

## Roadway

## RoadFocus





RFS Cobra head (small)

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.

Project:	
Location:	
Cat.No:	
Туре:	
Lumens:	Qty:
Notes:	

## Ordering guide

example: RFS-35W16LED4K-G2-R2M-UNV-DMG-HS-PH8-RCD7-GY3

LED					Options		
Series module	сст	Generation G2	Distribution	Voltage	Controls <sup>4</sup>	Options	Finish
RFS RoadFocus Small  20W12LED 25W12LED 25W16LED 30W16LED 35W16LED 45W16LED 50W16LED 54W16LED 60W16LED 40W20LED 35W32LED 65W32LED 72W32LED 108W32LED 72W32LED 108W32LED 75W40LED 35W40LED 35W40LED 35W40LED 35W40LED 35W40LED 350W40LED 350W40LED 350W40LED 3100W40LED 3100W40LED	4K 4000K 3K 3000K 2.7K" 2700K	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 Type 4 Type IV (ASYM) Type 5 52 Type V (SYMM)	UNV 120-277V HVU 347-480V	DALI¹ Digitally addressable lighting interface DMG⁵ 0-10V SRD¹ Sensor ready driver, standard configuration SRD1¹ Sensor ready driver, alternate configuration	API Factory installed NEMA label, ANSI C136.15-2015 compliant  FAWS7 Field adjustable wattage selector  HS House Side Shield, 1 per 16 LED light engine  NRC8 No receptacle  NYBC 4-position terminal block PH81.10 Twist-lock photoelectric cell, UNV (120-277VAC)  PH8/347 10.12 Twist-lock photoelectric cell (480VAC)  PH8/480 10.12 Twist-lock photoelectric cell, extended life, UNV (120-277VAC)  PHXL1.10 Twist-lock photoelectric cell, extended life, UNV (120-277VAC)  PH9 10 Shorting cap  RCD 3.9 Tool less receptacle for twist-lock photoeell or shorting cap, 5-pin (optional)  RCD7 3.5 Tool less receptacle for twist-lock photoeell or shorting cap, 7-pin (standard)  SP2 20KV / 10KA Surge protector  TLRSR 6 SR receptacle	

- <sup>1</sup> Not available with **HVU**.
- <sup>2</sup> Not available with **HS** option.
- <sup>3</sup> Use of photoelectric cell or shorting cap is required to ensure proper illumination.
- <sup>4</sup> Select either **DALI** or **DMG** or **SRD** or **SRD1** mandatory option.
- <sup>5</sup> Please note this integrated feature come stand- <sup>9</sup> Not available with **SRD** Driver Options. ard with RoadFocus.
- 6 Only available with SRD or SRD1 Driver Options.
- Only available with **DMG** Driver Options.
- Not available with PH8, PH8/347, PH8/480, PHXL, PH9, DALI, SRD or SRD1 Driver Options.
- 10 Either RCD or RCD7 must be selected for this option.
- 11 Extended lead-time may apply. Consult factory.
- $^{\rm 12}$  Not available with UNV.
- $^{\rm 13}$  Only available with R2M or R3M distributions.

Accessories (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.



## LED Cobra head (small)

### **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.  $L_{70}$  is the predicted time when LED performance depreciates to 70% of initial lumen output. Calculated per IESNA TM21-11 Addendum B. Published  $L_{70}$  hours limited to 6 times actual LED test hours.

