

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: E429-89

Luminaire Tested: **MHQF-GS/C73-400**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: E429-89
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: MHQF-GS/C73-400
Description: RECESSED COMMERCIAL WITH FLAT LENS
Light Source: 400 WATT MH COATED ED-37
Ballast/Driver: -

Summary

Lumens per Lamp: 40000 (1 lamp)
Luminaire Lumens: 29826.7 lumens
Efficiency: 74.6%
Efficacy: 65.6 lumens/watt
Luminous Opening: Rectangular (W 1.75' x L: 1.75' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G3

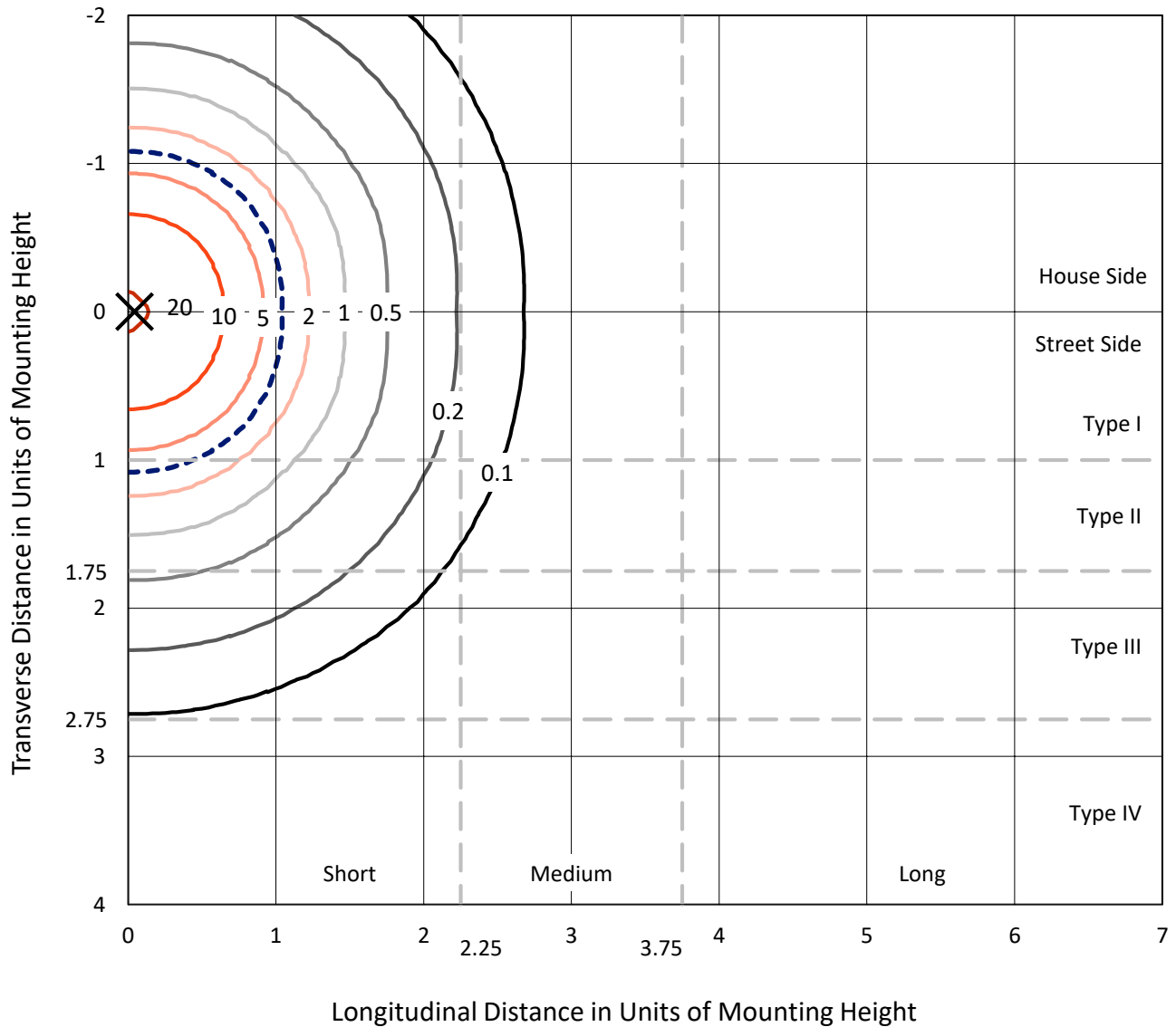
Input Watts (W): 455
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

