

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_320MP

Luminaire Tested: **MPQF-GS/C73-320**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: E429-89_320MP
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: MPQF-GS/C73-320
Description: RECESSED COMMERCIAL WITH FLAT LENS
Light Source: 320 WATT PULSE-START COATED ED-28 HORIZONTAL BURN
Ballast/Driver: -

Summary

Lumens per Lamp: 30000 (1 lamp)
Luminaire Lumens: 22370 lumens
Efficiency: 74.6%
Efficacy: 63.9 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 1.75' x L: 1.75' x H: 0.1')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B4 - U0 - G2

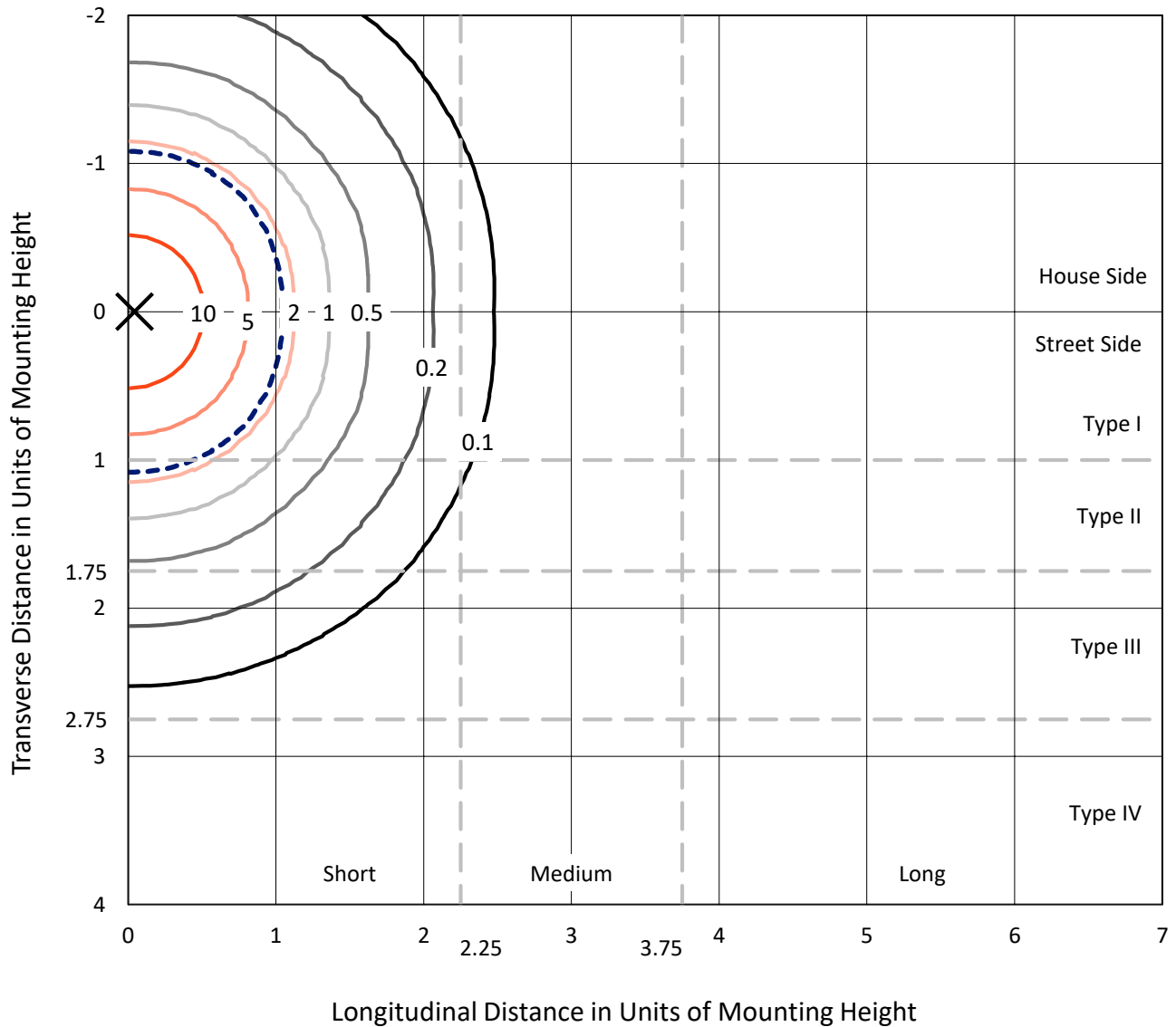
Input Watts (W): 350
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

