

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: E429-96

Luminaire Tested: **MHQP-S3/16/GL-175**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: E429-96  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: MHQP-S3/16/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: 8334.2 lumens  
Efficiency: 55.6%  
Efficacy: 39.7 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

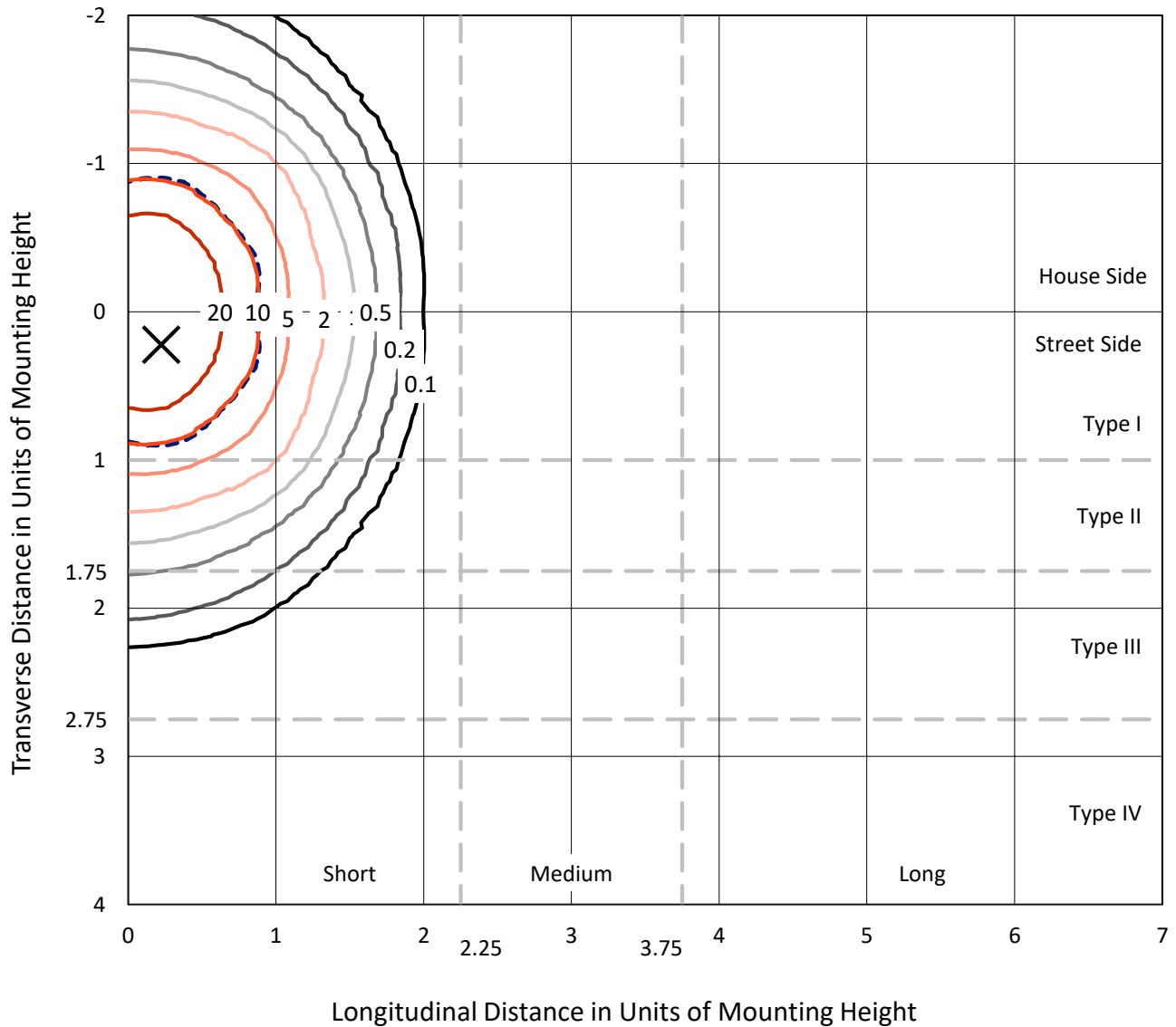
Input Watts (W): 210  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

