

RUL Series

RUL™ LED Rural Utility Luminaire - Version C

Rev. Date: V6 10/11/2023

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 155 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. Its lightweight design, tool-less entry, and easy installation make the RUL™ LED Rural Utility Luminaire an ideal solution for any utility.

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

Performance Summary

Initial Delivered Lumens: 3,090 - 9,275

Input Power: 21 - 60 watts

Efficacy: Up to 155 LPW

CRI: Minimum 70 CRI

CCT: 3000K, 4000K, 5700K

Assembled in the USA by Cree Lighting from US and imported parts

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

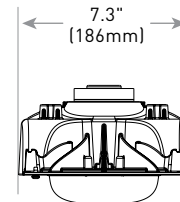
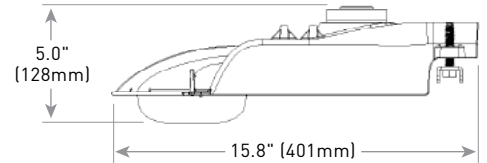
* See <http://creelighting.com/warranty> for warranty terms

Accessories

Field-Installed	
Arm Mount 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	Long-Life NEMA® 3-Pin Photocell RUL-PEC - On/off functionality only
Shorting Cap XA-XSLSHRT	
Cutoff Shield RUL-CS - Not for use with AR or CS options	



Shown w/photocell accessory (sold separately)



Refer to page 2 for weights and page 5 for cutoff shield and refractor accessories/options.

Ordering Information

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

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

* Please consider whether a PW* option will be needed when selecting kits including RUL-ARM24.



US: creelighting.com (800) 236-6800

Canada: creelighting-canada.com (800) 473-1234

CREE LIGHTING®

Product Specifications


CONSTRUCTION & MATERIALS

- Die cast aluminum housing and aluminum door
- Tool-less entry
- Straight-in terminal block wiring
- 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 - 4.8 lbs. (2.2kg); add 1.0 lb. (0.5kg) for PW options; add 0.28 lbs. (0.1kg) for RUL-PEC accessory; add 1.8 lbs. (0.8kg) for RUL-ARM24 accessory; add 0.44 lbs. (0.2kg) for CS option or RUL-CS accessory; add 0.6 lbs. (0.3kg) for AR option

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 to 10%. Controls by others
- 0-10V ANSI C137.1-2019 (8-Volt)
- **Operating Temperature Range:** -40°C - + 40°C (-40°F - + 104°F)

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Luminaire certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards
- 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
- RoHS compliant. Consult factory for additional details
- DarkSky Approved when ordered with 30K7 CCT and CS option or RUL-CS accessory. Please refer to <https://darksky.org/what-we-do/darksky-approved/products-companies/#!/-/search/keyword=cree> for most current information
- DLC Premium qualified. Please refer to <https://qpl.designlights.org/solid-state-lighting> for most current information
- DLC Luna qualified when ordered with CS option and 30K CCT. Please refer to <https://qpl.designlights.org/solid-state-lighting> for most current information
- Assembled in the USA by Cree Lighting from US and imported parts
-  **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – 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	42	40	0.36	0.21	0.18	0.16
9L	Standard 0-10V	60	60	0.51	0.29	0.25	0.22

* 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 ¹					
	Initial LMF	36K hr Reported ² LMF	50K hr Reported ² LMF	75K hr Estimated ³ LMF	100K hr Estimated ³ 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

¹ 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.

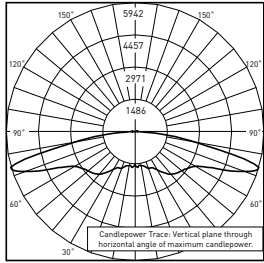
² In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to 6x the tested duration in the IES LM-80 report for the LED.

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

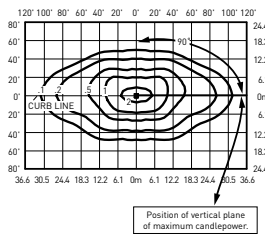
Photometry

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



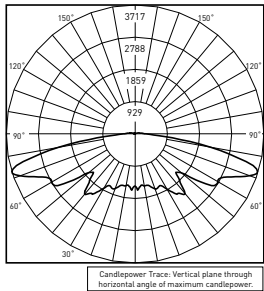
RESTL Test Report #: PL16981-001A
RUL-C-9L-30K7-2N-UL-7P
Initial Delivered Lumens: 9,314