Ambient Temperature °C	L70 per TM-21	Lumen Maintenance % at 60,000 hrs
25°C	>60.000 hours	>97.6%

### **LED Wattage values**

Ordering Code	Total LEDs	Average System Watts 14	Wattage label 15
RFS-15W12LED	12	14	10
RFS-20W12LED	12	19	20
RFS-25W12LED	12	25	20
RFS-25W16LED	16	24	20
RFS-30W16LED	16	29	30
RFS-35W16LED	16	38	40
RFS-45W16LED	16	45	50
RFS-50W16LED	16	50	50
RFS-54W16LED	16	53	50
RFS-60W16LED	16	61	60
RFS-20W20LED	20	20	20
RFS-40W20LED	20	40	40
RFS-65W20LED	20	64	60

Ordering Code	Total LEDs	Average System Watts 14	Wattage label 15
Oracining couc	TOTAL ELDS	Average System Wates	Wattage tabet
RFS-35W32LED	32	37	40
RFS-55W32LED	32	53	50
RFS-60W32LED	32	59	60
RFS-72W32LED	32	73	70
RFS-108W32LED	32	108	110
RFS-35W40LED	40	35	40
RFS-50W40LED	40	49	50
RFS-55W40LED	40	54	50
RFS-65W40LED	40	66	70
RFS-80W40LED	40	79	80
RFS-100W40LED	40	101	100

<sup>14.</sup> Typical values, rounded.

### 4000K LED Lumen values

			Type R2	M		Type R2	S		Type R3I	И		Type R3	S		Type 4		Type 5		
	Color	Lumen	Efficacy	BUG															
Ordering Code	Temp.	Output	(LPW)	Rating															
RFS-15W12LED	4000	1,863	132	B1-U0-G1	1,940	138	B1-U0-G1	1,858	132	B1-U0-G1	1,882	134	B1-U0-G1	1,849	131	B1-U0-G1	1,924	137	B1-U0-G1
RFS-20W12LED	4000	2,525	130	B1-U0-G1	2,629	136	B1-U0-G1	2,518	130	B1-U0-G1	2,552	132	B1-U0-G1	2,506	129	B1-U0-G1	2,606	134	B1-U0-G1
RFS-25W12LED	4000	2,887	116	B1-U0-G1	3,005	121	B1-U0-G1	2,878	116	B1-U0-G1	2,916	117	B1-U0-G1	2,864	115	B1-U0-G1	2,979	120	B1-U0-G1
RFS-25W16LED	4000	3,323	137	B1-U0-G1	3,458	143	B1-U0-G1	3,312	137	B1-U0-G1	3,357	139	B1-U0-G1	3,296	136	B1-U0-G1	3,429	142	B1-U0-G1
RFS-30W16LED	4000	3,764	130	B1-U0-G1	3,918	136	B1-U0-G1	3,752	130	B1-U0-G1	3,802	132	B1-U0-G1	3,735	129	B1-U0-G1	3,884	135	B1-U0-G1
RFS-35W16LED	4000	4,810	127	B1-U0-G1	5,007	132	B1-U0-G1	4,795	126	B1-U0-G1	4,859	128	B1-U0-G1	4,772	126	B1-U0-G1	4,964	131	B1-U0-G1
RFS-45W16LED	4000	5,497	121	B1-U0-G1	5,722	126	B1-U0-G1	5,480	121	B1-U0-G1	5,554	123	B1-U0-G1	5,454	121	B1-U0-G1	5,673	125	B1-U0-G1
RFS-50W16LED	4000	5,825	116	B2-U0-G1	6,064	121	B2-U0-G1	5,807	116	B2-U0-G1	5,885	117	B2-U0-G1	5,780	115	B2-U0-G1	6,012	120	B2-U0-G1
