LUMEC

Roadway

RoadFocus

RFL Cobra head (large)

Project:

Location:

Cat.No:

Type:

Lumens: Qty:

Notes:

Lumec RoadFocus LED cobra head luminaires feature a sleek design that provides seamless replacement of existing HID luminaires. RoadFocus is available in three sizes, offers multiple lumen packages, and a complete array of optical distributions, making it an outstanding solution for all types of roadway applications. Includes Service Tag, innovative way to provide assistance throughout the life of the product.

Ordering guide

example: RFL-215W96LED4K-G2-R3M-UNV-DMG-RCD7-GY3

Series	LED module	CCT	Generation	Distribution	Voltage	Options: Controls [4]	Options: Options	Finish
RFL RoadFocus large	**145W64LED** **135W80LED** **180W80LED** **270W80LED** **215W96LED** **85W100LED**[14] **105W100LED**[14] **165W100LED**[14] **225W100LED**[14] **305W100LED**[14] **190W112LED** **241W112LED** **350W112LED** **130W120LED**[14] **200W120LED**[14] **270W120LED**[14] **155W140LED**[14] **230W140LED**[14] **310W140LED**[14]	**4K** 4000K **3K** 3000K **2.7K**[11] 2700K **2.2K**[11] 2200K	**G2** Generation 2	**Type 2** **R2S** Type II short (ASYM) **R2M** Type II Medium (ASYM) **Type 3** **R3S** Type III short (ASYM) **R3M** Type III Medium (ASYM) **Type 4** **4** Type IV (ASYM) **Type 5** **5** Type V (SYMM)	**UNV** 120-277V **HVU** 347-480V	**D4I**[16] Zhaga-D4i certified **DALI**[1] Digitally addressable lighting interface **DMG**[5] 0-10V **SRD**[1] Sensor ready driver, standard configuration **SRD1**[1] Sensor ready driver, alternate configuration	**API** Factory installed NEMA label, ANSI C136.15-2015 compliant **FAWS**[7] Field adjustable wattage selector **CSS**[2,15] Cul-de-Sac Shield **FSS**[2,15] Front Side Shield **HS**[2,15] House Side Shield **LSS**[2,15] Left Side Shield **RSS**[2,15] Right Side Shield **NRC**[8] No receptacle **NYBC** 4 - position terminal block **OMS**[17] Outdoor Multisensor **PH8**[1,10] Twist-lock photoelectric cell, UNV (120-277VAC) **PH8/347**[10,13] Twist-lock photoelectric cell (347VAC) **PH8/480**[10,13] Twist-lock photoelectric cell (480VAC) **PHXL**[1,10] Twist-lock photoelectric cell, extended life, UNV (120-277VAC) **PH9**[10] Shorting cap **RCD**[3,9] Receptacle for twist-lock photocell or shorting cap, 5-pin (optional) **RCD7**[3,5] Receptacle for twist-lock photocell or shorting cap, 7-pin (standard) **SP2** 20kV / 10kA Surge protector **TLRSR**[6] SR receptacle **BAC**[18] Meets the requirements of the Buy American Act of 1933 (BAA)	**BK** Black **BR** Bronze **GY3** Gray **WH** White

1 Not available with **HVU**.
2 Refer to Accessories section to confirm compatibility of shields with optical distribution.
3 Use of photoelectric cell or shorting cap is required to ensure proper illumination.
4 Select either **DALI** or **DMG** or **SRD** or **SRD1** mandatory option.
5 Please note this integrated feature come standard with RoadFocus.
6 Only available with **SRD** or **SRD1** Driver Options.
7 Only available with **DMG** Driver Options
8 Not available with **PH8**, **PH8/347**, **PH8/480**, **PHXL**, **PH9**, **DALI**, **SRD** or **SRD1** Driver Options.
9 Not available with **SRD** Driver Options.
10 Either **RCD** or **RCD7** must be selected for this option.
11 Extended lead-time may apply. Consult factory.
12 **FAWS** table accuracy +/- 15% on these models.
13 Not available with **UNV**.
14 Only available with **R2M** or **R3M** distributions.
15 1 shield provided per LED light engine.
16 **TLRSR** must be selected with **D4I**
17 **TLRSR** and **D4I** must be selected with **OMS**
18 Failure to properly select the "**BAC**" suffix could result in you receiving product that is not BAA compliant product with no recourse for an RMA or refund. This BAC designation hereunder does not address (i) the applicability of, or availability of a waiver under, the Trade Agreements Act, or (ii) the "Buy America" domestic content requirements imposed on states, localities, and other non-federal entities as a condition of receiving funds administered by the Department of Transportation or other federal agencies.
19 Consult Signify to confirm whether specific accessories are BAA-compliant.

