



Lumec HighFocus Plus LED Highmast luminaires utilizes the latest in LED technology to deliver over 139,000 lumens with efficacies reaching 191 lumens per watt. Connectable ready, and available in multiple lumen packages, color temperatures, and a complete array of optical distributions. HighFocus Plus is designed with 41% lower weight than previous generations, allowing for easier installations for the contractor. This family also includes Service Tag, which enables data delivery and information sharing, and provides assistance throughout the life of the product.

Project: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Cat.No: \_\_\_\_\_  
 Type: \_\_\_\_\_  
 Lumens: \_\_\_\_\_ Qty: \_\_\_\_\_  
 Notes: \_\_\_\_\_

### Ordering guide

example: HFP-195W160LED-740-G1-R2M-UNV-DMG-HSS-PH8-TLRD7-GY3

Series	LED module	CRI/CCT	Gen.	Optics	Voltage	Driver / Dimming <sup>7</sup>	Luminaire Options (multiple allowed)	Finish
<b>HFP</b>			<b>G1</b>					
HFP HighFocus Plus	200W80LED	730 70CRI/3000K	G1 Gen 1	1 <sup>3</sup> Type I	UNV 120-277V	D4I <sup>8</sup> Zhaga-D4i certified DALI Digitally addressable lighting interface DMG 0-10V SRD Sensor readydriver	API Factory installed NEMA label, ANSI C136.15-2020 compliant BAC* Meets the requirements of the Buy American Act of 1933 (BAA) life, UNIV (120-277VAC) F1 <sup>9</sup> Fusing, single (120, 240, 277 or 347VAC) F2 <sup>10</sup> Fusing, double (208, 240 or 480VAC) F3 <sup>10</sup> Fusing, Canadian double pull (208, 240 or 480VAC) FAWS <sup>2</sup> Field adjustable wattage sensor CSS <sup>11</sup> Cul-de-Sac Shield FSS <sup>11</sup> Front Side Shield HSS <sup>11</sup> House Side Shield LSS <sup>11</sup> Left Side Shield RSS <sup>11</sup> Right Side Shield OMS <sup>4,16</sup> Outdoor Multi-Sensor PH8 <sup>12,13</sup> Twist-lock photoelectric cell, UNV (120-277VAC) PH8/347 <sup>13</sup> Twist-lock photoelectric cell (347VAC) PH8/480 <sup>13</sup> Twist-lock photoelectric cell (480VAC) PH9 <sup>13</sup> Shorting cap PHXL <sup>12,13</sup> Twist-lock photoelectric cell, extended life, UNV (120-277VAC) NERT <sup>13,15</sup> Nyx Hemera Twist Lock Controller SP1X Fail-Off 10kV/5kA, Surge Protector SP2 20kV/20kA, Surge Protector (optional) SP2X Fail-Off 20kV/10kA, Surge Protector TLRD7 <sup>14</sup> Receptacle for twist-lock photocell or shorting cap, 7-pin (optional) TLRSR <sup>4</sup> SR receptacle BX Bird repellent	BK Black BR Bronze GY3 Gray WH White
	270W120LED	740 70CRI/4000K		4 Type IV	HVU 347-480V			
	300W120LED	750 70CRI/5000K		5N Type V Narrow	HVX <sup>4</sup> 277-480V			
	195W160LED			5M Type V Medium	120 <sup>5</sup> 120V			
	350W160LED			5W Type V Wide	208 <sup>5</sup> 208V			
	400W160LED			R2M Type II	240 <sup>5,8</sup> 240V			
	255W200LED			R3M Type III	277 <sup>5</sup> 277V			
	405W200LED				347 <sup>5</sup> 347V			
	450W200LED				480 <sup>5</sup> 480V			
	485W200LED							
	330W240LED							
	515W240LED							
	545W240LED							
	460W280LED							
	610W280LED							
	385W320LED							
	425W320LED							
	650W320LED <sup>1,2</sup>							
	485W360LED <sup>1</sup>							
	595W360LED <sup>1</sup>							
630W360LED <sup>1</sup>								
730W360LED <sup>1,2</sup>								
820W360LED <sup>1,2</sup>								

