

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: 767602

Luminaire Tested: **GSM-XX-400-HPS-XX-AS-SG-XX-HS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: 767602  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GSM-XX-400-HPS-XX-AS-SG-XX-HS  
Description: MEDIUM ARCHITECTURAL AREA LUMINAIRE-VERTICAL LAMP-SQUARE DISTRIBUTION  
Light Source: 400 WATT HPS CLEAR E-18  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 50000 (1 lamp)  
Luminaire Lumens: 28167.3 lumens  
Efficiency: 56.3%  
Efficacy: 70.4 lumens/watt  
Luminous Opening: Point Source (0' x 0' x 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B5 - U3 - G5

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

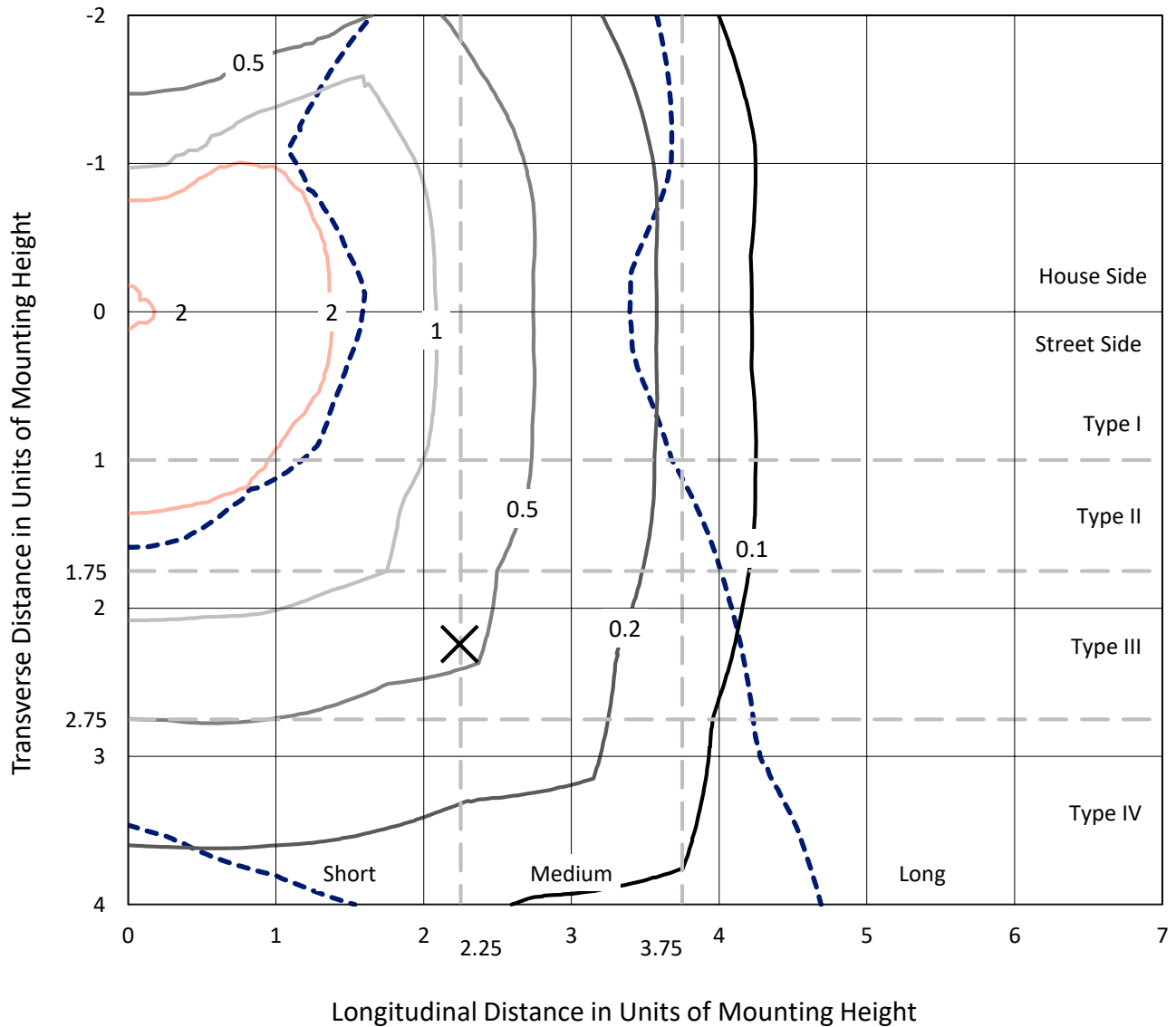


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

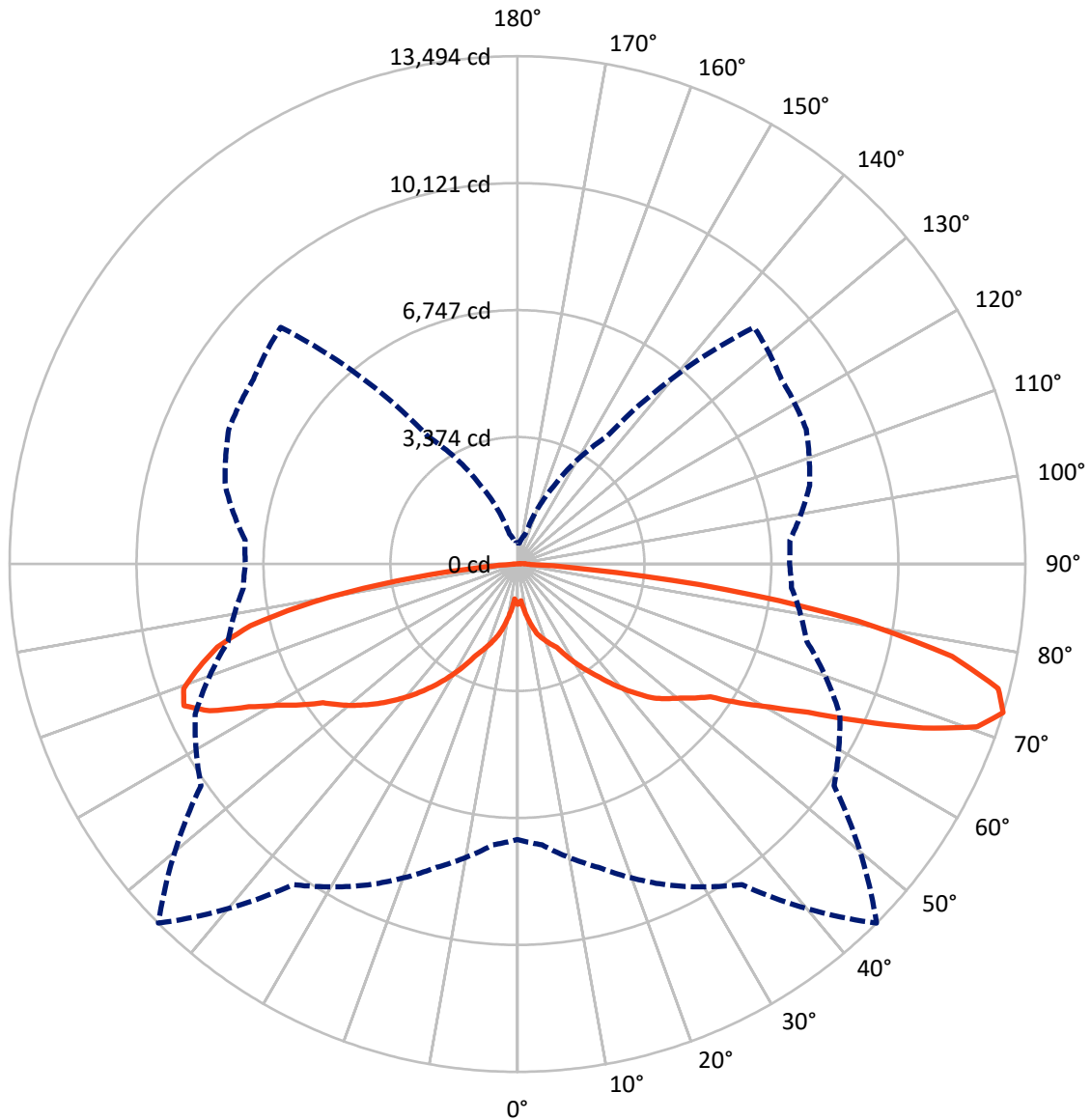


Based on 25 foot mounting height. Maximum calculated value = 3.5 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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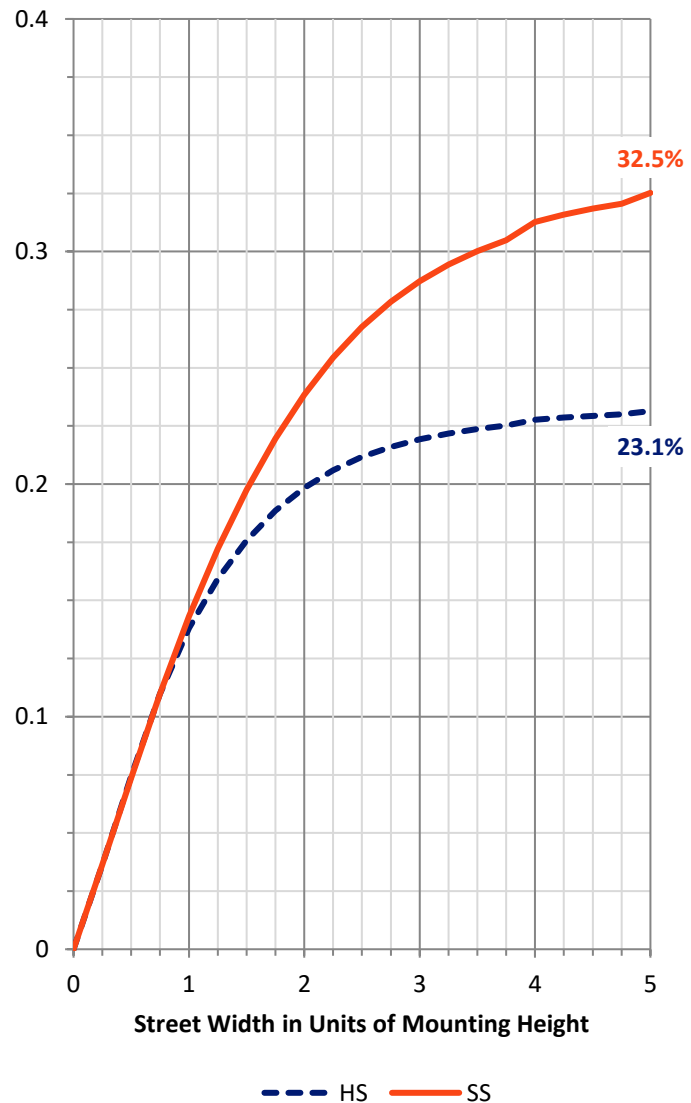
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	11580.4	28.6	11609.1
	% Lamp	23.2	0.1	23.2
<b>Street Side</b>	Lumens	16480.8	77.5	16558.2
	% Lamp	33.0	0.2	33.1
<b>Total</b>	Lumens	28061.2	106.1	28167.3
	% Lamp	56.1	0.2	56.3

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	109.0	0.4	0.2
10°-20°	519.1	1.8	1.0
20°-30°	1242.0	4.4	2.5
30°-40°	2294.0	8.1	4.6
40°-50°	3601.1	12.8	7.2
50°-60°	5063.4	18.0	10.1
60°-70°	7200.9	25.6	14.4
70°-80°	6634.1	23.6	13.3
80°-90°	1389.2	4.9	2.8
90°-100°	82.7	0.3	0.2
100°-110°	25.2	0.1	0.1
110°-120°	5.5	0.0	0.0
120°-130°	1.7	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°	28061.2	99.6	56.1
0°-180°	28167.3	100.0	56.3



