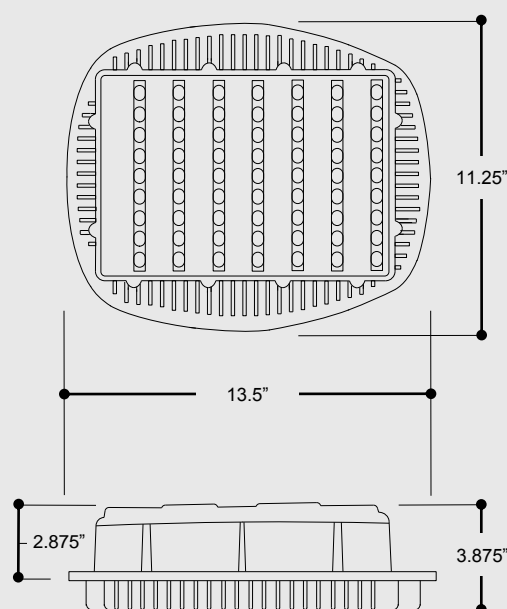


DuraStreet® Series 63 LED Light Engine



Note: Product weight = 13 pounds.

APPLICATIONS

- Solid-state light engine for use as a long-life, high-efficiency replacement module in existing 200-250 watt HID (high intensity discharge) roadway luminaires. Complete luminaires are also available.
- Light engines available for roadway housings made by all major manufacturers.
- Suitable for use in outdoor temperatures of -40°F (-40°C) to 140°F (60°C).
- Suitable for use with input voltages of 100-277VAC (50-60 Hz).

SPECIFICATIONS

- **LEDs:** 63 Cree XLamp® X-PE white-phosphor LEDs.
- **Correlated Color Temperature (CCT):** Neutral (4600K nominal) is standard. Others CCTs by request.
- **Color Rendering Index (CRI):** ≥ 80.
- **Light Distribution:** IESNA roadway Type II/III or Type V.
- **Proprietary Optical Design:** Developed in partnership with Fraen Corporation, optics provide low BUG (backlight, uplight and glare) ratings and high FTE (Fitted Target Efficiency).
- **Low EPA (Effective Protected Area):** Low-profile inhibits lighting standard (pole) vibration.
- **Rugged Construction:** High-impact acrylic lens and heavy-duty die cast aluminum heatsink.
- **Installation:** Quick, trouble-free installation in existing luminaire door frame.
- **Environmental Impact:** Environmentally-friendly, mercury-free technology. Disposal of existing fixture is not required.
- **Safety Features:** A 24\" safety cable (which is attached to the luminaire housing) is standard.
- **Over-Temperature Protection:** Automatically reduces power to 50% when predefined internal temperature limits are exceeded, as may occur with unintentional daytime operation.
- **Warranty:** Five years on LED arrays and power supplies, and ten years on chassis components.
- **Manufactured in the USA** : Meets ARRA (American Recovery and Reinvestment Act of 2009) Buy American requirements.

INDEPENDENT PERFORMANCE TESTS

- **Photometric & Electrical Performance (LM79):** Verified by Independent Testing Laboratories, Inc. (ITL), in accordance with LM79 (IES-79-08).
- **LED Lumen Maintenance (LM80):** Verified by Cree to provide 70% of initial lumens for up to 150,000 hours (L_{70}) in accordance with LM80 (IES-80-08). See reverse for detailed *Projected Life* data.
- **LED Junction Temperature (T_J):** Verified by the Advanced Manufacturing Institute (AMI) at 69°C in outdoor temperatures of 77°F (25°C), and when operated at 350mA, providing 110,000 hours (L_{70}) based on Cree's specifications. See reverse for T_J data at various outdoor temperatures.
- **Door Frame Load:** Cobra head door frames verified by AMI to withstand at least seven times the weight of a DuraStreet light engine.
- **Pole Vibration:** Verified by Quanta Laboratories to meet ANSI 3G vibration standards for bridge and overpass applications.
- **Ingress Protection:** Rated by Intertek at the IP66 level of dust and moisture protection.
- **Corrosion Protection:** Rated by Intertek to meet or exceed the ASTM B117 *Standard Practice for Operating Salt Spray (Fog) Apparatus*.
- **Surge Protection:** Rated by Intertek at the 10kV level.