- Not available with TLRSR.
- Only available with DMG.
- Only available with 80LED, 160LED, or 240LED.
- Not available with DMG.
- Specific voltage (120, 208, 240, 277, 347, or 480) must be specified with fusing options (F1, F2, or F3).
- WARNING always use F3 in Canada. For USA Check if (1 hot lead) then choose F1 or choose F2 if (2 hot leads).
- Select either D4i, DALI, DMG, or SRD mandatory option.
- TLRSR must be selected with D4i driver option.
- Only available with 120, 240, 277, or 347V.
- Only available with 208, 240, or 480V.
- Refer to Accessories section to confirm compatibility of shields with optical distribution.

- Not available with HVU, 347V, and 480V.
  - Must select TLRD7 for this option.
  - Must be used with IP65 or IP66 rated photoelectric cell or shorting cap to ensure proper illumination. Failure to use a properly IP rated component will void warranty.
  - Extended leadtime, please consult factory.
  - TLRSR and D4i must be selected with OMS.
- \* 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. Failure to use a properly IP rated component will void warranty. 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.



# HFP HighFocus Plus

## LED High mast luminaire

### Accessories\*

Must be ordered as separate line items - quickly and easily installed in the field.

Description	Accessory Ordering Code (40 LED version)	Shield vs Distribution Compatibility						
		1	R2M	R3M	4	5N	5M	5W
Cul-de-sac shield	ACC-LG66V40LED-CSS	No	Yes	Yes	No	No	No	No
	ACC-LG66V40LED-FSS	No	Yes	Yes	No	Yes	Yes	No
Front side shield	ACC-LG66V40LED-FSS-4	No	No	No	Yes	No	No	No
	ACC-LG66V40LED-HSS	No	Yes	Yes	No	Yes	No	No
House side shield	ACC-LG66V40LED-HSS-4	No	No	No	Yes	No	No	No
	ACC-LG66V40LED-HSS-5W	No	No	No	No	No	Yes	Yes
Left side shield	ACC-LG66V40LED-LSS	No	Yes	Yes	No	No	No	No
Right side shield	ACC-LG66V40LED-RSS	No	Yes	Yes	No	No	No	No
External shield	ACC-HFP-HSE	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Note: For external shield always use with internal HSS except for Type 1.

\* Consult Signify to confirm whether specific accessories are BAA-compliant.

\*\* Refer to Wattage table to confirm light engine configuration. Example, if configuration is 2x40LED, 2 of the desired shields must be ordered per luminaire.

### Predicted Lumen Depreciation Data

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 TM21-21.

Ambient Temperature	L70 per TM-21	Lumen Maintenance % at 60,000 hrs
25°C	>102,000 hrs	89.8%



LLC



ACC-NERT-DIM

### Connected lighting

Interact City connector node provides the plug and play wireless communications technology to connect your street light to the Interact City lighting management system.

Ordering Code	Description
LLC	Interact City cellular technology connector node
ACC-NERT-DIM	Nyx Hemera Twist Lock Controller 0-10V

Contact the factory for additional support when connected lighting or additional services are desired.

### Control Compatibility

Ordering Code	Interact City LLC		Nyx Hemera NERT	
	UNV	HVU	UNV	HVU
200W80LED	Yes	Yes	Yes	Yes
270W120LED	Yes	Yes	Yes	Yes
300W120LED	Yes	Yes	Yes	Yes
195W160LED	Yes	Yes	Yes	Yes
350W160LED	Yes	Yes	Yes	Yes
400W160LED	Yes	Yes	Yes	Yes
255W200LED	Yes	Yes	Yes	Yes
405W200LED	Yes	Yes	Yes	Yes
450W200LED	Yes	Yes	Yes	Yes
485W200LED	No	Yes	Yes	Yes
330W240LED	Yes	Yes	Yes	Yes
515W240LED	No	Yes	Yes	Yes
545W240LED	No	Yes	Yes	Yes
460W280LED	No	Yes	Yes	Yes
610W280LED	No	No	No	Yes
385W320LED	Yes	Yes	Yes	Yes
425W320LED	Yes	Yes	Yes	Yes
650W320LED	No	Yes	No	Yes
485W360LED	No	Yes	Yes	Yes
595W360LED	No	Yes	No	Yes
630W360LED	No	No	No	Yes
730W360LED	No	Yes	No	Yes
820W360LED	No	Yes	No	Yes

