

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: E429-111

Luminaire Tested: **MHQD-GO/GAS/A-175**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: E429-111
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: MHQD-GO/GAS/A-175
Description: RECESSED COMMERCIAL WITH DROP LENS
Light Source: 175 WATT MH COATED ED-28
Ballast/Driver: -

Summary

Lumens per Lamp: 15000 (1 lamp)
Luminaire Lumens: 11601.6 lumens
Efficiency: 77.3%
Efficacy: 66.3 lumens/watt
Luminous Opening: Rectangular (W 1.75' x L: 1.75' x H: 0')
IES Classification: Type V - Short - Cutoff
BUG Rating: B3 - U3 - G2

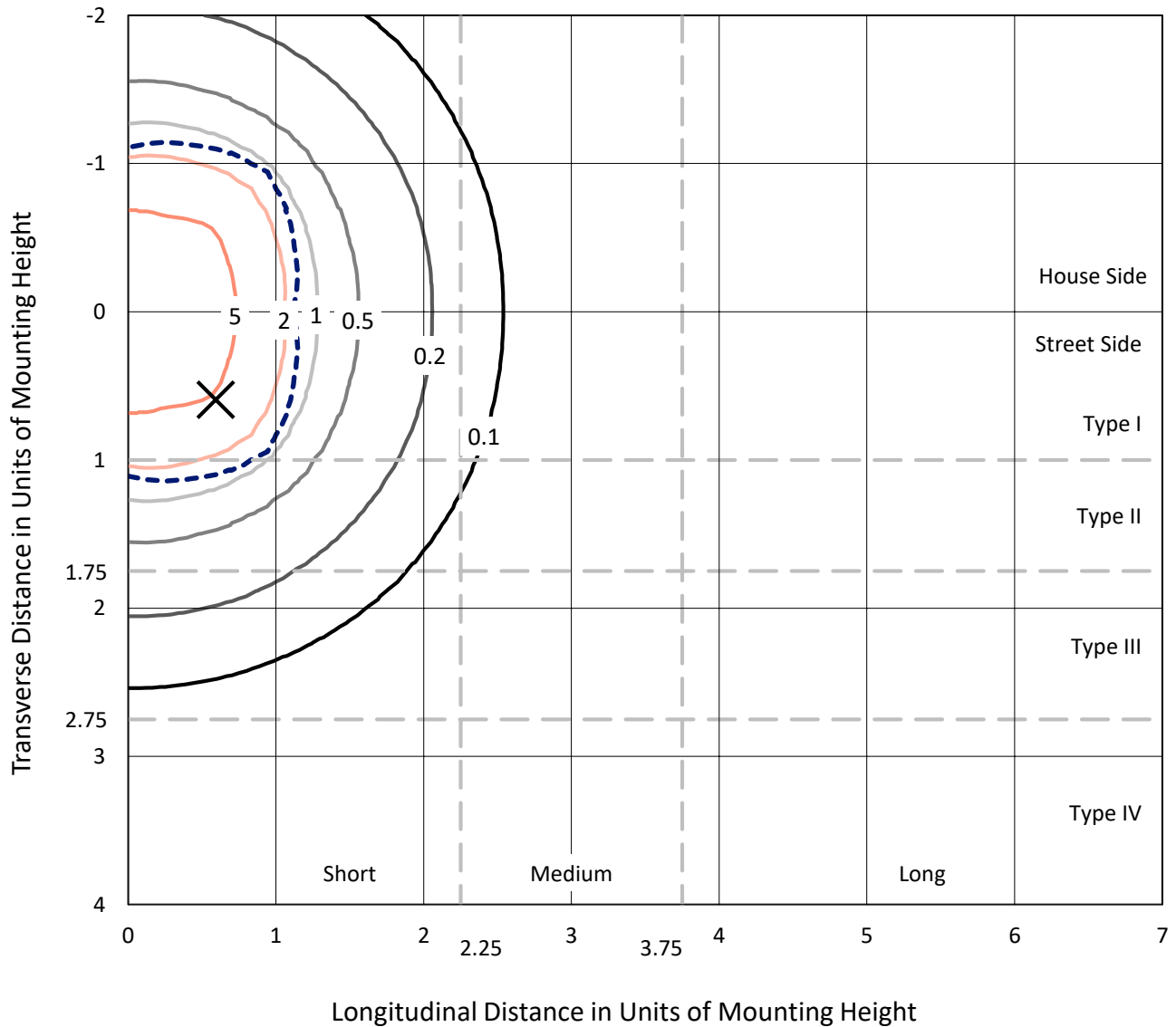
Input Watts (W): 175
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