APPROVALS



U.S. Patents D611647, D611648. Other U.S. and International patents pending.

ORDERING INFORMATION

D	AE115	2/3	120/240	350	CXPE	63	4600	CE
Product Series	Cobra Head Housing	Distribution	Input Voltage	LED Drive Current	LED Supplier	LED Quantity	LED Color Temperature	Housing
D = DuraStreet	AE115 = Amer. Electric 115 AE125 = Amer. Electric 125* AE315 = Amer. Electric 315 AE325 = Amer. Electric 325* AE327 = Amer. Electric 327* COVD/F/Y = Cooper OVD/OVF/OVY* COVG/H = Cooper OVG/OVH COVX = Cooper OVX COVZ = Cooper OVZ GEM250 = G.E. M-250A2/R2 GEM400 = G.E. M-400* GEM400A = G.E. M-400A* GEM400A2 = G.E. M-400A2* GEM400R2 = G.E. M-400R2*	2/3 = Type II/III 5 = Type V	120-240 = Universal (120-240 VAC) 277 = 277 VAC	350 = 350mA 525 = 525mA	CXPE = Cree X-PE	63 = 63 LEDs	4600 = 4600K (Neutral) Nominal Other color temperatures available by request.**	CE = Ceiling S = Shoebox W = Wallpack F = Floodlight CO = Cobra Head

* Requires adapter plate. Please contact your EcoFit representative for more information.

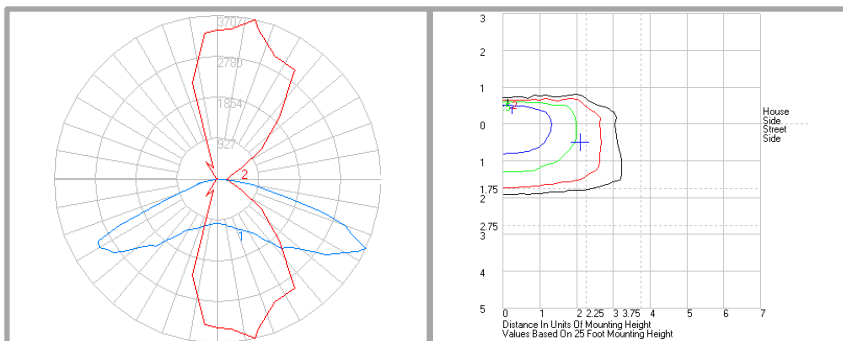
** Please contact your EcoFit representative regarding availability of other configurations and options.

DuraStreet® Series 63 LED Light Engine

PHOTOMETRICS

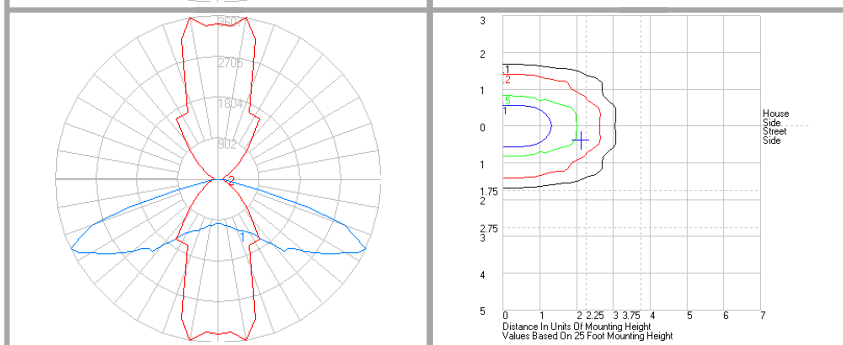
TYPE II/III

Source:
ITL Report 65048
• 63 Cree X-PE LED
• 525mA drive current
• 5,900 lumens



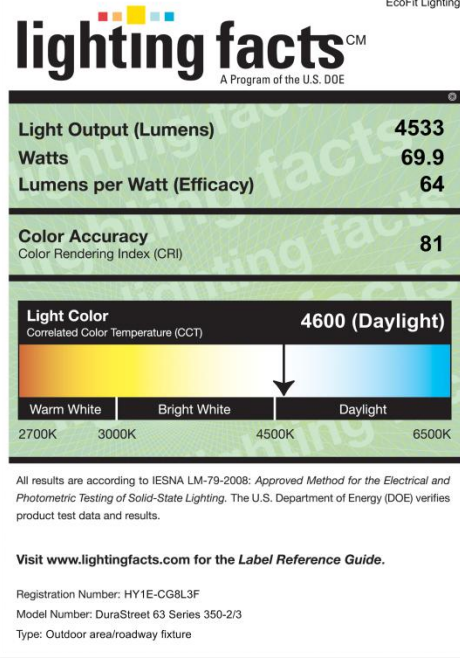
TYPE V

Source:
ITL Report 65049
• 63 Cree X-PE LEDs
• 525mA drive current
• 5,781 lumens