### Wattage Values

Ordering Code	Light Engine Config.	System Current (mA)	Avg. System Watts (W) <sup>1</sup>	Wattage Label <sup>2</sup>
HFP-200W80LED	2x40LED	1580	200	200
HFP-270W120LED	3x40LED	1432	274	270
HFP-300W120LED	3x40LED	1584	303	300
HFP-195W160LED	4x40LED	800	196	200
HFP-350W160LED	4x40LED	1380	348	350
HFP-400W160LED	4x40LED	1584	400	400
HFP-255W200LED	5x40LED	836	253	250
HFP-405W200LED	5x40LED	1292	406	410
HFP-450W200LED	5x40LED	1420	448	450
HFP-485W200LED	5x40LED	1532	488	490
HFP-330W240LED	6x40LED	900	327	330
HFP-515W240LED	6x40LED	1364	512	510
HFP-545W240LED	6x40LED	1440	544	540
HFP-460W280LED	7x40LED	1068	458	460
HFP-610W280LED	7x40LED	1388	608	610
HFP-385W320LED	8x40LED	1584	386	390
HFP-425W320LED	8x40LED	868	420	420
HFP-650W320LED <sup>3</sup>	8x40LED	1332	651	650
HFP-485W360LED	9x40LED	888	482	480
HFP-595W360LED <sup>3</sup>	9x40LED	1068	586	590
HFP-630W360LED <sup>3</sup>	9x40LED	1120	612	610
HFP-730W360LED <sup>3</sup>	9x40LED	1300	717	720
HFP-820W360LED <sup>3</sup>	9x40LED	1448	805	810

1. Typical values, rounded.

2. As per ANSI C136.15-2020. Consult factory for other labelling needs.

3. Rated for +40°C / +104°F.

### Field Adjustable Wattage (FAWS) Multiplier Chart

For the following configurations

405W200LED, 450W200LED, 485W200LED, 515W240LED, 545W240LED, 460W280LED, 425W320LED, 485W360LED, 595W360LED, 730W360LED, 820W360LED

For the following configurations

270W120LED, 300W120LED, 195W160LED, 350W160LED, 400W160LED, 255W200LED, 330W240LED, 385W320LED, 650W320LED

For 200W80LED only

For 610W280LED only

For 630W360LED only

	Typical System Watt Multiplier	Typical Delivered Lumen Multiplier
1	0.19	0.18
2	0.36	0.37
3	0.46	0.48
4	0.63	0.65
5	0.74	0.75
6	0.86	0.87
7	0.98	0.98
8	1.00	1.00
9	1.00	1.00
10	1.00	1.00

	Typical System Watt Multiplier	Typical Delivered Lumen Multiplier
1	0.13	0.12
2	0.24	0.24
3	0.30	0.31
4	0.41	0.43
5	0.48	0.50
6	0.56	0.58
7	0.63	0.66
8	0.72	0.74
9	0.80	0.82
10	1.00	1.00

	Typical System Watt Multiplier	Typical Delivered Lumen Multiplier
1	0.27	0.29
2	0.49	0.52
3	0.57	0.61
4	0.70	0.72
5	0.74	0.77
6	0.81	0.01
7	0.88	0.83
8	0.92	0.93
9	0.98	0.98
10	1.00	1.00

	Typical System Watt Multiplier	Typical Delivered Lumen Multiplier
1	0.11	0.12
2	0.24	0.25
3	0.30	0.31
4	0.38	0.39
5	0.48	0.50
6	0.56	0.58
7	0.65	0.67
8	0.72	0.74
9	0.80	0.81
10	1.00	1.00

	Typical System Watt Multiplier	Typical Delivered Lumen Multiplier
1	0.13	0.15
2	0.29	0.30
3	0.37	0.38
4	0.46	0.47
5	0.59	0.60
6	0.69	0.70
7	0.80	0.80
8	0.88	0.88
9	0.97	0.97
10	1.00	1.00

