

# UR Series

2' LED Upgrade Kit

## Product Description

The UR Series 2ft (610mm) LED upgrade kit delivers 3600 lumens of enhanced spectrum 80 CRI light while achieving 100 lumens per watt at the system level. This innovative kit is designed for retrofitting existing 1' x 2' (305mm x 610mm) or 2' x 2' (610mm x 610mm) fixtures to energy saving LED. The UR Series is available in neutral or cool color temperatures and with step dimming or 0-10V dimming. The UR Series upgrade kit is easy to install and fits into almost any existing linear fluorescent fixture making it a perfect upgrade option where energy savings and long life are critical.

## Performance Summary

<b>Upgrade Existing</b> 1' x 2' (305mm x 610mm) or 2' x 2' (610mm x 610mm) fixtures
<b>Efficacy:</b> 100 LPW at source level
<b>System Delivered Light Output:</b> 3,600 lumens
<b>Target Fixture Delivered Light Output:</b> 3,200 lumens*
<b>Input Power:</b> 36 watts
<b>CRI:</b> 80
<b>CCT:</b> 3500K, 4000K
<b>Input Voltage:</b> 120-277 VAC or 347 VAC
<b>Limited Warranty<sup>1</sup>:</b> 7 years
<b>Limited Warranty Emergency Back Up (EB) Battery:</b> 1 Year Battery Back Up. Test regularly in accordance with local codes
<b>Lifetime:</b> Designed to last 50,000 hours
<b>Controls:</b> Step Level to 50% or 0-10V Dimming to 5%
<b>Mounting:</b> Existing dry or damp rated linear fluorescent fixtures including troffers, parabolics, strips, wraps, volumetric/baskets and industrials; not intended for use in vaportights

<sup>1</sup> See <http://lighting.cree.com/warranty> for warranty terms  
\* Varies by fixture



2' (610mm) LED Lightbar  
MOL- 22" (559mm)

The UR Series upgrade kit ships as two components: lightbars and driver. Each component must be ordered separately

## Accessories

<b>Field-Installed</b>
<b>Emergency Backup</b> UR-EB5W - 5W output power - Provides 90 minutes of emergency operation - Available on 120-277V only

## Ordering Information

Fully assembled kit is composed of two components that must be ordered separately:  
Example: **Lightbar:** UR-24-35K-FD-LB-2 + **Driver:** UR2-24-36L-10V-FD-DR

Lightbar (Driver must be ordered separately)					
UR	24		FD	LB	
Series	Length	CCT	Options	Lightbar	Number of Lightbars
UR	24 24"	35K 3500K 40K 4000K	FD 80 CRI	LB Lightbar	2 2 Lightbar Kit 3 3 Lightbar Kit 6 6 Lightbar Bulk Pack

Driver (Lightbar must be ordered separately)						
	24	36L			FD	DR
Product	Length	Lumen Output	Voltage	Control	Options	Driver
UR2 2 Lightbar UR3 3 Lightbar	24 24"	36L 36W, 3,600 lumens – 100 LPW	Blank 120-277V 34 347V - Available with 10V control option only	S Step Dimming to 50% 10V 0-10V Dimming to 5%	FD	DR Driver



Rev. Date: V6 07/18/2017



**Product Specifications**

**CREE LED TECHNOLOGY**

Cree's total systems approach to product development is a comprehensive engineering philosophy that combines the most advanced LED sources, driver technologies, optics and forms. The result is highly-reliable luminaire solutions for indoor applications that reduce energy use, extend lifetimes, and maximize illumination performance and quality.

**CONSTRUCTION & MATERIAL**

- Lightweight aluminum heat sink housing provides strength and durability
- Durable plastic mounting clips with integrated magnets allow for simple snap on design to luminaire
- Shatterproof design

**OPTICAL SYSTEM**

- Specialized lens design for optimal light distribution and smooth visual effect
- Measured and designed to achieve optimal light performance in existing fluorescent troffers

**ELECTRICAL SYSTEM**

- Integral, high-efficiency driver
- **Power Factor:** = 0.9 nominal
- **Input Power:** Stays constant over life
- **Input Voltage:** 120-277V, 347V, 50/60Hz
- **Operating Temperature Range:** 0°C - +35°C (32°F - +95°F)
- **Total Harmonic Distortion:** < 20%

**CONTROLS**

- Step dimming to 50%
- Continuous dimming to 5% with 0-10V DC control protocol
- **10V Source Current:** 0.25mA
- Use only lighting controls with neutral connection or controls intended for use with LED fixtures
- Reference <https://www.creelink.com/exLink.asp?70982140Z58R34I26620963>

**REGULATORY & VOLUNTARY QUALIFICATIONS**

- UL1598C (Retrofit Kit)
- This product is UL Classified for U.S. and Canada for use in existing linear fluorescent fixtures
- Suitable for damp locations
- Designed for indoor use
- Meets FCC Part 15, Subpart B, Class A standards for conducted and radiated emissions
- RoHS compliant. Consult factory for additional details

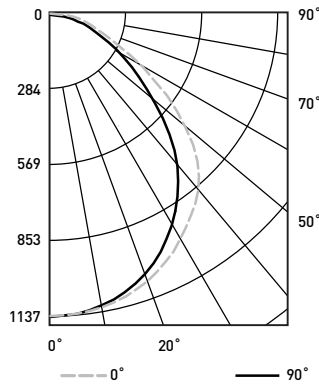
Electrical Data*						
Lumen Output	System Watts 120-347V	Total Current (A)				
		120V	208V	240V	277V	347V
36L	36	0.30	0.17	0.15	0.13	0.10
36L w/EB5W Accessory	38	0.32	0.18	0.16	0.14	N/A

\* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-347V +/-10%

**Photometry**

**UR2-24-36L-35K-FD in a 2 x 2 RECESSED TROFFER BASED ON CSA REPORT TEST #: 2638466-02**

Luminaire photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. IESNA LM-79-08 specifies the entire luminaire as the source resulting in a luminaire efficiency of 100%



Coefficients Of Utilization – Zonal Cavity Method				
RC %:	80			
RW %:	70	50	30	10
RCR: 0	119	119	119	119
1	109	105	101	97
2	100	92	86	80
3	92	82	74	68
4	84	73	65	58
5	78	65	57	50
6	72	59	51	44
7	67	54	45	39
8	62	49	41	35
9	58	45	37	32
10	55	42	34	29

Effective Floor Cavity Reflectance: 20%

Average Luminance Table [cd/m2]			
Vertical Angle	Horizontal Angle		
	0°	45°	90°
45°	3,899	3,470	3,152
55°	3,288	2,936	2,503
65°	2,397	2,118	2,006
75°	2,110	1,563	1,731
85°	2,318	2,027	1,899

Zonal Lumen Summary			
Zone	Lumens	% Lamp	Luminaire
0-30	880	N/A	30.8%
0-40	1,431	N/A	50.0%
0-60	2,399	N/A	83.8%
0-90	2,860	N/A	100%
0-180	2,861	N/A	100%

Reference [lighting.cree.com/products/indoor/upgrade-solutions/ur-series](http://lighting.cree.com/products/indoor/upgrade-solutions/ur-series) for detailed photometric data