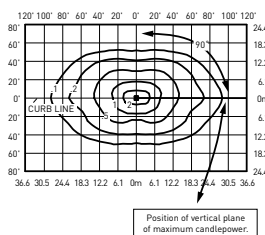
RUL-C-9L-30K7-2N-UL-7P
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 9,100
Initial FC at grade

Type II Narrow Distribution							
Lumen Package	Control	3000K			4000K/5700K		
		Initial Delivered Lumens*	Utility Label Lumen Values	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	Utility Label Lumen Values	BUG Ratings** Per TM-15-20
3L	Standard 0-10V	3,090	3000L	B2 U2 G2	3,150	3000L	B2 U2 G2
6L	All	5,875	6000L	B2 U2 G2	6,000	6000L	B2 U2 G2
9L	Standard 0-10V	9,100	9000L	B3 U3 G3	9,275	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>.



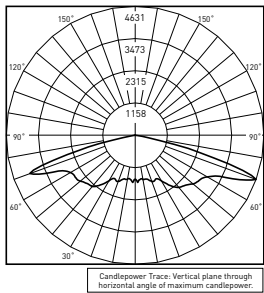
RESTL Test Report #: PL17614-001A
RUL-C-9L-30K7-2N-UL-AR
Initial Delivered Lumens: 8,706



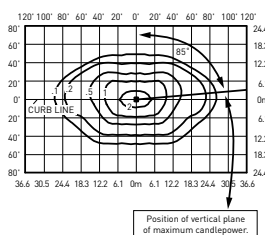
RUL-C-9L-30K7-2N-UL-AR
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 8,875
Initial FC at grade

Type II Narrow Distribution w/Acrylic Refractor							
Lumen Package	Control	3000K			4000K/5700K		
		Initial Delivered Lumens*	Utility Label Lumen Values	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	Utility Label Lumen Values	BUG Ratings** Per TM-15-20
3L	Standard 0-10V	3,030	3000L	B1 U3 G1	3,090	3000L	B2 U3 G2
6L	All	5,775	6000L	B2 U3 G2	5,900	6000L	B2 U3 G2
9L	Standard 0-10V	8,875	9000L	B3 U3 G3	9,050	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.
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RESTL Test Report #: PL17597-001A
RUL-C-9L-30K7-2N-UL w/RUL-CS
Initial Delivered Lumens: 7,634



RUL-C-9L-30K7-2N-UL-7P w/RUL-CS
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 7,900
Initial FC at grade

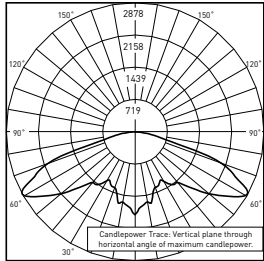
Type II Narrow Distribution w/Cutoff Shield							
Lumen Package	Control	3000K			4000K/5700K		
		Initial Delivered Lumens*	Utility Label Lumen Values	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	Utility Label Lumen Values	BUG Ratings** Per TM-15-20
3L	Standard 0-10V	2,540	3000L	B1 U0 G1	2,590	3000L	B1 U0 G1
6L	All	4,850	6000L	B2 U0 G2	4,950	6000L	B2 U0 G2
9L	Standard 0-10V	7,900	9000L	B3 U0 G3	8,050	9000L	B3 U0 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>.

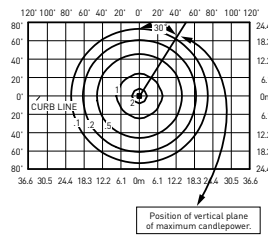
Photometry

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>.

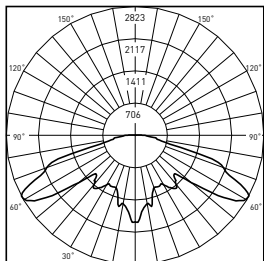
5W



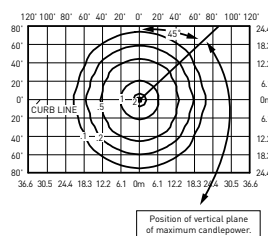
RESTL Test Report #: PL16983-001A
RUL-C-9L-30K7-5W-UL-7P
Initial Delivered Lumens: 9,412



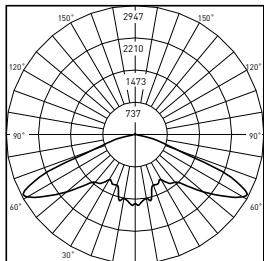
RUL-C-9L-30K7-5W-UL-7P
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 9,100
Initial FC at grade



