

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: E400-11

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: E400-11  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: BRC-XX-70-HPS  
Description: 70W HPS ROUND ARCHITECTURAL BOLLARD - SYMMETRIC DISTRIBUTION  
Light Source: 70 WATT HPS COATED ED-17  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 5800 (1 lamp)  
Luminaire Lumens: 2672.7 lumens  
Efficiency: 46.1%  
Efficacy: 30.4 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.58' x L: 0.58' x H: 0.33')  
IES Classification: Type V - Short - Cutoff  
BUG Rating: B2 - U3 - G2

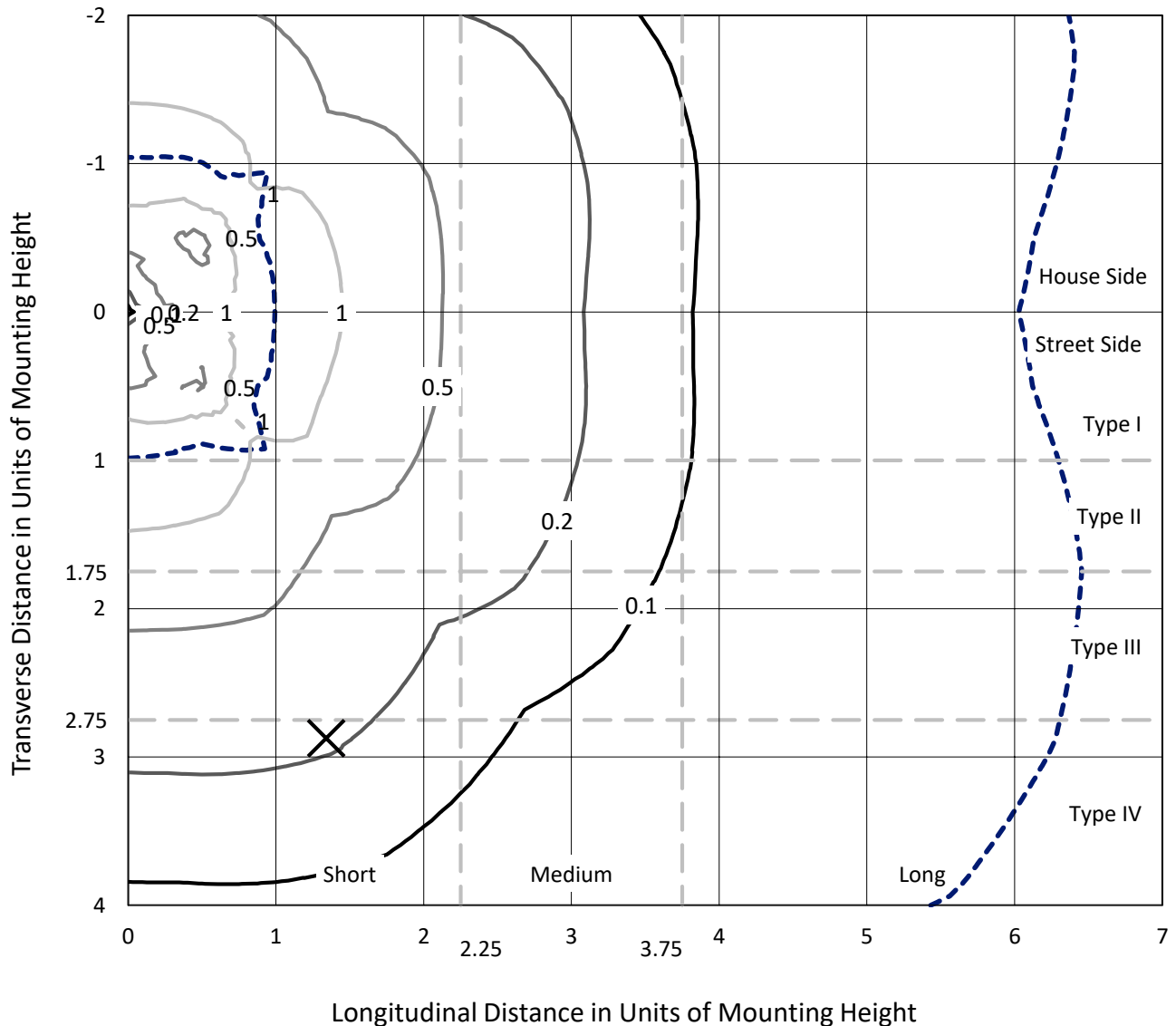
Input Watts (W): 88  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

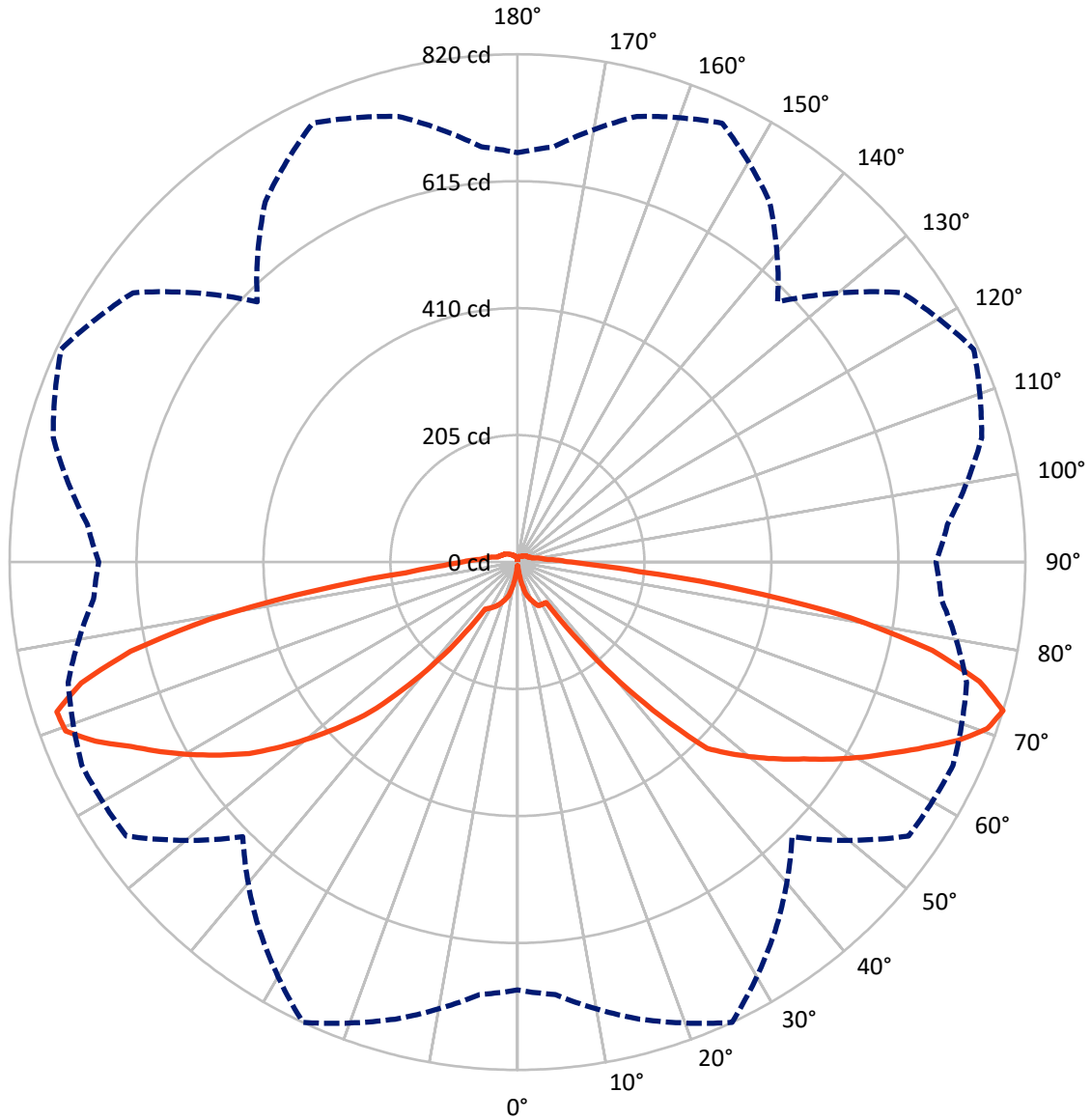
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1.5 fc  
