

RUL Series

RUL™ LED Rural Utility Luminaire - Version C

Rev. Date: V8 06/24/2024

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

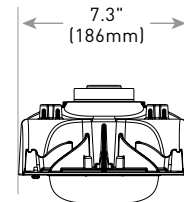
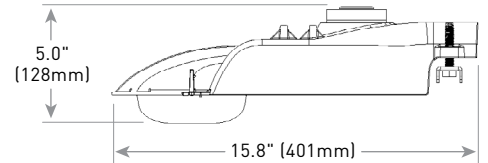
* See <https://www.creeighting.com/resources/warranties/> for warranty terms

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 Acrylic Reflector RUL-AR - Not for use with the AR option - Not for use with cutoff shield options or accessories Cutoff Shield w/BLS RUL-CS-BLS - Not for use with acrylic refractor option or accessory - Not for use with CS option - May be used to replace CS option or RUL-CS accessory in the field
Shorting Cap XA-XSLSHRT	
Cutoff Shield RUL-CS - Not for use with acrylic refractor option or accessory - Not for use with CS option	



Shown w/photocell accessory
(sold separately)



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

Ordering Information

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

RUL	C				UL			
Family	Series	Lumen Package	CCT/CRI	Optic	Voltage	Controls*	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	DLI DALI-2/ D4i Compatible - Replaces standard 0-10V dimming - Available only with 6L and 9L lumen packages - Requires 7P option	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 or DALI dim leads - Required with DALI control - Requires photocell or shorting cap AR Acrylic Refractor - Not for use with CS option - Not for use with RUL-AR, RUL-CS or RUL-CS-BLS accessories CS Cutoff Shield - Not for use with AR option - Not for use with RUL-AR, RUL-CS or RUL-CS-BLS accessories PW2 NESC Compliant Prewire - Prewired with two 6.5', 14AWG leads (black/white) - No UL mark - Not available with DLI control 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

* Luminaire comes standard with 0-10V dimming. Controls by others.

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



Website: [creeighting.com](https://www.creeighting.com)

US: (800) 236-6800 Canada: (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 0.9 lbs. (0.4kg) for DALI control; 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 or RUL-AR accessory; add 1.5 lbs. (0.7kg) for RUL-CS-BLS accessory
- Includes QR code on interior side wall of housing which provides access to: Online installation instructions, Luminaire information (Part number, Serial number, Build date, and Warranty end date), and Warranty claim submission form
- Duplicate 1" and 2" QR code labels are included. 1" labels can be affixed inside pole bases, next to fixtures, on site plans, or in maintenance records. 2" labels can be scanned from the ground when placed at an appropriate height

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)
- Maximum 10V Source Current: 1mA
- luminaires with DLI option are DALI-2/D4i compatible per IEC 62386
- 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, DLI	42	40	0.36	0.21	0.18	0.16
9L	Standard 0-10V, DLI	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 Maintenance¹					
	Initial LMF	36K hr Reported² LMF	50K hr Reported² LMF	75K hr Estimated³ LMF	100K hr Estimated³ 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.

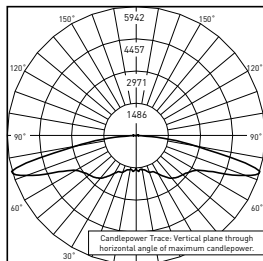
³ Estimated values are calculated and represent time durations that exceed the 6x test duration of the LED.