RFS-54W16LED	4000	6,356	120	B2-U0-G1	6,616	125	B2-U0-G1	6,336	120	B2-U0-G1	6,421	121	B2-U0-G1	6,306	119	B2-U0-G1	6,560	124	B2-U0-G1
RFS-60W16LED	4000	6,929	113	B2-U0-G1	7,213	118	B2-U0-G1	6,907	113	B2-U0-G1	7,000	115	B2-U0-G1	6,875	113	B2-U0-G1	7,151	117	B2-U0-G1
RFS-20W20LED	4000	2,553	130	B1-U0-G1	N/A	N/A	N/A	2,567	131	B1-U0-G1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFS-40W20LED	4000	5,083	128	B1-U0-G1	N/A	N/A	N/A	5,110	129	B1-U0-G1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFS-65W20LED	4000	7,827	122	B2-U0-G2	N/A	N/A	N/A	7,869	123	B2-U0-G2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFS-35W32LED	4000	5,197	141	B1-U0-G1	5,410	146	B1-U0-G1	5,181	140	B1-U0-G1	5,250	142	B1-U0-G1	5,156	139	B1-U0-G1	5,364	145	B1-U0-G1
RFS-55W32LED	4000	7,528	141	B2-U0-G1	7,836	147	B2-U0-G1	7,504	140	B2-U0-G1	7,605	142	B2-U0-G1	7,469	140	B2-U0-G1	7,770	145	B2-U0-G1
RFS-60W32LED	4000	7,630	130	B2-U0-G1	7,943	136	B2-U0-G1	7,607	130	B2-U0-G1	7,709	132	B2-U0-G1	7,571	129	B2-U0-G1	7,875	134	B2-U0-G1
RFS-72W32LED	4000	9,408	129	B2-U0-G2	9,794	134	B2-U0-G2	9,379	128	B2-U0-G2	9,505	130	B2-U0-G2	9,336	128	B2-U0-G2	9,711	133	B2-U0-G2
RFS-108W32LED	4000	13,025	121	B3-U0-G2	13,559	126	B3-U0-G2	12,984	120	B3-U0-G2	13,158	122	B3-U0-G2	12,924	120	B3-U0-G2	13,443	124	B3-U0-G2
RFS-35W40LED	4000	5,472	155	B1-U0-G1	N/A	N/A	N/A	5,502	156	B1-U0-G1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFS-50W40LED	4000	7,319	150	B2-U0-G2	N/A	N/A	N/A	7,359	151	B2-U0-G2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFS-55W40LED	4000	7,675	141	B2-U0-G2	N/A	N/A	N/A	7,716	142	B2-U0-G2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFS-65W40LED	4000	9,024	137	B2-U0-G2	N/A	N/A	N/A	9,073	137	B2-U0-G2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFS-80W40LED	4000	10,546	133	B2-U0-G2	N/A	N/A	N/A	10,603	134	B2-U0-G2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFS-100W40LED	4000	12,861	127	B3-U0-G3	N/A	N/A	N/A	12,930	128	B3-U0-G2	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.