# HFP HighFocus Plus

## LED High mast luminaire

### 3000K/70CRI LED Lumen Values

Ordering Code	Type 1			Type 2			Type 3			Type 4		
	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
HFP-200W80LED	32994	B4-U0-G4	165	31949	B4-U0-G4	160	32437	B4-U0-G3	162	31950	B3-U0-G4	160
HFP-270W120LED	—	—	—	43780	B4-U0-G4	160	44448	B4-U0-G4	162	43780	B3-U0-G5	160
HFP-300W120LED	—	—	—	47583	B4-U0-G4	157	48309	B4-U0-G4	159	47583	B3-U0-G5	157
HFP-195W160LED	35136	B5-U0-G4	179	34023	B4-U0-G4	173	34543	B4-U0-G4	176	34023	B3-U0-G4	173
HFP-350W160LED	58125	B5-U0-G5	167	56283	B5-U0-G5	162	57144	B5-U0-G5	164	56284	B4-U0-G5	162
HFP-400W160LED	64980	B5-U0-G5	163	62922	B5-U0-G5	157	63883	B5-U0-G5	160	62923	B4-U0-G5	157
HFP-255W200LED	—	—	—	43984	B4-U0-G4	174	44657	B4-U0-G4	176	43985	B3-U0-G5	174
HFP-405W200LED	—	—	—	65902	B5-U0-G5	162	66908	B5-U0-G5	165	65902	B4-U0-G5	162
HFP-450W200LED	—	—	—	71408	B5-U0-G5	159	72498	B5-U0-G5	162	71409	B4-U0-G5	159
HFP-485W200LED	—	—	—	76143	B5-U0-G5	156	77306	B5-U0-G5	159	76144	B4-U0-G5	156
HFP-330W240LED	58022	B5-U0-G5	177	56183	B5-U0-G5	172	57041	B5-U0-G5	174	56184	B4-U0-G5	172
HFP-515W240LED	84125	B5-U0-G5	164	81460	B5-U0-G5	159	82705	B5-U0-G5	162	81461	B4-U0-G5	159
HFP-545W240LED	88849	B5-U0-G5	163	86034	B5-U0-G5	158	87349	B5-U0-G5	160	86035	B4-U0-G5	158
HFP-460W280LED	—	—	—	76342	B5-U0-G5	167	77509	B5-U0-G5	169	76343	B4-U0-G5	167
HFP-610W280LED	—	—	—	95977	B5-U0-G5	158	97443	B5-U0-G5	160	95979	B5-U0-G5	158
HFP-385W320LED	—	—	—	66485	B5-U0-G5	172	67501	B5-U0-G5	175	66486	B4-U0-G5	172
HFP-425W320LED	—	—	—	71761	B5-U0-G5	171	72857	B5-U0-G5	173	71761	B4-U0-G5	171
HFP-650W320LED	—	—	—	105343	B5-U0-G5	162	106952	B5-U0-G5	164	105344	B5-U0-G5	162
HFP-485W360LED	—	—	—	82343	B5-U0-G5	171	83601	B5-U0-G5	173	82344	B4-U0-G5	171
HFP-595W360LED	—	—	—	97498	B5-U0-G5	166	98988	B5-U0-G5	169	97499	B5-U0-G5	166
HFP-630W360LED	—	—	—	101151	B5-U0-G5	165	102696	B5-U0-G5	168	101152	B5-U0-G5	165
HFP-730W360LED	—	—	—	115248	B5-U0-G5	161	117008	B5-U0-G5	163	115250	B5-U0-G5	161
HFP-820W360LED	—	—	—	126327	B5-U0-G5	157	128256	B5-U0-G5	159	126328	B5-U0-G5	157

