

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: E400-12

Luminaire Tested: **BRC-XX-70-HPS-AS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: E400-12  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: BRC-XX-70-HPS-AS  
Description: 70W HPS ROUND ARCHITECTURAL BOLLARD - ASYMMETRIC DISTRIBUTION  
Light Source: 70 WATT HPS COATED ED-17  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 5800 (1 lamp)  
Luminaire Lumens: 2222.6 lumens  
Efficiency: 38.3%  
Efficacy: 25.3 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.58' x L: 0.58' x H: 0.33')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B1 - U3 - G2

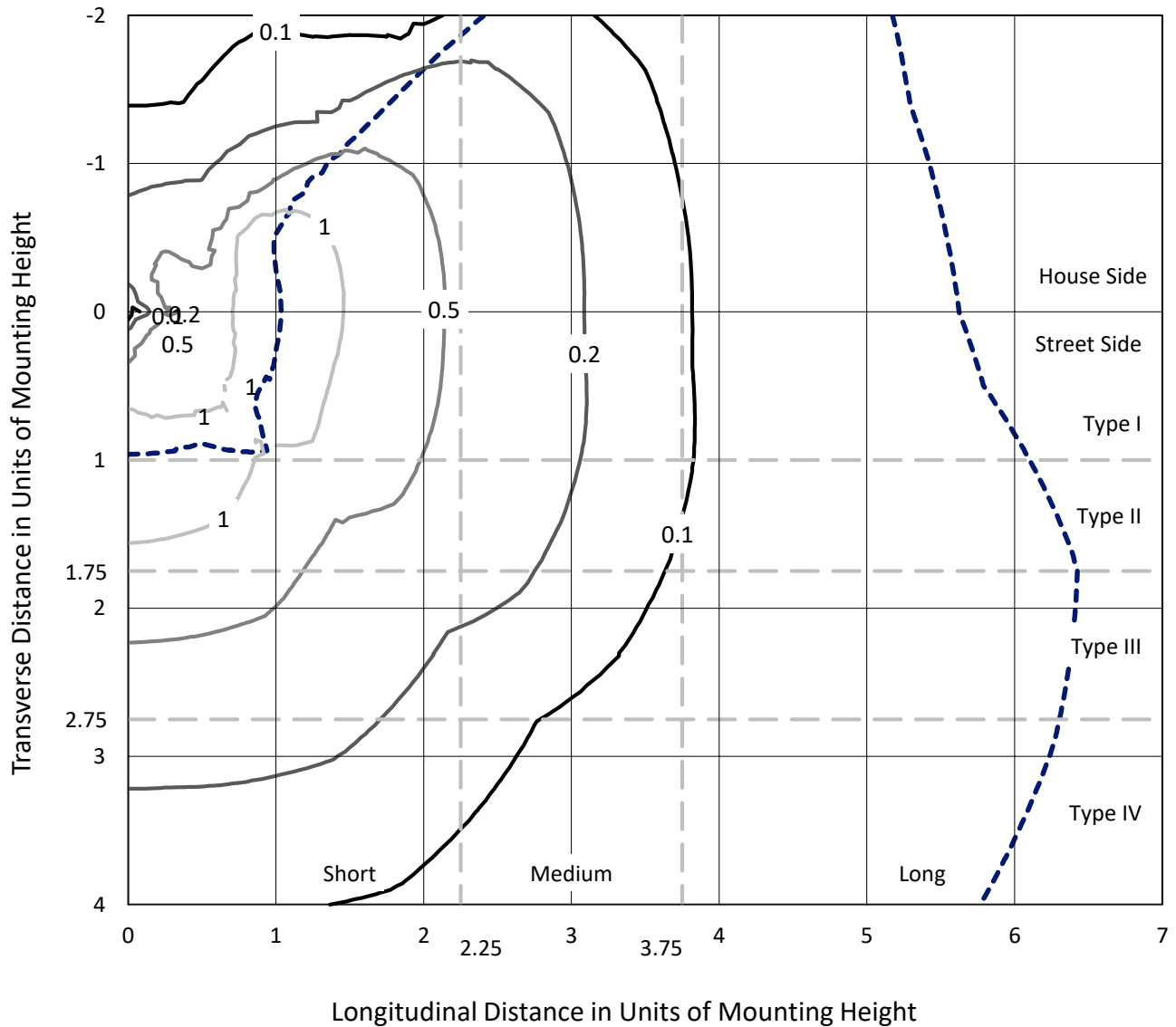
Input Watts (W): 88  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

