



Not all roadway applications are created equal. Lumece **RoadFocus LED off road** cobra head luminaires offer a versatile solution for applications that are outside the range of traditional roadway lighting. Combined with specialized optics to be used in a tilt application, the knuckle adapter can tackle even the most difficult installation. From traditional streets to off road applications, **The RoadFocus** product family will help you simplify your luminaire selection.

Project: _____
 Location: _____
 Cat.No: _____
 Type: _____
 Lamps: _____ Qty: _____
 Notes: _____

Ordering guide

example: RFM-ORH-160W48LED4K-G2-R3TM-UNV-DMG-KAV3-RC-DY3

Series	Application	LED module	CCT	Generation	Distribution	Voltage	Controls ⁴	Adaptor	Options	Finish
RFM				G2						
RFM RoadFocus Roadway, medium	ORH ¹⁴ Off road Application High Tilt 20°-45° ORL ¹⁵ Off road Application Low Tilt 0°-20°	30W24LED	4K 4000k	G2 Generation 2	Type 2	UNV 120-277V	DALI ¹ Digitally addressable lighting interface DMG ⁵ 0-10V SRD ¹ Sensor ready driver, standard configuration SRD1 ¹ Sensor ready driver, alternate configuration	KAV3 Vertical post top application KAH3 Horizontal arm application	2C Two clamp with 4 bolts	BK Black BR Bronze GY3 Gray WH White
		35W32LED ¹²	3K 3000k		R2S Type II short (ASYM)	API Factory installed NEMA label, ANSI C136.15-2015 compliant				
		45W24LED	2.7K ¹¹ 2700k		R2M Type II medium (ASYM)				FAWS ⁷ Field adjustable wattage selector	
		50W40LED			Type 3				HS House Side Shield, shield, 1 per 16 LED light engine	
		55W24LED			R3S Type III short (ASYM)				NRC ⁸ No receptacle	
		55W32LED ¹²			R3M Type III medium (ASYM)				NYBC 4-position terminal block	
		55W48LED ¹²			Type 3 High Tilt				PH8 ¹⁰ Twist-lock photoelectric cell, UNV (120-277VAC)	
		72W32LED			R3TM Type III medium (ASYM)				PH8/347 ^{10,13} Twist-lock photoelectric cell (347VAC)	
		80W48LED			Type 4				PH8/480 ^{10,13} Twist-lock photoelectric cell (480VAC)	
		85W24LED			4 Type IV (ASYM)				PHXL ¹⁰ Twist-lock photoelectric Cell, extended life, UNV (120-277VAC)	
		85W36LED			Type 5				PH9 ¹⁰ Shorting cap	
		90W40LED			5 ² Type V (SYMM)				RC ^{3,9} Tool less receptacle for twist-lock photocell or shorting cap, 5-pin (optional)	
		108W32LED							RC ^{3,5} Tool less receptacle for twist-lock photocell or shorting cap, 7-pin (standard)	
		108W48LED							SP2 20kV / 10kA Surge protector	
		130W32LED ⁷							TLRSR ⁵ SR receptacle	
		135W40LED								
		160W48LED								

- Not available with HVU.
- Not available with HS option.
- Use of photoelectric cell or shorting cap is required to ensure proper illumination.
- Select either DALI or DMG or SRD or SRD1 mandatory option.
- Please note this integrated feature come standard with RoadFocus.
- 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.

- Not available with SRD Driver Options.
- Either RCD or RCD7 must be selected for this option.
- Extended lead-time may apply. Consult factory.
- FAWS table accuracy +/- 15% on these models.
- Not available with UNV.
- ORH only available with R3TM
- ORL available with all optics but R3TM



RFM RoadFocus LED Off Road (medium)

Roadway

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. Published L₇₀ hours limited to 6 times actual LED test hours

Ambient Temperature °C	Driver mA	Calculated L ₇₀ Hours	L ₇₀ per TM-21	Lumen Maintenance % at 60,000 hrs
25°C	up to 1050 mA	>100,000 hours	>60,000 hours	>88%
25°C	above 1050 mA	74,000 hours	>36,000 hours	75%

LED Wattage values

Ordering Code	Total LEDs	LED Current (mA)	Average System Watts ¹⁶	Wattage label ¹⁷
RFM-30W24LED	24	350	28	30
RFM-45W24LED	24	530	41	40
RFM-55W24LED	24	700	55	50
RFM-85W24LED	24	1050	82	80
RFM-35W32LED	32	350	37	40
RFM-55W32LED	32	530	53	50
RFM-72W32LED	32	700	73	70
RFM-108W32LED	32	1050	108	110
RFM-130W32LED	32	1250	129	130