Ordering Code	Type 5N			Type 5M			Type 5W		
	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
HFP-200W80LED	32945	B5-U0-G3	165	33101	B5-U0-G3	166	31754	B5-U0-G5	159
HFP-270W120LED	45144	B5-U0-G4	165	45359	B5-U0-G4	166	43513	B5-U0-G5	159
HFP-300W120LED	49066	B5-U0-G4	162	49299	B5-U0-G4	163	47292	B5-U0-G5	156
HFP-195W160LED	35084	B5-U0-G4	179	35250	B5-U0-G3	180	33816	B5-U0-G5	172
HFP-350W160LED	58038	B5-U0-G5	167	58314	B5-U0-G4	168	55940	B5-U0-G5	161
HFP-400W160LED	64884	B5-U0-G5	162	65192	B5-U0-G5	163	62538	B5-U0-G5	156
HFP-255W200LED	45356	B5-U0-G4	179	45571	B5-U0-G4	180	43717	B5-U0-G5	173
HFP-405W200LED	67957	B5-U0-G5	167	68280	B5-U0-G5	168	65500	B5-U0-G5	161
HFP-450W200LED	73635	B5-U0-G5	164	73985	B5-U0-G5	165	70973	B5-U0-G5	158
HFP-485W200LED	78517	B5-U0-G5	161	78890	B5-U0-G5	162	75678	B5-U0-G5	155
HFP-330W240LED	57935	B5-U0-G5	177	58210	B5-U0-G4	178	55841	B5-U0-G5	171
HFP-515W240LED	84001	B5-U0-G5	164	84400	B5-U0-G5	165	80964	B5-U0-G5	158
HFP-545W240LED	88717	B5-U0-G5	163	89138	B5-U0-G5	164	85510	B5-U0-G5	157
HFP-460W280LED	78723	B5-U0-G5	172	79096	B5-U0-G5	173	75877	B5-U0-G5	165
HFP-610W280LED	98970	B5-U0-G5	163	99440	B5-U0-G5	163	95392	B5-U0-G5	157
HFP-385W320LED	68559	B5-U0-G5	177	68884	B5-U0-G5	178	66080	B5-U0-G5	171
HFP-425W320LED	73999	B5-U0-G5	176	74350	B5-U0-G5	177	71323	B5-U0-G5	170
HFP-650W320LED	108628	B5-U0-G5	167	109143	B5-U0-G5	168	104701	B5-U0-G5	161
HFP-485W360LED	84911	B5-U0-G5	176	85313	B5-U0-G5	177	81841	B5-U0-G5	170
HFP-595W360LED	100539	B5-U0-G5	172	101015	B5-U0-G5	172	96904	B5-U0-G5	165
HFP-630W360LED	104304	B5-U0-G5	170	104800	B5-U0-G5	171	100534	B5-U0-G5	164
HFP-730W360LED	118842	B5-U0-G5	166	119406	B5-U0-G5	167	114546	B5-U0-G5	160
HFP-820W360LED	130266	B5-U0-G5	162	130885	B5-U0-G5	163	125557	B5-U0-G5	156