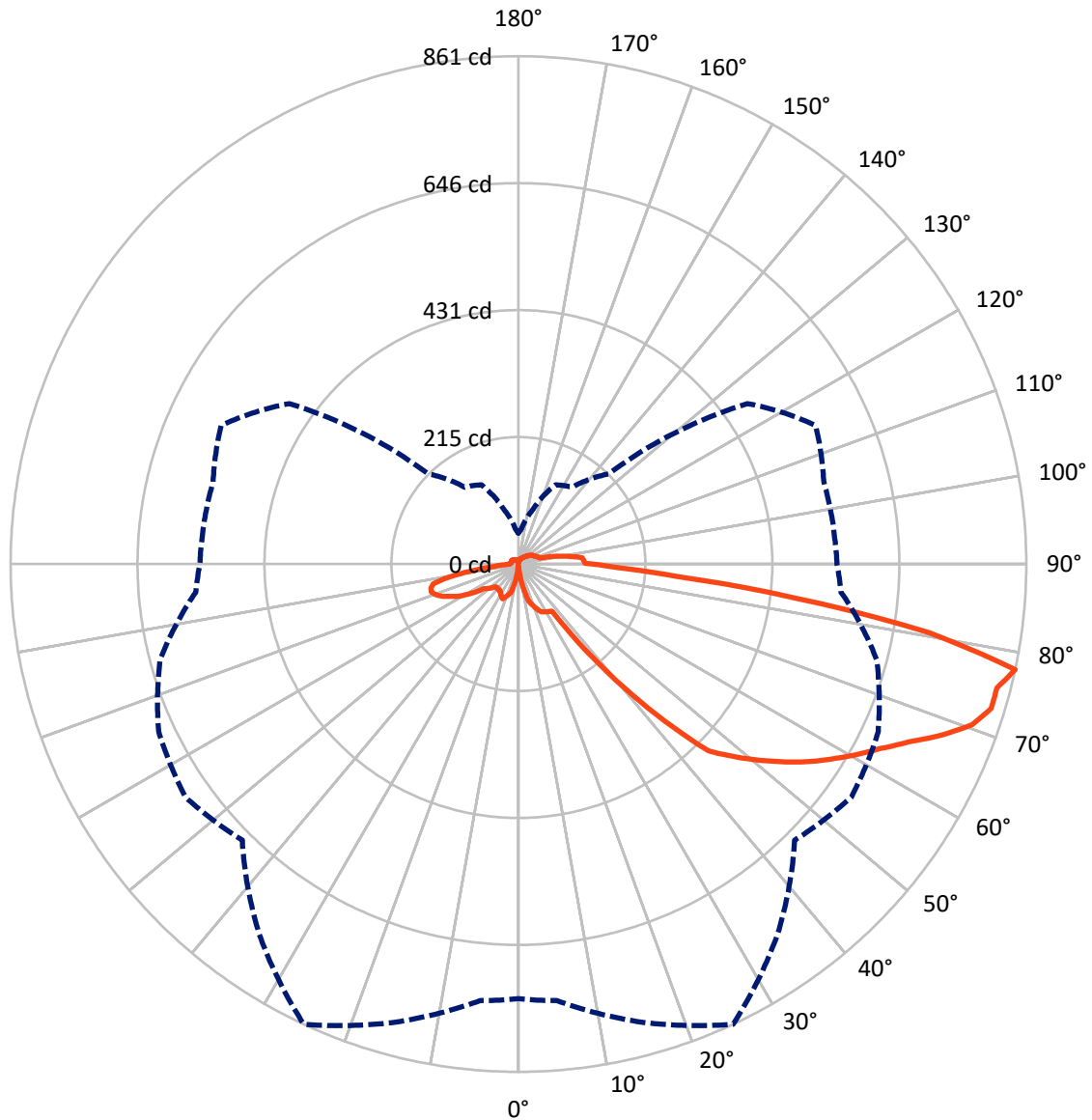
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1.6 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 25-Deg Lateral    - - - Horizontal Cone Through 77.5-Deg Vertical