RFL RoadFocus

LED Cobra head (large)

Shielding accessories[18] (must be ordered as separate line item – quickly and easily installed in the field)

Interact City connector node (Contact the factory for additional support when connected lighting or additional services are desired.)

Description	Luminaire Option Code	Accessory Ordering Code		Shield vs Distribution Compatibility					
		12/16 LED version*	20 LED version*	R2M	R2S	R3M	R3S	4	5
Cul-de-sac shield	CSS	ACC-LG66V16LED-CSS	ACC-LG66V20LED-CSS	Yes	Yes	Yes	Yes	Yes	Yes
Front side shield	FSS	ACC-LG66V16LED-FSS	ACC-LG66V20LED-FSS	Yes	Yes	Yes	Yes	No	Yes
House side shield	HS	ACC-LG66V16LED-HS	ACC-LG66V20LED-HS	Yes	Yes	Yes	Yes	Yes	No
Left side shield	LSS	ACC-LG66V16LED-LSS	ACC-LG66V20LED-LSS	Yes	Yes	Yes	Yes	Yes	Yes
Right side shield	RSS	ACC-LG66V16LED-RSS	ACC-LG66V20LED-RSS	Yes	Yes	Yes	Yes	Yes	Yes

*Refer to Wattage table to confirm light engine configuration. Example, if configuration is 2x16LED, 2 of the desired shields must be ordered per luminaire.

Predicted Lumen Depreciation Data

Predicted performance derived from LED manufacturer's data and engineering design estimates, based on IESNA LM-80 methodology. Actual experience may vary due to field application conditions.L70 is the predicted time when LED performance depreciates to 70% of initial lumen output. Calculated per IESNA TM21-11 Addendum B. Published L70 hours limited to 6 times actual LED test hours.

Ambient Temperature °C	L_{70} per TM-21	Lumen Maintenance % at 60,000 hrs
25°C	>60,000 hours	>97.6%

LED Wattage values

Ordering Code	Total LEDs	Light Engine Configuration	Average System Watts[15]	Wattage label[16]
RFL-145W64LED	64	4x16LED	137	140
RFL-135W80LED	80	5x16LED	136	140
RFL-180W80LED	80	5x16LED	174	170
RFL-270W80LED	80	5x16LED	268	270
RFL-215W96LED	96	6x16LED	207	210
RFL-85W100LED	100	5x20LED	88	90
RFL-105W100LED	100	5x20LED	106	110
RFL-165W100LED	100	5x20LED	165	170
RFL-225W100LED	100	5x20LED	224	220
RFL-305W100LED	100	5x20LED	306	310
RFL-190W112LED	112	7x16LED	188	190
RFL-241W112LED	112	7x16LED	243	240
RFL-350W112LED[18]	112	7x16LED	340	340
RFL-130W120LED	120	6x20LED	133	130
RFL-200W120LED	120	6x20LED	196	200
RFL-270W120LED	120	6x20LED	269	270
RFL-155W140LED	140	7x20LED	154	150
RFL-230W140LED	140	7x20LED	229	230
RFL-310W140LED	140	7x20LED	311	310

16. Typical values, rounded.
17. As per ANSI C136.15-2015. Consult factory for other labelling needs.
18. Rated for +40°C / +104°F.

RFL RoadFocus

LED Cobra head (large)

