

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\_150MP

Luminaire Tested: **MPQD-GO/GAS/A-150**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: E429-111\_150MP  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: MPQD-GO/GAS/A-150  
Description: RECESSED COMMERCIAL WITH DROP LENS  
Light Source: 150 WATT PULSE-START COATED ED-28 HORIZONTAL BURN  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 13300 (1 lamp)  
Luminaire Lumens: 10286.8 lumens  
Efficiency: 77.3%  
Efficacy: 55.6 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 1.75' x L: 1.75' x H: 0.1')  
IES Classification: Type V - Short - Cutoff  
BUG Rating: B3 - U3 - G2

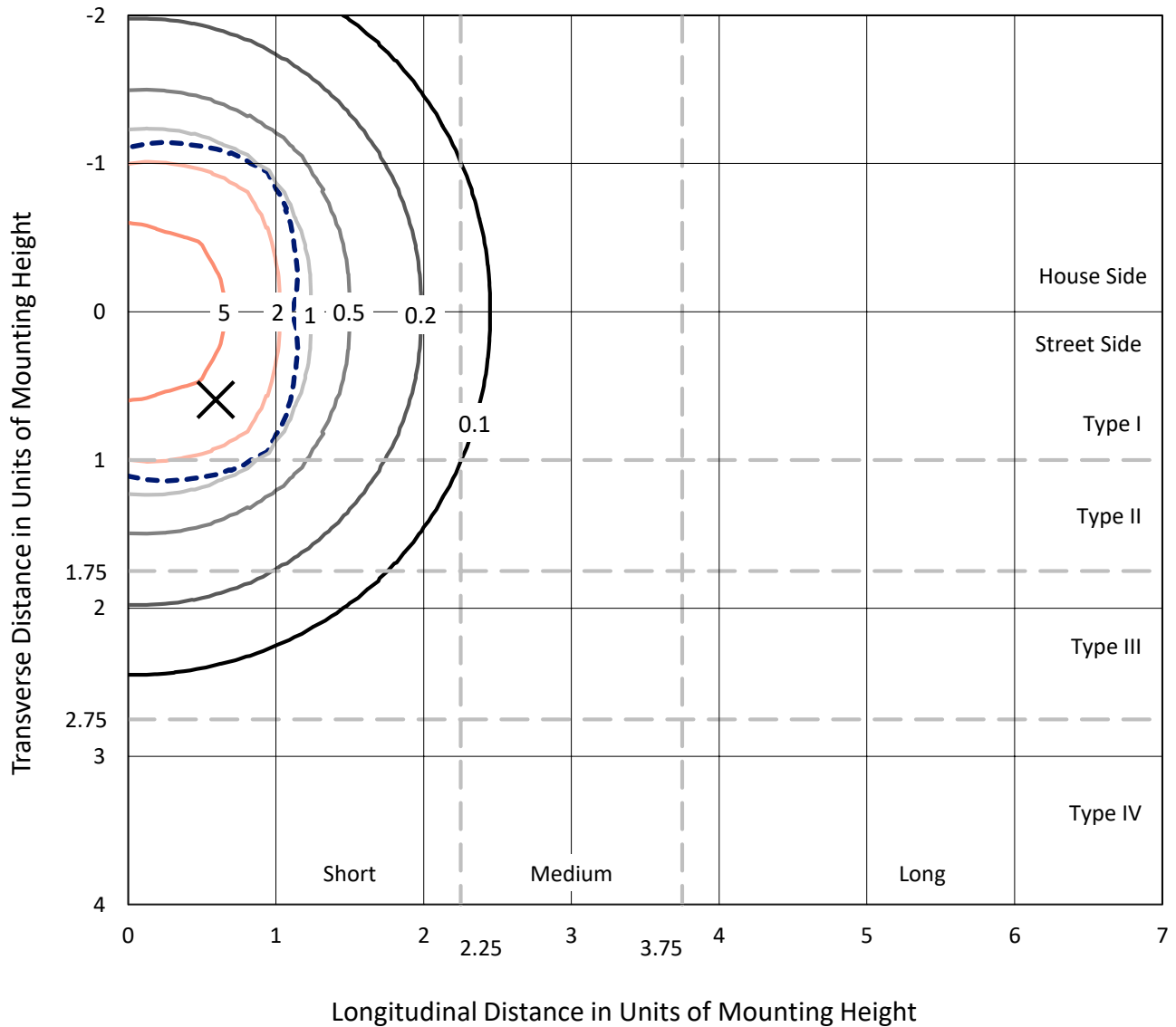
Input Watts (W): 185  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

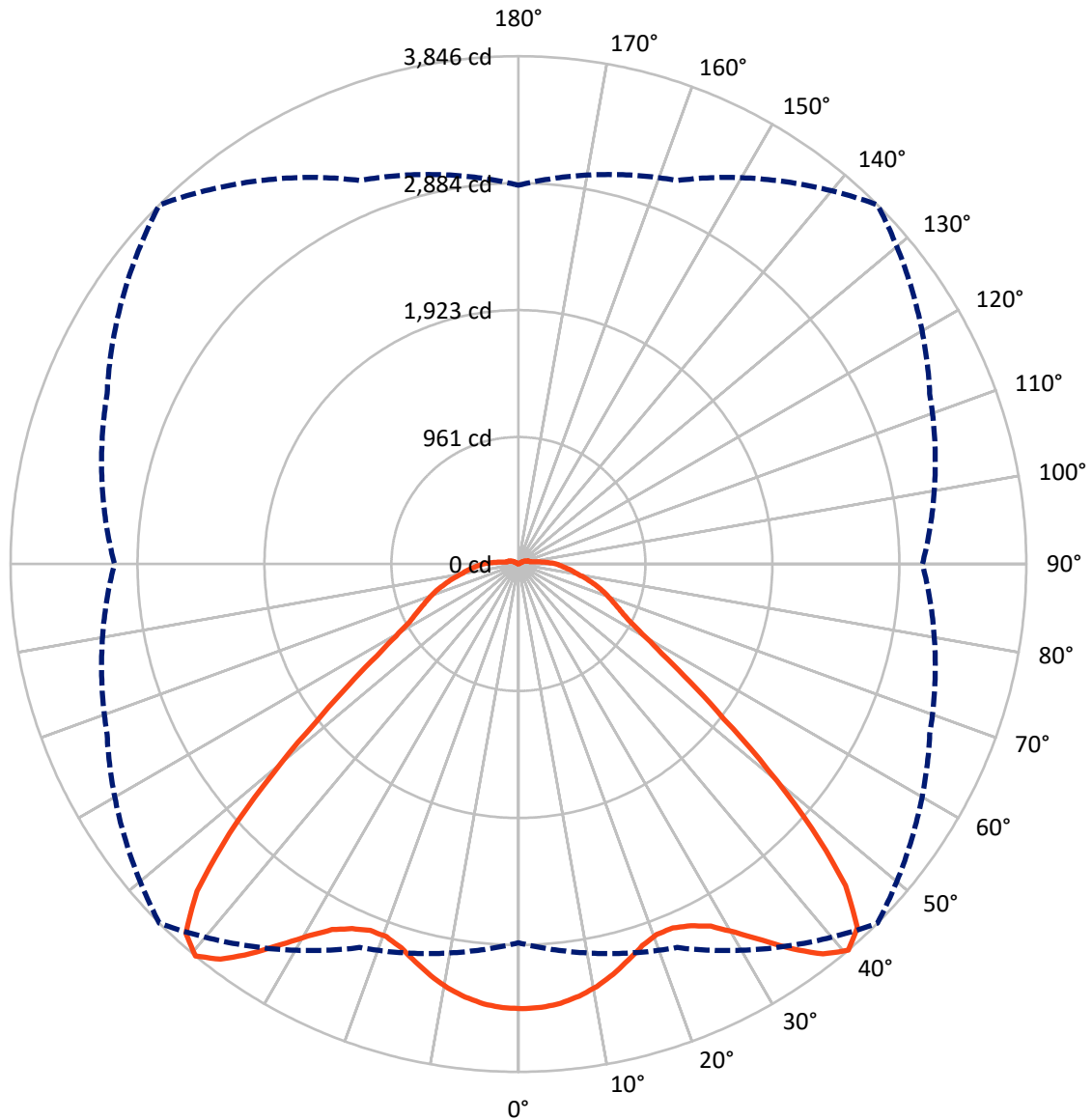
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 8.4 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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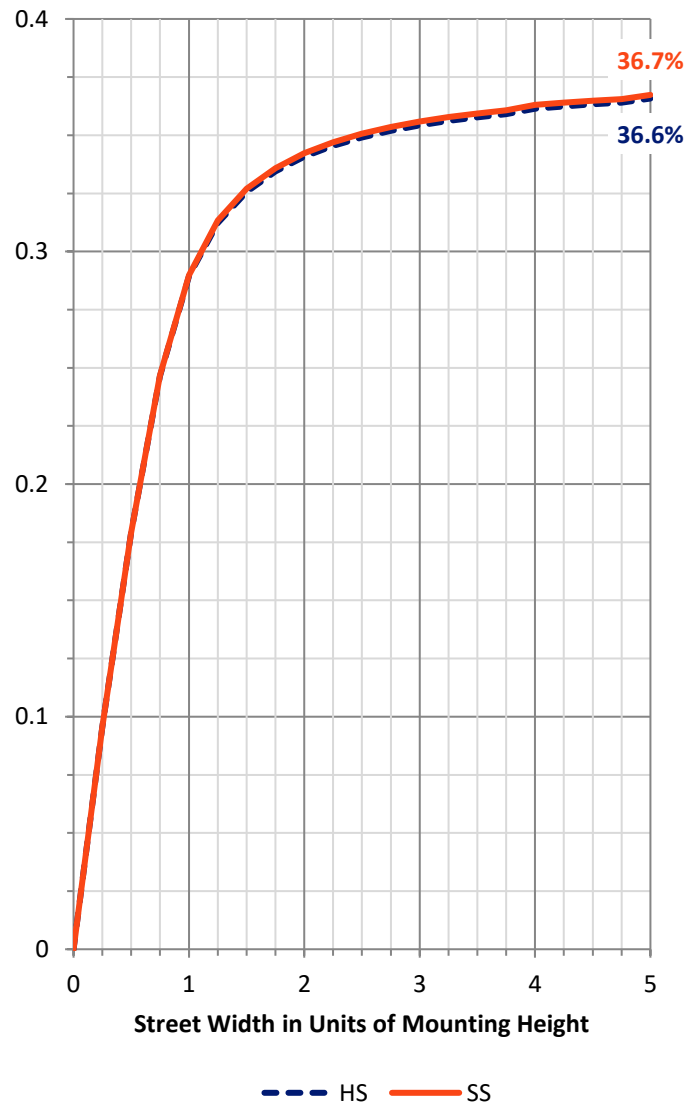
