

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: LUMARK

Report Number: E429-98

Luminaire Tested: **MHQP-S4/9/GL-175**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: E429-98
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: MHQP-S4/9/GL-175
Description: RECESSED COMMERCIAL W/SPECULAR LOUVERS
Light Source: 175 WATT MH COATED ED-28
Ballast/Driver: -

Summary

Lumens per Lamp: 15000 (1 lamp)
Luminaire Lumens: 9092.9 lumens
Efficiency: 60.6%
Efficacy: 43.3 lumens/watt
Luminous Opening: Rectangular (W 1.75' x L: 1.75' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B3 - U0 - G0

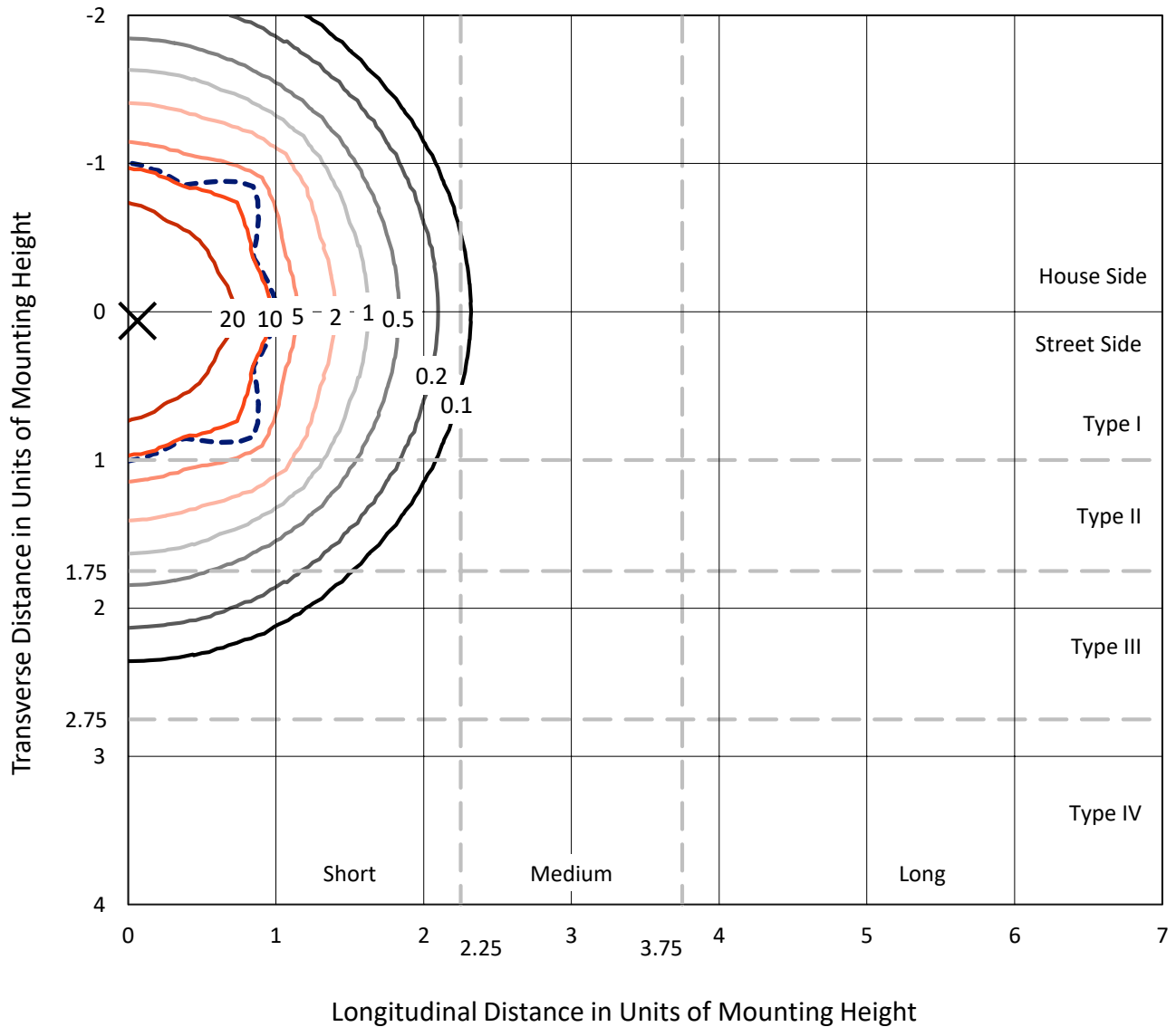
Input Watts (W): 210
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