 Type V - Short - Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 25-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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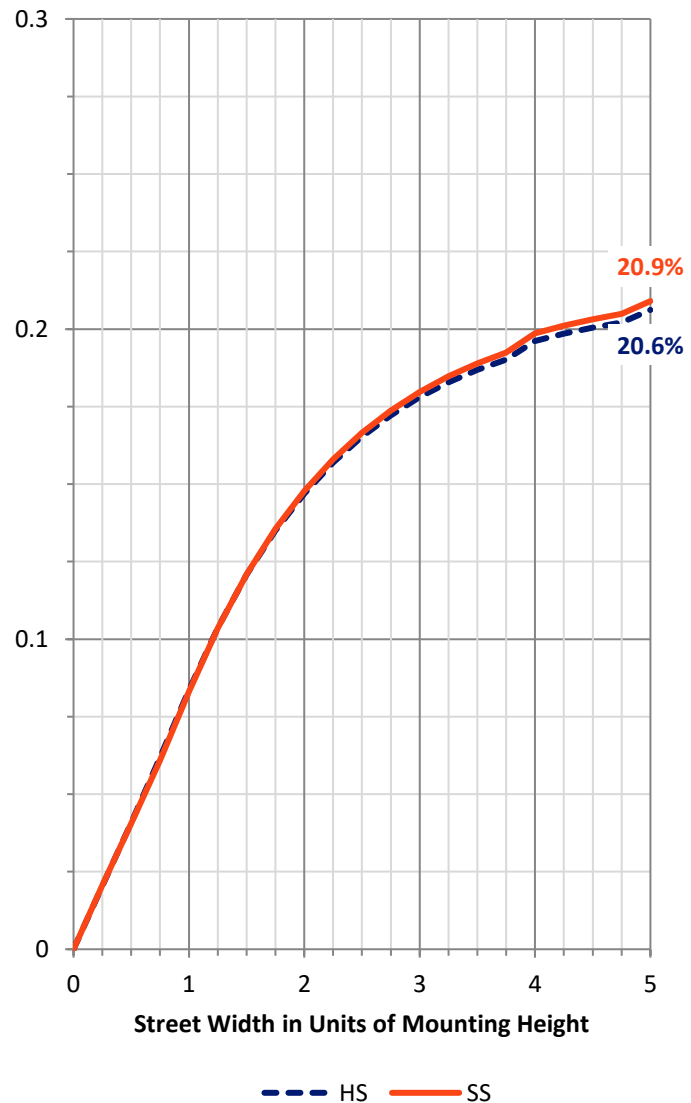
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1235.2	93.5	1328.7
	% Lamp	21.3	1.6	22.9
<b>Street Side</b>	Lumens	1261.0	83.0	1344.0
	% Lamp	21.7	1.4	23.2
<b>Total</b>	Lumens	2496.2	176.5	2672.7
	% Lamp	43.0	3.0	46.1

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	1.8	0.1	0.0
10°-20°	14.5	0.5	0.2
20°-30°	37.7	1.4	0.6
30°-40°	108.6	4.1	1.9
40°-50°	273.3	10.2	4.7
50°-60°	468.3	17.5	8.1
60°-70°	654.2	24.5	11.3
70°-80°	693.4	25.9	12.0
80°-90°	249.3	9.3	4.3
90°-100°	65.3	2.4	1.1
100°-110°	37.8	1.4	0.7
110°-120°	25.6	1.0	0.4
120°-130°	19.3	0.7	0.3
130°-140°	13.6	0.5	0.2
140°-150°	8.8	0.3	0.2
150°-160°	5.3	0.2	0.1
160°-170°	2.7	0.1	0.0
170°-180°	0.4	0.0	0.0
0°-90°	2496.2	93.4	43.0
0°-180°	2672.7	100.0	46.1



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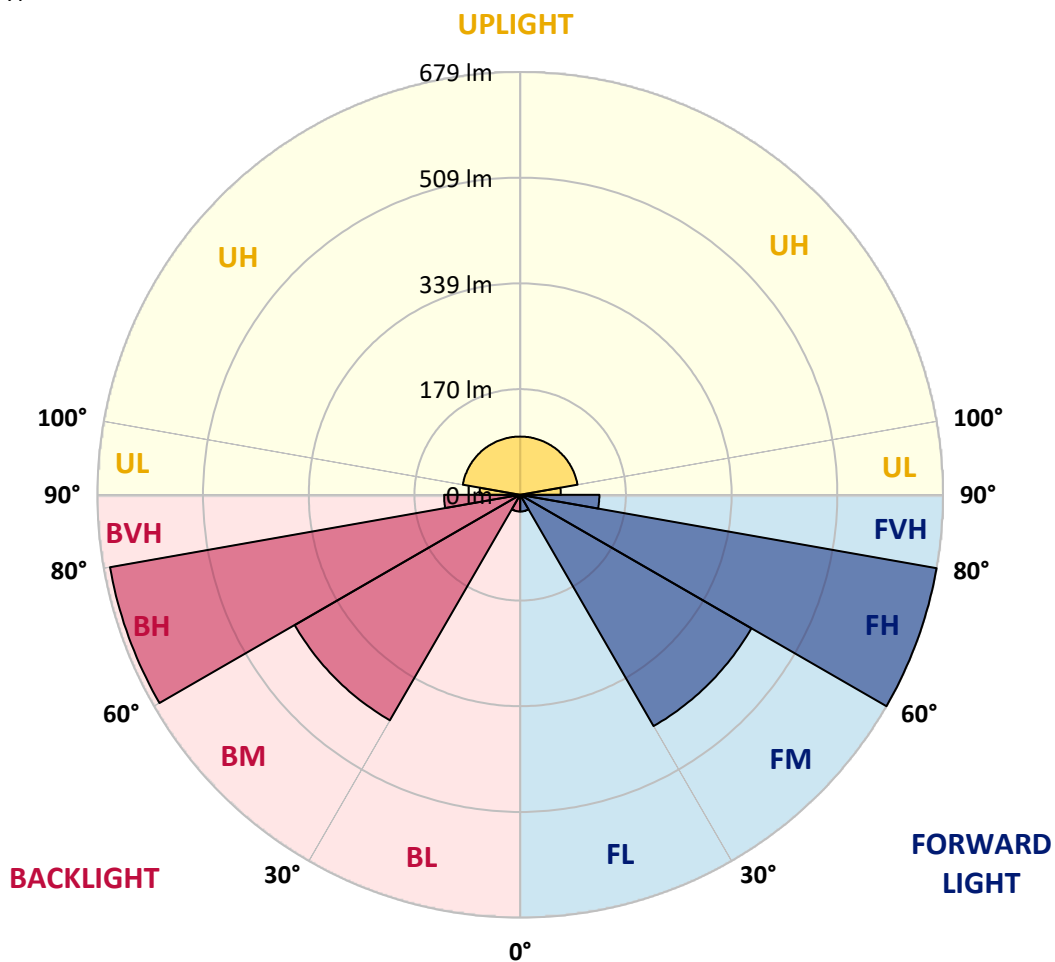