 $<sup>15. \ \ \</sup>text{As per ANSI C136.15-2015}. \ \ \text{Consult factory for other labeling needs}.$ 

## LED Cobra head (small)

### 3000K LED Lumen values

		Type R2M Type R2S		s		Type R3f	М		Type R3	s		Type 4		Type 5					
	Color	Lumen	Efficacy	BUG	Lumen	Efficacy	BUG	Lumen	Efficacy	BUG	Lumen	Efficacy	BUG	Lumen	Efficacy	BUG	Lumen	Efficacy	BUG
Ordering Code	Temp.	Output	(LPW)	Rating	Output	(LPW)	Rating	Output	(LPW)	Rating	Output	(LPW)	Rating	Output	(LPW)	Rating	Output	(LPW)	Rating
RFS-15W12LED	3000	1,748	124	B1-U0-G1	1,820	129	B1-U0-G0	1,743	124	B1-U0-G1	1,766	125	B0-U0-G0	1,735	123	B0-U0-G1	1,805	128	B1-U0-G0
RFS-20W12LED	3000	2,369	122	B1-U0-G1	2,466	127	B1-U0-G0	2,362	122	B1-U0-G1	2,394	123	B1-U0-G1	2,351	121	B1-U0-G1	2,445	126	B2-U0-G1
RFS-25W12LED	3000	2,708	109	B1-U0-G1	2,819	113	B1-U0-G0	2,700	108	B1-U0-G1	2,736	110	B1-U0-G1	2,687	108	B1-U0-G1	2,795	112	B2-U0-G1
RFS-25W16LED	3000	3,117	129	B1-U0-G1	3,244	134	B1-U0-G0	3,107	128	B1-U0-G1	3,149	130	B1-U0-G1	3,092	128	B1-U0-G1	3,217	133	B2-U0-G1
RFS-30W16LED	3000	3,531	122	B1-U0-G1	3,676	127	B1-U0-G0	3,520	122	B1-U0-G1	3,567	124	B1-U0-G1	3,504	121	B1-U0-G1	3,644	126	B2-U0-G1
RFS-35W16LED	3000	4,512	119	B1-U0-G1	4,697	124	B1-U0-G1	4,498	118	B1-U0-G1	4,558	120	B1-U0-G1	4,477	118	B1-U0-G1	4,657	123	B3-U0-G1
RFS-45W16LED	3000	5,157	114	B1-U0-G1	5,368	119	B1-U0-G1	5,141	114	B1-U0-G1	5,210	115	B1-U0-G1	5,117	113	B1-U0-G2	5,322	118	B3-U0-G1
RFS-50W16LED	3000	5,465	109	B1-U0-G1	5,689	113	B1-U0-G1	5,448	109	B1-U0-G1	5,521	110	B1-U0-G1	5,422	108	B1-U0-G2	5,640	112	B3-U0-G1
RFS-54W16LED	3000	5,963	113	B2-U0-G1	6,207	117	B2-U0-G1	5,944	112	B1-U0-G1	6,024	114	B1-U0-G1	5,916	112	B1-U0-G2	6,154	116	B3-U0-G1
RFS-60W16LED	3000	6,500	106	B2-U0-G1	6,767	111	B2-U0-G1	6,480	106	B2-U0-G1	6,567	107	B1-U0-G2	6,450	106	B1-U0-G2	6,709	110	B3-U0-G1
RFS-20W20LED	3000	2,427	124	B1-U0-G1	N/A	N/A	N/A	2,440	124	B1-U0-G1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFS-40W20LED	3000	4,833	122	B1-U0-G1	N/A	N/A	N/A	4,859	122	B1-U0-G1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFS-65W20LED	3000	7,442	116	B2-U0-G2	N/A	N/A	N/A	7,482	117	B2-U0-G2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFS-35W32LED	3000	4,875	132	B1-U0-G1	5,075	137	B1-U0-G1	4,860	131	B1-U0-G1	4,925	133	B1-U0-G1	4,837	131	B1-U0-G1	5,032	136	B3-U0-G1
RFS-55W32LED	3000	7,062	132	B2-U0-G1	7,351	137	B2-U0-G1	7,040	132	B2-U0-G1	7,134	133	B1-U0-G2	7,007	131	B1-U0-G2	7,289	136	B3-U0-G1
RFS-60W32LED	3000	7,158	122	B2-U0-G1	7,452	127	B2-U0-G1	7,136	122	B2-U0-G1	7,232	123	B1-U0-G2	7,103	121	B1-U0-G2	7,388	126	B3-U0-G1
RFS-72W32LED	3000	8,826	121	B2-U0-G2	9,188	126	B2-U0-G1	8,799	121	B2-U0-G2	8,917	122	B1-U0-G2	8,758	120	B2-U0-G2	9,110	125	B3-U0-G2
RFS-108W32LED	3000	12,219	113	B3-U0-G2	12,720	118	B3-U0-G2	12,181	113	B2-U0-G2	12,344	114	B2-U0-G2	12,124	112	B2-U0-G2	12,611	117	B4-U0-G2
RFS-35W40LED	3000	5,203	147	B1-U0-G1	N/A	N/A	N/A	5,231	148	B1-U0-G1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFS-50W40LED	3000	6,959	143	B2-U0-G2	N/A	N/A	N/A	6,996	144	B2-U0-G1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFS-55W40LED	3000	7,297	134	B2-U0-G2	N/A	N/A	N/A	7,336	135	B2-U0-G2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFS-65W40LED	3000	8,580	130	B2-U0-G2	N/A	N/A	N/A	8,626	131	B2-U0-G2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFS-80W40LED	3000	10,027	127	B2-U0-G2	N/A	N/A	N/A	10,081	128	B2-U0-G2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFS-100W40LED	3000	12,228	121	B3-U0-G3	N/A	N/A	N/A	12,294	122	B3-U0-G2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

