304 Series™

LED Parking Structure Luminaire

Rev. Date: V8 10/26/2020

Product Description

Slim, low profile design. Luminaire is constructed from rugged die cast and extruded aluminum components. LED driver is mounted in a sealed weathertight center chamber that allows for access from below the luminaire. High performance aluminum heat sinks specifically designed for LED parking structure application.

Applications: Parking structures and low-medium bay general lighting

Performance Summary

Patented NanoOptic® Product Technology

Assembled in the U.S.A. of U.S. and imported parts

CRI: Minimum 70 CRI

CCT: 4000K (+/- 300K), 5700K (+/- 500K) Standard

Limited Warranty*: 10 years on luminaire/10 years on Colorfast DeltaGuard® finish

† See http://creelighting.com/warranty for warranty terms

Accessories

Field-Installed

Bird Guard

- For pendant or hook & cord mount only XA-XCPBRDGRD**

For Pendant Mount Luminaires

Leveler - For 0-13° Sloped Ceilings

XA-PNDTLVL**

Fitting XA-PSFTG**

Pendant Mount Kits

 Includes two conduit fittings and 3/4-14 NPT pipe threaded on two ends

 Pendant height from ceiling surface to bottom of the luminaire; mounting accessories or surface boxes will add to overall height

XA-PS12KIT** - 12" (305mm) XA-PS18KIT** - 18" (457mm) XA-PS22KIT** - 22" (559mm) For Direct Mount Luminaires

Bird Valence

- For direct mount only

XA-XCPVLNC**

For Hook & Cord Mount Luminaires

Locking Type Plug L5-15P - 120V L6-15P - 208/240V L7-15P - 277V L16-20P - 277/480V

Locking Type Receptacle

L5-15R - 120V L6-15R - 208/240V L7-15R - 277V L8-20R - 480V L14-20R - 125V/250V L16-20R - 277V/480V

Steady Lock - For eyebolt SL-C

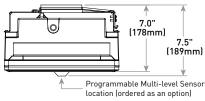
Hand-Held Remote

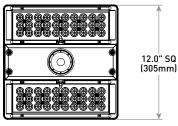
XA-SENSREM
- For successful implementation of the programmable multi-level option, a minimum of one hand-held remote

is required

DM Mount







LED Count (x10)	Weight
04	20.4 lbs. (9.3kg)
06	20.8 lbs. (9.4kg)

** Must specify color. No suffix required for silver.

Ordering Information

Example: PKG-304-5M-DM-04-F-UL-SV-700

PKG-304				E				
Product	Optic	Mounting	LED Count (x10)	Series	Voltage	Color Options	Drive Current	Options
PKG-304	5M Type V Medium 55 Type V Short PS Petroleum Symmetric SL Sparkle Petroleum 40 40* Flood	DM Direct HC Hook & Cord PD Pendant	04	E	UL Univer- sal 120-277V UH Univer- sal 347-480V	BK Black BZ Bronze SV Silver WH White	350 350mA 525 525mA 700 700mA	DIM 0-10V Dimming - Control by others - Refer to Dimming spec sheet for details - Can't exceed of specified drive current F Fuse - Compatible only with 120V, 277V or 347V [phase to neutral] - Consult factory if fusing is required for 208V, 240V or 480V [phase to phase] - Refer to PML spec sheet for availability with PML options - When code dictates fusing, use time delay fuse J Alternate Junction Box Mounting - For direct mount only - Alternate bracket to fit 4" [102mm] square and RAC0279 J-Box PML Programmable Multi-Level - Refer to PML spec sheet for details - Intended for downlight applications at 0" tilt 40X 4000K Color Temperature - Minimum 70 CRI - Color temperature per luminaire TRL Amber Turtle Friendly LEDs - Available only with 350mA - Lumen multiplier from 5700K: 0.32 [350mA] - Power multiplier: 0.76 - 600nm dominant wavelength - Additional shielding [by others] may be required for Florida Fish and Wildlife Conservation Commission compliance







Product Specifications

CONSTRUCTION & MATERIALS

- Slim, low profile design
- · Constructed from rugged die cast and extruded aluminum components
- LED driver is mounted in a sealed weathertight center chamber that allows for access from below the luminaire
- High performance heat sinks specifically designed for LED parking structure application
- Direct mounting bracket is designed to mount directly over existing single gang and octagonal junction boxes for direct mount. 1.5' (0.5m) of cord is included
- Hook and cord mount provided with spring lock hook for mounting and 1.5' (0.5m) of cord
- Pendant mount includes 6' (1.8m) cord out of the luminaire and is intended to be mounted by 3/4 IP pendant (by others)
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultradurable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, silver, and white are available
- Weight: See Weight Charts on pages 1 and 5