Ordering Code	Total LEDs	LED Current (mA)	Average System Watts ¹⁶	Wattage label ¹⁷
RFM-85W36LED	36	700	80	80
RFM-50W40LED	40	350	44	40
RFM-90W40LED	40	700	88	90
RFM-135W40LED	40	1050	135	140
RFM-55W48LED	48	350	55	60
RFM-80W48LED	48	530	81	80
RFM-108W48LED	48	700	106	110
RFM-160W48LED	48	1050	161	160

16. Typical values, rounded.

17. As per ANSI C136.15-2015. Consult factory for other labeling needs.

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%

RFM RoadFocus LED Off Road (medium)

Roadway

LED Wattage and Lumen Values: 4000K

Ordering Code	Color Temp.	Type R2S			Type R2M			Type R3S			Type R3M			Type R3TM		
		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
RFM-30W24LED	4000	3,720	133	B1-U0-G1	3,568	128	B1-U0-G1	3,707	133	B1-U0-G1	3,577	128	B1-U0-G1	3,694	132	B1-U0-G1
RFM-45W24LED	4000	5,355	129	B1-U0-G1	5,135	124	B1-U0-G1	5,335	129	B1-U0-G1	5,147	124	B1-U0-G1	5,316	128	B1-U0-G1
RFM-55W24LED	4000	6,791	124	B2-U0-G1	6,512	119	B2-U0-G1	6,766	124	B1-U0-G2	6,528	119	B2-U0-G1	6,742	123	B1-U0-G1
RFM-85W24LED	4000	9,276	113	B2-U0-G1	8,896	108	B2-U0-G2	9,242	112	B2-U0-G2	8,917	108	B2-U0-G2	9,208	112	B2-U0-G2
RFM-35W32LED	4000	5,013	136	B1-U0-G1	4,802	130	B1-U0-G1	4,876	132	B1-U0-G1	4,821	130	B1-U0-G1	4,979	135	B1-U0-G1
RFM-55W32LED	4000	7,212	135	B2-U0-G1	6,908	129	B2-U0-G1	7,015	131	B1-U0-G2	6,936	130	B2-U0-G1	7,162	134	B1-U0-G1
RFM-72W32LED	4000	9,129	125	B2-U0-G1	8,745	120	B2-U0-G2	8,881	122	B1-U0-G2	8,780	120	B2-U0-G2	9,067	124	B2-U0-G2
RFM-108W32LED	4000	12,704	118	B3-U0-G2	12,170	113	B3-U0-G2	12,358	114	B2-U0-G2	12,218	113	B3-U0-G2	12,616	117	B2-U0-G2
RFM-130W32LED	4000	14,676	114	B3-U0-G2	14,059	109	B3-U0-G3	14,277	111	B2-U0-G2	14,115	110	B3-U0-G2	14,575	113	B3-U0-G2
RFM-85W36LED	4000	10,433	130	B2-U0-G2	9,994	125	B2-U0-G2	10,149	127	B2-U0-G2	10,034	125	B2-U0-G2	10,361	129	B2-U0-G2
RFM-50W40LED	4000	6,351	143	B2-U0-G1	6,084	137	B2-U0-G1	6,178	139	B1-U0-G2	6,108	138	B2-U0-G1	6,308	142	B1-U0-G1
RFM-90W40LED	4000	11,592	131	B3-U0-G2	11,105	126	B3-U0-G2	11,276	128	B2-U0-G2	11,148	126	B3-U0-G2	11,512	130	B2-U0-G2
RFM-135W40LED	4000	15,835	117	B3-U0-G2	15,169	112	B3-U0-G3	15,404	114	B2-U0-G3	15,229	113	B3-U0-G2	15,727	116	B3-U0-G2
RFM-55W48LED	4000	7,520	137	B2-U0-G1	7,204	131	B2-U0-G2	7,315	133	B1-U0-G2	7,232	131	B2-U0-G1	7,468	136	B2-U0-G1
RFM-80W48LED	4000	10,817	134	B3-U0-G2	10,362	129	B2-U0-G2	10,522	131	B2-U0-G2	10,403	129	B2-U0-G2	10,743	133	B2-U0-G2
RFM-108W48LED	4000	13,694	129	B3-U0-G2	13,118	124	B3-U0-G2	13,321	126	B2-U0-G2	13,170	124	B3-U0-G2	13,600	128	B2-U0-G2
RFM-160W48LED	4000	19,056	119	B3-U0-G2	18,255	114	B3-U0-G3	18,537	115	B3-U0-G3	18,327	114	B3-U0-G3	18,926	118	B3-U0-G3