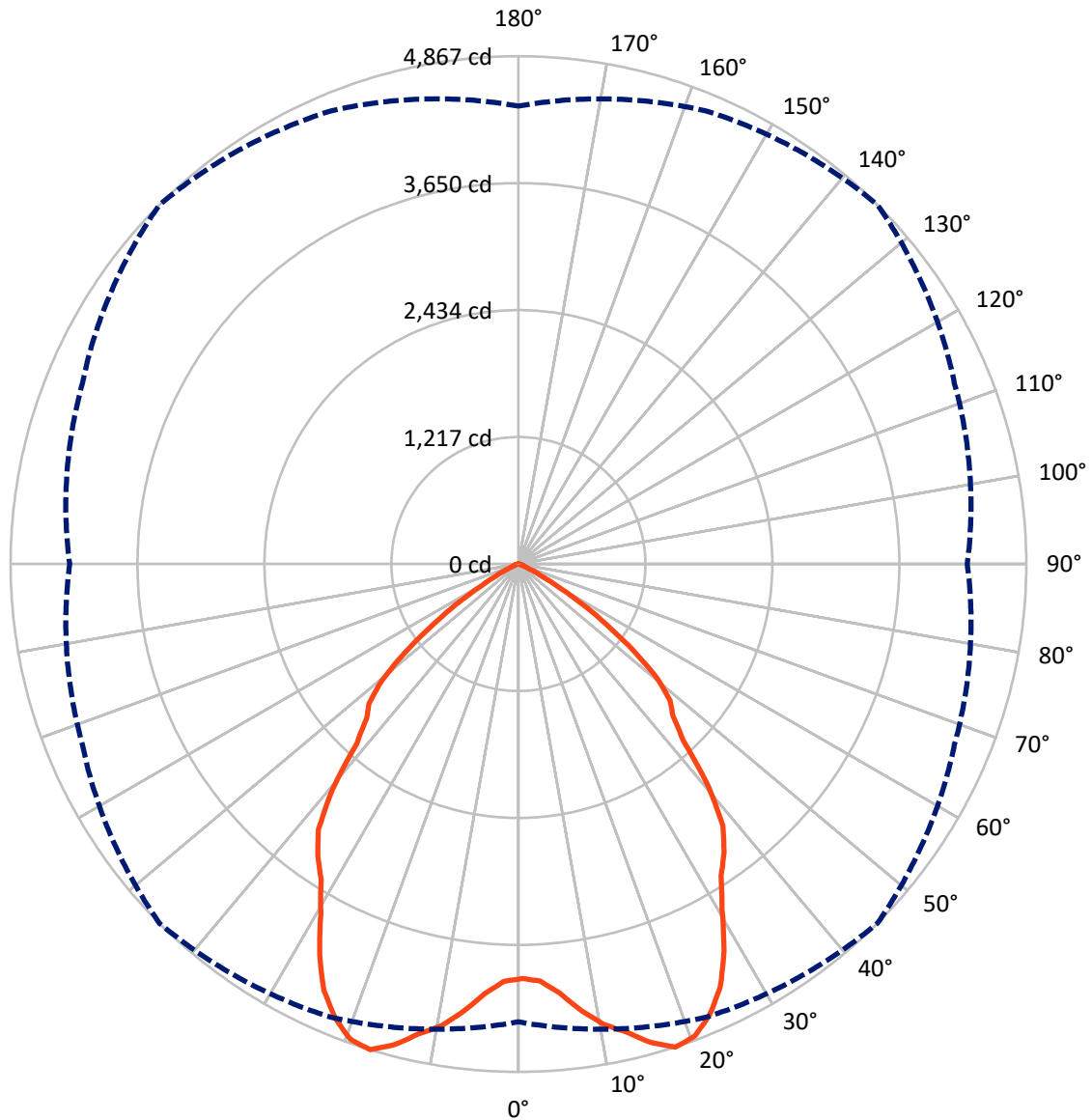
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 42.8 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 17.5-Deg Vertical