ELECTRICAL SYSTEM

- Input Voltage: 120-277V or 347-480V, 50/60Hz, Class 1 drivers
- Power Factor: > 0.9 at full load
- Total Harmonic Distortion: < 20% at full load
- Integral 10kV surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- 10V Source Current: 0.15mA

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Enclosure rated IP66 per IEC 60529
- Consult factory for CE Certified products
- ANSI C136.2 10kV 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
- DLC qualified with select SKUs. Refer to https://www.designlights.org/search/ for most current information
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- RoHS Compliant. Consult factory for additional details
- Meets Buy American requirements within ARRA
- CA RESIDENTS WARNING: Cancer and Reproductive Harm www.p65warnings.ca.gov

Electrical Data*							
	Total Current (A)						
LED Count (x10)	System Watts 120-480V	120V	208V	240V	277V	347V	480V
350mA	350mA						
04	46	0.39	0.24	0.22	0.21	0.15	0.12
06	69	0.57	0.34	0.30	0.27	0.21	0.16
525mA							
04	71	0.59	0.35	0.31	0.28	0.21	0.16
06	101	0.84	0.49	0.43	0.38	0.30	0.22
700mA							
04	94	0.79	0.46	0.40	0.36	0.28	0.21
06	135	1.14	0.65	0.57	0.50	0.40	0.29

^{*} Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V or 347-480V +/- 10%

304 Series	304 Series™ Ambient Adjusted Lumen Maintenance¹					
Ambient	ССТ	Initial LMF	25K hr Reported ² LMF	50K hr Reported ² LMF	75K hr Estimated ³ LMF	100K hr Estimated ³ LMF
5°C (41°F)	30K/40K/50K/57K	1.04	1.01	0.99	0.98	0.96
3 C (41 F)	TRL	1.06	1.06	1.06	1.06	1.06
10°C (50°F)	30K/40K/50K/57K	1.03	1.00	0.98	0.97	0.95
10 C (30 F)	TRL	1.04	1.04	1.04	1.04	1.04
15°C (59°F)	30K/40K/50K/57K	1.02	0.99	0.97	0.96	0.94
13 C (37 F)	TRL	1.03	1.03	1.03	1.03	1.03
20°C (68°F)	30K/40K/50K/57K	1.01	0.98	0.96	0.95	0.93
20 C (00 F)	TRL	1.01	1.01	1.01	1.01	1.01
25°C (77°F)	30K/40K/50K/57K	1.00	0.97	0.95	0.94	0.92
23 C (// F)	TRL	1.00	1.00	1.00	1.00	1.00

¹Lumen 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 <u>Temperature Zone Reference Document</u> for outdoor average nighttime ambient conditions.



conditions.

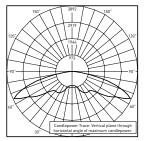
In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to 6x the tested duration in the IES LM-80 report for the LED.

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-79-08 standards. To obtain an IES file specific to your project consult: http://creelighting.com/products/outdoor/parking-structure/304-series-2

5M



ITL Test Report #: 77285 PKG-304-5M-**-06-E-UL-700-40K Initial Delivered Lumens: 11,681

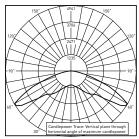


PKG-304-5M-**-06-E-UL-700-40K Mounting Height: 15' [4.6m] A.F.G. Initial Delivered Lumens: 11,625 Initial FC at grade

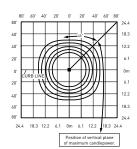
Type V Medium Distribution					
	4000K		5700K		
LED Count (x10)	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	
350mA	350mA				
04	4,595	B3 U1 G1	4,771	B3 U1 G1	
06	6,838	B3 U1 G1	7,101	B3 U1 G2	
525mA					
04	6,433	B3 U1 G1	6,680	B3 U1 G1	
06	9,574	B3 U1 G2	9,942	B3 U1 G2	
700mA					
04	7,811	B3 U1 G2	8,111	B3 U1 G2	
06	11,625	B4 U1 G2	12,072	B4 U1 G2	

^{*} Initial delivered lumens at 25° C [77°F]. Actual production yield may vary between -10 and +10% of initial delivered

55



ITL Test Report #: 77876 PKG-304-5S-**-06-E-UL-700-40K Initial Delivered Lumens: 12.738



PKG-304-5S-**-06-E-UL-700-40K Mounting Height: 15' (4.6m) A.F.G. Initial Delivered Lumens: 12,917 Initial FC at grade

Type V Shor	Type V Short Distribution				
	4000K		5700K		
LED Count (x10)	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	
350mA					
04	5,105	B2 U0 G1	5,302	B2 U0 G1	
06	7,598	B3 U0 G1	7,890	B3 U0 G1	
525mA					
04	7,147	B3 U0 G1	7,422	B3 U0 G1	
06	10,637	B3 U0 G2	11,046	B3 U0 G2	
700mA					
04	8,679	B3 U0 G1	9,013	B3 U0 G1	
06	12,917	B3 U0 G2	13,413	B3 U0 G2	

