

# RUL Series

RUL™ LED Rural Utility Luminaire - Version C

Rev. Date: V1 12/09/2022

## Product Description

The RUL™ LED Rural Utility luminaire delivers ultra-efficient LED lighting with a low total cost of ownership and a quick return on investment for end users. By providing industry-leading efficacy of up to 162 lumens per watt and 5-year limited warranty, Cree Lighting® RUL Series luminaires are 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.

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

## Performance Summary

**Initial Delivered Lumens:** 3,130 - 9,725

**Input Power:** 21 - 60 watts

**Efficacy:** Up to 162 LPW

**CRI:** Minimum 70 CRI

**CCT:** 3000K, 4000K, 5700K

**Limited Warranty\*:** 5 years for luminaire/optional 10 years for luminaire with W10 option/10 years for photocell/7 years for arm mount/5 years for reflector/refractor/1 year on remaining field-installed accessories

\* See <http://creelighting.com/warranty> for warranty terms

## Accessories

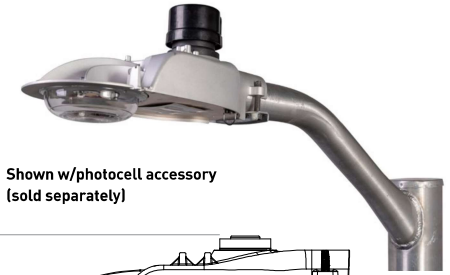
Field-Installed	
<b>Arm Mount</b> RUL-ARM24 - Must be ordered with RUL luminaire - 24.0" (610mm) curved raw aluminum arm mount - Includes zinc-plated steel hardware - Mounts to wood poles	<b>Long-Life NEMA® 3-Pin Photocell</b> RUL-PEC - On/off functionality only <b>NEMA® Style Reflector/Refractor</b> RUL-REF - Must be ordered with RUL luminaire - Not for use with RUL-CS accessory
<b>Shorting Cap</b> XA-XSLSHRT	
<b>Cutoff Shield</b> RUL-CS - Not for use with RUL-REF accessory or K2, K5, K6 or K7 kits	

## Ordering Information

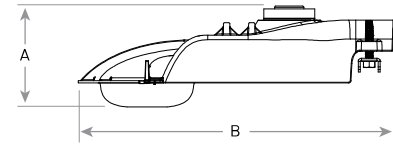
Example: RUL-C-3L-30K7-2N-UL

RUL	C				UL			
Product	Version	Lumen Package	CCT/CRI	Optic	Voltage	Controls	Options	Optional Kits (select only one)*
RUL	C	<b>3L</b> 3,000 lumens <b>6L</b> 6,000 lumens <b>9L</b> 9,000 lumens	<b>30K7</b> 3000K, 70 CRI <b>40K7</b> 4000K, 70 CRI <b>57K7</b> 5700K, 70 CRI	<b>2N</b> Type II Narrow <b>5W</b> Type V Wide	<b>UL</b> Universal 120-277V	<b>DLI DALI Compatible</b> - Replaces standard 0-10V dimming - Available only with 6L and 9L lumen packages - Requires 7P option	<b>10KV 10kV/5kA Surge Suppression</b> - Replaces standard 6kV/3kA surge protection <b>20KV 20kV/10kA Surge Suppression</b> - Replaces standard 6kV/3kA surge protection <b>7P NEMA® Lift &amp; Lock 7-Pin Photocell Receptacle</b> - Replaces standard 3-Pin receptacle - 7-pin receptacle per ANSI C136.41 - Factory connected 0-10V or DALI dim leads - Required with DALI control - Requires photocell or shorting cap by others <b>CS Cutoff Shield</b> - Not for use with K2, K5, K6 or K7 kits or RUL-CS or RUL-REF accessories <b>PW2 NESC Compliant Rewire</b> - Rewired with two 6.5', 14AWG, leads (black/white) - No UL mark - Not available with DALI control <b>PW3 UL Compliant Rewire</b> - Rewired with three 6.5', 14AWG, leads (black/white/green) <b>W10 10-Year Limited Warranty</b>	<b>K1</b> - Includes RUL-ARM24 & RUL-PEC accessories kitted in same box w/luminaire <b>K2</b> - Includes RUL-ARM24 & RUL-PEC & RUL-REF accessories kitted in same box w/luminaire <b>K3</b> - Includes RUL-ARM24 kitted in same box w luminaire <b>K4</b> - Includes RUL-PEC accessories kitted in same box w/luminaire <b>K5</b> - Includes RUL-REF accessory kitted in same box w/luminaire <b>K6</b> - Includes RUL-ARM24 & RUL-REF accessories kitted in same box w/luminaire <b>K7</b> - Includes RUL-PEC & RUL-REF accessories kitted in same box w/luminaire