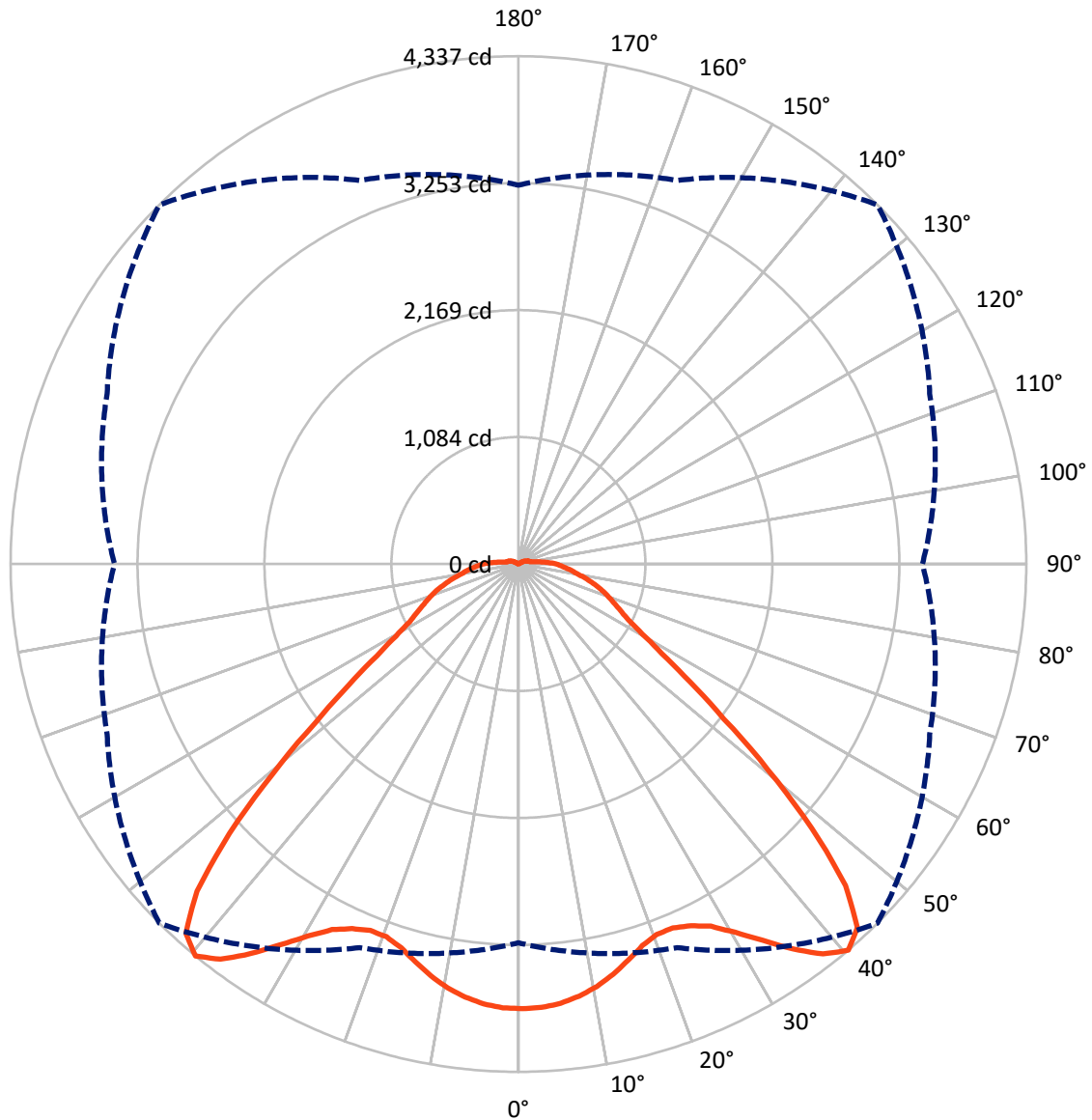
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 9.5 fc
 Type V - Short - Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 40-Deg Vertical

