

# RUL Series

RUL™ LED Rural Utility Luminaire

## Product Description

The Cree® LED Rural Utility Luminaire provides innovation through LED technology that maximizes both the total cost of ownership and return on investment for end users requiring a 70-100W HPS or 100-175W Mercury Vapor replacement solution. By providing industry-leading efficacy of up to 114 lumens per watt and an industry-leading 10-year limited warranty, Cree is changing the assumptions associated with purchasing and maintaining utility and residential security lighting. While its lightweight design, tool-less entry, and easy installation make the RUL™ LED Rural Utility Luminaire an ideal solution for any contractor. Kitted option available.

**Applications:** Rural, residential, street lighting, agricultural, and general security lighting

## Performance Summary

**Efficacy:** Up to 114 LPW

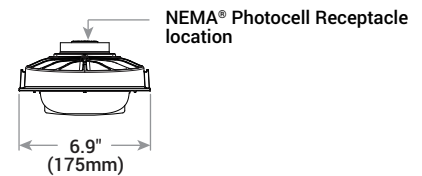
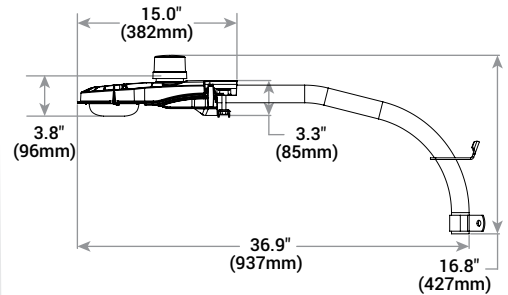
**CRI:** Minimum 70 CRI

**CCT:** 4000K (+/- 300K)

**Limited Warranty:** 10 years on luminaire and photocell/7 years on arm mount



RUL Luminaire w/ES-K1 Option shown (photocell and arm not included with standard luminaire)



### Weight\*

3.75 lbs (1.7kg)

\* RUL-ARM24/ES-K1 Option: add 1.82 lbs. (0.8kg)

## Ordering Information

Example: RUL-HT-2ME-C-40K-12-UF-N

RUL	HT		C	40K	12	UF	N	
Product	Mounting	Optic	Input Power Designator	CCT	Voltage	Color Options	Utility Label/Receptacle	Option
RUL	HT Horizontal Tenon	2ME Type II Medium 5ME Type V Medium	C 50W	40K 4000K	12 120V	UF Grey Unfinished	N Utility Label and NEMA® Photocell Receptacle - Label per ANSI C136.15 - 3-pin receptacle per ANSI C136.10 - Photocell and shorting cap by others	ES 10kV Surge Suppression Protection ES-K1 Utility Kit - Includes: 10kV surge suppression protection, long-life photocell, 24" arm mount and 5' cord (pre-installed)



Rev. Date: V5 10/14/2015



# RUL™ LED Rural Utility Luminaire

## Product Specifications

### CONSTRUCTION & MATERIALS

- Die cast aluminum housing w/UV stabilized polymeric door
- Clear borosilicate glass refractor
- Compatible with ANSI C136.6 reflectors/refractors
- Tool-less entry
- Mounts on 1.25" IP, 1.66" (42mm) O.D. or 2" IP, 2.375" (60mm) O.D. horizontal tenon (minimum 3" [76mm] in length) and is adjustable +/- 5" in 2.5" increments to allow for fixture leveling
- Luminaire secured with two 3/8-16 x 2.0" mounting bolts
- Comes standard with Utility Label per ANSI C136.15 and 3-pin NEMA® Photocell Receptacle per ANSI C136.10
- ES-K1 packages the following items in a single box for convenience:
  - RUL™ utility luminaire w/10kV surge suppression protection
  - Long-life photocell
  - 5' (1.5m) 18/3 SEOW cord (pre-installed)
  - 24.0" (610mm) curved raw aluminum arm mount w/zinc-plated steel hardware for mounting to wood poles
- **Weight:** 3.75 lbs. (1.7kg); RUL-ARM24/ES-K1 Option: add 1.82 lbs. (0.8kg)

### ELECTRICAL SYSTEM

- **Input Voltage:** 120V, 60Hz
- **Power Factor:** > 0.9
- **Total Harmonic Distortion:** < 20%
- Integral 6kV surge suppression protection standard; 10kV optional w/ES and ES-K1 options
- To address inrush current, slow blow fuse or type C/D breaker should be used
- Electrolytic capacitor-free design provides high reliability
- **Operating Temperature Range:** -40°C - +25°C (-40°F - +77°F)

### REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Luminaire certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards
- 6kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2 on standard luminaires
- 10kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2 on luminaires w/ES and ES-K1 options
- Meets FCC Class A Part 15 standards for conducted and radiated emissions
- DLC qualified when ordered with SME optic. Please refer to [www.designlights.org/QPL](http://www.designlights.org/QPL) for most current information
- RoHS compliant. Consult factory for additional details