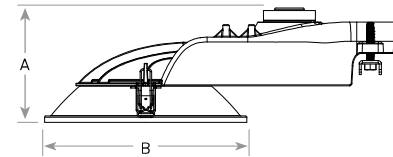
\* Please consider whether a PW\* option will be needed when selecting kits including RUL-ARM24. Kits with RUL-REF are not compatible with CS option or RUL-CS accessory.



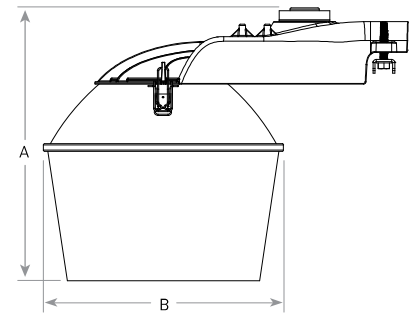
Shown w/photocell accessory (sold separately)



RUL-C Luminaire Dimensions		
(A) 5.0" (128mm)	(B) 15.8" (401mm)	(C) 7.2" (183mm)



RUL-C w/Cutoff Shield Dimensions		
(A) 5.7" (144mm)	(B) 10.0" (254mm)	(C) 10.0" (254mm)



RUL-C w/NEMA® Style Reflector/Refractor Dimensions		
(A) 13.8" (350mm)	(B) 12.0" (305mm)	(C) 12.0" (305mm)



US: [creelighting.com](http://creelighting.com) (800) 236-6800

Canada: [creelighting-canada.com](http://creelighting-canada.com) (800) 473-1234

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## Product Specifications


### CONSTRUCTION & MATERIALS

- Die cast aluminum housing and aluminum door
- 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 hex head bolts and mounting strap
- Comes standard with Utility Label per ANSI C136.15-2020 and 3-pin NEMA® Photocell Receptacle per ANSI C136.10 . 7-Pin NEMA receptacle available as an option
- Clear borosilicate glass lens
- **Weight:** Luminaire - 4.7lbs. (kg); add 1.0 lb. (0.5kg) for PW options; add 0.28 lbs. (0.1kg) for RUL-PEC accessory; add 2.2lbs. (1.0kg) for RUL-REF accessory; add 2.5 lbs. (1.1kg) for RUL-ARM24 accessory

### ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V, 50/60Hz
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral 6kV/3kA surge suppression protection standard; optional 10kV/5kA or 20kV/10kA surge suppression protection
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- Designed with 0-10V dimming capabilities. Controls by others
- **Operating Temperature Range:** -40°C - + 40°C [-40°F - + 104°F]

### REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed (Pending)
- Suitable for wet locations
- Luminaire certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards (Pending)
- ANSI C136.2 6kV/3kA (standard) and 10kV/5kA or 20kV/10kA (optional) surge protection, tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions (Pending)
- RoHS compliant. Consult factory for additional details
-  **CA RESIDENTS WARNING:** Cancer and Reproductive Harm - [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov)

Electrical Data*							
Lumen Package	Control	System Watts 120-277V	Utility Label Wattage	Total Current (A)			
				120V	208V	240V	277V
3L	Standard 0-10V	21	20	0.19	0.11	0.10	0.08
6L	Standard 0-10V, DLI	42	40	0.36	0.21	0.18	0.16
9L	Standard 0-10V	60	60	0.51	0.29	0.25	0.22
	DLI	54	50	0.46	0.26	0.23	0.20

\* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating at 120-277V +/- 10%.