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

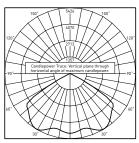
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit:
https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf

tumens
** 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

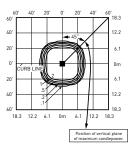
Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult: http://creelighting.com/products/outdoor/parking-structure/304-series-2

PS



ITL Test Report #: 76940 CAN-304-PS-**-06-E-UL-700-40K Initial Delivered Lumens: 13,581

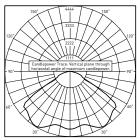


PKG-304-PS-**-06-E-UL-700-40K Mounting Height: 15' (4.6m) A.F.G. Initial Delivered Lumens: 13,204 Initial FC at grade

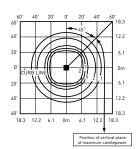
Petroleum Symmetric Distribution				
	4000K		5700K	
LED Count (x10)	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
04	5,219	B2 U0 G0	5,419	B2 U0 G0
06	7,767	B3 U0 G0	8,066	B3 U0 G0
525mA				
04	7,306	B3 U0 G0	7,587	B3 U0 G0
06	10,874	B3 U0 G0	11,292	B3 U0 G0
700mA				
04	8,872	B3 U0 G0	9,213	B3 U0 G0
06	13,204	B3 U0 G0	13,712	B3 U0 G0

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

SL



ITL Test Report #: 77415 CAN-304-SL-**-06-E-UL-700-40K Initial Delivered Lumens: 12.707



PKG-304-SL-**-06-E-UL-700-40K Mounting Height: 15' (4.6m) A.F.G. Initial Delivered Lumens: 12,773 Initial FC at grade

Sparkle Petroleum Distribution				
	4000K		5700K	
LED Count (x10)	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
04	5,048	B2 U0 G1	5,243	B2 U0 G1
06	7,514	B3 U0 G1	7,803	B3 U0 G1
525mA				
04	7,068	B2 U0 G1	7,340	B2 U0 G1
06	10,519	B3 U0 G1	10,924	B3 U0 G1
700mA				
04	8,582	B3 U0 G1	8,912	B3 U0 G1
06	12,773	B3 U0 G1	13,264	B3 U0 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

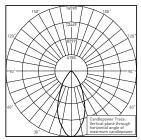
tumens

** 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

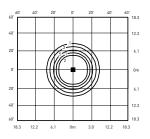
Photometry

All published luminaire photometric testing performed to IES LM-79-08 standards. To obtain an IES file specific to your project consult: http://creelighting.com/products/outdoor/parking-structure/304-series-2

40°



ITL Test Report #: 78011 CAN-304-40-**-06-E-UL-700-40K Initial Delivered Lumens: 12,497



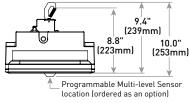
PKG-304-40-**-06-E-UL-700-40K Mounting Height: 15' [4.6m] A.F.G. Initial Delivered Lumens: 12,917 Initial FC at grade

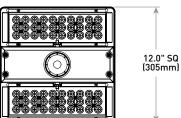
40° Flood Distribution				
	4000K		5700K	
LED Count (x10)	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
350mA				
04	5,105	N/A	5,302	N/A
06	7,598	N/A	7,890	N/A
525mA				
04	7,147	N/A	7,422	N/A
06	10,637	N/A	11,046	N/A
700mA				
04	8,679	N/A	9,013	N/A
06	12,917	N/A	13,413	N/A

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

HC Mount



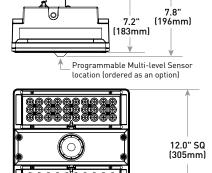




LED Count (x10)	Weight
04	18.1 lbs. (8.2kg)
06	18.6 lbs. (8.4kg)

PD Mount





LED Count (x10)	Weight
04	18.5 lbs. (8.4kg)
06	18.8 lbs. (8.5kg)

© 2020 Cree Lighting, A company of IDEAL INDUSTRIES. All rights reserved. For informational purposes only. Content is subject to change. Patent www.creelighting.com/patents. Cree® and the Cree logo are registered trademarks of Cree, Inc. NanoOptic® and Colorfast DeltaGuard® are registered trademarks, and 304 Series™ is a trademark of Cree Lighting, A company of IDEAL INDUSTRIES. The UL logo is a registered trademark of UL LLC. The DLC QPL logo is a registered trademark of Efficiency Forward, Inc.

A COMPANY OF **IDEAL INDUSTRIES, INC.**

CREE & LIGHTING

^{**}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