



# LED PAR46 Railroad Headlight, Marker Bulbs

10~85VDC – Clear PC Lens – 30° Beam – True White, Cool White or Super Red



Drop-in LED Replacement for Sealed-Beam Incandescent Lamps 60PAR/2/R – Up to 90% Energy Savings

Display Lighting – Stage Lighting – Low-Power Headlights – Railcars – Trains – Carts – Alarms

## FEATURES

- **Lamp Warranty:** 3 Years
- **Very Low Power Consumption:** Only 4.7 Watts
- **Solid-State:** High-Shock & High-Vibration Resistant
- **Long LED Life:** Colored LEDs Last up to 100,000 Hours, White LEDs up to 50,000 Hours of Continuous Operation
- **Wide Voltage Input Range:** 10-85VDC
- **Industry Standard-Compliant:** Meets or Exceeds SAE Specifications in Voltage Ranges 25V to 38V
- **Instant-On Light:** No Delay in Re-Strike
- **Weatherproof:** Rubber Gasket-Sealed, Moisture/Dust-Resistant
- **Solid Construction:** High-Impact-Strength Polycarbonate Lens & Base

Over 35 Years of  
LEDtronics Design,  
Engineering &  
Manufacturing  
Experience



## APPLICATIONS

- Rail Car Marker Lights (with Optional Voltages and Colors)
- Architectural Accent Lighting and Wall Washing
- Headlights for Fork Lifts, Industrial Vehicles, Golf Carts
- Low-Heat Medical Spot Lighting
- Loading-Dock Signal Lights



## BENEFITS

- **Major Energy Savings:** Over 90% Compared to Incandescents
- **Higher Efficacy:** LEDs Are 10 Times More Efficient than Incandescents
- **Low Maintenance:** Lowers Costs by Reducing Re-lamp Frequency
- **Eco-Friendly:** No Mercury Content, Recyclable
- **No Hazardous Emissions:** No UV or IR Radiation
- **Even Lighting:** High Intensity / No Halation
- **Cool Operation:** Generates Only a Negligible Amount of Heat Compared to Incandescents
- **Safe Low-Wattage Operation:** Low Power Draw Puts Less Load on the Electrical System

Meets or Exceeds **SAE** Specifications

## CUSTOM OPTIONS

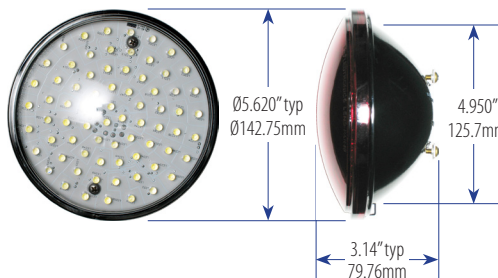
[For qualified applications & large-quantity OEM orders]

- **Other Voltages:** 24/28V, 120VAC, 240VAC
- **Other Colors:** Yellow, Orange, Green, Blue
- **Other LED Beam Angles** for Different Effects
- Available in **Ultra-Violet** LEDs in 395nm or 405nm
- Available in **Infra-Red** LEDs in 850nm, 880nm, 940nm
- Available as **Replacement Kits**

## SPECIFICATIONS

SPECIFICATIONS SUBJECT  
TO CHANGE WITHOUT NOTICE

PART NUMBER	PAR46-72-xxx-001
Input Voltage	10-85VDC [Tested @ 37.5VDC]
Dimensions	Dia 05.62" x Depth 3.14" [0142.75 x 79.8mm]
Weight	0.5125 lb / 8.2 oz / 232.46 g



Ideal for Use with  
Alternate or Renewable  
Energy Resources  
– Solar & Wind Power

PART NUMBER	INPUT CURRENT	ENERGY USED	EFFICACY	TOTAL LUMENS	MAXIMUM CANDELA	COLOR TEMP.	PEAK WAVE λp	EMITTED COLOR	BEAM ANGLE
PAR46-72-TPW-001	127 mA	4.8 Watts	69.0 lm/W	331 lm	852 cd	5250K	–	True White	25°
PAR46-72-XCW-001	124 mA	4.7 Watts	41.5 lm/W	195 lm	847 cd	8000K	–	Cool White	20°
PAR46-72-OER-001	0.453A	4.6 Watts	20.5 lm/W	90 lm	272 cd	–	633 nm	Super Red	30°

**LEDTRONICS**  
America's Premium Brand LED Company™

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Check LEDTRONICS.COM for latest data.  
Printed material may be outdated.

## PAR46-72-TPW-001

### Luminaire Photometric Report

Filename: PAR46-72-TPW-001

Manufacturer: LEDTRONICS -  
Luminaire: CLEAR LENS, 37.5VDC, 4.8W  
Luminaire Cat: PAR46-72-TPW-001  
Lamp: LUMEN RATING: 331.4Lms.  
Lamp Output: 1 lamp(s), rated lamp lumens: 331.4  
Max Candela: 852.0 at Horizontal: 45, Vertical: 0  
Luminous Opening: Point  
Test: 9-9-10