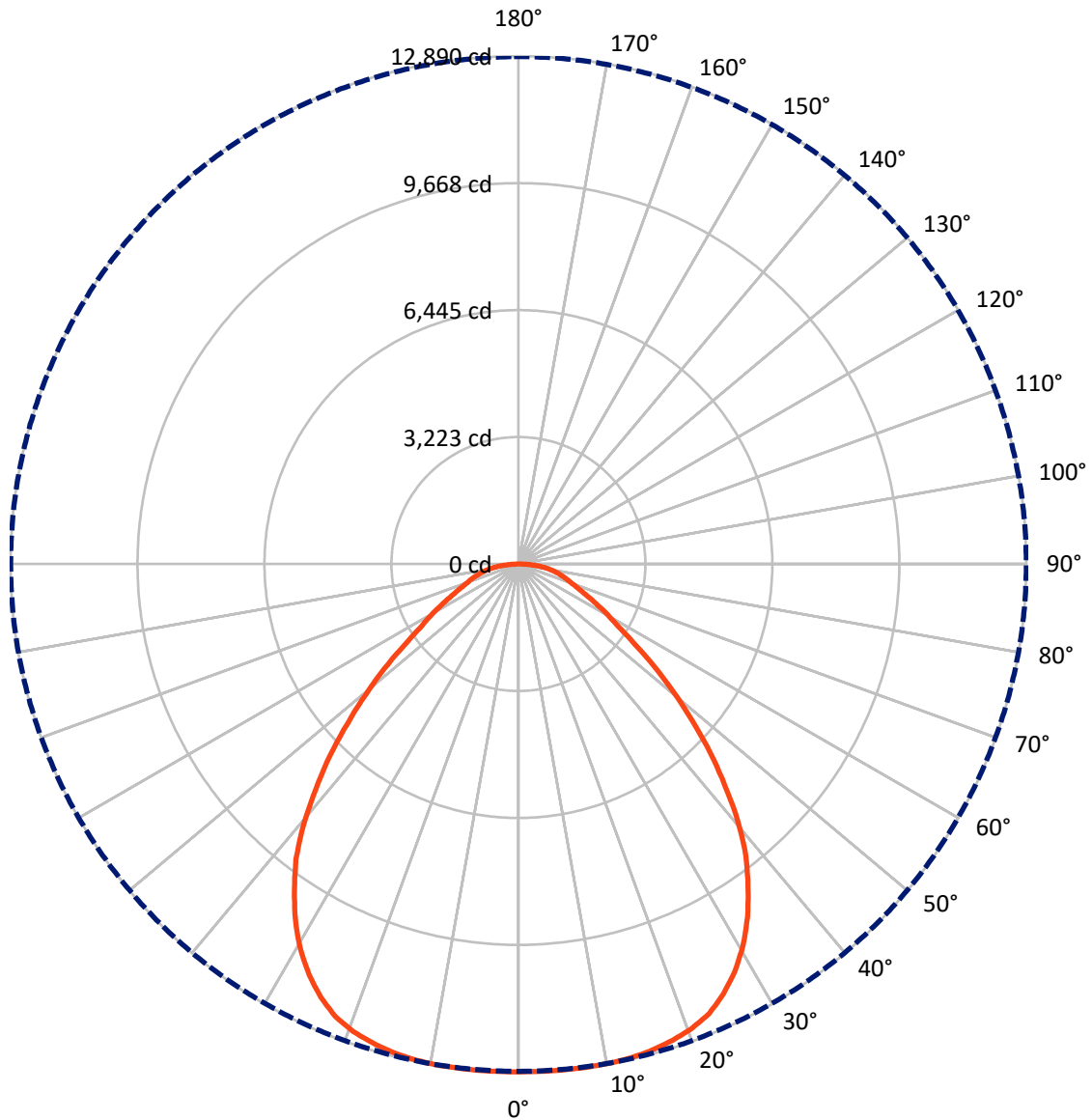
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 20.6 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral - - - Horizontal Cone Through 2.5-Deg Vertical