Ordering Code	Color Temp.	Type 4			Type 5		
		Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating
RFM-30W24LED	4000	3,631	130	B1-U0-G1	3,679	132	B2-U0-G1
RFM-45W24LED	4000	5,226	126	B1-U0-G2	5,295	128	B3-U0-G1
RFM-55W24LED	4000	6,628	121	B1-U0-G2	6,715	123	B3-U0-G1
RFM-85W24LED	4000	9,054	110	B2-U0-G2	9,173	112	B3-U0-G2
RFM-35W32LED	4000	4,777	129	B1-U0-G2	4,926	133	B3-U0-G1
RFM-55W32LED	4000	6,872	129	B1-U0-G2	7,087	133	B3-U0-G2
RFM-72W32LED	4000	8,700	119	B2-U0-G2	8,972	123	B3-U0-G2
RFM-108W32LED	4000	12,106	112	B2-U0-G2	12,485	116	B4-U0-G2
RFM-130W32LED	4000	13,986	109	B2-U0-G3	14,423	112	B4-U0-G2
RFM-85W36LED	4000	9,942	124	B2-U0-G2	10,253	128	B4-U0-G2
RFM-50W40LED	4000	6,052	136	B1-U0-G2	6,242	141	B3-U0-G1
RFM-90W40LED	4000	11,047	125	B2-U0-G2	11,392	129	B4-U0-G2
RFM-135W40LED	4000	15,090	112	B2-U0-G3	15,562	115	B4-U0-G2
RFM-55W48LED	4000	7,166	130	B1-U0-G2	7,390	134	B3-U0-G2
RFM-80W48LED	4000	10,308	128	B2-U0-G2	10,630	132	B4-U0-G2
RFM-108W48LED	4000	13,049	123	B2-U0-G3	13,457	127	B4-U0-G2
RFM-160W48LED	4000	18,160	113	B3-U0-G3	18,727	117	B4-U0-G2

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/outdoorluminaire. 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 luminaires.

RFM RoadFocus LED Off Road (medium)

Roadway

LED Wattage and Lumen Values: 3000K

Ordering Code	Color Temp.	Type R2S			Type R2M			Type R3S			Type R3M			Type R3TM		
		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
RFM-30W24LED	3000	3,511	126	B1-U0-G1	3,367	121	B1-U0-G1	3,498	125	B1-U0-G1	3,375	121	B1-U0-G1	3,485	125	B1-U0-G1
RFM-45W24LED	3000	5,052	122	B1-U0-G1	4,845	117	B1-U0-G1	5,034	122	B1-U0-G1	4,857	117	B1-U0-G1	5,015	121	B1-U0-G1
RFM-55W24LED	3000	6,407	117	B2-U0-G1	6,145	112	B2-U0-G1	6,384	117	B1-U0-G2	6,160	113	B2-U0-G1	6,361	116	B1-U0-G1
RFM-85W24LED	3000	8,753	106	B2-U0-G1	8,394	102	B2-U0-G2	8,721	106	B1-U0-G2	8,414	102	B2-U0-G2	8,688	106	B2-U0-G1
RFM-35W32LED	3000	4,730	128	B1-U0-G1	4,531	123	B1-U0-G1	4,601	124	B1-U0-G1	4,549	123	B1-U0-G1	4,697	127	B1-U0-G1
RFM-55W32LED	3000	6,805	127	B2-U0-G1	6,519	122	B2-U0-G1	6,619	124	B1-U0-G2	6,544	122	B2-U0-G1	6,757	126	B1-U0-G1
RFM-72W32LED	3000	8,614	118	B2-U0-G1	8,252	113	B2-U0-G2	8,380	115	B1-U0-G2	8,285	113	B2-U0-G2	8,555	117	B2-U0-G1
RFM-108W32LED	3000	11,987	111	B3-U0-G2	11,483	106	B3-U0-G2	11,661	108	B2-U0-G2	11,528	107	B3-U0-G2	11,903	110	B2-U0-G2
RFM-130W32LED	3000	13,848	108	B3-U0-G2	13,266	103	B3-U0-G2	13,471	105	B2-U0-G2	13,318	103	B3-U0-G2	13,751	107	B2-U0-G2
RFM-85W36LED	3000	9,844	123	B2-U0-G2	9,430	118	B2-U0-G2	9,576	120	B2-U0-G2	9,467	118	B2-U0-G2	9,775	122	B2-U0-G2
RFM-50W40LED	3000	5,993	135	B2-U0-G1	5,741	129	B2-U0-G1	5,830	131	B1-U0-G2	5,764	130	B2-U0-G1	5,952	134	B1-U0-G1
RFM-90W40LED	3000	10,938	124	B3-U0-G2	10,478	119	B2-U0-G2	10,640	120	B2-U0-G2	10,519	119	B2-U0-G2	10,861	123	B2-U0-G2
RFM-135W40LED	3000	14,941	111	B3-U0-G2	14,313	106	B3-U0-G3	14,535	108	B2-U0-G2	14,370	106	B3-U0-G2	14,838	110	B3-U0-G2
RFM-55W48LED	3000	7,096	129	B2-U0-G1	6,797	123	B2-U0-G1	6,903	125	B1-U0-G2	6,824	124	B2-U0-G1	7,046	128	B1-U0-G1
RFM-80W48LED	3000	10,206	127	B2-U0-G2	9,777	121	B2-U0-G2	9,929	123	B2-U0-G2	9,816	122	B2-U0-G2	10,136	126	B2-U0-G2
RFM-108W48LED	3000	12,921	122	B3-U0-G2	12,378	117	B3-U0-G2	12,569	119	B2-U0-G2	12,427	117	B3-U0-G2	12,831	121	B2-U0-G2
RFM-160W48LED	3000	17,981	112	B3-U0-G2	17,225	107	B3-U0-G3	17,491	109	B2-U0-G3	17,293	108	B3-U0-G3	17,856	111	B3-U0-G3