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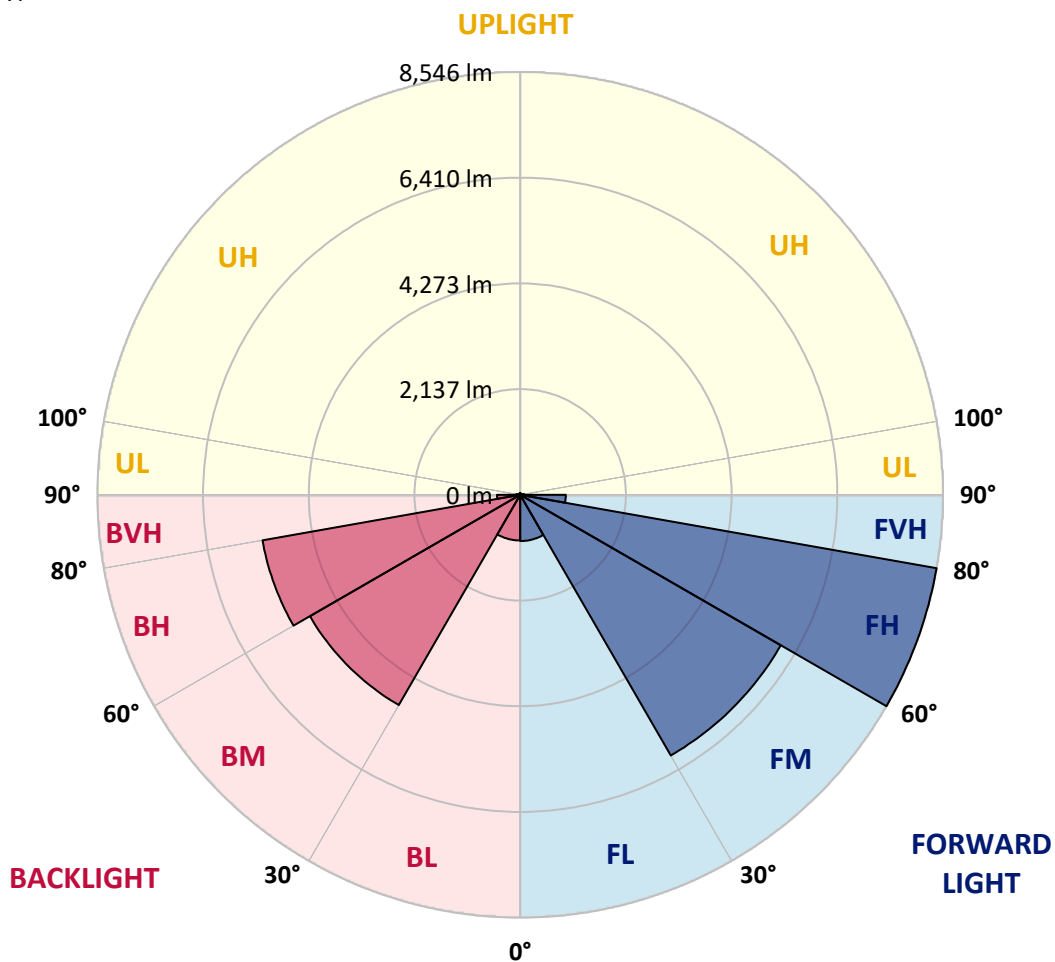
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	935.2	1.9			
FM	(30°-60°)	6083.4	12.2			
FH	(60°-80°)	8546.3	17.1			G4/12000
FVH	(80°-90°)	922.0	1.8			G5
BL	(0°-30°)	923.1	1.8	B2/1000		
BM	(30°-60°)	4906.1	9.8	B3/5000		
BH	(60°-80°)	5288.7	10.6	B5		G5
BVH	(80°-90°)	467.2	0.9			G3/500
UL	(90°-100°)	82.7	0.2		U3/500	
UH	(100°-180°)	28.6	0.1		U2/50	
Trapped Light		21832.7	43.7			