## 2700K LED Lumen values

	Type R2M		Type R2S				Type R3I	М		Type R3	S		Type 4		Type 5				
Ordering Code	Color Temp.	Lumen Output	Efficacy (LPW)	BUG Rating															
RFS-15W12LED	2700	1,603	114	B1-U0-G1	1,669	119	B1-U0-G0	1,598	113	B1-U0-G1	1,619	115	B0-U0-G0	1,591	113	B0-U0-G1	1,655	118	B1-U0-G0
RFS-20W12LED	2700	2,172	112	B1-U0-G1	2,261	117	B1-U0-G0	2,166	112	B1-U0-G1	2,195	113	B1-U0-G1	2,156	111	B1-U0-G1	2,242	116	B2-U0-G1
RFS-25W12LED	2700	2,483	100	B1-U0-G1	2,585	104	B1-U0-G0	2,476	99	B1-U0-G1	2,509	101	B1-U0-G1	2,464	99	B1-U0-G1	2,563	103	B2-U0-G1
RFS-25W16LED	2700	2,858	118	B1-U0-G1	2,975	123	B1-U0-G0	2,849	118	B1-U0-G1	2,888	119	B1-U0-G1	2,835	117	B1-U0-G1	2,950	122	B2-U0-G1
RFS-30W16LED	2700	3,238	112	B1-U0-G1	3,371	117	B1-U0-G0	3,228	112	B1-U0-G1	3,271	113	B1-U0-G1	3,213	111	B1-U0-G1	3,342	116	B2-U0-G1
RFS-35W16LED	2700	4,138	109	B1-U0-G1	4,307	113	B1-U0-G1	4,125	109	B1-U0-G1	4,180	110	B1-U0-G1	4,105	108	B1-U0-G1	4,271	112	B3-U0-G1
RFS-45W16LED	2700	4,729	104	B1-U0-G1	4,923	109	B1-U0-G1	4,714	104	B1-U0-G1	4,778	106	B1-U0-G1	4,692	104	B1-U0-G2	4,880	108	B3-U0-G1
RFS-50W16LED	2700	5,012	100	B1-U0-G1	5,217	104	B1-U0-G1	4,996	100	B1-U0-G1	5,063	101	B1-U0-G1	4,972	99	B1-U0-G2	5,172	103	B3-U0-G1
RFS-54W16LED	2700	5,468	103	B2-U0-G1	5,692	107	B2-U0-G1	5,451	103	B1-U0-G1	5,524	104	B1-U0-G1	5,425	102	B1-U0-G2	5,643	106	B3-U0-G1
RFS-60W16LED	2700	5,961	98	B2-U0-G1	6,205	102	B2-U0-G1	5,942	97	B2-U0-G1	6,022	99	B1-U0-G2	5,915	97	B1-U0-G2	6,152	101	B3-U0-G1
RFS-20W20LED	2700	2,218	113	B1-U0-G1	N/A	N/A	N/A	2,230	114	B1-U0-G1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFS-40W20LED	2700	4,416	111	B1-U0-G1	N/A	N/A	N/A	4,440	112	B1-U0-G1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFS-65W20LED	2700	6,800	106	B2-U0-G2	N/A	N/A	N/A	6,837	107	B2-U0-G1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFS-35W32LED	2700	4,470	121	B1-U0-G1	4,654	126	B1-U0-G1	4,457	121	B1-U0-G1	4,516	122	B1-U0-G1	4,436	120	B1-U0-G1	4,614	125	B3-U0-G1
RFS-55W32LED	2700	6,476	121	B2-U0-G1	6,741	126	B2-U0-G1	6,456	121	B2-U0-G1	6,542	122	B1-U0-G2	6,426	120	B1-U0-G2	6,684	125	B3-U0-G1
RFS-60W32LED	2700	6,564	112	B2-U0-G1	6,834	117	B2-U0-G1	6,544	112	B2-U0-G1	6,632	113	B1-U0-G2	6,514	111	B1-U0-G2	6,775	116	B3-U0-G1
RFS-72W32LED	2700	8,094	111	B2-U0-G2	8,426	115	B2-U0-G1	8,069	111	B2-U0-G2	8,177	112	B1-U0-G2	8,031	110	B2-U0-G2	8,354	114	B3-U0-G2
RFS-108W32LED	2700	11,205	104	B3-U0-G2	11,664	108	B3-U0-G2	11,170	103	B2-U0-G2	11,320	105	B2-U0-G2	11,118	103	B2-U0-G2	11,565	107	B4-U0-G2
RFS-35W40LED	2700	4,754	135	B1-U0-G1	N/A	N/A	N/A	4,780	135	B1-U0-G1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFS-50W40LED	2700	6,359	131	B2-U0-G2	N/A	N/A	N/A	6,393	131	B2-U0-G1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFS-55W40LED	2700	6,667	123	B2-U0-G2	N/A	N/A	N/A	6,703	123	B2-U0-G1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFS-65W40LED	2700	7,840	119	B2-U0-G2	N/A	N/A	N/A	7,882	119	B2-U0-G2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFS-80W40LED	2700	9,162	116	B2-U0-G2	N/A	N/A	N/A	9,211	117	B2-U0-G2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RFS-100W40LED	2700	11,173	111	B2-U0-G2	N/A	N/A	N/A	11,233	111	B2-U0-G2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