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4982.9	160.5	5143.4
	% Lamp	37.5	1.2	38.7
<b>Street Side</b>	Lumens	4982.9	160.5	5143.4
	% Lamp	37.5	1.2	38.7
<b>Total</b>	Lumens	9965.7	321.1	10286.8
	% Lamp	74.9	2.4	77.3

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	317.0	3.1	2.4
10°-20°	890.6	8.7	6.7
20°-30°	1437.9	14.0	10.8
30°-40°	2109.2	20.5	15.9
40°-50°	2120.7	20.6	15.9
50°-60°	1276.0	12.4	9.6
60°-70°	836.9	8.1	6.3
70°-80°	596.8	5.8	4.5
80°-90°	380.8	3.7	2.9
90°-100°	184.0	1.8	1.4
100°-110°	73.8	0.7	0.6
110°-120°	45.3	0.4	0.3
120°-130°	17.2	0.2	0.1
130°-140°	0.8	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°	9965.7	96.9	74.9
0°-180°	10286.8	100.0	77.3

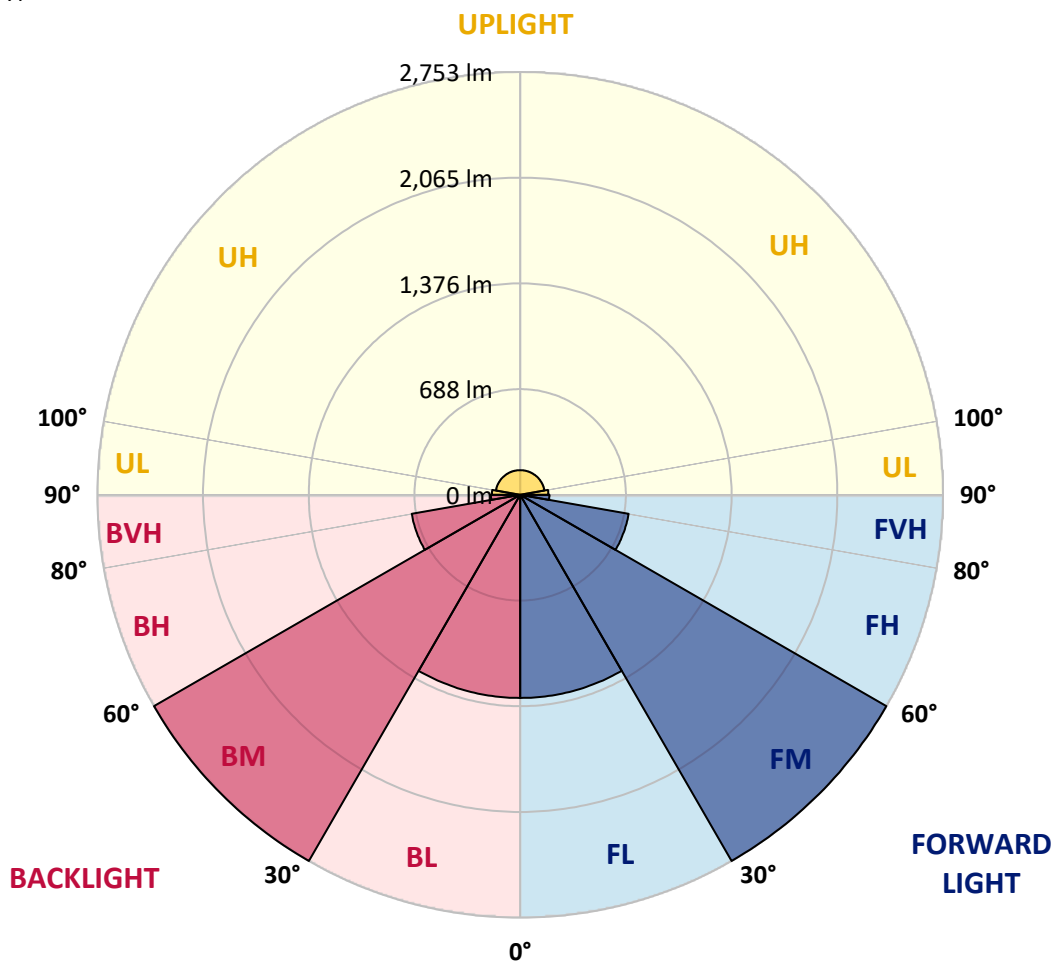


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1322.8	9.9			
FM	(30°-60°)	2752.9	20.7			
FH	(60°-80°)	716.8	5.4			G1/1800
FVH	(80°-90°)	190.4	1.4			G2/225
BL	(0°-30°)	1322.8	9.9	B3/2500		
BM	(30°-60°)	2752.9	20.7	B3/5000		