# HFP HighFocus Plus

## LED High mast luminaire

### 4000K/70CRI & 5000K/70CRI LED Lumen Values

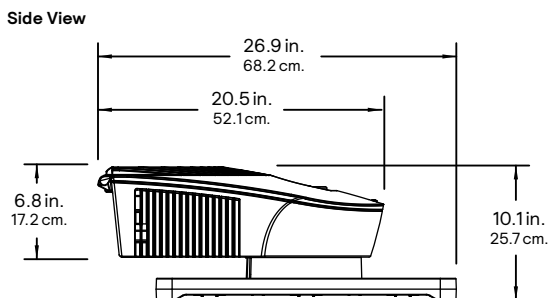
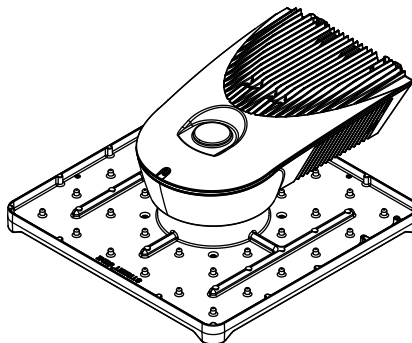
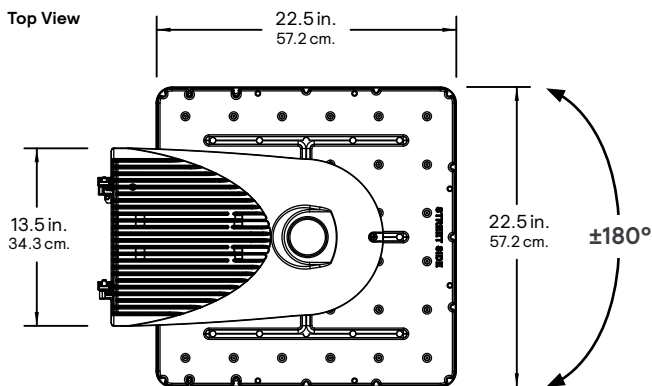
Ordering Code	Type 1			Type 2			Type 3			Type 4		
	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
HFP-200W80LED	35100	B5-U0-G4	176	33988	B4-U0-G4	170	34507	B4-U0-G4	173	33989	B3-U0-G4	170
HFP-270W120LED	—	—	—	46574	B4-U0-G4	170	47285	B4-U0-G4	173	46574	B3-U0-G5	170
HFP-300W120LED	—	—	—	50620	B4-U0-G4	167	51393	B4-U0-G4	170	50620	B4-U0-G5	167
HFP-195W160LED	37379	B5-U0-G4	191	36195	B4-U0-G4	185	36748	B4-U0-G4	187	36195	B3-U0-G4	185
HFP-350W160LED	61835	B5-U0-G5	178	59876	B5-U0-G5	172	60791	B5-U0-G5	175	59877	B4-U0-G5	172
HFP-400W160LED	69128	B5-U0-G5	173	66938	B5-U0-G5	167	67961	B5-U0-G5	170	66939	B4-U0-G5	167
HFP-255W200LED	—	—	—	46792	B4-U0-G4	185	47507	B4-U0-G4	188	46793	B3-U0-G5	185
HFP-405W200LED	—	—	—	70108	B5-U0-G5	172	71179	B5-U0-G5	175	70109	B4-U0-G5	172
HFP-450W200LED	—	—	—	75966	B5-U0-G5	169	77126	B5-U0-G5	172	75967	B4-U0-G5	169
HFP-485W200LED	—	—	—	81003	B5-U0-G5	166	82240	B5-U0-G5	169	81004	B4-U0-G5	166
HFP-330W240LED	61725	B5-U0-G5	189	59769	B5-U0-G5	183	60682	B5-U0-G5	186	59770	B4-U0-G5	183
HFP-515W240LED	89495	B5-U0-G5	175	86660	B5-U0-G5	169	87984	B5-U0-G5	172	86661	B4-U0-G5	169
HFP-545W240LED	94520	B5-U0-G5	174	91526	B5-U0-G5	168	92924	B5-U0-G5	171	91527	B5-U0-G5	168
HFP-460W280LED	—	—	—	81215	B5-U0-G5	177	82456	B5-U0-G5	180	81216	B4-U0-G5	177
HFP-610W280LED	—	—	—	102103	B5-U0-G5	168	103663	B5-U0-G5	170	102105	B5-U0-G5	168
HFP-385W320LED	—	—	—	70729	B5-U0-G5	183	71810	B5-U0-G5	186	70730	B4-U0-G5	183
HFP-425W320LED	—	—	—	76341	B5-U0-G5	182	77507	B5-U0-G5	184	76342	B4-U0-G5	182
HFP-650W320LED	—	—	—	112067	B5-U0-G5	172	113779	B5-U0-G5	175	112068	B5-U0-G5	172
HFP-485W360LED	—	—	—	87599	B5-U0-G5	182	88937	B5-U0-G5	184	87600	B5-U0-G5	182
HFP-595W360LED	—	—	—	103721	B5-U0-G5	177	105306	B5-U0-G5	180	103722	B5-U0-G5	177
HFP-630W360LED	—	—	—	107607	B5-U0-G5	176	109251	B5-U0-G5	178	107608	B5-U0-G5	176
HFP-740W360LED	—	—	—	122604	B5-U0-G5	171	124477	B5-U0-G5	174	122606	B5-U0-G5	171
HFP-820W360LED	—	—	—	134390	B5-U0-G5	167	136443	B5-U0-G5	169	134392	B5-U0-G5	167