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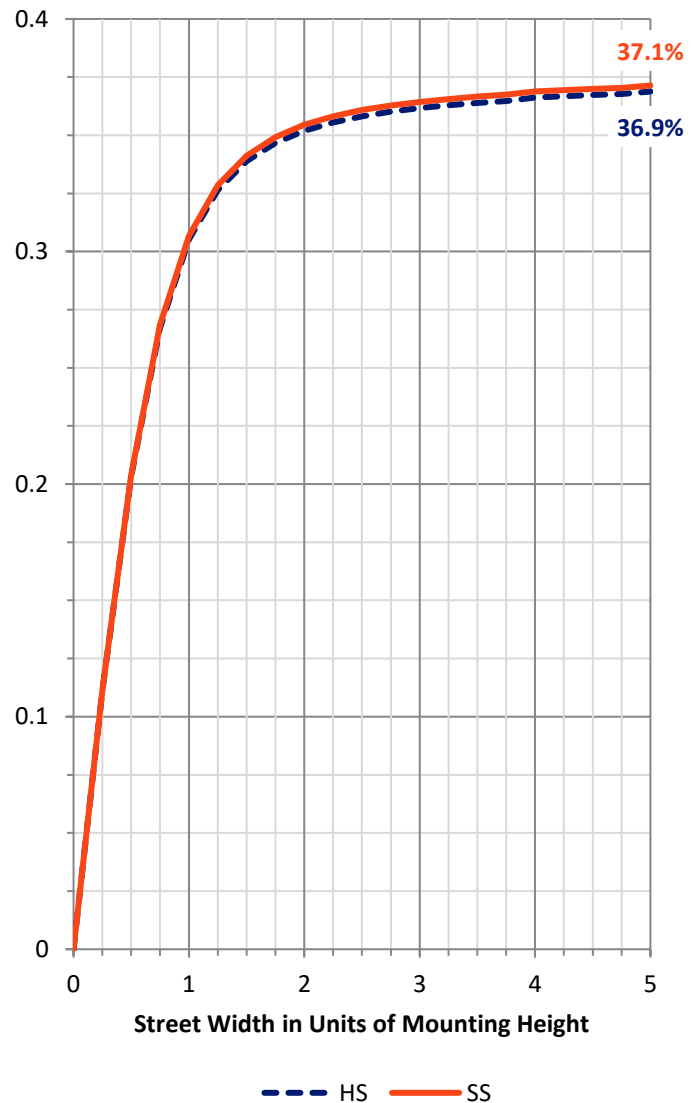
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	14913.3	0.0	14913.3
	% Lamp	37.3	0.0	37.3
Street Side	Lumens	14913.3	0.0	14913.3
	% Lamp	37.3	0.0	37.3
Total	Lumens	29826.7	0.0	29826.7
	% Lamp	74.6	0.0	74.6

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	1229.1	4.1	3.1
10°-20°	3616.3	12.1	9.0
20°-30°	5584.6	18.7	14.0
30°-40°	6420.8	21.5	16.1
40°-50°	5560.8	18.6	13.9
50°-60°	3621.4	12.1	9.1
60°-70°	2122.1	7.1	5.3
70°-80°	1207.5	4.0	3.0
80°-90°	464.1	1.6	1.2
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°	29826.7	100.0	74.6
0°-180°	29826.7	100.0	74.6



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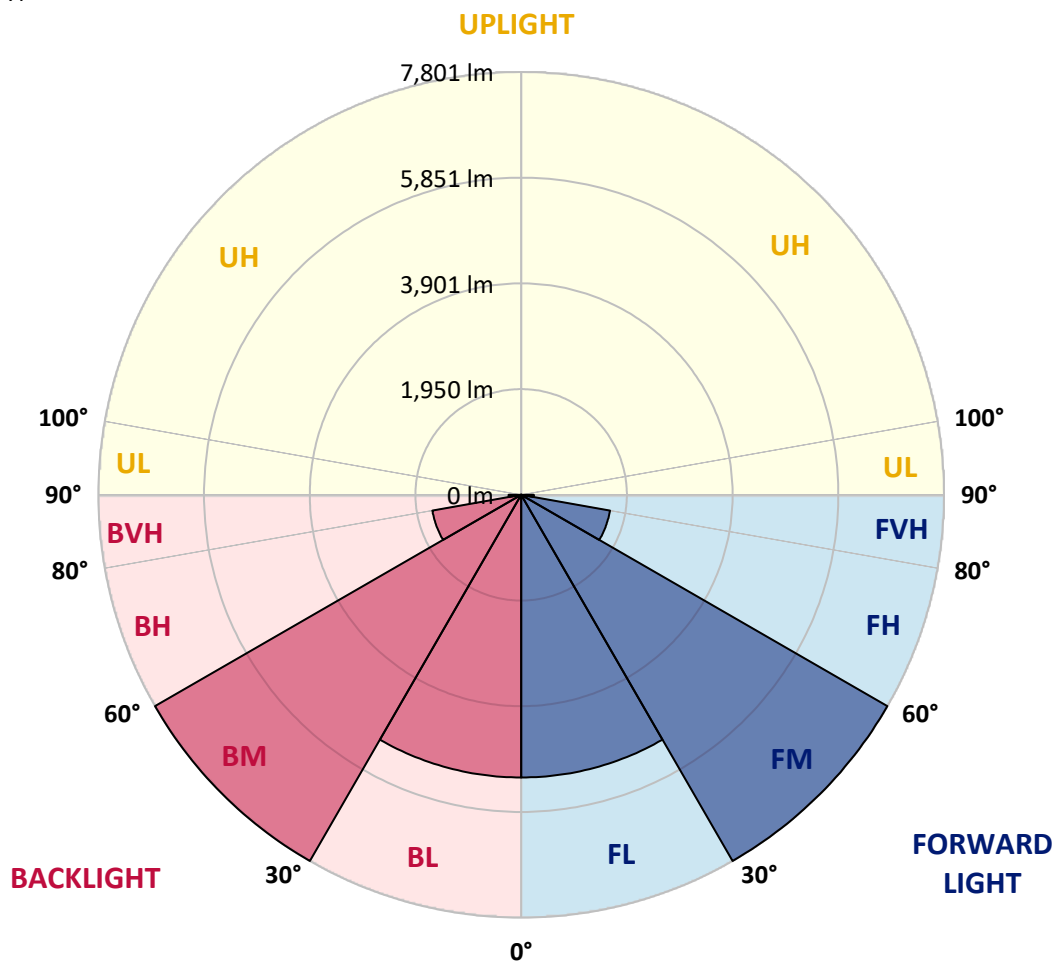
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	5215.0	13.0			
FM	(30°-60°)	7801.5	19.5			
FH	(60°-80°)	1664.8	4.2			G1/1800
FVH	(80°-90°)	232.0	0.6			G3/500
BL	(0°-30°)	5215.0	13.0	B5		
BM	(30°-60°)	7801.5	19.5	B4/8500		
BH	(60°-80°)	1664.8	4.2	B3/2500		G1/1800
BVH	(80°-90°)	232.0	0.6			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		10173.3	25.4			