4000K LED Lumen values, multiply values by 0.769 for 2.2K

		Type R2M			Type R2S			Type R3M			Type R3S			Type 4			Type 5		
Ordering Code	Color Temp.	Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating
145W64LED	4000	19,162	140	B3-U0-G3	19,841	145	B3-U0-G2	19,102	139	B3-U0-G2	19,358	141	B2-U0-G3	19,012	139	B2-U0-G3	19,777	144	B4-U0-G2
135W80LED	4000	18,819	138	B3-U0-G3	19,486	143	B3-U0-G2	18,761	137	B3-U0-G2	19,012	139	B2-U0-G3	18,673	137	B2-U0-G3	19,423	142	B4-U0-G2
180W80LED	4000	23,952	138	B3-U0-G3	24,800	143	B3-U0-G2	23,877	137	B3-U0-G3	24,197	139	B3-U0-G3	23,765	137	B3-U0-G4	24,721	142	B5-U0-G3
270W80LED	4000	32,506	121	B3-U0-G3	33,658	126	B4-U0-G3	32,405	121	B3-U0-G3	32,839	122	B3-U0-G4	32,254	120	B3-U0-G4	33,549	125	B5-U0-G3
215W96LED	4000	28,742	139	B3-U0-G3	29,760	144	B3-U0-G2	28,653	138	B3-U0-G3	29,037	140	B3-U0-G4	28,519	138	B3-U0-G4	29,664	143	B5-U0-G3
85W100LED	4000	13,504	154	B3-U0-G3	N/A	N/A	N/A	13,576	155	B3-U0-G2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
105W100LED	4000	16,168	153	B3-U0-G3	N/A	N/A	N/A	16,255	153	B3-U0-G3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
165W100LED	4000	22,561	137	B3-U0-G3	N/A	N/A	N/A	22,683	137	B3-U0-G3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
225W100LED	4000	28,600	128	B4-U0-G4	N/A	N/A	N/A	28,753	128	B4-U0-G4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
305W100LED	4000	37,480	122	B4-U0-G4	N/A	N/A	N/A	37,681	123	B4-U0-G4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
190W112LED	4000	26,347	140	B3-U0-G3	27,280	145	B3-U0-G2	26,265	140	B3-U0-G3	26,617	142	B3-U0-G3	26,143	139	B3-U0-G4	27,192	145	B5-U0-G3
241W112LED	4000	32,955	136	B4-U0-G3	34,122	140	B4-U0-G3	32,853	135	B3-U0-G3	33,293	137	B3-U0-G4	32,699	135	B3-U0-G4	34,012	140	B5-U0-G3
350W112LED	4000	42,515	125	B4-U0-G4	44,021	130	B4-U0-G3	42,382	125	B4-U0-G4	42,950	127	B3-U0-G4	42,184	124	B3-U0-G5	43,879	129	B5-U0-G4
130W120LED	4000	19,401	146	B3-U0-G3	N/A	N/A	N/A	19,505	147	B3-U0-G3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
200W120LED	4000	27,073	138	B4-U0-G3	N/A	N/A	N/A	27,219	139	B3-U0-G3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
270W120LED	4000	34,319	128	B4-U0-G4	N/A	N/A	N/A	34,504	128	B4-U0-G4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
155W140LED	4000	22,635	147	B3-U0-G3	N/A	N/A	N/A	22,756	148	B3-U0-G3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
230W140LED	4000	31,586	138	B4-U0-G4	N/A	N/A	N/A	31,756	139	B4-U0-G4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
310W140LED	4000	40,039	129	B4-U0-G4	N/A	N/A	N/A	40,255	129	B4-U0-G4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