Ordering Code	Color Temp.	Type 4			Type 5		
		Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating
RFM-30W24LED	3000	3,427	123	B1-U0-G1	3,472	124	B2-U0-G1
RFM-45W24LED	3000	4,931	119	B1-U0-G2	4,996	121	B3-U0-G1
RFM-55W24LED	3000	6,254	114	B1-U0-G2	6,336	116	B3-U0-G1
RFM-85W24LED	3000	8,543	104	B2-U0-G2	8,655	105	B3-U0-G2
RFM-35W32LED	3000	4,507	122	B1-U0-G1	4,648	126	B3-U0-G1
RFM-55W32LED	3000	6,485	121	B1-U0-G2	6,687	125	B3-U0-G1
RFM-72W32LED	3000	8,209	112	B2-U0-G2	8,465	116	B3-U0-G2
RFM-108W32LED	3000	11,423	106	B2-U0-G2	11,780	109	B4-U0-G2
RFM-130W32LED	3000	13,196	102	B2-U0-G3	13,609	106	B4-U0-G2
RFM-85W36LED	3000	9,381	117	B2-U0-G2	9,674	121	B3-U0-G2
RFM-50W40LED	3000	5,711	129	B1-U0-G2	5,889	133	B3-U0-G1
RFM-90W40LED	3000	10,423	118	B2-U0-G2	10,749	122	B4-U0-G2
RFM-135W40LED	3000	14,239	105	B2-U0-G3	14,684	109	B4-U0-G2
RFM-55W48LED	3000	6,762	123	B1-U0-G2	6,973	127	B3-U0-G1
RFM-80W48LED	3000	9,726	121	B2-U0-G2	10,030	124	B4-U0-G2
RFM-108W48LED	3000	12,313	116	B2-U0-G2	12,698	120	B4-U0-G2
RFM-160W48LED	3000	17,135	107	B3-U0-G3	17,671	110	B4-U0-G2

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/outdoorluminaire. 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 luminaires.

RFM RoadFocus LED Off Road (medium)