BH	(60°-80°)	716.8	5.4	B2/1000		G1/1800
BVH	(80°-90°)	190.4	1.4			G2/225
UL	(90°-100°)	184.0	1.4		U3/500	
UH	(100°-180°)	160.5	1.2		U3/500	
Trapped Light		3013.2	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°	3366.7	3366.7	3366.7	3366.7	3366.7	3366.7	3366.7	3366.7	3366.7
2.5°	3364.9	3364.9	3362.2	3362.2	3358.7	3362.2	3362.2	3364.9	3364.9
5°	3344.5	3343.6	3341.0	3339.2	3337.4	3339.2	3341.0	3343.6	3344.5
7.5°	3329.4	3318.8	3303.7	3309.0	3317.0	3309.0	3303.7	3318.8	3329.4
10°	3309.9	3286.0	3254.1	3274.5	3292.2	3274.5	3254.1	3286.0	3309.9
12.5°	3279.8	3230.1	3187.6	3215.9	3247.9	3215.9	3187.6	3230.1	3279.8
15°	3224.8	3160.1	3112.2	3144.1	3183.1	3144.1	3112.2	3160.1	3224.8
17.5°	3137.0	3093.6	3037.7	3074.1	3114.9	3074.1	3037.7	3093.6	3137.0
20°	3075.8	3031.5	2993.4	3041.3	3079.4	3041.3	2993.4	3031.5	3075.8
22.5°	3054.6	3012.9	2992.5	3060.8	3102.4	3060.8	2992.5	3012.9	3054.6
25°	3071.4	3027.1	3034.2	3121.1	3176.9	3121.1	3034.2	3027.1	3071.4
