOFOOTCANDLE PLOT



### ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Luminaire
0-30	1,246.9	28.8%	28.8%
0-40	2,062.9	47.7%	47.7%
0-60	3,703.1	85.6%	85.6%
60-90	609.8	14.1%	14.1%
70-100	131.1	3%	3%
90-120	2.4	0.1%	0.1%
0-90	4,312.9	99.7%	99.7%
90-180	13.0	0.3%	0.3%
0-180	4,325.9	100%	100%

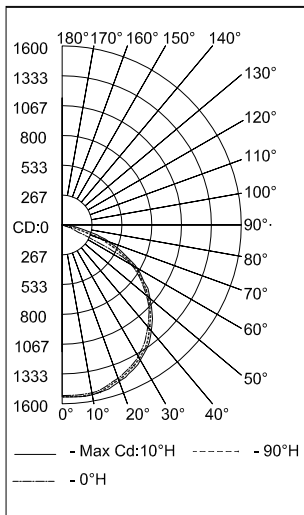
### LUMENS PER ZONE

Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	149.6	3.5%	90-100	0.2	0%
10-20	432.2	10.0%	100-110	0.7	0%
20-30	665.1	15.4%	110-120	1.5	0%
30-40	816.1	18.9%	120-130	2.1	0%
40-50	859.6	19.9%	130-140	2.4	0.1%
50-60	780.6	18.0%	140-150	2.3	0.1%
60-70	478.8	11.1%	150-160	1.9	0%
70-80	120.4	2.8%	160-170	1.4	0%
80-90	10.6	0.2%	170-180	0.5	0%

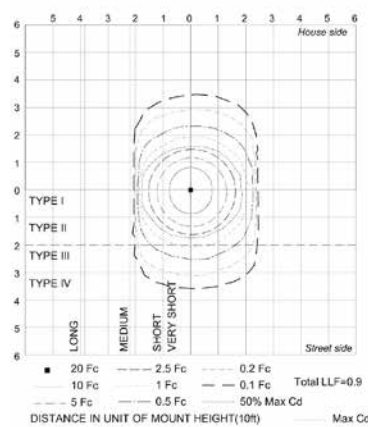
4ft, Clear Glass Lens, 5000K CCT

Luminaire Lumens 7647.5

### POLAR CANDELA DISTRIBUTION



### ISOFOOTCANDLE PLOT



### ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Luminaire
0-30	2,221.6	29.1%	29.1%
0-40	3,680.0	48.1%	48.1%
0-60	6,587.3	86.1%	86.1%
60-90	1,040.7	13.6%	13.6%
70-100	223.5	2.9%	2.9%
90-120	4.1	0.1%	0.1%
0-90	7,628.1	99.7%	99.8%
90-180	18.4	0.2%	0.2%
0-180	7,646.5	100%	100%

### LUMENS PER ZONE

Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	265.0	3.5%	90-100	0.5	0%
10-20	769.1	10.1%	100-110	1.3	0%
20-30	1,187.6	15.5%	110-120	2.3	0%
30-40	1,458.4	19.1%	120-130	3.0	0%
40-50	1,530.8	20.0%	130-140	3.2	0%
50-60	1,376.5	18.0%	140-150	3.1	0%
60-70	817.7	10.7%	150-160	2.5	0%
70-80	205.0	2.7%	160-170	1.8	0%
80-90	18.1	0.2%	170-180	0.7	0%