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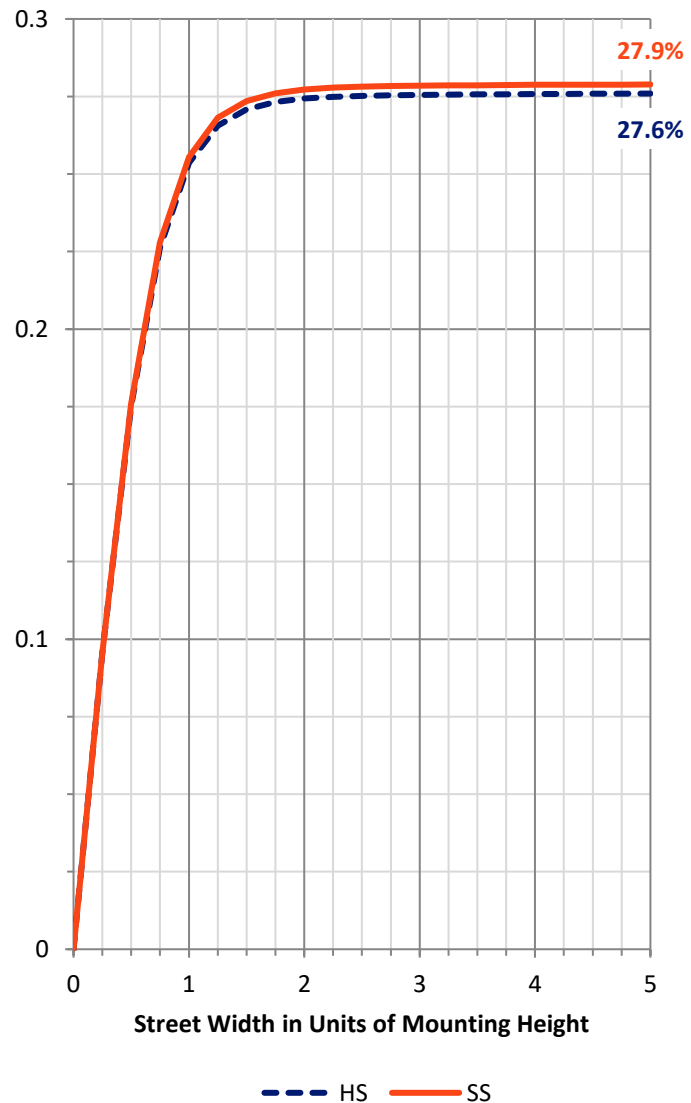
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4167.1	0.0	4167.1
	% Lamp	27.8	0.0	27.8
<b>Street Side</b>	Lumens	4167.1	0.0	4167.1
	% Lamp	27.8	0.0	27.8
<b>Total</b>	Lumens	8334.2	0.0	8334.2
	% Lamp	55.6	0.0	55.6

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	403.4	4.8	2.7
10°-20°	1293.4	15.5	8.6
20°-30°	1998.2	24.0	13.3
30°-40°	2057.4	24.7	13.7
40°-50°	1610.4	19.3	10.7
50°-60°	766.7	9.2	5.1
60°-70°	163.7	2.0	1.1
70°-80°	33.9	0.4	0.2
80°-90°	7.1	0.1	0.0
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°	8334.2	100.0	55.6
0°-180°	8334.2	100.0	55.6



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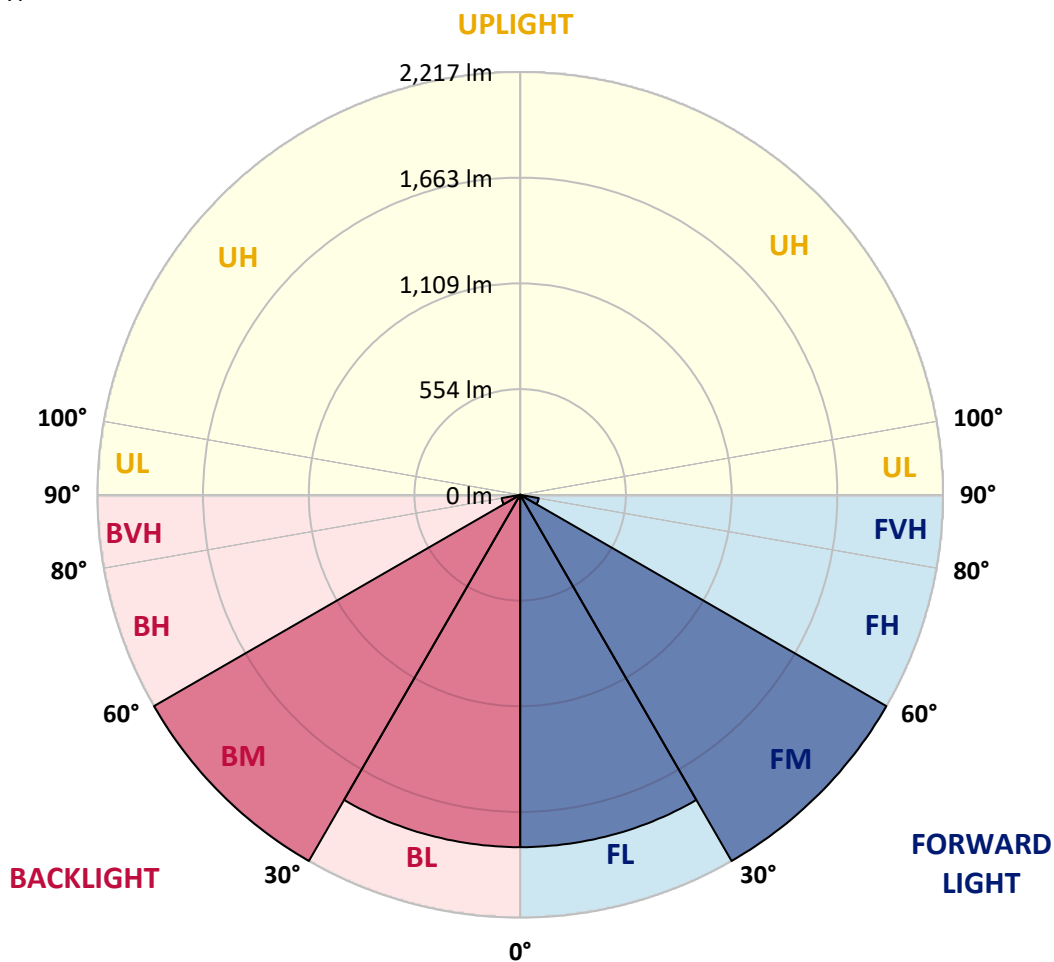
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1847.5	12.3			
FM	(30°-60°)	2217.3	14.8			
FH	(60°-80°)	98.8	0.7			G0/660
FVH	(80°-90°)	3.5	0.0			G0/10
BL	(0°-30°)	1847.5	12.3	B3/2500		
BM	(30°-60°)	2217.3	14.8	B2/2500		
BH	(60°-80°)	98.8	0.7	B0/110		G0/660
BVH	(80°-90°)	3.5	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		6665.8	44.4			