**BUG Rating: B5-U3-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1072	1072	1072	1072	1072	1072	1072	1072	1072	1072	1072
5°	1062	1057	1041	1031	1011	980	960	939	929	919	873
15°	2144	2139	2154	2144	2042	1909	1782	1818	1838	1807	1766
25°	2696	2691	2670	2645	2619	2466	2369	2445	2517	2542	2512
35°	4003	3931	3860	3860	3849	3655	3477	3640	3732	3732	3666
45°	5177	5141	5095	5320	5248	5085	4881	5299	5289	5325	5315
50°	5524	5606	5565	5810	5856	5601	5524	5805	5881	5943	5983
55°	6188	6178	6188	6346	6525	6223	6065	6310	6402	6280	6208
60°	7178	7173	7280	7724	8036	7709	7449	7622	7428	7214	7173
62.5°	7495	7505	7673	8317	8781	8669	8225	8209	7852	7551	7505
65°	7760	7791	8128	8965	9506	10068	9011	8894	8291	7852	7796
67.5°	7801	7924	8710	9619	10282	11630	9858	9578	8654	7954	7827
70°	7801	7949	8924	9910	10706	12957	10430	9966	8608	7867	7765
72.5°	7321	7490	8347	9409	10400	13494	10267	9450	7959	7311	7229
75°	6290	6469	7183	8368	9501	13197	9552	8291	6872	6152	6111
77.5°	4809	4947	5764	6744	7980	11804	8072	6673	5550	4671	4580
80°	3278	3497	4411	4876	6050	9154	6009	4758	3962	3073	3053
82.5°	1634	1756	2583	2828	3533	5611	3385	2680	2200	1327	1353
85°	613	705	1098	970	1154	1909	1077	1026	807	424	393
87.5°	245	255	281	306	327	347	311	291	184	133	117
90°	163	163	179	194	209	214	209	158	123	77	71
95°	92	92	107	117	128	123	138	128	97	66	51
105°	20	15	15	10	5	5	15	15	5	5	5
115°	10	10	10	10	10	5	10	10	5	5	5
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°	1072	1072	1072	1072	1072	1072	1072	1072	1072	1072
5°	909	914	924	929	929	919	914	919	914	919
15°	1807	1823	1899	1894	1909	1884	1741	1715	1715	1715
25°	2527	2594	2634	2650	2665	2680	2691	2680	2665	2665
35°	3691	3860	3875	3890	3931	3865	3426	2767	2680	2655
45°	5131	5386	5412	5483	5182	5156	2839	1833	1608	1583
50°	5667	6029	5917	6198	5784	5167	2415	1705	1624	1613
55°	6172	6377	6402	6499	6346	4651	2251	1950	1782	1766
60°	7091	7285	7541	7678	7393	4574	2604	2032	1761	1736
62.5°	7444	7694	8066	8194	8082	4483	2742	1991	1664	1613
65°	7745	8163	8633	8715	9062	4350	2895	1925	1460	1399
67.5°	7913	8582	9062	9052	9629	4360	3068	1823	1159	1082
70°	7847	8669	9088	9047	9470	4396	2982	1424	847	817
72.5°	7265	8036	8465	8562	8894	4125	2287	832	556	572
75°	6147	6892	7342	7643	8271	3691	1343	429	357	368
77.5°	4631	5529	5871	6326	7285	3048	771	306	260	255
80°	3124	4038	4197	4457	5514	2287	490	225	286	337
82.5°	1373	2231	2328	2338	3237	1169	291	184	153	163
85°	439	638	832	710	1011	337	133	102	41	41
87.5°	123	138	153	153	138	87	36	26	10	10
90°	66	77	87	92	87	56	26	10	10	0
95°	31	61	66	61	46	41	20	10	10	10
105°	5	5	5	5	5	0	0	0	0	0
115°	5	5	5	5	5	10	10	10	10	10
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)