BUG Rating: B5-U0-G3

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	12888	12888	12888	12888	12888	12888	12888	12888	12888
2.5°	12879	12874	12883	12886	12890	12886	12883	12874	12879
5°	12873	12871	12876	12887	12890	12887	12876	12871	12873
7.5°	12869	12865	12876	12885	12888	12885	12876	12865	12869
10°	12863	12860	12871	12876	12879	12876	12871	12860	12863
12.5°	12847	12842	12840	12845	12853	12845	12840	12842	12847
15°	12804	12804	12796	12793	12794	12793	12796	12804	12804
17.5°	12728	12726	12713	12709	12703	12709	12713	12726	12728
20°	12613	12592	12580	12571	12581	12571	12580	12592	12613
22.5°	12462	12428	12400	12384	12392	12384	12400	12428	12462
25°	12233	12218	12165	12119	12086	12119	12165	12218	12233
27.5°	11892	11905	11859	11757	11702	11757	11859	11905	11892
30°	11445	11481	11466	11321	11237	11321	11466	11481	11445
32.5°	10899	10967	11000	10783	10679	10783	11000	10967	10899
35°	10283	10470	10451	10208	10037	10208	10451	10470	10283
37.5°	9656	9801	9857	9552	9378	9552	9801	9857	9656
40°	8972	9089	9220	8779	8576	8779	9089	9220	8972
42.5°	8115	8286	8353	7971	7682	7971	8286	8353	8115
45°	7184	7418	7459	7131	6829	7131	7418	7459	7184
47.5°	6418	6453	6478	6217	5925	6217	6453	6478	6418
50°	5389	5553	5564	5417	5091	5417	5553	5564	5389
52.5°	4679	4751	4686	4701	4320	4701	4686	4751	4679
55°	4020	4097	3982	4034	3554	4034	3982	4097	4020
57.5°	3442	3554	3433	3482	2976	3482	3433	3554	3442
60°	2939	3073	2950	2946	2581	2946	2950	3073	2939
62.5°	2486	2585	2516	2481	2205	2481	2516	2585	2486
65°	2109	2170	2140	2090	1874	2090	2140	2170	2109
67.5°	1771	1809	1853	1778	1617	1778	1809	1853	1771
70°	1477	1520	1592	1508	1413	1508	1520	1592	1477
72.5°	1263	1319	1367	1295	1259	1295	1319	1367	1263
75°	1094	1128	1161	1096	1105	1096	1128	1161	1094
77.5°	970	976	1016	966	961	966	1016	976	970
80°	797	816	836	792	795	792	816	836	797
82.5°	611	646	646	624	610	624	646	646	611
85°	407	454	444	446	406	446	444	454	407
87.5°	194	246	232	245	207	245	232	246	194
90°	0	0	0	0	0	0	0	0	0

(END OF REPORT)