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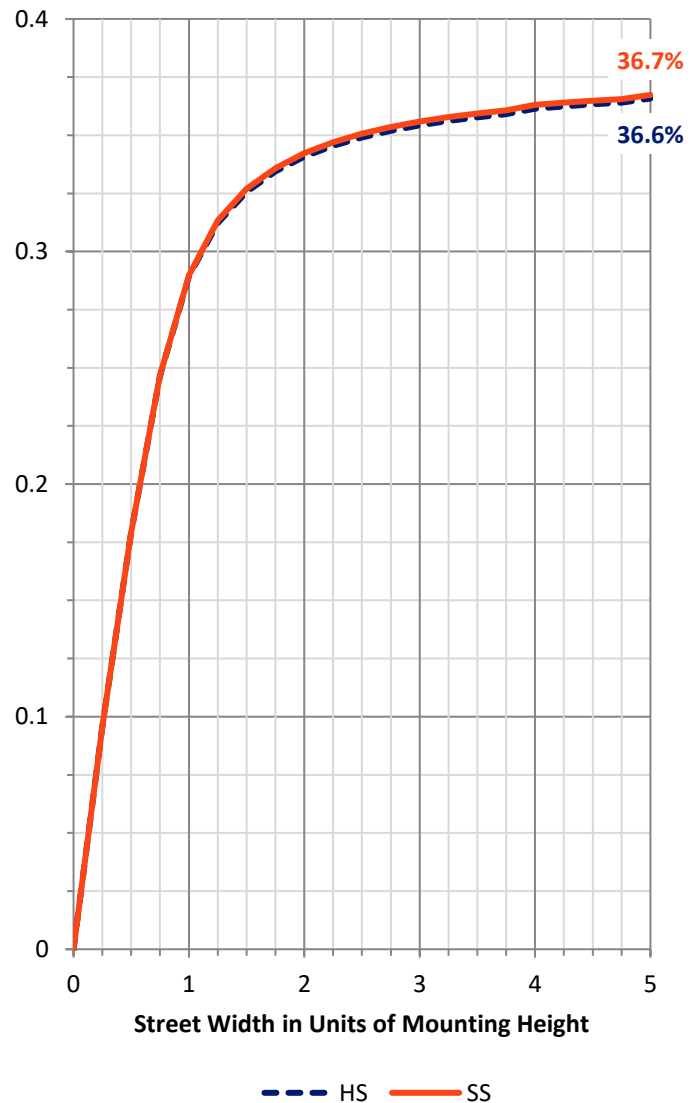
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5619.8	181.0	5800.8
	% Lamp	37.5	1.2	38.7
Street Side	Lumens	5619.8	181.0	5800.8
	% Lamp	37.5	1.2	38.7
Total	Lumens	11239.5	362.1	11601.6
	% Lamp	74.9	2.4	77.3

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	357.5	3.1	2.4
10°-20°	1004.4	8.7	6.7
20°-30°	1621.7	14.0	10.8
30°-40°	2378.8	20.5	15.9
40°-50°	2391.7	20.6	15.9
50°-60°	1439.1	12.4	9.6
60°-70°	943.8	8.1	6.3
70°-80°	673.0	5.8	4.5
80°-90°	429.4	3.7	2.9
90°-100°	207.5	1.8	1.4
100°-110°	83.2	0.7	0.6
110°-120°	51.1	0.4	0.3
120°-130°	19.4	0.2	0.1
130°-140°	0.9	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°	11239.5	96.9	74.9
0°-180°	11601.6	100.0	77.3



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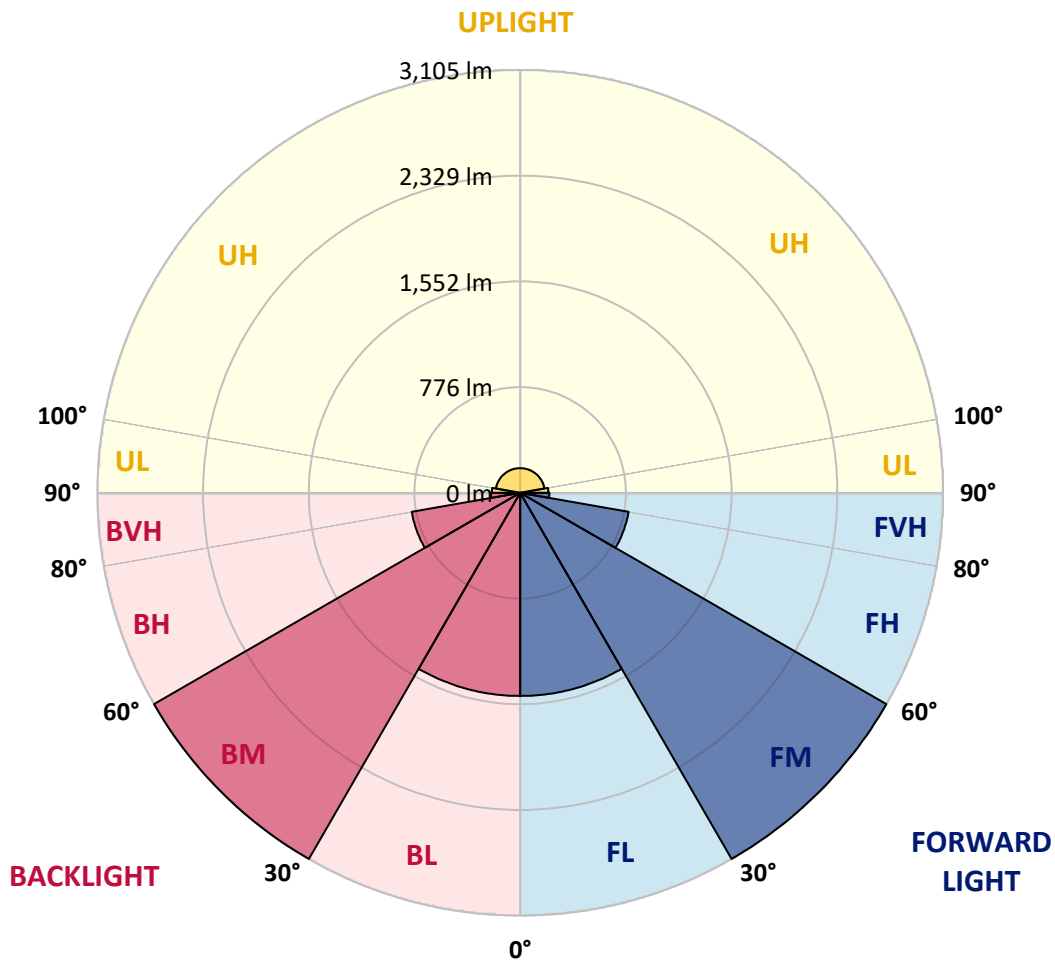
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1491.8	9.9			
FM	(30°-60°)	3104.8	20.7			
FH	(60°-80°)	808.4	5.4			G1/1800
FVH	(80°-90°)	214.7	1.4			G2/225
BL	(0°-30°)	1491.8	9.9	B3/2500		
BM	(30°-60°)	3104.8	20.7	B3/5000		
BH	(60°-80°)	808.4	5.4	B2/1000		G1/1800
BVH	(80°-90°)	214.7	1.4			G2/225
UL	(90°-100°)	207.5	1.4		U3/500	
UH	(100°-180°)	181.0	1.2		U3/500	
Trapped Light		3398.4	22.7			