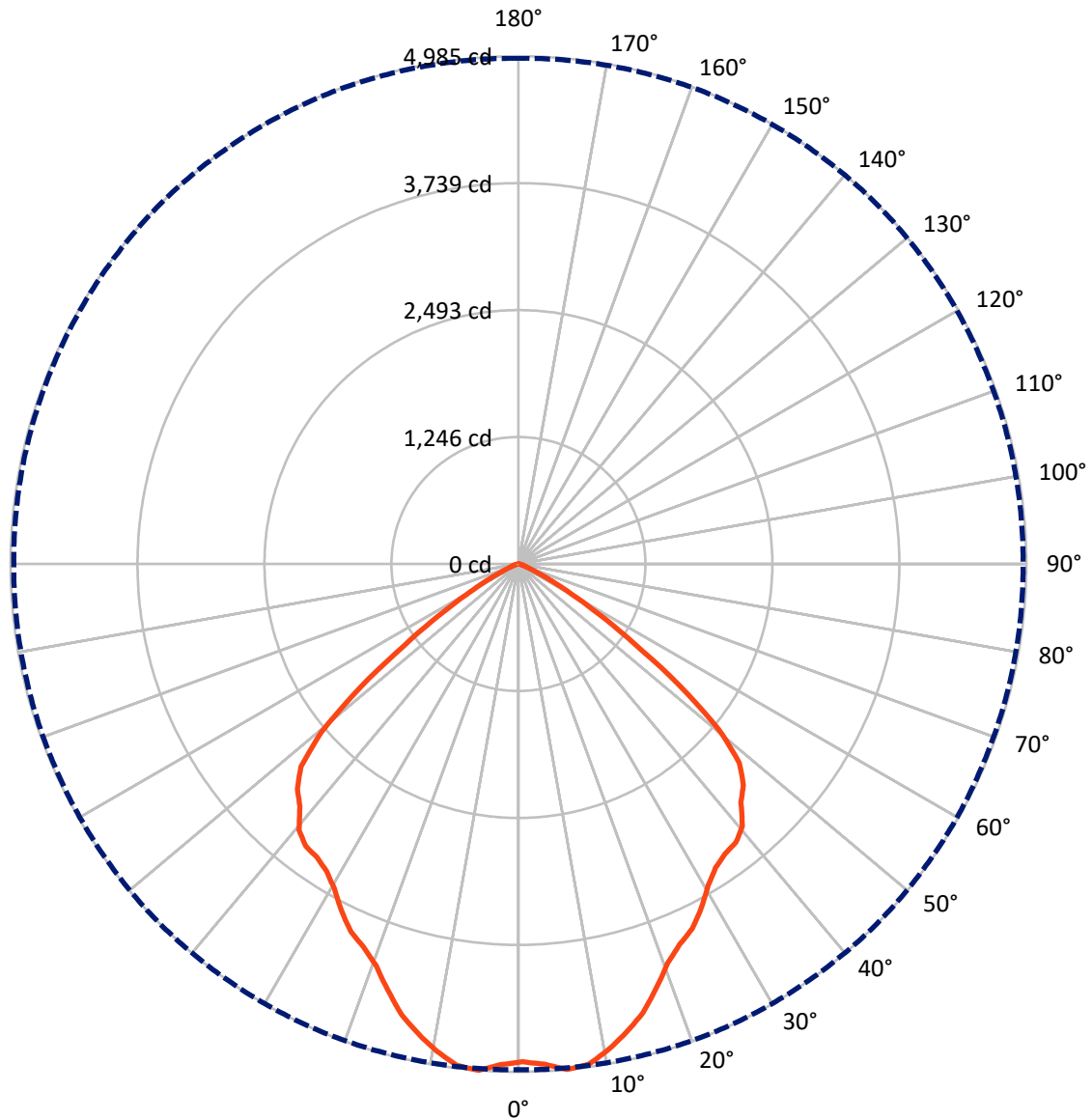
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 48.9 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 5-Deg Vertical

