

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: 767538

Luminaire Tested: **GSM-XX-400-HPS-XX-3V-SG-XX-HS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: 767538  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GSM-XX-400-HPS-XX-3V-SG-XX-HS  
Description: MEDIUM ARCHITECTURAL AREA LUMINAIRE-VERTICAL LAMP-TYPE III DISTRIBUTION  
Light Source: 400 WATT HPS CLEAR E-18  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 50000 (1 lamp)  
Luminaire Lumens: 28811.6 lumens  
Efficiency: 57.6%  
Efficacy: 72.0 lumens/watt  
Luminous Opening: Point Source (0' x 0' x 0')  
IES Classification: Type III - Short - Cutoff  
BUG Rating: B4 - U3 - G4

Input Watts (W): 400  
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

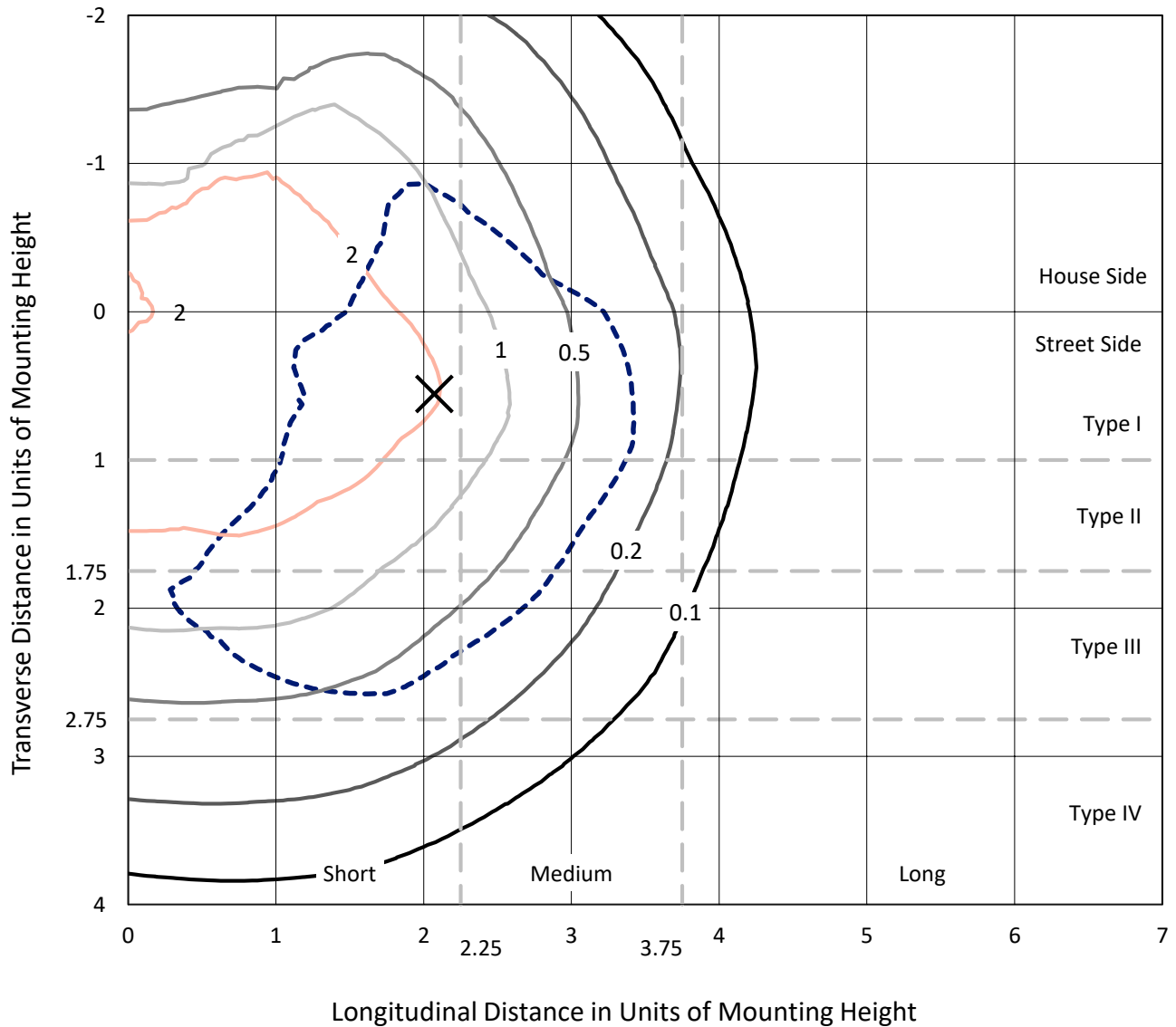


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

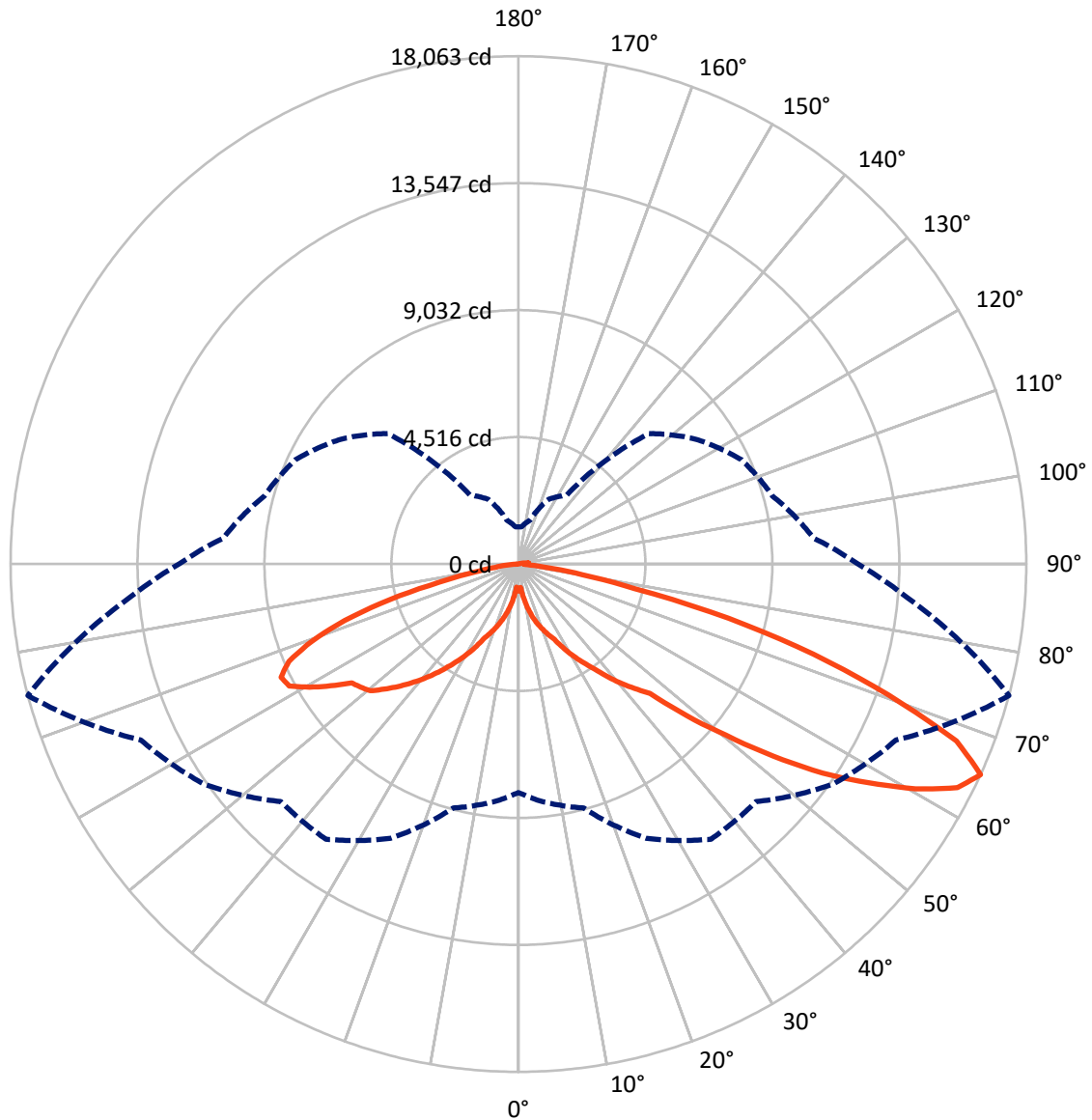


Based on 25 foot mounting height. Maximum calculated value = 4.2 fc  
 Type III - Short - Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral    - - - Horizontal Cone Through 65-Deg Vertical

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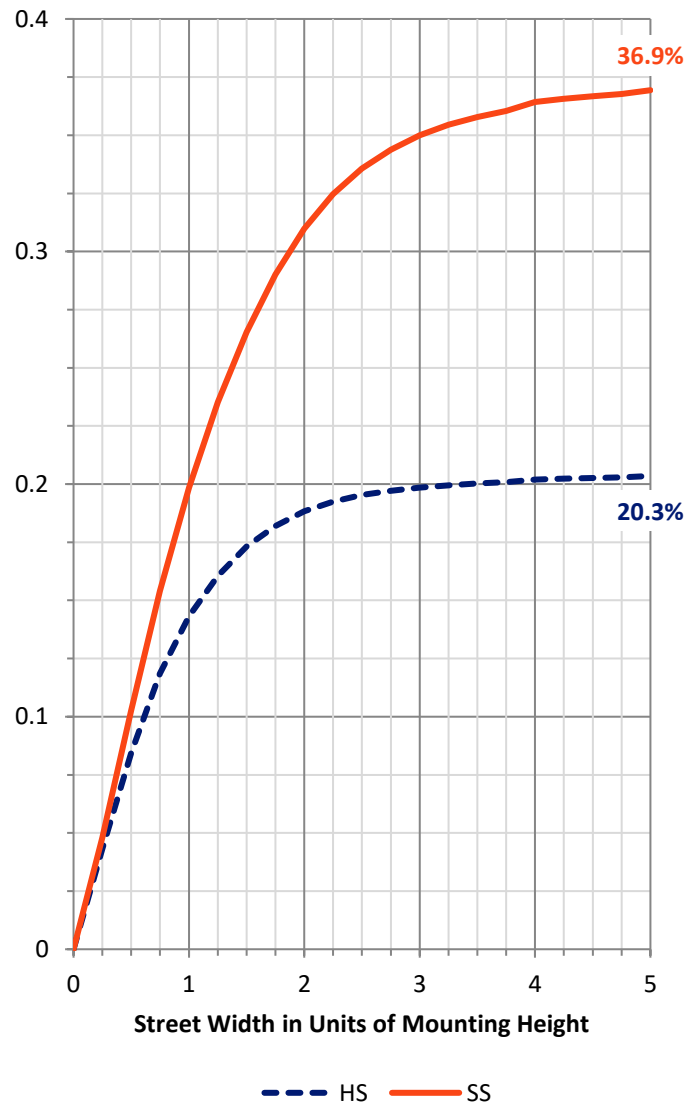
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	10199.3	10.8	10210.1
	% Lamp	20.4	0.0	20.4
<b>Street Side</b>	Lumens	18509.2	92.4	18601.5
	% Lamp	37.0	0.2	37.2
<b>Total</b>	Lumens	28708.4	103.2	28811.6
	% Lamp	57.4	0.2	57.6

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	102.8	0.4	0.2
10°-20°	547.5	1.9	1.1
20°-30°	1381.5	4.8	2.8
30°-40°	2544.9	8.8	5.1
40°-50°	4045.0	14.0	8.1
50°-60°	6230.2	21.6	12.5
60°-70°	8561.3	29.7	17.1
70°-80°	4748.0	16.5	9.5
80°-90°	590.9	2.1	1.2
90°-100°	84.7	0.3	0.2
100°-110°	26.8	0.1	0.1
110°-120°	1.9	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-90°	28708.4	99.6	57.4
0°-180°	28811.6	100.0	57.6