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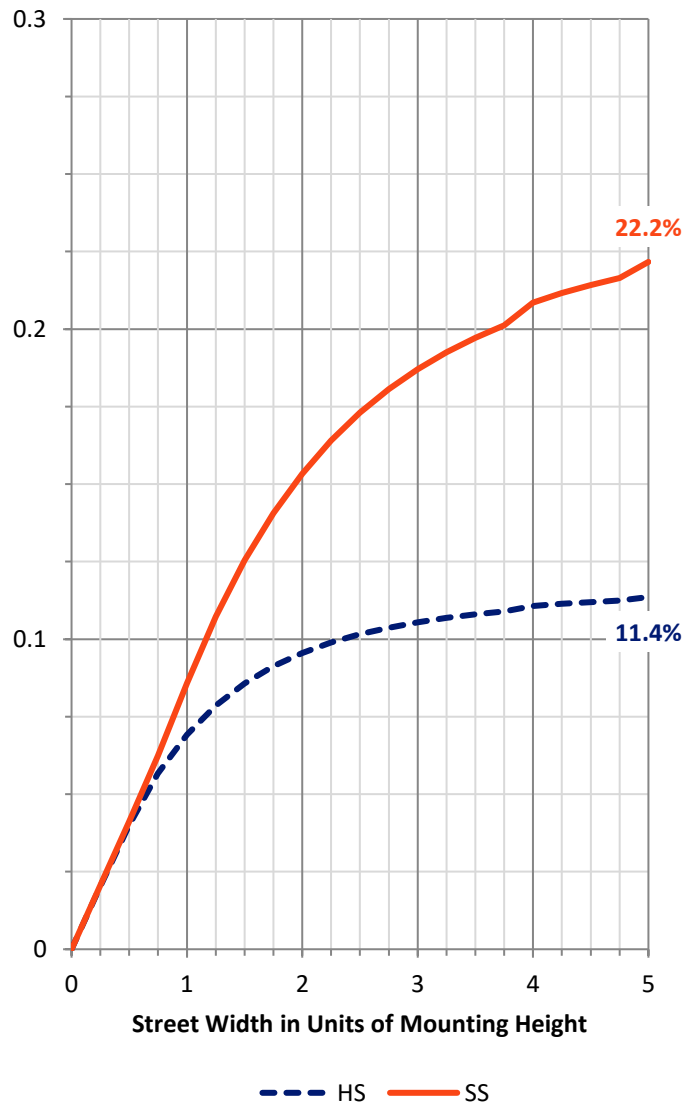
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	672.2	78.5	750.7
	% Lamp	11.6	1.4	12.9
<b>Street Side</b>	Lumens	1352.1	119.8	1471.9
	% Lamp	23.3	2.1	25.4
<b>Total</b>	Lumens	2024.3	198.4	2222.6
	% Lamp	34.9	3.4	38.3

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	1.5	0.1	0.0
10°-20°	14.6	0.7	0.3
20°-30°	36.4	1.6	0.6
30°-40°	92.5	4.2	1.6
40°-50°	220.5	9.9	3.8
50°-60°	371.2	16.7	6.4
60°-70°	514.0	23.1	8.9
70°-80°	559.6	25.2	9.6
80°-90°	217.1	9.8	3.7
90°-100°	70.8	3.2	1.2
100°-110°	47.6	2.1	0.8
110°-120°	32.2	1.4	0.6
120°-130°	21.7	1.0	0.4
130°-140°	13.7	0.6	0.2
140°-150°	8.2	0.4	0.1
150°-160°	4.4	0.2	0.1
160°-170°	1.8	0.1	0.0
170°-180°	0.2	0.0	0.0
0°-90°	2024.3	91.1	34.9
0°-180°	2222.6	100.0	38.3