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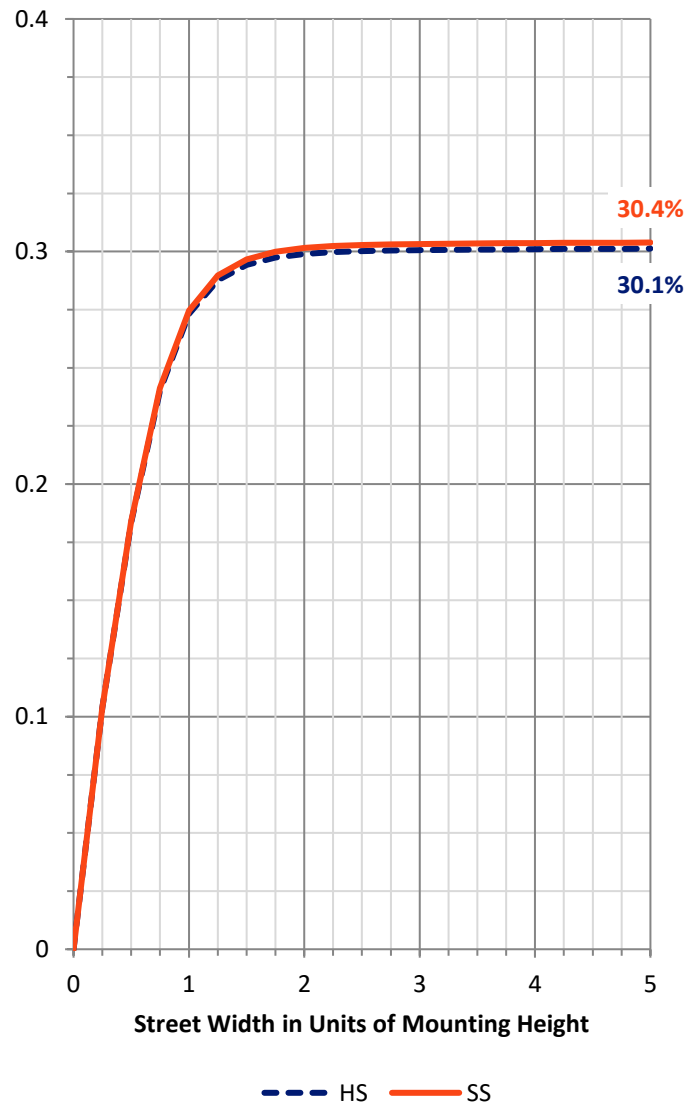
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4546.4	0.0	4546.4
	% Lamp	30.3	0.0	30.3
Street Side	Lumens	4546.4	0.0	4546.4
	% Lamp	30.3	0.0	30.3
Total	Lumens	9092.9	0.0	9092.9
	% Lamp	60.6	0.0	60.6

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	469.9	5.2	3.1
10°-20°	1323.1	14.6	8.8
20°-30°	1921.6	21.1	12.8
30°-40°	2192.7	24.1	14.6
40°-50°	1888.4	20.8	12.6
50°-60°	977.7	10.8	6.5
60°-70°	258.4	2.8	1.7
70°-80°	51.5	0.6	0.3
80°-90°	9.6	0.1	0.1
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	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°	9092.9	100.0	60.6
0°-180°	9092.9	100.0	60.6