Photometry

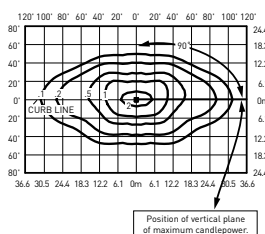
All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult:

<https://www.creeledlighting.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

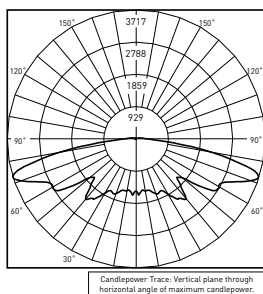


RUL-C-9L-30K7-2N-UL-7P
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 9,100
Initial FC at grade

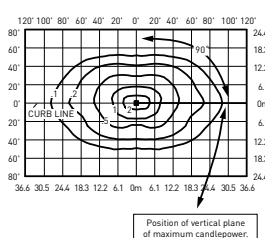
Type II Narrow Distribution						
Lumen Package	3000K			4000K/5700K		
	Initial Delivered Lumens*	Utility Label Lumen Values	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	Utility Label Lumen Values	BUG Ratings** Per TM-15-20
3L	3,090	3000L	B2 U2 G2	3,150	3000L	B2 U2 G2
6L	5,875	6000L	B2 U2 G2	6,000	6000L	B2 U2 G2
9L	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

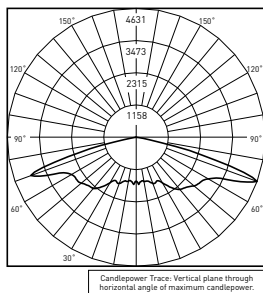


RUL-C-9L-30K7-2N-UL-AR
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 8,875
Initial FC at grade

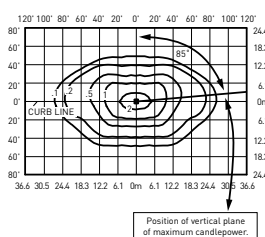
Type II Narrow Distribution w/Acrylic Refractor						
Lumen Package	3000K			4000K/5700K		
	Initial Delivered Lumens*	Utility Label Lumen Values	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	Utility Label Lumen Values	BUG Ratings** Per TM-15-20
3L	3,030	3000L	B1 U3 G1	3,090	3000L	B2 U3 G2
6L	5,775	6000L	B2 U3 G2	5,900	6000L	B2 U3 G2
9L	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.

** 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 #: 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	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	2,540	3000L	B1 U0 G1	2,590	3000L	B1 U0 G1
6L	4,850	6000L	B2 U0 G2	4,950	6000L	B2 U0 G2
9L	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.

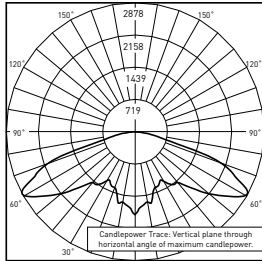
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>.

Photometry

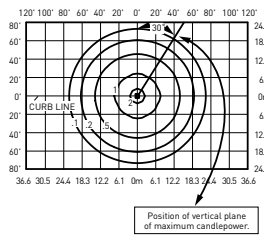
All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult:

<https://www.creeledlighting.com/products/outdoor/street-and-roadway/rul-series>.

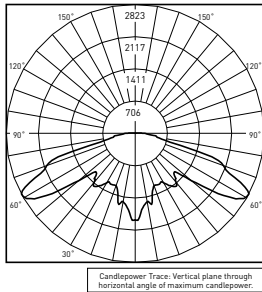
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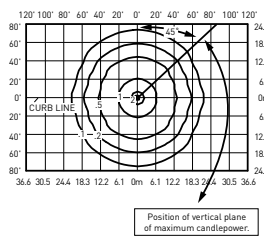
RESTL Test Report #: PL16983-001A
RUL-C-9L-30K7-5W-UL-7P
Initial Delivered Lumens: 9,412



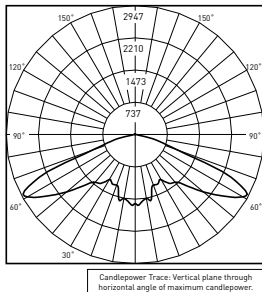
RUL-C-9L-30K7-5W-UL-7P
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 9,100
Initial FC at grade



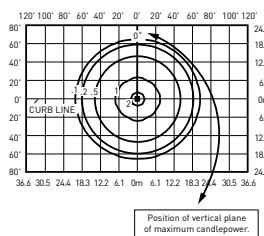
RESTL Test Report #: PL17635-001A
RUL-C-9L-30K7-5W-UL-AR
Initial Delivered Lumens: 8,914



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	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	3,090	3000L	B2 U1 G1	3,150	3000L	B2 U1 G1
6L	5,875	6000L	B3 U2 G1	6,000	6000L	B3 U2 G1
9L	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.