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	26.8	0.5			
FM (30°-60°)	428.6	7.4			
FH (60°-80°)	678.8	11.7			G1/1800
FVH (80°-90°)	127.1	2.2			G2/225
BL (0°-30°)	26.8	0.5	B0/110		
BM (30°-60°)	418.0	7.2	B1/1000		
BH (60°-80°)	668.6	11.5	B2/1000		G1/1800
BVH (80°-90°)	122.1	2.1			G2/225
UL (90°-100°)	65.3	1.1		U3/500	
UH (100°-180°)	93.5	1.6		U3/500	
Trapped Light	3127.3	53.9			

**BUG Rating: B2-U3-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	6	6	6	6	6	6	6	6	6	6	6
5°	27	25	12	7	6	6	7	8	10	10	10
15°	31	30	40	55	73	82	77	68	59	55	54
25°	49	49	60	78	86	83	82	86	79	73	71
35°	161	148	117	80	80	81	81	98	163	184	185
45°	419	420	428	429	362	287	399	406	410	412	411
55°	557	553	554	561	501	447	554	524	528	538	540
62.5°	643	641	654	679	592	520	650	646	625	619	619
65°	663	665	691	722	623	548	681	684	670	652	650
67.5°	693	698	733	768	662	572	719	727	723	687	681
70°	704	714	762	805	705	611	758	765	756	706	697