Electrical Data*		
Input Power Designator	System Watts 120V	Total Current
		120V
C	50	0.42

\* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating at 120V +/- 10%

Recommended RUL Series Lumen Maintenance Factors (LMF) <sup>1</sup>						
Ambient	Input Power Designator	Initial LMF	25K hr Projected <sup>2</sup> LMF	50K hr Calculated <sup>3</sup> LMF	75K hr Calculated <sup>3</sup> LMF	100K hr Calculated <sup>3</sup> LMF
5°C (41°F)	C	1.04	0.97	0.92	0.87	0.83
10°C (50°F)	C	1.03	0.96	0.91	0.86	0.82
15°C (59°F)	C	1.02	0.95	0.90	0.85	0.81
20°C (68°F)	C	1.01	0.94	0.89	0.84	0.80
25°C (77°F)	C	1.00	0.93	0.88	0.84	0.79

<sup>1</sup> Lumen maintenance values at 25°C (77°F) are calculated per TM-21 based on LM-80 data and in-situ luminaire testing

<sup>2</sup> In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing (DUT) i.e. the packaged LED chip

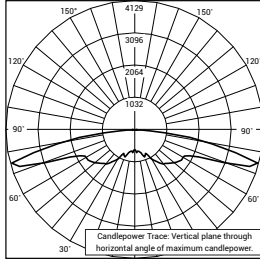
<sup>3</sup> In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing (DUT) i.e. the packaged LED chip

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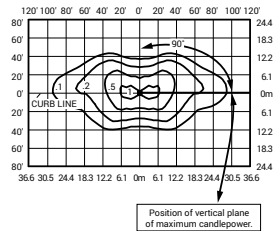
## Photometry

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP accredited laboratory. To obtain an IES file specific to your project consult: [www.cree.com/Lighting/Products/Outdoor/Streetlights/RUL-Series-Rural-Utility](http://www.cree.com/Lighting/Products/Outdoor/Streetlights/RUL-Series-Rural-Utility)

### 2ME



RESTL Test Report #: PL05401-001  
RUL\*\*2ME-C-40K-12  
Initial Delivered Lumens: 5,454

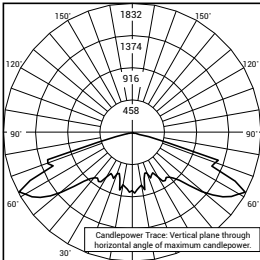


RUL\*\*2ME-C-40K-12  
Mounting Height: 25' (7.6m) A.F.G.  
Initial Delivered Lumens: 5,560  
Initial FC at grade

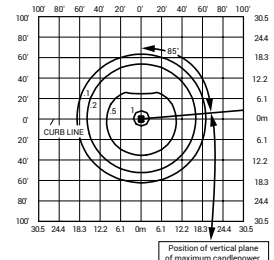
Type II Medium Distribution		
Input Power Designator	4000K	BUG Ratings** Per TM-15-11
	Initial Delivered Lumens*	
C	5,560	B2 U2 G2

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens  
\*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: [www.ies.org/PDF/Erratas/TM-15-11BUGRatingsAddendum.pdf](http://www.ies.org/PDF/Erratas/TM-15-11BUGRatingsAddendum.pdf). Valid with no tilt

### 5ME



RESTL Test Report #: PL05399-001  
RUL\*\*5ME-C-40K-12  
Initial Delivered Lumens: 5,645



RUL\*\*5ME-C-40K-12  
Mounting Height: 25' (7.6m) A.F.G.  
Initial Delivered Lumens: 5,682  
Initial FC at grade

Type V Medium Distribution		
Input Power Designator	4000K	BUG Ratings** Per TM-15-11
	Initial Delivered Lumens*	
C	5,682	B3 U2 G1

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens  
\*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: [www.ies.org/PDF/Erratas/TM-15-11BUGRatingsAddendum.pdf](http://www.ies.org/PDF/Erratas/TM-15-11BUGRatingsAddendum.pdf). Valid with no tilt

## Luminaire EPA

Horizontal Tenon Mount – Weight: 3.75 lbs. (1.7kg); RUL-ARM24/ES-K1 Option: add 1.82 lbs. (0.8kg)				
Single	2 @ 90°	2 @ 180°	3 @ 90°	4 @ 90°
Tenon Configuration If used with Cree tenons, please add tenon EPA with luminaire EPA				
RUL-ARM24/ES-K1 Option	RUL-ARM24/ES-K1 Option	RUL-ARM24/ES-K1 Option	RUL-ARM24/ES-K1 Option	RUL-ARM24/ES-K1 Option
0.28	0.46	0.56	0.74	0.92

## Tenon EPA

Part Number	EPA
RUL-ARM24/ES-K1 Option	0.42

Tenons and Brackets*
<b>Arm Mount</b> RUL-ARM24 - 24.0" (610mm) curved raw aluminum arm mount - Includes zinc-plated steel hardware - Mounts to wood poles

\* Refer to the [Bracket and Tenons spec sheet](#) for more details