Ordering Code	Type 5N			Type 5M			Type 5W		
	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)	Lumen Output	BUG Rating	Efficacy (LPW)
HFP-200W80LED	35048	B5-U0-G4	175	35214	B5-U0-G3	176	33781	B5-U0-G5	169
HFP-270W120LED	48026	B5-U0-G4	175	48254	B5-U0-G4	176	46290	B5-U0-G5	169
HFP-300W120LED	52198	B5-U0-G4	172	52446	B5-U0-G4	173	50311	B5-U0-G5	166
HFP-195W160LED	37323	B5-U0-G4	190	37500	B5-U0-G3	191	35974	B5-U0-G5	183
HFP-350W160LED	61743	B5-U0-G5	177	62036	B5-U0-G5	178	59511	B5-U0-G5	171
HFP-400W160LED	69025	B5-U0-G5	173	69353	B5-U0-G5	173	66530	B5-U0-G5	166
HFP-255W200LED	48251	B5-U0-G4	190	48480	B5-U0-G4	191	46507	B5-U0-G5	184
HFP-405W200LED	72295	B5-U0-G5	178	72638	B5-U0-G5	179	69681	B5-U0-G5	171
HFP-450W200LED	78335	B5-U0-G5	175	78707	B5-U0-G5	176	75503	B5-U0-G5	168
HFP-485W200LED	83529	B5-U0-G5	171	83925	B5-U0-G5	172	80509	B5-U0-G5	165
HFP-330W240LED	61633	B5-U0-G5	188	61926	B5-U0-G5	189	59405	B5-U0-G5	182
HFP-515W240LED	89363	B5-U0-G5	175	89787	B5-U0-G5	176	86132	B5-U0-G5	168
HFP-545W240LED	94380	B5-U0-G5	173	94828	B5-U0-G5	174	90968	B5-U0-G5	167
HFP-460W280LED	83748	B5-U0-G5	183	84145	B5-U0-G5	184	80720	B5-U0-G5	176
HFP-610W280LED	105287	B5-U0-G5	173	105787	B5-U0-G5	174	101481	B5-U0-G5	167
HFP-385W320LED	72935	B5-U0-G5	189	73281	B5-U0-G5	190	70298	B5-U0-G5	182
HFP-425W320LED	78722	B5-U0-G5	187	79096	B5-U0-G5	188	75876	B5-U0-G5	180
HFP-650W320LED	115562	B5-U0-G5	177	116110	B5-U0-G5	178	111384	B5-U0-G5	171
HFP-485W360LED	90331	B5-U0-G5	187	90759	B5-U0-G5	188	87065	B5-U0-G5	181
HFP-595W360LED	106956	B5-U0-G5	182	107463	B5-U0-G5	183	103089	B5-U0-G5	176
HFP-630W360LED	110962	B5-U0-G5	181	111489	B5-U0-G5	182	106951	B5-U0-G5	175
HFP-740W360LED	126428	B5-U0-G5	176	127028	B5-U0-G5	177	121857	B5-U0-G5	170
HFP-820W360LED	138581	B5-U0-G5	172	139239	B5-U0-G5	173	133571	B5-U0-G5	166

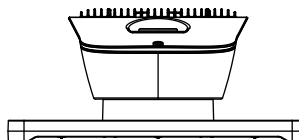
# HFP HighFocus Plus

## LED High mast luminaire

### Dimensions



Front View



Weight - 44 lbs / 20.0 kg

EPA - 0.86 sq. ft.

### Specifications

#### Housing

Made of a low copper die cast Aluminum alloy (A360) for a high resistance to corrosion, 0.100" (2.5mm) minimum thickness. Fits on a 2 3/8" (60mm) O.D. (2" NPS) by 7 1/4" (184mm) minimum long tenon. Comes with a zinc plated clamp 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. A single screw with sealing washer, hinged, removable door opens upward to provide access to electronic components and to a terminal block. Door is secured to prevent accidental dropping or disengagement. Electrical compartment rated IP65 seal per ANSI C136.25, provided with a pre-installed gasket. Complete with a bird guard installed which seals around tenon and protects against birds and similar intruders. ANSI label as per C136.15-2020 to identify wattage and source (included in box).