72.5°	691	701	764	820	726	627	771	776	751	687	676
75°	638	648	720	771	696	607	728	730	698	635	626
77.5°	557	564	631	685	625	551	642	648	616	553	544
80°	440	447	504	544	508	447	515	524	499	447	437
82.5°	308	309	339	363	346	314	353	358	344	315	306
85°	177	174	187	196	193	185	204	201	199	189	185
87.5°	102	100	110	117	118	111	120	129	128	124	123
90°	64	63	73	80	80	79	86	94	94	92	92
95°	36	34	42	46	49	49	52	58	61	62	62
105°	21	18	19	25	28	30	31	33	36	38	39
115°	13	12	15	19	25	26	27	27	27	27	27
125°	13	12	13	17	25	27	26	24	22	22	21
135°	17	15	13	14	16	17	18	18	19	19	19
145°	21	20	13	11	12	14	14	14	14	13	13
155°	22	20	14	10	9	11	11	11	11	11	11
165°	21	21	14	9	6	8	8	8	9	9	9
175°	22	21	14	9	4	4	4	6	6	6	6
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°	6	6	6	6	6	6	6	6	6	6
5°	10	10	9	8	8	9	9	9	10	10
15°	54	57	64	72	73	67	56	49	46	46
25°	71	75	80	79	78	80	77	69	67	67
35°	176	143	87	74	73	74	92	155	166	165