BUG Rating: B3-U3-G2

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	3797	3797	3797	3797	3797	3797	3797	3797	3797
2.5°	3795	3795	3792	3792	3788	3792	3792	3795	3795
5°	3772	3771	3768	3766	3764	3766	3768	3771	3772
7.5°	3755	3743	3726	3732	3741	3732	3726	3743	3755
10°	3733	3706	3670	3693	3713	3693	3670	3706	3733
12.5°	3699	3643	3595	3627	3663	3627	3595	3643	3699
15°	3637	3564	3510	3546	3590	3546	3510	3564	3637
17.5°	3538	3489	3426	3467	3513	3467	3426	3489	3538
20°	3469	3419	3376	3430	3473	3430	3376	3419	3469
22.5°	3445	3398	3375	3452	3499	3452	3375	3398	3445
25°	3464	3414	3422	3520	3583	3520	3422	3414	3464
27.5°	3523	3464	3503	3633	3701	3633	3503	3464	3523
30°	3573	3525	3649	3759	3800	3759	3649	3525	3573
32.5°	3606	3590	3832	3871	3865	3871	3832	3590	3606
35°	3577	3630	4038	3944	3847	3944	4038	3630	3577
37.5°	3456	3640	4226	3925	3702	3925	4226	3640	3456
40°	3235	3545	4337	3802	3450	3802	4337	3545	3235
42.5°	2905	3357	4244	3535	3076	3535	4244	3357	2905
45°	2541	3035	3917	3148	2643	3148	3917	3035	2541
47.5°	2196	2633	3374	2679	2219	2679	3374	2633	2196
50°	1859	2209	2764	2215	1861	2215	2764	2209	1859
52.5°	1591	1841	2198	1825	1603	1825	2198	1841	1591
55°	1386	1537	1776	1517	1384	1517	1776	1537	1386
57.5°	1231	1321	1443	1307	1239	1307	1443	1321	1231
60°	1106	1167	1214	1160	1116	1160	1214	1167	1106
62.5°	999	1049	1053	1046	1012	1046	1053	1049	999
65°	918	946	956	949	917	949	956	946	918
67.5°	841	859	876	862	842	862	876	859	841
70°	766	779	806	782	761	782	806	779	766
72.5°	688	705	736	705	686	705	736	705	688
75°	616	639	658	633	610	633	658	639	616
77.5°	545	566	585	566	538	566	585	566	545
80°	485	498	510	501	480	501	510	498	485
85°	383	389	401	396	377	396	401	389	383
90°	273	296	312	296	273	296	312	296	273
95°	184	181	186	182	184	182	186	181	184
100°	97	100	103	97	96	97	103	100	97
105°	66	73	91	74	67	74	91	73	66
110°	60	56	78	57	61	57	78	56	60
115°	55	47	57	49	57	49	57	47	55
120°	47	37	26	40	50	40	26	37	47
125°	35	24	0	26	37	26	0	24	35
130°	14	2	0	2	15	2	0	2	14
135°	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0

(END OF REPORT)