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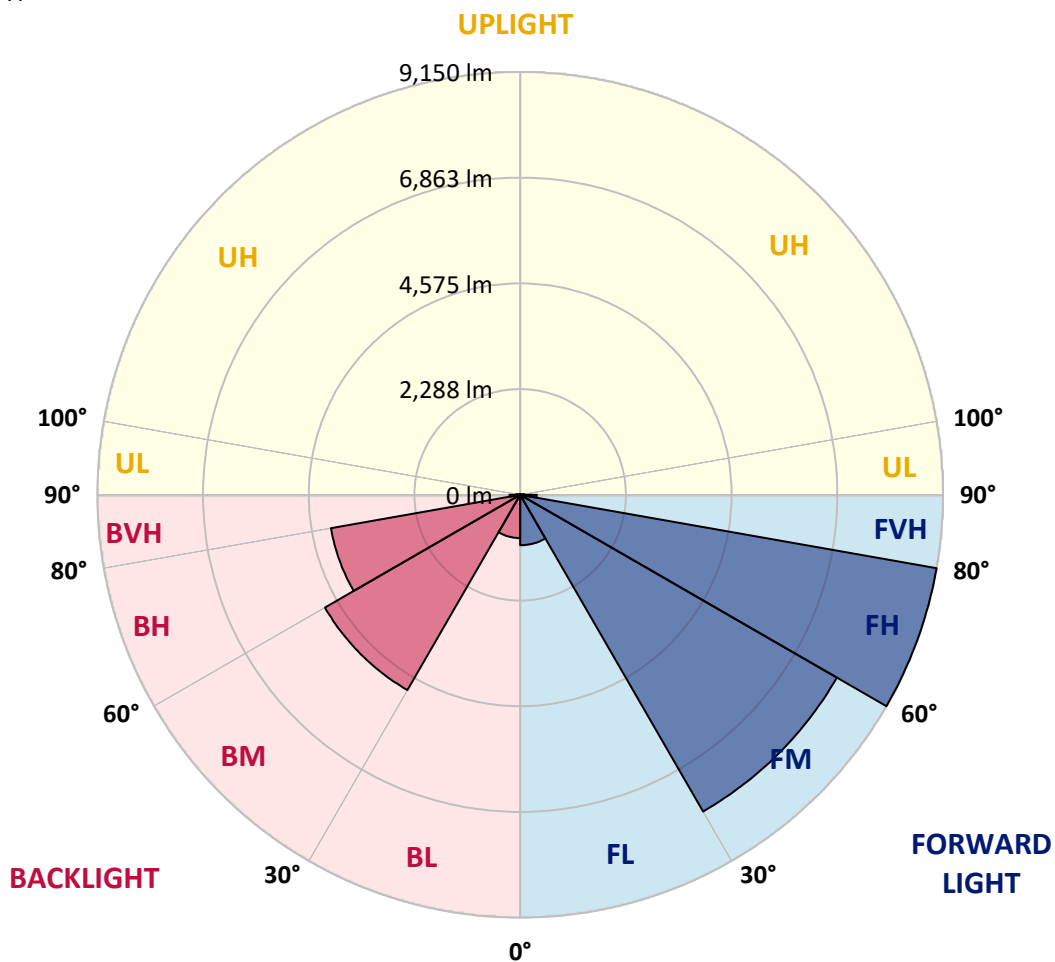
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1091.0	2.2			
FM	(30°-60°)	7914.2	15.8			
FH	(60°-80°)	9150.1	18.3			G4/12000
FVH	(80°-90°)	361.5	0.7			G3/500
BL	(0°-30°)	936.7	1.9	B2/1000		
BM	(30°-60°)	4878.0	9.8	B3/5000		
BH	(60°-80°)	4159.2	8.3	B4/5000		G4/5000
BVH	(80°-90°)	229.4	0.5			G3/500
UL	(90°-100°)	84.7	0.2		U3/500	
UH	(100°-180°)	10.8	0.0		U2/50	
Trapped Light		21188.4	42.4			