3000K LED Lumen values

		Type R2M			Type R2S			Type R3M			Type R3S			Type 4			Type 5		
Ordering Code	Color Temp.	Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating
145W64LED	3000	17,976	131	B3-U0-G3	18,613	136	B3-U0-G2	17,920	131	B3-U0-G2	18,160	133	B2-U0-G3	17,836	130	B2-U0-G3	18,553	135	B4-U0-G2
135W80LED	3000	17,655	129	B3-U0-G3	18,280	134	B3-U0-G2	17,600	129	B3-U0-G2	17,836	131	B2-U0-G3	17,518	128	B2-U0-G3	18,221	134	B4-U0-G2
180W80LED	3000	22,470	129	B3-U0-G3	23,266	134	B3-U0-G2	22,400	129	B3-U0-G3	22,700	130	B3-U0-G3	22,295	128	B3-U0-G4	23,191	133	B5-U0-G3
270W80LED	3000	30,495	114	B3-U0-G3	31,575	118	B4-U0-G3	30,400	113	B3-U0-G3	30,807	115	B3-U0-G4	30,258	113	B3-U0-G4	31,473	117	B5-U0-G3
215W96LED	3000	26,964	130	B3-U0-G3	27,919	135	B3-U0-G2	26,880	130	B3-U0-G3	27,240	132	B3-U0-G4	26,754	129	B3-U0-G4	27,829	134	B5-U0-G3
85W100LED	3000	12,839	147	B3-U0-G3	N/A	N/A	N/A	12,908	147	B3-U0-G2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
105W100LED	3000	15,372	145	B3-U0-G3	N/A	N/A	N/A	15,455	146	B3-U0-G3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
165W100LED	3000	21,451	130	B3-U0-G3	N/A	N/A	N/A	21,566	131	B3-U0-G3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
225W100LED	3000	27,192	121	B4-U0-G3	N/A	N/A	N/A	27,338	122	B4-U0-G4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
305W100LED	3000	35,636	116	B4-U0-G4	N/A	N/A	N/A	35,828	117	B4-U0-G4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
190W112LED	3000	24,717	132	B3-U0-G3	25,592	136	B3-U0-G2	24,640	131	B3-U0-G3	24,970	133	B3-U0-G3	24,525	131	B3-U0-G4	25,510	136	B5-U0-G3
241W112LED	3000	30,916	127	B4-U0-G3	32,011	132	B4-U0-G3	30,820	127	B3-U0-G3	31,233	129	B3-U0-G4	30,676	126	B3-U0-G4	31,908	131	B5-U0-G3
350W112LED	3000	39,884	117	B4-U0-G4	41,297	122	B4-U0-G3	39,760	117	B4-U0-G4	40,293	119	B3-U0-G4	39,574	117	B3-U0-G5	41,164	121	B5-U0-G4
130W120LED	3000	18,446	139	B3-U0-G3	N/A	N/A	N/A	18,545	139	B3-U0-G3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
200W120LED	3000	25,741	131	B3-U0-G3	N/A	N/A	N/A	25,880	132	B3-U0-G3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
270W120LED	3000	32,631	121	B4-U0-G4	N/A	N/A	N/A	32,807	122	B4-U0-G4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
155W140LED	3000	21,521	140	B3-U0-G3	N/A	N/A	N/A	21,637	141	B3-U0-G3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
230W140LED	3000	30,032	131	B4-U0-G3	N/A	N/A	N/A	30,194	132	B4-U0-G4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
310W140LED	3000	38,069	122	B4-U0-G4	N/A	N/A	N/A	38,274	123	B4-U0-G4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Actual performance may vary due to installation variables including optics, mounting/ceiling height, dirt depreciation, light loss factor, etc.; highly recommended to confirm performance with a layout – contact Applications at signify.com/outdoorluminaires. Consult DLC QPL to confirm your specific fixture selection is DLC approved.
Note: Some data may be scaled based on tests of similar but not identical luminaries.

RFL RoadFocus

LED Cobra head (large)

2700K LED Lumen values

Ordering Code	Color Temp.	Type R2M			Type R2S			Type R3M			Type R3S			Type 4			Type 5		
		Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating
145W64LED	2700	16,484	120	B3-U0-G3	17,068	125	B3-U0-G2	16,433	120	B3-U0-G2	16,653	122	B2-U0-G3	16,356	119	B2-U0-G3	17,013	124	B4-U0-G2
135W80LED	2700	16,190	119	B3-U0-G3	16,763	123	B3-U0-G2	16,140	118	B3-U0-G2	16,356	120	B2-U0-G3	16,064	118	B2-U0-G3	16,709	122	B4-U0-G2
180W80LED	2700	20,605	118	B3-U0-G3	21,335	123	B3-U0-G2	20,541	118	B3-U0-G3	20,816	120	B3-U0-G3	20,445	118	B3-U0-G4	21,267	122	B5-U0-G3
270W80LED	2700	27,965	104	B3-U0-G3	28,955	108	B4-U0-G3	27,877	104	B3-U0-G3	28,251	105	B3-U0-G4	27,747	103	B3-U0-G4	28,861	108	B5-U0-G3
215W96LED	2700	24,727	119	B3-U0-G3	25,602	124	B3-U0-G2	24,649	119	B3-U0-G3	24,980	121	B3-U0-G4	24,534	119	B3-U0-G4	25,520	123	B5-U0-G3
85W100LED	2700	11,731	134	B3-U0-G2	N/A	N/A	N/A	11,794	135	B2-U0-G2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
105W100LED	2700	14,046	133	B3-U0-G3	N/A	N/A	N/A	14,122	133	B3-U0-G2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
165W100LED	2700	19,600	119	B3-U0-G3	N/A	N/A	N/A	19,705	119	B3-U0-G3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
225W100LED	2700	24,846	111	B3-U0-G3	N/A	N/A	N/A	24,980	112	B3-U0-G3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
305W100LED	2700	32,561	106	B4-U0-G4	N/A	N/A	N/A	32,736	107	B4-U0-G4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
190W112LED	2700	22,666	121	B3-U0-G3	23,468	125	B3-U0-G2	22,595	120	B3-U0-G3	22,898	122	B3-U0-G3	22,490	120	B3-U0-G4	23,393	125	B5-U0-G3
241W112LED	2700	28,351	117	B4-U0-G3	29,355	121	B4-U0-G3	28,263	116	B3-U0-G3	28,641	118	B3-U0-G4	28,130	116	B3-U0-G4	29,260	120	B5-U0-G3
350W112LED	2700	36,574	108	B4-U0-G4	37,870	112	B4-U0-G3	36,461	107	B4-U0-G4	36,949	109	B3-U0-G4	36,290	107	B3-U0-G5	37,748	111	B5-U0-G4
130W120LED	2700	16,855	127	B3-U0-G3	N/A	N/A	N/A	16,946	127	B3-U0-G3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
200W120LED	2700	23,520	120	B3-U0-G3	N/A	N/A	N/A	23,647	121	B3-U0-G3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
270W120LED	2700	29,815	111	B4-U0-G4	N/A	N/A	N/A	29,975	111	B4-U0-G4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
155W140LED	2700	19,664	128	B3-U0-G3	N/A	N/A	N/A	19,770	128	B3-U0-G3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
230W140LED	2700	27,440	120	B4-U0-G3	N/A	N/A	N/A	27,588	120	B3-U0-G3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
310W140LED	2700	34,784	112	B4-U0-G4	N/A	N/A	N/A	34,971	112	B4-U0-G4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