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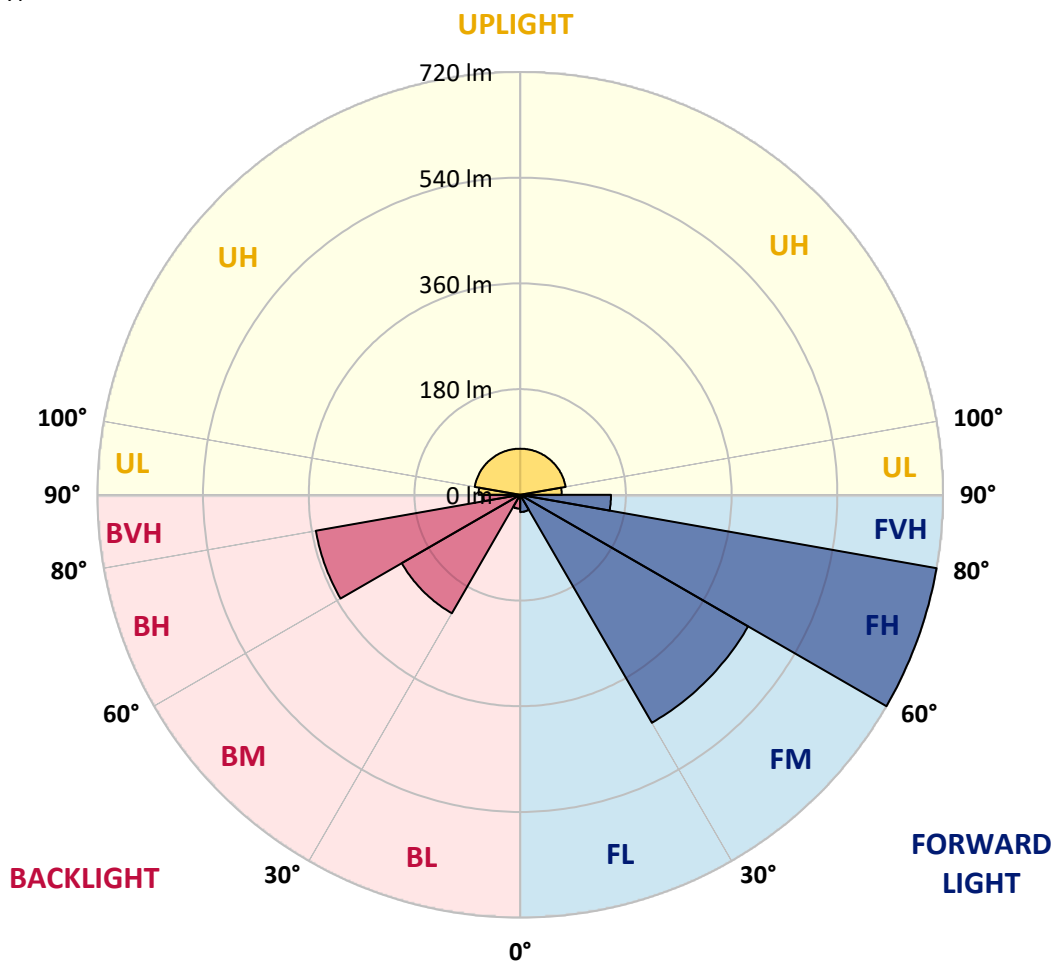
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	29.4	0.5			
FM (30°-60°)	448.3	7.7			
FH (60°-80°)	720.1	12.4			G1/1800
FVH (80°-90°)	154.7	2.7			G2/225
BL (0°-30°)	23.7	0.4	B0/110		
BM (30°-60°)	232.9	4.0	B1/1000		
BH (60°-80°)	353.3	6.1	B1/500		G1/500
BVH (80°-90°)	62.4	1.1			G1/100
UL (90°-100°)	70.8	1.2		U3/500	
UH (100°-180°)	78.5	1.4		U3/500	
Trapped Light	3577.4	61.7			