**BUG Rating: B4-U3-G4**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	968	968	968	968	968	968	968	968	968	968	968
5°	936	947	936	936	926	895	874	858	838	822	817
15°	2237	2232	2258	2237	2169	2154	2102	2034	2008	1940	1930
25°	3319	3335	3277	3246	3205	3168	3111	3023	2971	2898	2913
35°	4484	4578	4562	4490	4615	4599	4849	4635	4526	4620	4656
45°	5327	5634	5561	5728	5884	6415	6487	6675	6560	6217	6300
50°	6024	6227	6310	6441	6846	7367	7741	7580	9567	7715	7413
55°	6846	6862	6950	7434	7892	8584	9500	9458	13126	9375	8267
60°	8189	8246	8511	9650	10171	10644	12168	12600	16237	12356	10743
62.5°	8449	8678	9094	10634	11409	11643	13230	14135	17522	13547	11778
65°	8126	8449	8984	10764	11945	11950	13651	14816	18063	13896	12070
67.5°	7523	7762	8459	10103	11440	11518	13063	14426	16804	13042	11523
70°	6461	6737	7517	8906	10165	10457	11523	12595	13963	11383	10374
72.5°	5421	5624	6389	7653	8678	8958	9640	9973	10972	9650	8990
75°	3902	4141	4843	5775	6415	6909	7309	7252	7731	7471	6872
77.5°	2268	2476	3075	3647	3959	4500	4911	4464	4224	4438	4063
80°	1155	1228	1368	1826	1925	2377	2747	2383	2310	2143	2185
82.5°	687	671	661	921	916	1103	1316	926	973	916	968
85°	458	427	395	442	473	468	531	364	307	328	369
87.5°	229	218	218	234	218	213	213	213	203	135	104
90°	187	177	161	146	156	146	156	203	234	125	94
95°	94	99	94	99	125	130	166	203	359	161	120
105°	10	16	16	10	10	5	10	10	5	10	5
115°	0	0	0	0	0	0	0	0	0	0	0
125°	0	0	0	0	0	0	0	0	0	0	0
135°	0	0	0	0	0	0	0	0	0	0	0
145°	0	0	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0	0	0
166°	0	0	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0	0	0
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°	968	968	968	968	968	968	968	968	968	968
5°	817	822	832	827	827	822	822	812	806	812
15°	1899	1904	1956	1977	2008	1914	1597	1472	1394	1373
25°	2861	2882	2919	2867	2913	2731	2736	2601	2398	2351
35°	4516	4443	4282	4193	4021	3897	2768	1935	1805	1821
45°	6071	6108	5691	5478	4833	4484	1587	1223	1176	1186
50°	7127	6940	6134	6014	5358	3803	1550	1420	1363	1353
55°	7970	7283	6779	6264	6009	3194	2060	1748	1571	1561
60°	9760	8626	8137	7320	6742	2799	2305	1826	1582	1540
62.5°	10348	9234	8683	7689	6836	2851	2445	1899	1654	1623
65°	10540	9354	8761	7726	6555	2986	2534	1618	1332	1321
67.5°	10082	8875	8220	7419	5946	2887	2403	1249	853	791
70°	9011	7856	7127	6430	4890	2414	1732	749	536	499
72.5°	7653	6498	5801	5052	3730	1982	1103	494	479	499
75°	5946	4755	4240	3532	2726	1639	682	427	328	312
77.5°	3819	2887	2664	2185	1831	1358	499	312	125	104
80°	2221	1566	1722	1436	1228	713	395	161	52	42
82.5°	1181	812	1306	1087	916	458	260	78	31	31
85°	583	525	1124	744	619	255	114	26	16	21
87.5°	83	68	68	42	36	16	10	10	5	0
90°	57	26	21	10	10	5	5	5	0	10
95°	62	16	16	5	5	5	0	0	0	0
105°	5	5	5	5	5	5	5	5	10	10
115°	0	0	0	0	0	0	0	0	0	0
125°	0	0	0	0	0	0	0	0	0	0
135°	0	0	0	0	0	0	0	0	0	0
145°	0	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0	0
166°	0	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0	0

(END OF REPORT)