** 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>.

Type V Wide Distribution w/Acrylic Refractor						
Lumen Package	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	3,030	3000L	B2 U2 G1	3,090	3000L	B2 U2 G1
6L	5,775	6000L	B3 U3 G2	5,900	6000L	B3 U3 G2
9L	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-15-11BUGRatingsAddendum.pdf>.

Type V Wide Distribution w/Cutoff Shield						
Lumen Package	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	2,800	3000L	B1 U0 G0	2,860	3000L	B1 U0 G0
6L	5,350	6000L	B2 U0 G1	5,450	6000L	B2 U0 G1
9L	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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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; add 1.5 lbs. (0.7kg) for RUL-CS-BLS accessories					
Luminaire	Single	2 @ 180°	2 @ 90°	3 @ 90°	4 @ 90°
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	0.64	1.03	1.29
with RUL-ARM24	0.75	1.50	1.17	1.92	2.34
with RUL-AR	0.46	0.91	0.79	1.25	1.58
with CS option or RUL-CS accessory	0.43	0.86	0.75	1.17	1.51
with RUL-CS-BLS	0.63	1.25	1.22	1.85	2.45
with RUL-ARM24 & RUL-PEC	0.79	1.58	1.25	2.04	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-AR	0.86	1.72	1.39	2.25	2.78
with RUL-ARM24 & RUL-CS-BLS	1.00	2.00	1.82	2.82	3.64
with RUL-ARM24, RUL-PEC & CS option or RUL-CS accessory	0.87	1.74	1.43	2.30	2.86
with RUL-ARM24, RUL-PEC & RUL-AR	0.90	1.80	1.47	2.37	2.93
with RUL-ARM24, RUL-PEC & RUL-CS-BLS	1.04	2.08	2.47	3.51	4.95

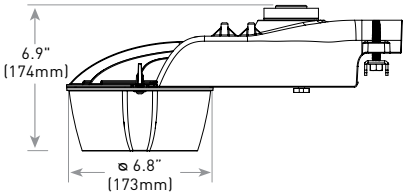
Tenon EPA

Part Number	EPA
RUL-ARM24	0.42

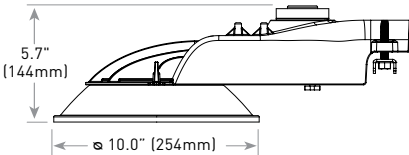
Tenons and Brackets*
Arm Mount RUL-ARM24 - 24.0" (610mm) curved raw aluminum arm mount - Includes zinc-plated steel hardware - Mounts to wood poles

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

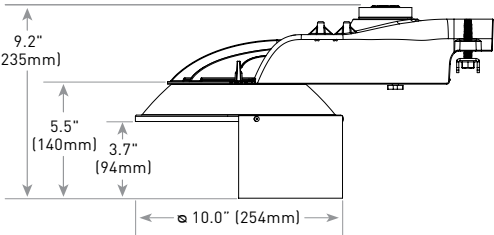
RUL-C w/Acrylic Refractor



RUL-C w/Cutoff Shield



RUL-C w/Cutoff & Backlight Shield



Driver Replacement Kits

RUL-C-DVRKT		
Product	Lumen Package	Controls
RUL-C-DVRKT	3L 3,000 Lumens 6L 6,000 Lumens 9L 9,000 Lumens	BLANK - For use with no controls (standard 0-10V dimming)

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