RUL-C Series Ambient Adjusted Lumen Maintenance <sup>1</sup>					
	Initial LMF	36K hr Reported <sup>2</sup> LMF	50K hr Reported <sup>2</sup> LMF	75K hr Estimated <sup>3</sup> LMF	100K hr Estimated <sup>3</sup> LMF
5°C (41°F)	1.00	0.92	0.89	0.85	0.80
10°C (50°F)	1.00	0.92	0.89	0.84	0.80
15°C (59°F)	1.00	0.92	0.89	0.84	0.79
20°C (68°F)	1.00	0.92	0.89	0.84	0.79
25°C (77°F)	1.00	0.91	0.88	0.83	0.79

<sup>1</sup> Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors [LATF] have been applied to all lumen maintenance factors. Please refer to the [Temperature Zone Reference Document](#) for outdoor average nighttime ambient conditions.

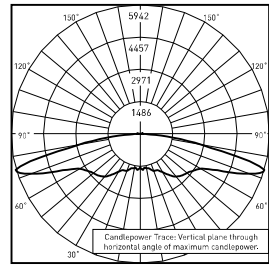
<sup>2</sup> In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to 6x the tested duration in the IES LM-80 report for the LED.

<sup>3</sup> Estimated values are calculated and represent time durations that exceed the 6x test duration of the LED.

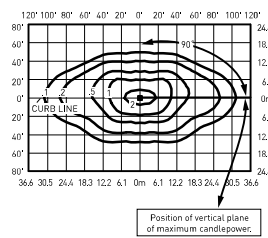
**Photometry**

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: <https://www.creelighting.com/products/outdoor/street-and-roadway/rul-series>.

**2N**



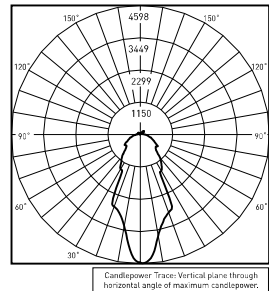
**RESTL Test Report #: PL16981-001A**  
**RUL-C-9L-30K7-2N-UL-7P**  
**Initial Delivered Lumens: 9,314**



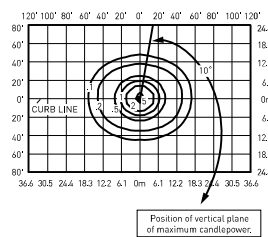
**RUL-C-9L-30K7-2N-UL-7P**  
**Mounting Height: 25' (7.6m) A.F.G.**  
**Initial Delivered Lumens: 9,225**  
**Initial FC at grade**

Type II Narrow Distribution							
Lumen Package	Control	3000K/4000K			5700K		
		Initial Delivered Lumens*	Utility Label Lumen Values	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	Utility Label Lumen Values	BUG Ratings** Per TM-15-11
3L	Standard 0-10V	3,130	3000L	B2 U2 G2	3,310	3000L	B2 U2 G2
6L	Standard 0-10V, DLI	6,000	6000L	B2 U2 G2	6,300	6000L	B3 U2 G3
9L	Standard 0-10V	9,225	9000L	B3 U3 G3	9,725	10000L	B3 U3 G3
	DLI	8,175	8000L	B3 U3 G3	8,575	9000L	B3 U3 G3

\* 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: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>.



**RESTL Test Report #: PL16982-001A**  
**RUL-C-9L-30K7-2N-UL-7P w/RUL-REF**  
**Initial Delivered Lumens: 7,189**

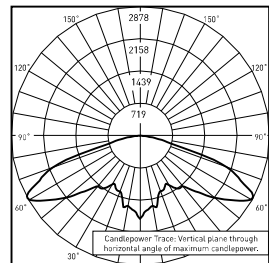


**RUL-C-9L-30K7-2N-UL-7P w/RUL-REF**  
**Mounting Height: 25' (7.6m) A.F.G.**  
**Initial Delivered Lumens: 7,375**  
**Initial FC at grade**

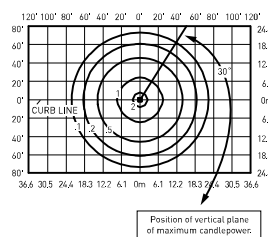
Type II Narrow Distribution w/Reflector/Refractor							
Lumen Package	Control	3000K/4000K			5700K		
		Initial Delivered Lumens*	Utility Label Lumen Values	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	Utility Label Lumen Values	BUG Ratings** Per TM-15-11
3L	Standard 0-10V	2,520	3000L	B1 U3 G1	2,670	3000L	B1 U3 G1
6L	Standard 0-10V, DLI	4,780	6000L	B2 U3 G2	5,075	6000L	B2 U3 G2
9L	Standard 0-10V	7,375	9000L	B3 U4 G2	7,825	10000L	B3 U4 G2
	DLI	6,475	8000L	B3 U4 G2	6,800	9000L	B3 U4 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: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>.