27.5°	3123.7	3071.4	3106.0	3221.3	3281.6	3221.3	3106.0	3071.4	3123.7
30°	3168.1	3125.5	3235.4	3333.0	3369.3	3333.0	3235.4	3125.5	3168.1
32.5°	3197.3	3183.1	3397.7	3432.3	3427.0	3432.3	3397.7	3183.1	3197.3
35°	3171.6	3218.6	3580.4	3497.0	3411.0	3497.0	3580.4	3218.6	3171.6
37.5°	3064.3	3227.5	3747.1	3480.2	3282.4	3480.2	3747.1	3227.5	3064.3
40°	2868.4	3143.2	3845.5	3371.1	3059.0	3371.1	3845.5	3143.2	2868.4
42.5°	2575.8	2976.5	3763.0	3134.4	2727.4	3134.4	3763.0	2976.5	2575.8
45°	2253.0	2691.0	3473.1	2791.2	2343.5	2791.2	3473.1	2691.0	2253.0
47.5°	1947.1	2334.6	2991.6	2375.4	1967.5	2375.4	2991.6	2334.6	1947.1
50°	1648.3	1958.6	2450.7	1964.0	1650.1	1964.0	2450.7	1958.6	1648.3
52.5°	1410.7	1632.4	1948.9	1618.2	1421.3	1618.2	1948.9	1632.4	1410.7
55°	1228.9	1362.8	1574.7	1345.1	1227.1	1345.1	1574.7	1362.8	1228.9
57.5°	1091.5	1171.3	1279.5	1158.9	1098.6	1158.9	1279.5	1171.3	1091.5
60°	980.7	1034.7	1076.4	1028.5	989.5	1028.5	1076.4	1034.7	980.7
62.5°	885.8	930.1	933.7	927.5	897.3	927.5	933.7	930.1	885.8