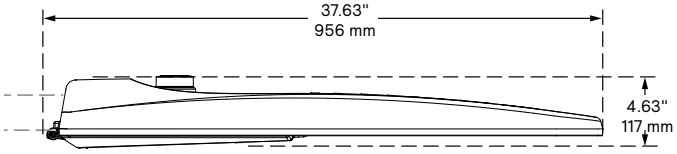
Actual performance may vary due to installation variables including optics, mounting/ceiling height, dirt depreciation, light loss factor, etc.; highly recommended to confirm performance with a layout – contact Applications at signify.com/outdoorluminaires. Consult DLC QPL to confirm your specific fixture selection is DLC approved.
Note: Some data may be scaled based on tests of similar but not identical luminaries.

RFL RoadFocus

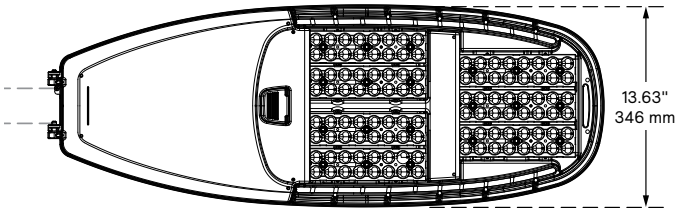
LED Cobra head (large)

Dimensions

Side View



Bottom View



Weight: 27.3 Lbs
EPA: 0.92 sq. ft.

Field Adjustable Wattage (FAWS) Multiplier Chart

FAWS Position	Typical Delivered Lumens Multiplier	Typical System wattage
1	0.31	0.28
2	0.53	0.5
3	0.62	0.58
4	0.7	0.67
5	0.78	0.75
6	0.83	0.81
7	0.89	0.87
8	0.92	0.91
9	0.96	0.95
10	1.00	1.00

Note: Typical value accuracy +/- 5%

Specifications

Housing

Made of a low copper die cast Aluminum alloy (A360), 0.100" (2.5mm) minimum thickness. Fits on a 1.66" (42mm) O.D. (1.25" NPS), 1.9" (48mm) O.D. (1.5" NPS) or 2 3/8" (60mm) O.D. (2" NPS) by 5 1/2" (140mm) minimum long tenon. Comes with 2 zinc plated clamps fixed by 4 zinc plated hexagonal bolts 3/8 16 UNC for ease of installation. Provides an easy step adjustment of +/- 5° tilt in 2.5° increments. Includes integral bubble level standard (always included). A quick release, tool less entry, single latch, hinged, removable door opens downward to provide access to electronic components and to a terminal block. Door is secured to prevent accidental dropping or disengagement. A clearance of 13" (330mm) at the rear is required in order to remove the door. Complete with a bird guard protecting against birds and similar intruders and an ANSI label as per C136.15-2015 to identify wattage and source (both included in box). Housing (including electrical compartment) rated IP54 per ANSI C136.37.