**5W**



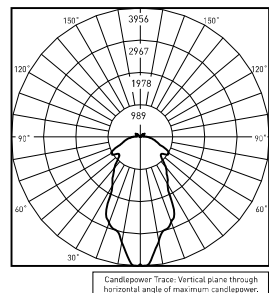
**RESTL Test Report #: PL16983-001A**  
**RUL-C-9L-30K7-5W-UL-7P**  
**Initial Delivered Lumens: 9,412**



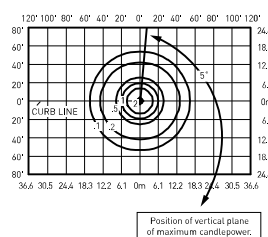
**RUL-C-9L-30K7-5W-UL-7P**  
**Mounting Height: 25' (7.6m) A.F.G.**  
**Initial Delivered Lumens: 9,225**  
**Initial FC at grade**

Type V Wide Distribution							
Lumen Package	Control	3000K/4000K			5700K		
		Initial Delivered Lumens*	Utility Label Lumen Values	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	Utility Label Lumen Values	BUG Ratings** Per TM-15-11
3L	Standard 0-10V	3,130	3000L	B2 U1 G1	3,310	3000L	B2 U1 G1
6L	Standard 0-10V, DLI	6,000	6000L	B3 U2 G1	6,300	6000L	B3 U2 G1
9L	Standard 0-10V	9,225	9000L	B3 U2 G1	9,725	10000L	B3 U2 G2
	DLI	8,175	8000L	B3 U2 G1	8,575	9000L	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: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>.



**RESTL Test Report #: PL16989-001A**  
**RUL-C-9L-30K7-5W-UL-7P w/RUL-REF**  
**Initial Delivered Lumens: 7,210**








**RUL-C-9L-30K7-5W-UL-7P w/RUL-REF**  
**Mounting Height: 25' (7.6m) A.F.G.**  
**Initial Delivered Lumens: 7,375**  
**Initial FC at grade**

Type V Wide Distribution w/Reflector/Refractor							
Lumen Package	Control	3000K/4000K			5700K		
		Initial Delivered Lumens*	Utility Label Lumen Values	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	Utility Label Lumen Values	BUG Ratings** Per TM-15-11
3L	Standard 0-10V	2,520	3000L	B1 U3 G1	2,670	3000L	B1 U3 G1
6L	Standard 0-10V, DLI	4,780	6000L	B2 U3 G2	5,075	6000L	B2 U3 G2
9L	Standard 0-10V	7,375	9000L	B3 U4 G2	7,825	10000L	B3 U4 G2
	DLI	6,475	8000L	B2 U4 G2	6,800	9000L	B3 U4 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: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>.

# RUL™ LED Rural Utility Luminaire - Version C

## Luminaire EPA

<b>Horizontal Tenon Mount – Weight:</b> Luminaire – 4.7lbs. (kg); add 1.0 lb. (0.5kg) for PW options; add 0.28 lbs. (0.1kg) for RUL-PEC accessory; add 2.2lbs. (1.0kg) for RUL-REF accessory; add 2.5 lbs. (1.1kg) for RUL-ARM24 accessory					
Luminaire	Single	2 @ 90°	2 @ 180°	3 @ 90°	4 @ 90°
<b>Tenon Configuration</b> If used with Cree tenons, please add tenon EPA with luminaire EPA					
					
Standard luminaire with RUL-PEC accessory, if applicable	TBD	TBD	TBD	TBD	TBD
Standard Luminaire w/ RUL-ARM24 accessory	TBD	TBD	TBD	TBD	TBD
Standard Luminaire w/ RUL-ARM24 and RUL-REF Refractor	TBD	TBD	TBD	TBD	TBD
Standard Luminaire w/RUL-REF Refractor	TBD	TBD	TBD	TBD	TBD

## Tenon EPA

Part Number	EPA
RUL-ARM24	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