Roadway

LED Wattage and Lumen Values: 2700K

Ordering Code	Color Temp.	Type R2S			Type R2M			Type R3S			Type R3M			Type R3TM		
		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
RFM-30W24LED	2700	2,812	101	B1-U0-G0	2,697	97	B1-U0-G1	2,802	100	B1-U0-G1	2,703	97	B1-U0-G1	2,791	100	B1-U0-G1
RFM-45W24LED	2700	4,034	97	B1-U0-G1	3,869	93	B1-U0-G1	4,020	97	B1-U0-G1	3,878	94	B1-U0-G1	4,004	97	B1-U0-G1
RFM-55W24LED	2700	5,102	93	B1-U0-G1	4,892	89	B1-U0-G1	5,083	93	B1-U0-G1	4,904	90	B1-U0-G1	5,064	93	B1-U0-G1
RFM-85W24LED	2700	6,932	84	B2-U0-G1	6,648	81	B2-U0-G1	6,907	84	B1-U0-G2	6,664	81	B2-U0-G1	6,881	84	B1-U0-G1
RFM-35W32LED	2700	3,789	102	B1-U0-G1	3,629	98	B1-U0-G1	3,686	100	B1-U0-G1	3,644	99	B1-U0-G1	3,762	102	B1-U0-G1
RFM-55W32LED	2700	5,433	102	B2-U0-G1	5,205	97	B1-U0-G1	5,286	99	B1-U0-G1	5,226	98	B1-U0-G1	5,396	101	B1-U0-G1
RFM-72W32LED	2700	6,859	94	B2-U0-G1	6,570	90	B2-U0-G1	6,672	91	B1-U0-G2	6,596	90	B2-U0-G1	6,811	93	B1-U0-G1
RFM-108W32LED	2700	9,494	88	B2-U0-G2	9,095	84	B2-U0-G2	9,235	86	B2-U0-G2	9,131	85	B2-U0-G2	9,428	87	B2-U0-G2
RFM-130W32LED	2700	10,940	85	B3-U0-G2	10,480	81	B2-U0-G2	10,642	83	B2-U0-G2	10,521	82	B2-U0-G2	10,864	84	B2-U0-G2
RFM-85W36LED	2700	7,838	98	B2-U0-G1	7,508	94	B2-U0-G2	7,624	95	B1-U0-G2	7,538	94	B2-U0-G2	7,783	97	B2-U0-G1
RFM-50W40LED	2700	4,800	108	B1-U0-G1	4,598	104	B1-U0-G1	4,670	105	B1-U0-G1	4,617	104	B1-U0-G1	4,767	107	B1-U0-G1
RFM-90W40LED	2700	8,709	99	B2-U0-G1	8,343	94	B2-U0-G2	8,472	96	B1-U0-G2	8,376	95	B2-U0-G2	8,648	98	B2-U0-G1
RFM-135W40LED	2700	11,834	88	B3-U0-G2	11,336	84	B3-U0-G2	11,511	85	B2-U0-G2	11,381	84	B3-U0-G2	11,751	87	B2-U0-G2
RFM-55W48LED	2700	5,684	103	B2-U0-G1	5,445	99	B1-U0-G1	5,529	100	B1-U0-G2	5,466	99	B1-U0-G1	5,644	102	B1-U0-G1
RFM-80W48LED	2700	8,150	101	B2-U0-G1	7,807	97	B2-U0-G2	7,928	98	B1-U0-G2	7,838	97	B2-U0-G2	8,093	100	B2-U0-G1
RFM-108W48LED	2700	10,288	97	B2-U0-G2	9,855	93	B2-U0-G2	10,008	94	B2-U0-G2	9,894	93	B2-U0-G2	10,216	96	B2-U0-G2
RFM-160W48LED	2700	14,241	89	B3-U0-G2	13,642	85	B3-U0-G2	13,853	86	B2-U0-G2	13,696	85	B3-U0-G2	14,142	88	B2-U0-G2

Ordering Code	Color Temp.	Type 4			Type 5		
		Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating
RFM-30W24LED	2700	2,745	98	B1-U0-G1	2,781	100	B2-U0-G1
RFM-45W24LED	2700	3,938	95	B1-U0-G1	3,989	96	B3-U0-G1
RFM-55W24LED	2700	4,979	91	B1-U0-G2	5,045	92	B3-U0-G1
RFM-85W24LED	2700	6,766	82	B1-U0-G2	6,855	83	B3-U0-G1
RFM-35W32LED	2700	3,610	98	B1-U0-G1	3,723	101	B2-U0-G1
RFM-55W32LED	2700	5,178	97	B1-U0-G2	5,340	100	B3-U0-G1
RFM-72W32LED	2700	6,536	90	B1-U0-G2	6,740	92	B3-U0-G1
RFM-108W32LED	2700	9,047	84	B2-U0-G2	9,330	86	B3-U0-G2
RFM-130W32LED	2700	10,425	81	B2-U0-G2	10,751	83	B4-U0-G2
RFM-85W36LED	2700	7,469	93	B1-U0-G2	7,703	96	B3-U0-G2
RFM-50W40LED	2700	4,574	103	B1-U0-G2	4,717	106	B3-U0-G1
RFM-90W40LED	2700	8,299	94	B2-U0-G2	8,558	97	B3-U0-G2
RFM-135W40LED	2700	11,277	83	B2-U0-G2	11,629	86	B4-U0-G2
RFM-55W48LED	2700	5,416	98	B1-U0-G2	5,586	101	B3-U0-G1
RFM-80W48LED	2700	7,766	96	B1-U0-G2	8,009	99	B3-U0-G2
RFM-108W48LED	2700	9,804	92	B2-U0-G2	10,110	95	B4-U0-G2
RFM-160W48LED	2700	13,571	84	B2-U0-G3	13,995	87	B4-U0-G2