Light Engine

Composed of 4 main components: LED Module / Optical System / Heat Sink / Driver.

Electrical components are RoHS compliant, IP66 sealed light engine LEDs tested by ISO 17025-2005 accredited lab in accordance with IESNA LM-80 guidelines in compliance with EPA ENERGY STAR, extrapolations in accordance with IESNA TM-21. Metal core board ensures greater heat transfer and longer lifespan.

LED Module: Composed of high-performance white LEDs. Color temperature as per ANSI/NEMA bin 2700 Kelvin nominal (2725 ±145K), 3000 Kelvin nominal (3045K +/- 175K) or 4000 Kelvin nominal (3985K +/- 275K), CRI 70 Min. 75 Typical. Other CCT/ CRI also available, consult factory.

Optical System: Composed of high performance UV stabilized optical grade polymer refractor lenses to achieve desired distribution optimized to get maximum spacing, target lumens and a superior lighting uniformity. System is rated IP66. Performance shall be tested per LM-63, LM-79 and TM-15 (IESNA) certifying its photometric performance. 0% uplight and U0 per IESNA TM-15.

Heat Sink: Built in the housing, designed to ensure high efficacy and superior cooling by natural vertical convection air flow pattern always close to LEDs and driver optimising their efficiency and life. Product does not use any cooling device with moving parts (only passive cooling). Wide openings enable natural cleaning and removal of dirt and debris. Entire luminaire is rated for operation in ambient temperature of -40°C / -40°F up to +50°C / +122°F unless otherwise specified, refer to LED Wattages Values Table.

Driver: High power factor of 90% min. Electronic driver, operating range 50/60 Hz. Auto adjusting universal voltage input from 120 to 277 or 347 to 480 VAC rated for both application line to line or line to neutral, Class I, THD of 20% max. 1 driver (64 LED); 2 drivers (all others).

DMG: Dimming compatible 0-10 volts. The current supplying the LEDs will be reduced by the driver if the driver experiences internal overheating as a protection to the LEDs and the electrical components. Output is protected from short circuits, voltage overload and current overload. Automatic recovery after correction. Standard built in driver surge protection of 2.5kV (min).

Integrated Features

RCD7*: Receptacle with 7 pins enabling dimming and additional functionality (to be determined), can be used with a twist lock Interact City node or photoelectric cell or a shorting cap.

SP1: Surge protection device tested in accordance with ANSI/IEEE C62.45 per ANSI/IEEE C62.41.2 Scenario I Category C High Exposure 10kV/10kA waveforms for Line-Ground, Line-Neutral and Neutral-Ground, and in accordance with DOE MSSLC Model Specification for LED Roadway Luminaires Appendix D Electrical Immunity High test level 10kV/10kA.

Please note that these integrated features always come with RoadFocus luminaire.

* Use of photoelectric cell or shorting cap is required to ensure proper illumination.

RFL RoadFocus

LED Cobra head (large)

Specifications (continued)

Driver and Luminaire Options

D4I: Zhaga-D4i certified fixture

DALI*: Pre-set driver compatible with the DALI control system.

SRD: Sensor Ready Driver including SR communication (used for dimming and other functionalities), 24V auxiliary supply and a logical signal input (LSI) connected to the top NEMA twist lock receptacle and bottom TLRSR receptacle, if this option included/ chosen. This configuration is compatible with Interact City controllers.

SRD1: Sensor Ready Driver including SR communication (used for dimming and other functionalities) but with 24V auxiliary supply and a logical signal input (LSI) not connected to the top NEMA twist lock. If TLRSR receptacle option included, standard SR communication, 24V auxiliary supply and LSI are connected to the TLRSR receptacle.

OMS: Outdoor Multisensor

FAWS: Field Adjustable Wattage Selector, pre-set to the highest position, can be easily switched in the field to the required position. This reduces total luminaire wattage consumption and reduces the light level – see the FAWS multiplier chart for more details.

Note: It is not recommended to use FAWS with other dimming or controls; if you do, set the switch to position 10 (maximum output) to enable the other dimming or controls. Switching FAWS to any position other than 10 will disable the other dimming or controls.

SP2: 20kV / 10kA surge protection device that provides extra protection beyond the SP1 10kV/10kA level.