**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°	3972	3972	3972	3972	3972	3972	3972	3972	3972
2.5°	4004	4003	4001	4003	3991	4003	4001	4003	4004
5°	4092	4114	4130	4145	4130	4145	4130	4114	4092
7.5°	4200	4250	4320	4308	4289	4308	4320	4250	4200
10°	4310	4387	4486	4439	4388	4439	4486	4387	4310
12.5°	4429	4544	4604	4542	4446	4542	4604	4544	4429
15°	4463	4661	4759	4566	4399	4566	4759	4661	4463
17.5°	4388	4700	4867	4523	4301	4523	4867	4700	4388
20°	4263	4643	4830	4458	4206	4458	4830	4643	4263
22.5°	4168	4540	4691	4418	4157	4418	4691	4540	4168
25°	4061	4487	4492	4436	4083	4436	4492	4487	4061
27.5°	3970	4433	4198	4359	3941	4359	4198	4433	3970
30°	3803	4296	3846	4098	3640	4098	3846	4296	3803
32.5°	3398	4029	3566	3643	3159	3643	3566	4029	3398
35°	3033	3580	3393	3113	2760	3113	3393	3580	3033
37.5°	2799	3179	3182	2792	2581	2792	3182	3179	2799
40°	2571	2931	2804	2700	2479	2700	2804	2931	2571
42.5°	2287	2593	2316	2532	2240	2532	2316	2593	2287
45°	1981	2196	2074	2203	1921	2203	2074	2196	1981
47.5°	1602	1800	1956	1781	1513	1781	1956	1800	1602
50°	1277	1406	1723	1359	1161	1359	1723	1406	1277
52.5°	1005	1065	1383	975	911	975	1383	1065	1005
55°	810	795	1019	740	763	740	1019	795	810
57.5°	608	610	713	565	566	565	713	610	608
60°	446	431	417	357	253	357	417	431	446
62.5°	335	285	243	158	123	158	243	285	335
65°	204	182	125	94	89	94	125	182	204
67.5°	89	100	72	71	69	71	72	100	89
70°	55	58	53	54	54	54	53	58	55
72.5°	39	40	39	42	42	42	39	40	39
75°	27	29	30	32	33	32	30	29	27
77.5°	20	21	22	25	24	25	22	21	20
80°	12	15	16	18	18	18	16	15	12
82.5°	7	9	10	12	12	12	10	9	7
85°	4	5	6	7	7	7	6	5	4
87.5°	1	2	2	2	3	2	2	2	1
90°	0	0	0	0	0	0	0	0	0

(END OF REPORT)