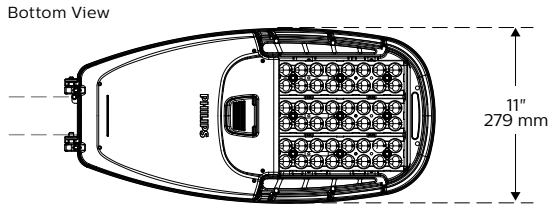
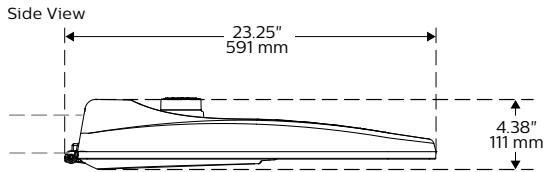
Actual performance may vary due to installation variables including optics, mounting/ceiling height, dirt depreciation, light loss factor, etc.; highly recommended to confirm performance with a layout - contact signify.com/outdoorluminaire. Consult DLC QPL to confirm your specific fixture selection is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

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

RFM RoadFocus LED Off Road (medium)

Roadway

Dimensions

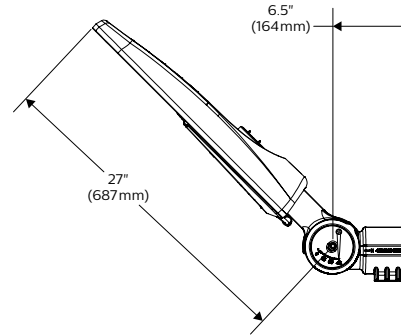


LED Cobra head (fixture only)

Weight: 12.2 Lbs
EPA: 0.54 sq. ft.

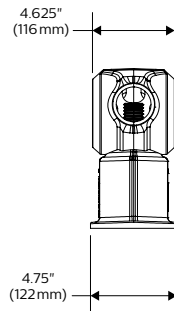
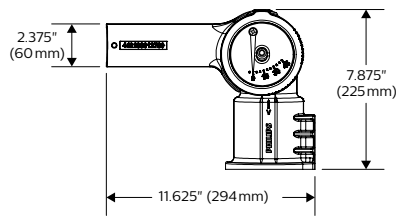
	Effective Projected Area (EPA-ft ²)		Weight
	0° Aim	45° Aim	
RFM + Adaptor	0.85	1.81	18.5 lb

Side View: Off road configuration (shown on KAH3)

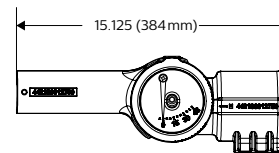


Adaptors

KAV3



KAH3



Adaptors
Weight: 6.3 lb

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 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) CRI 80 min, 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 optimizing 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 +40°C / +104°F. +50°C / +122°F also available, consult factory.

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.

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).

RFM RoadFocus LED Off Road (medium)

Roadway

Specifications (continued)

Integrated Features

DMG: Dimmable driver 0-10V.

RC07*: 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.

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*

Driver and Luminaire Options

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.

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

RC07*: 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, 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.*

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 (72W32LED and 108W48LED at 700mA) or 94,500 hours (108W32LED and 160W48LED at 1050mA) 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.

Adaptor

KAV3: Knuckle adaptor for vertical post. Design to fit on a 2-3/8" (60mm) to 3" (76mm) outside diameter by 4" (102mm) long tenon. Field adjustable for a 0° to 45° angle. (See detail drawing).

KAH3: Knuckle adaptor for horizontal tenon. Design to fit on a 2-3/8" (60mm) to 3" (76mm) outside diameter by 4" (102mm) long tenon. Field adjustable for a 0° to 45° angle. (See detail drawing).

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 3000 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 RFM Off-road and adaptor assembly meets the ANSI C136.31, American National Standard for Roadway Luminaire Vibration specifications for Bridge/overpass applications. (Tested for 3G over 100,000 cycles)

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: 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.