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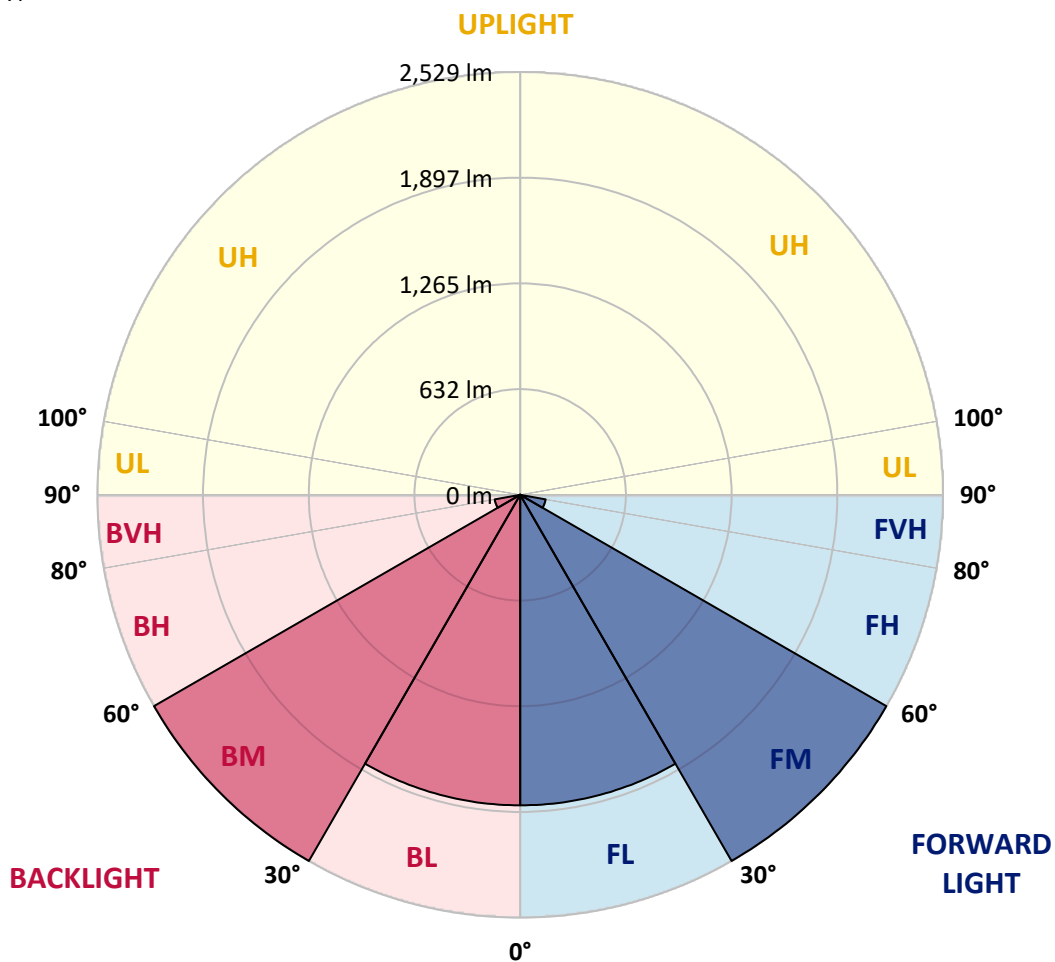
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1857.3	12.4			
FM	(30°-60°)	2529.4	16.9			
FH	(60°-80°)	154.9	1.0			G0/660
FVH	(80°-90°)	4.8	0.0			G0/10
BL	(0°-30°)	1857.3	12.4	B3/2500		
BM	(30°-60°)	2529.4	16.9	B3/5000		
BH	(60°-80°)	154.9	1.0	B1/500		G0/660
BVH	(80°-90°)	4.8	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		5907.1	39.4			

BUG Rating: B3-U0-G0

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	4886	4886	4886	4886	4886	4886	4886	4886	4886
2.5°	4911	4911	4916	4913	4917	4913	4916	4911	4911
5°	4964	4981	4985	4965	4954	4965	4985	4981	4964
7.5°	4923	4966	4958	4927	4888	4927	4958	4966	4923
10°	4862	4880	4848	4837	4804	4837	4848	4880	4862
12.5°	4839	4797	4716	4768	4754	4768	4716	4797	4839
15°	4865	4752	4572	4692	4719	4692	4572	4752	4865
17.5°	4859	4692	4377	4612	4708	4612	4377	4692	4859
20°	4726	4530	4183	4439	4655	4439	4183	4530	4726
22.5°	4570	4257	4054	4219	4579	4219	4054	4257	4570
25°	4550	4024	3965	4027	4559	4027	3965	4024	4550
27.5°	4560	3880	3823	3872	4620	3872	3823	3880	4560
30°	4563	3766	3665	3753	4654	3753	3665	3766	4563
32.5°	4249	3592	3553	3598	4255	3598	3553	3592	4249
35°	3917	3332	3493	3312	3778	3312	3493	3332	3917
37.5°	3704	3061	3468	2987	3473	2987	3468	3061	3704
40°	3479	2820	3384	2727	3250	2727	3384	2820	3479
42.5°	3008	2506	3203	2459	2958	2459	3203	2506	3008
45°	2501	2181	3095	2175	2530	2175	3095	2181	2501
47.5°	1988	1799	2919	1807	2017	1807	2919	1799	1988
50°	1523	1460	2544	1470	1566	1470	2544	1460	1523
52.5°	1203	1174	1975	1157	1206	1157	1975	1174	1203
55°	983	959	1372	930	968	930	1372	959	983
57.5°	797	763	942	744	776	744	942	763	797
60°	554	557	595	544	548	544	595	557	554
62.5°	396	364	374	363	365	363	374	364	396
65°	253	239	215	209	220	209	215	239	253
67.5°	146	145	124	128	130	128	124	145	146
70°	94	91	80	85	90	85	80	91	94
72.5°	68	64	58	61	66	61	58	64	68
75°	47	45	42	45	48	45	42	45	47
77.5°	33	33	32	33	36	33	32	33	33
80°	23	23	22	23	26	23	22	23	23
82.5°	14	13	14	14	16	14	14	13	14
85°	7	7	7	7	8	7	7	7	7
87.5°	2	2	3	3	3	3	3	2	2
90°	0	0	0	0	0	0	0	0	0

(END OF REPORT)