**BUG Rating: B1-U3-G2**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2	2	2	2	2	2	2	2	2	2	2
5°	13	12	8	7	6	6	3	3	5	4	4
15°	52	52	55	65	80	89	85	74	63	57	57
25°	72	73	79	90	93	89	87	87	74	65	66
35°	188	178	141	98	89	89	88	99	145	167	167
45°	461	460	459	452	382	305	415	416	418	417	416
55°	610	606	599	592	512	461	581	541	535	543	546
62.5°	694	691	691	689	596	538	683	665	636	628	629
65°	721	718	723	727	631	569	717	704	682	661	659
67.5°	751	749	761	774	674	608	757	748	734	694	689
70°	773	772	796	816	721	649	795	784	764	708	702
72.5°	769	770	806	838	748	669	804	794	758	686	677
75°	732	738	786	838	749	655	757	749	706	631	624
77.5°	737	743	804	861	766	662	689	673	629	549	540
80°	611	616	676	707	644	584	566	549	517	441	425
82.5°	426	430	472	471	432	390	385	379	365	313	296
85°	259	260	279	268	245	219	216	221	221	196	186
87.5°	159	161	172	165	151	139	136	143	146	137	133
90°	104	106	112	113	105	100	101	105	107	107	107
95°	120	119	113	109	96	68	69	73	74	79	82
105°	48	47	41	38	36	38	41	49	56	60	64
115°	30	30	31	31	32	34	37	37	38	40	40
125°	21	21	23	26	29	31	31	30	29	28	28
135°	17	17	17	18	19	20	21	21	21	22	22
145°	12	12	12	13	14	16	17	17	17	17	17
155°	10	10	10	10	11	11	11	11	11	10	10
165°	7	7	7	7	8	8	7	7	7	7	7
175°	5	4	4	5	4	4	5	4	3	3	3
180°	0	0	0	0	0	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2	2	2	2	2	2	2	2	2	2
5°	5	4	5	3	4	5	2	0	3	4
15°	58	59	65	71	70	62	49	40	36	35
25°	71	78	78	74	73	72	65	55	53	53
35°	163	142	88	70	63	59	55	47	42	41
45°	415	415	408	320	105	61	54	48	43	41
55°	550	549	540	439	153	106	72	54	51	51
62.5°	634	638	628	511	182	135	117	71	58	56
65°	665	670	662	537	193	144	127	82	63	59
67.5°	695	705	703	572	208	156	140	95	69	62
70°	708	724	731	604	223	165	149	99	71	63
72.5°	683	703	724	603	233	171	155	102	70	63
75°	628	635	654	553	231	170	154	101	67	60
77.5°	538	536	556	474	216	159	148	96	60	52
80°	420	411	421	364	180	125	117	77	46	40
82.5°	286	270	264	229	124	83	74	48	31	28
85°	178	163	148	125	77	49	40	28	20	18
87.5°	130	122	109	86	50	30	23	17	13	12
90°	106	101	87	64	37	22	16	12	10	9
95°	84	77	64	49	28	18	13	10	9	9
105°	65	74	80	63	23	14	12	10	9	8
115°	40	46	55	53	20	15	13	11	9	8
125°	29	33	36	27	18	15	12	10	8	8
135°	21	21	19	15	11	10	10	9	8	8
145°	16	15	13	11	10	9	9	8	8	8
155°	10	9	9	8	8	7	7	7	7	7
165°	7	6	6	6	6	6	6	6	6	6
175°	3	2	1	2	2	1	2	2	1	0
180°	0	0	0	0	0	0	0	0	0	0

(END OF REPORT)