NRC: No receptacle. Fixture is shipped with a cap instead of a receptacle.

NYBC: 4 - position terminal block.

RCD*: Receptacle with 5 pins enabling dimming, can be used with a twist lock Interact City or photoelectric cell or a shorting cap.

TLRSR: SR Sensor connector, installed in fixture door. Shipped with protective cover.

PH8: Twist-lock photoelectric cell, UNV (120-277VAC).

PH8/347: Twist-lock photoelectric cell, HVU (347VAC).

PH8/480: Twist-lock photoelectric cell, HVU (480VAC).

PHXL: Twist-lock photoelectric cell, extended life, UNV (120-277VAC).

PH9: Shorting cap.

API: Factory Installed NEMA label, ANSI C136.15-2015 compliant. Consult factory for other labeling needs.

* Use of photoelectric cell or shorting cap is required to ensure proper illumination.

Factory Installed Shield Options

(One per Light Engine)

CSS: Cul-de-Sac Shield. Shields light output on the left and right side of fixture.

FSS: Front Side Shield. Shields light output on the front side of fixture.

HS: House Side Shield. Shields light output to the back side of fixture.

LSS: Left Side Shield. Shields light output on the left side of fixture.

RSS: Right Side Shield. Shields light output on the right side of fixture.

Luminaire Useful Life

Refer to IES files for energy consumption and delivered lumens for each option. Based on ISTMT in situ thermal testing in accordance with UL1598 and UL8750, System Reliability Tool, Advance data and LED manufacturer LM-80/TM-21 data, expected to reach 100,000 + hours with >L70 lumen maintenance @ 25°C. Luminaire Useful Life accounts for LED lumen maintenance AND all of these additional factors including: LED life, driver life, PCB substrate, solder joints, on/off cycles, burning hours and corrosion.

Wiring

The connection of the luminaire is done using a terminal block connector 600V, 85A for use with #2 14 AWG. wires from the primary circuit, located inside the housing. Due to the inrush current that occurs with electronic drivers, recommend using a 10Amp time-delay fuse to avoid unwanted fuse blowing (false tripping) that can occur with normal or fast acting fuses.

Hardware

All exposed screws shall be complete with Ceramic primer seal to reduce seizing of the parts, also offers a high resistance to corrosion. All seals and sealing devices are made and/or lined with EPDM and/or silicone and/or rubber.

Finish

Color in accordance with the AAMA 2603 standard. Application of polyester powder coat paint (4 mils/100 microns) with ± 1 mils/24 microns of tolerance. The Thermosetting resins provides a discoloration resistant finish in accordance with the ASTM D2244 standard, as well as luster retention in keeping with the ASTM D523 standard and humidity proof in accordance with the ASTM D2247 standard.

The surface treatment achieves a minimum of 5000 hours for salt spray resistant finish in accordance with testing performed and per ASTM B117 standard.

LED products manufacturing standard

The electronic components sensitive to electrostatic discharge (ESD) such as light emitting diodes (LEDs) are assembled in compliance with IEC61340-5-1 and ANSI/ESD S20.20 standards so as to eliminate ESD events that could decrease the useful life of the product.

Vibration Resistance

The RFL meets the ANSI C136.31-2018, American National Standard for Roadway Luminaire Vibration specifications for Bridge/overpass applications. (Tested for 3G over 100,000 cycles by independent lab)

Certifications and Compliance

cULus Listed for Canada and USA. Luminaire meets DOE and MSSLC Model Specification for LED Roadway Luminaires. Most versions of RoadFocus LED Cobrahead luminaires are DesignLights Consortium qualified, consult DLC QPL to confirm your specific fixture selection is approved. CCTs 3000K and warmer are Dark Sky Approved. Luminaire complies with or exceeds the following ANSI C136 standards:
.2, .3, .10, .14, .15, .22, .25, .31, .37, .41.

Service Tag

Each individual luminaire is uniquely identifiable, thanks to the Service tag application. With a simple scan of a QR code, placed on the inside of the mast door, you gain instant access to the luminaire configuration, making installation and maintenance operations faster and easier, no matter what stage of the luminaire's lifetime. Just download the APP and register your product right away.

For more details visit: philips.com/servicetag

Limited Warranty

10-year limited warranty.
See signify.com/warranties for details and restrictions.

Brackets/Arms

For brackets / arms available with this luminaire, see Lumec 3D for details.

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