45°	411	412	416	378	299	368	340	373	393	392
55°	543	544	544	529	433	510	532	527	521	521
62.5°	626	645	670	627	502	601	652	626	602	599
65°	658	685	713	664	528	632	691	667	635	628
67.5°	694	736	764	706	556	668	740	718	672	662
70°	714	773	802	744	581	702	779	752	693	681
72.5°	697	776	813	758	594	710	782	745	673	661
75°	646	722	758	712	569	666	731	691	622	611
77.5°	562	631	663	624	514	586	641	601	539	530
80°	450	501	523	498	426	469	505	469	419	411
82.5°	311	336	343	329	295	315	326	303	273	269
85°	185	192	189	183	170	179	181	171	158	156
87.5°	124	128	129	122	116	121	125	121	116	115
90°	93	96	96	89	86	87	93	92	90	90
95°	62	62	61	56	54	55	59	61	61	61
105°	38	35	34	32	31	32	33	36	39	40
115°	27	27	27	27	27	27	27	27	26	25
125°	21	22	23	26	27	26	23	21	20	20
135°	18	18	18	18	17	17	18	18	18	18
145°	13	13	14	14	14	14	14	13	13	13
155°	11	11	11	11	11	11	11	11	11	11
165°	9	9	9	9	8	8	8	8	8	8
175°	6	6	6	6	6	7	7	7	7	7
180°	0	0	0	0	0	0	0	0	0	0

(END OF REPORT)