#### Light Engine

##### Composed of 4 main components:

Heat Sink / LED Module / Optical System / Driver  
Electrical components are RoHS compliant, IP66 sealed light engines. 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.

#### Heat Sink

Made of a low copper die cast Aluminum alloy (A360) for a high resistance to corrosion, 0.100" (2.5mm) minimum thickness. 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.

#### LED Module

Composed of high-performance white LEDs. Color temperature as per ANSI/NEMA bin 3000 Kelvin nominal (3045K +/- 175K) for WW selection or 4000 Kelvin nominal (3985K +/- 275K) for NW selection, 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.

NOTE: Entire optical assembly rotatable ±180°, enabling alignment of asymmetric optics parallel with roadway to optimize optical performance.

#### Driver

High power factor of 90% min. Electronic driver, operating range 50/60 Hz. Auto adjusting universal voltage input from 120 to 277 VAC or 347 to 480 VAC rated for both application line to line or line to neutral, THD of 20% max.

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

**DMG:** Dimmable driver 0-10V.

**SP1:** Surge protector 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 U.S. DOE (Department of Energy) MSSLC (Municipal Solid State Street Lighting Consortium) Model Specification for LED Roadway Luminaires Appendix D Electrical Immunity High Test Level 10kV / 10kA.

Please note that these integrated features always come with HighFocus luminaires.

# HFP HighFocus Plus

## LED High mast luminaire

### Specifications

#### 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. NEMA twist lock. If TLRSR receptacle option included, standard SR communication, 24V auxiliary supply and LSI are connected to the TLRSR receptacle.

**OMS:** Outdoor Multi Sensor

**NERT:** Nyx Hemera Twist Lock power line communication controller for DMG driver. TLRD7 must be selected.

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

**SP1X:** Fail-Off Surge protection device tested in accordance with ANSI/IEEE C62.45 per ANSI/IEEE C62.41.2 Scenario I Category C High Exposure 10kV/5kA 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/5kA.

**SP2X:** Fail-Off 20kV / 10kA surge protection device that provides extra protection beyond the SP1X 10kV/5kA level.

**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.

**TLRD7:** 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. Must be used with IP65 or IP66 rated photoelectric cell or shorting cap is required to ensure proper illumination. Failure to use a properly IP rated component will void warranty.

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

### Buy American Act of 1933 (BAA)

This product is manufactured in one of our US factories and, as of the date of this document, this product was considered a commercially available off-the-shelf (COTS) item meeting the requirements of the BAA. This BAA 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. Prior to ordering, please visit [www.signify.com/baa](http://www.signify.com/baa) to view a current list of BAA-compliant products to confirm this product's current compliance.

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

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

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

**PH9:** Shorting cap (use of photoelectric cell or shorting cap is required to ensure proper illumination).

**API:** Factory installed NEMA label, ANSI C136.15-2020 compliant. Consult factory for other labeling needs.

**F1:** Fusing, single (for 120, 277 or 347VAC).

**F2:** Fusing, double (for 208, 240 or 480VAC).

**F3:** Fusing, Canadian double pull (for 208, 240 or 480VAC).

#### 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, driver data and LED LM-80/TM-21, 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 time delay or slow blow fuse to avoid unnecessary and unwanted fuse blowing that can occur with fast acting fuses.

#### Hardware

All exposed screws shall be stainless for 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 HFP meets the ANSI C136.31-2018, American National Standard for Roadway Luminaire Vibration specifications for Bridge/overpass applications.

#### Certifications and Compliance

cULus Listed for Canada and USA. Luminaire meets DOE and MSSLC Model Specification for LED Roadway Luminaires. Most versions of HighFocus LED high mast luminaires are DesignLights Consortium qualified, consult DLC QPL to confirm your specific fixture selection is approved. CCTs 3000K and warmer are International Dark-Sky Association (IDA) Approved. Luminaire complies with or exceeds the following ANSI C136 standards: .2, .3, .10, .15, .18, .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.

#### Limited Warranty

10-year limited warranty.

See [signify.com/warranties](http://signify.com/warranties) for details & restrictions.