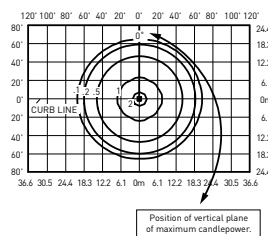
RESTL Test Report #: PL17635-001A
RUL-C-9L-30K7-5W-UL-AR
Initial Delivered Lumens: 8,914



RUL-C-9L-30K7-5W-UL-AR
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 8,875
Initial FC at grade



RESTL Test Report #: PL17598-001A
RUL-C-9L-30K7-5W-UL w/RUL-CS
Initial Delivered Lumens: 8,485



RUL-C-9L-30K7-5W-UL w/RUL-CS
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 8,275
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-15-20	Initial Delivered Lumens*	Utility Label Lumen Values	BUG Ratings** Per TM-15-20
3L	Standard 0-10V	3,090	3000L	B2 U1 G1	3,150	3000L	B2 U1 G1
6L	All	5,875	6000L	B3 U2 G1	6,000	6000L	B3 U2 G1
9L	Standard 0-10V	9,100	9000L	B3 U2 G1	9,275	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.
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Type V Wide Distribution w/Acrylic Refractor							
Lumen Package	Control	3000K			4000K/5700K		
		Initial Delivered Lumens*	Utility Label Lumen Values	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	Utility Label Lumen Values	BUG Ratings** Per TM-15-20
3L	Standard 0-10V	3,030	3000L	B2 U2 G1	3,090	3000L	B2 U2 G1
6L	All	5,775	6000L	B3 U3 G2	5,900	6000L	B3 U3 G2
9L	Standard 0-10V	8,875	9000L	B3 U3 G2	9,050	9000L	B3 U3 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-15-1BUGRatingsAddendum.pdf>.

Type V Wide Distribution w/Cutoff Shield							
Lumen Package	Control	3000K			4000K/5700K		
		Initial Delivered Lumens*	Utility Label Lumen Values	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	Utility Label Lumen Values	BUG Ratings** Per TM-15-20
3L	Standard 0-10V	2,800	3000L	B1 U0 G0	2,860	3000L	B1 U0 G0
6L	All	5,350	6000L	B2 U0 G1	5,450	6000L	B2 U0 G1
9L	Standard 0-10V	8,275	9000L	B3 U0 G1	8,450	9000L	B3 U0 G1

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens.
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



RUL™ LED Rural Utility Luminaire - Version C

Luminaire EPA

Horizontal Tenon Mount – Weight: Luminaire - 4.8 lbs. (2.2kg); add 1.0 lb. (0.5kg) for PW options; add 0.28 lbs. (0.1kg) for RUL-PEC accessory; add 1.8 lbs. (0.8kg) for RUL-ARM24 accessory; add 0.44 lbs. (0.2kg) for CS option or RUL-CS accessory; add 0.6 lbs. (0.3kg) for AR option

Luminaire	Single	2 @ 180°	2 @ 90°	3 @ 90°	4 @ 90°
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Tenon Configuration If used with Cree tenons, please add tenon EPA with luminaire EPA

					
Luminaire Only	0.35	0.69	0.57	0.92	1.14
with RUL-PEC	0.38	0.77	0.99	1.37	1.98
with RUL-ARM24	0.75	1.50	1.17	1.92	2.34
with RUL-AR	0.50	0.99	0.90	1.40	1.70
with CS option or RUL-CS accessory	0.42	0.83	0.75	1.17	1.51
with RUL-ARM24 & RUL-PEC	0.78	1.57	1.25	2.03	2.49
with RUL-ARM24 & CS option or RUL-CS accessory	0.83	1.67	1.35	2.18	2.70
with RUL-ARM24, RUL-PEC & CS option or RUL-CS accessory	0.87	1.73	1.43	2.29	2.86

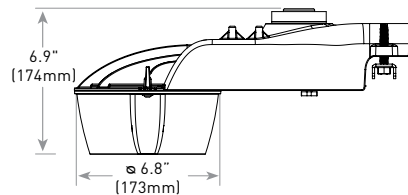
Tenon EPA

Part Number	EPA
RUL-ARM24	0.42

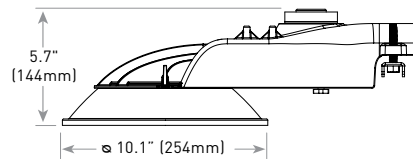
Tenons and Brackets*
Arm Mount RUL-ARM24 - 24.0" (610mm) curved raw aluminum arm mount - Includes zinc-plated steel hardware - Mounts to wood poles

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

RUL-C w/Acrylic Refractor



RUL-C w/Cutoff Shield



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