65°	814.0	838.8	847.7	841.4	813.1	841.4	847.7	838.8	814.0
67.5°	745.7	761.6	776.7	764.3	746.6	764.3	776.7	761.6	745.7
70°	679.2	690.7	714.7	693.4	674.8	693.4	714.7	690.7	679.2
72.5°	610.0	625.1	652.6	625.1	608.3	625.1	652.6	625.1	610.0
75°	546.2	566.6	583.4	561.3	540.9	561.3	583.4	566.6	546.2
77.5°	483.2	501.9	518.7	501.9	477.0	501.9	518.7	501.9	483.2
80°	430.0	441.6	452.2	444.2	425.6	444.2	452.2	441.6	430.0
85°	339.6	344.9	355.6	351.1	334.3	351.1	355.6	344.9	339.6
90°	242.1	262.5	276.6	262.5	242.1	262.5	276.6	262.5	242.1
95°	163.1	160.5	164.9	161.4	163.1	161.4	164.9	160.5	163.1
100°	86.0	88.7	91.3	86.0	85.1	86.0	91.3	88.7	86.0
105°	58.5	64.7	80.7	65.6	59.4	65.6	80.7	64.7	58.5
110°	53.2	49.7	69.2	50.5	54.1	50.5	69.2	49.7	53.2
115°	48.8	41.7	50.5	43.4	50.5	43.4	50.5	41.7	48.8
120°	41.7	32.8	23.1	35.5	44.3	35.5	23.1	32.8	41.7
125°	31.0	21.3	0.0	23.1	32.8	23.1	0.0	21.3	31.0
130°	12.4	1.8	0.0	1.8	13.3	1.8	0.0	1.8	12.4
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)