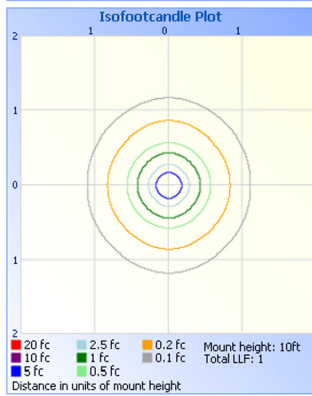
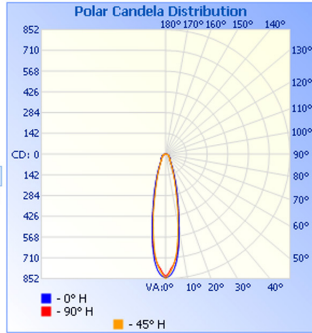
#### Flood Summary

	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%):	58%	192.2	56.8	57.9
Beam (50%):	24.6%	81.7	24.2	24.6
Total:	100%	331.4		

#### Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0-30	198.5	59.9%	59.9%
0-40	233.2	70.4%	70.4%
0-60	287.9	86.9%	86.9%
60-90	43.4	13.1%	13.1%
0-90	331.3	100%	100%
0-180	331.3	100%	100%
Total Efficiency:	100%		

Illuminance at a Distance		
Center Beam FC	Beam Width	
1.7R	303.84 fc	0.7ft 0.7ft
3.3R	75.96 fc	1.5ft 1.4ft
5.0R	33.76 fc	2.2ft 2.1ft
6.7R	18.99 fc	2.9ft 2.9ft
8.3R	12.15 fc	3.6ft 3.6ft
10.0R	8.44 fc	4.4ft 4.3ft
Vert. Spread: 24.6° Horiz. Spread: 24.2°		



## PAR46-72-XCW-001

### Luminaire Photometric Report

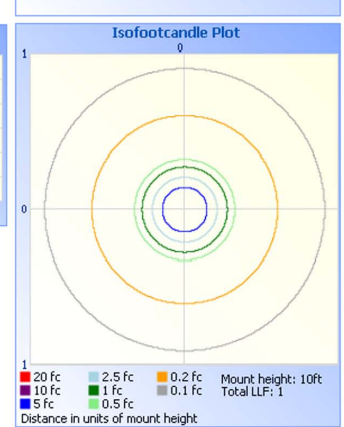
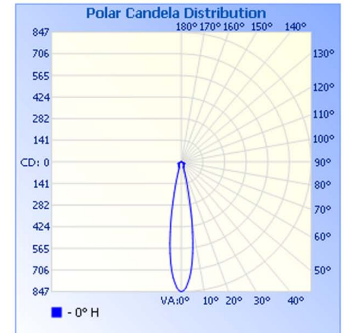
Filename: PAR46-72-XCW-001

Manufacturer: LEDTRONICS -  
Luminaire: WITH CLEAR LENS, 37.5VDC, 4.7W  
Luminaire Cat: PAR46-72-XCW-001  
Lamp: LUMEN RATING: 195.0Lms.  
Lamp Output: 1 lamp(s), rated lamp lumens: 195  
Max Candela: 847.0 at Horizontal: 0, Vertical: 0  
Luminous Opening: Point  
Test: 7-9-09

#### Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0-30	113.6	58.2%	58.2%
0-40	132.0	67.7%	67.7%
0-60	164.4	84.3%	84.3%
60-90	30.7	15.7%	15.7%
0-90	195.0	100%	100%
0-180	195.0	100%	100%
Total Efficiency:	100%		

Illuminance at a Distance		
Center Beam FC	Beam Width	
1.7R	304.92 fc	0.6ft
3.3R	76.23 fc	1.1ft
5.0R	33.88 fc	1.7ft
6.7R	19.06 fc	2.3ft
8.3R	12.20 fc	2.8ft
10.0R	8.47 fc	3.4ft
Beam Spread: 19.2°		



Zone	SAE Requirements	LEDTRONICS Results
1	50	322
2	100	531
3	380	1409
4	100	391
5	50	284

Requirements and results are the cumulative sums of zone regions

### Photometric Characteristics

SAE J586 Specifications

	20L	10L	5L	V	5R	10R	20R
10UP			179		156		
5UP	18	199		285		143	17
H	196	283	290	283	155		
5DN	17	136		268		93	17
10DN			108		94		

## PAR46-72-0ER-001

### Luminaire Photometric Report

Filename: PAR46-72-0ER-001

Manufacturer: LEDTRONICS -  
Luminaire: WITH RED LENS, 37.5VDC, 4.3W  
Luminaire Cat: PAR46-72-0ER-001  
Lamp: LUMEN RATING: 88.0Lms.  
Lamp Output: 1 lamp(s), rated lamp lumens: 88  
Max Candela: 216.0 at Horizontal: 0, Vertical: 0  
Luminous Opening: Point  
Test: 7-9-09

#### Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0-30	56.2	63.9%	63.9%
0-40	64.3	73.1%	73.1%
0-60	79.4	90.2%	90.2%
60-90	8.6	9.7%	9.7%
0-90	88.0	100%	100%
0-180	88.0	100%	100%
Total Efficiency:	100%		

Illuminance at a Distance		
Center Beam FC	Beam Width	
1.7R	73.80 fc	0.8ft 0.9ft
3.3R	18.45 fc	1.6ft 1.8ft
5.0R	8.20 fc	2.4ft 2.7ft
6.7R	4.61 fc	3.2ft 3.5ft
8.3R	2.95 fc	4.0ft 4.4ft
10.0R	2.05 fc	4.8ft 5.3ft
Vert. Spread: 27.0° Horiz. Spread: 29.7°		