Candlepower Distribution Curves
Plot 1: Vertical Plane Through Horizontal Angles
Plot 2: Horizontal Cone Through Vertical Angle

Isofootcandle Plots
Initial footcandles at grade



See www.EcoFitLighting.com for ITL reports, .ies files, photometric data, and lighting facts^{CM} labels for other models.

LED & ELECTRICAL PERFORMANCE ¹

LED Quantity	IES Type	BUG ² Rating	Energy Star FTE ³	LED Drive Current (mA)	Input Power (W)	Photopic ⁶		Scotopic ⁶		Input Current (A)		
						Total Delivered Lumens ⁴	Total System Efficacy (Lm/W) ⁵	Total Delivered Lumens	Total System Efficacy (Lm/W)	@120V	@240V	@277V
63	II/III	B1-U1-G1	53	350	70	4,533	64	7,253	104	0.58	0.29	0.25
63	II/III	B1-U1-G1	53	525	106	5,900	56	9,440	89	0.88	0.44	0.38
63	V	B2-U1-G1	46	350	69	4,488	65	7,181	104	0.58	0.29	0.25
63	V	B2-U1-G1	45	525	105	5,781	55	9,250	88	0.87	0.44	0.38

¹ Standard CRI is ≥ 80 . Universal input voltage (120-240 VAC) drivers, operating on 50-60 Hz, are standard (277 VAC also available). All models feature THD < 20% and power factor > 90%.

² BUG is an acronym for **b**acklight, **u**plight, and **g**lare.

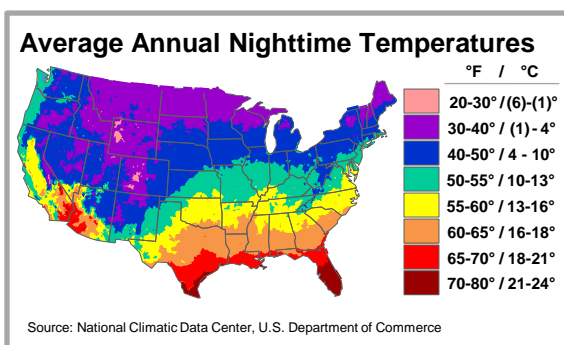
³ FTE is an acronym for **f**itted **t**arget **e**fficiency.

⁴ Based on actual output of test luminaire (see ITL test report 65046, 65047, 65048, 65049).

⁵ Total system efficacy equals total delivered lumens divided by input power.

⁶ Based on a scotopic/photopic adjustment factor of 1.6 @ 4100K. Source: Berman, S.M., (1995), *The Reengineering of Lighting Photometry*, Lawrence Berkeley National Laboratory. Photopic lumens are the standard basis for most IES guidelines. However, Dr. Sam Berman and his colleagues have suggested that scotopic lumens are a more reliable measure of night vision.

LED JUNCTION TEMPERATURE (T_J) & PROJECTED L_{70} LIFE



Average Outdoor Temperature (°F/°C)	LED Junction Temperature (T_J) @ 350mA (°C) ¹	Projected L_{70} Life ² (Hours) @ 350mA	LED Junction Temperature (T_J) @ 525mA (°C) ¹	Projected L_{70} Life ² (Hours) @ 525mA
32 / 0	46	>150,000	67	>100,000
41 / 5	51	>150,000	72	> 95,000
50 / 10	56	>150,000	76	> 90,000
59 / 15	60	>140,000	81	> 85,000
68 / 20	64	>130,000	85	> 75,000
77 / 25	69	>110,000	90	> 70,000
86 / 30	73	>110,000	93	> 65,000

¹ See www.EcoFitLighting.com for independent test results showing T_J at various outdoor temperatures.

² L_{70} life projections provided by Cree are based on LED junction temperature levels after reaching thermal equilibrium.