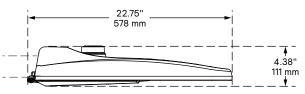
Actual performance may vary due to installation variables including optics, mounting/ceiling height, dirt depreciation, light loss factor, etc.; highly recommended to confirm performance with a layout - contact Applications at signify.com/outdoorluminaires. Consult DLC QPL to confirm your specific fixture selection is DLC approved.

**Note:** Some data may be scaled based on tests of similar but not identical luminaries.

## LED Cobra head (small)

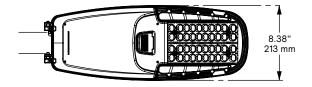
#### **Dimensions**

## Side View



Weight: 9.4 lbs EPA: 0.52 sq. feet

#### **Bottom View**



### Field Adjustable Wattage (FAWS) Multiplier Chart

FAWS Position	Typical Delivered Lumens Multiplier	Typical System wattage					
1	0.31	0.28					
2	0.53	0.50					
3	0.62	0.58					
4	0.70	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 a zinc plated clamp fixed by 2 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 equipped 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 UO 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.

**Driver:** High power factor of 90% min. Electronic driver, operating range 50/60 Hz. Auto adjusting universal voltage input from 120 to 277 VAC rated for both application line to line or line to neutral, Class I or 2, THD of 20% max.

**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).

DMG: Dimmable driver 0-10V.

RCD7\*: Tool less orientable 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.

**Please note:** Additional hardware will be required to utilize the additional 2 pins on this receptacle.

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.

## LED Cobra head (small)

### Specifications (continued)

#### **Driver and Luminaire Options**

with Interact City controllers.

**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

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.

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.

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

NYBC: 4-position terminal block

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

RCD\*: Tool Less orientable 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.

**HS:** House side shield, 1 per 16 LED light engine.

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

PH8/347: Twist-lock photoelectric cell, UNV (120-277VAC).

**PH8/480:** Twist-lock photoelectric cell, UNV (120-277VAC).

**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.

#### 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 RFS 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:

#### 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: signify.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.