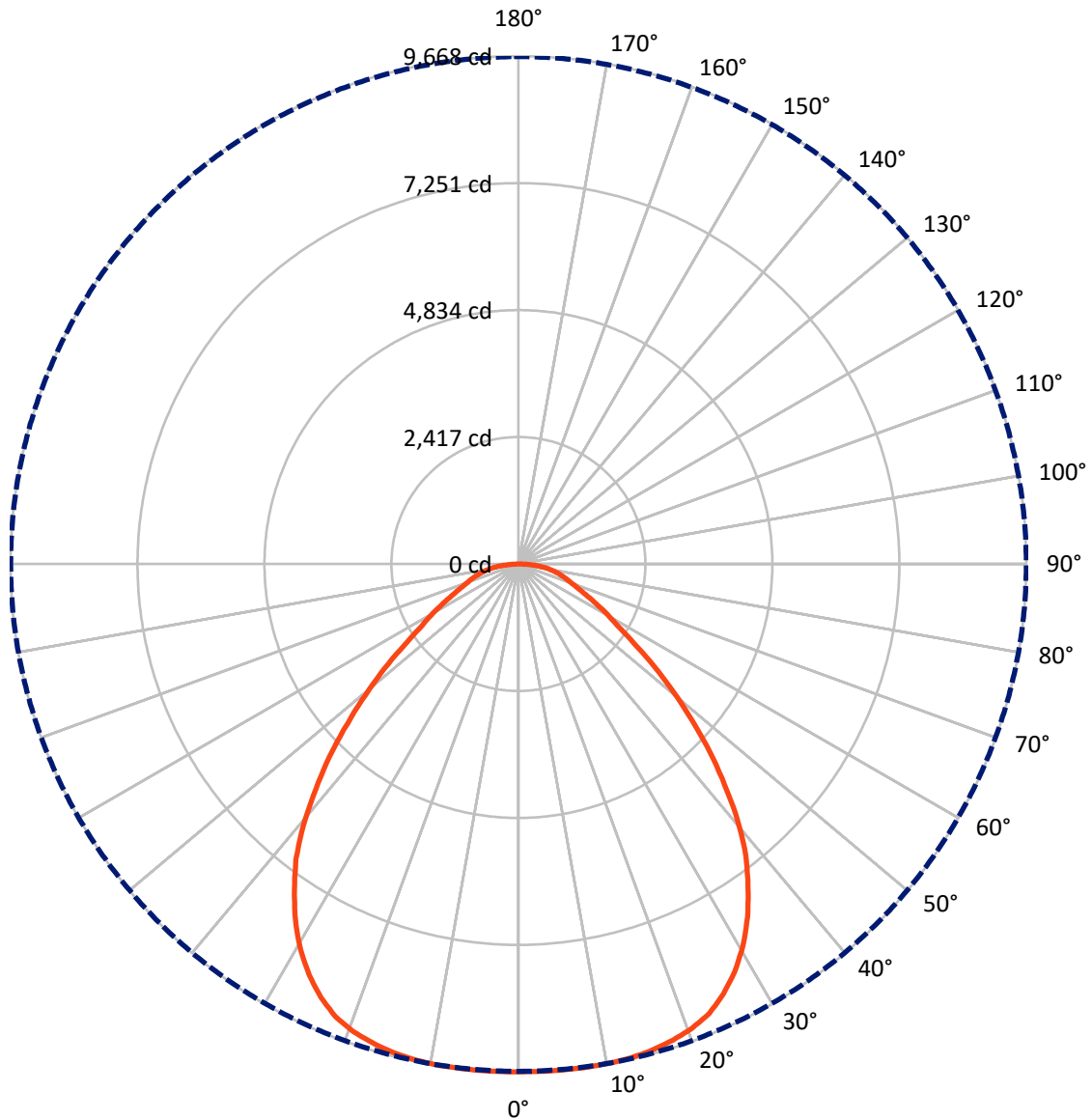
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 15.5 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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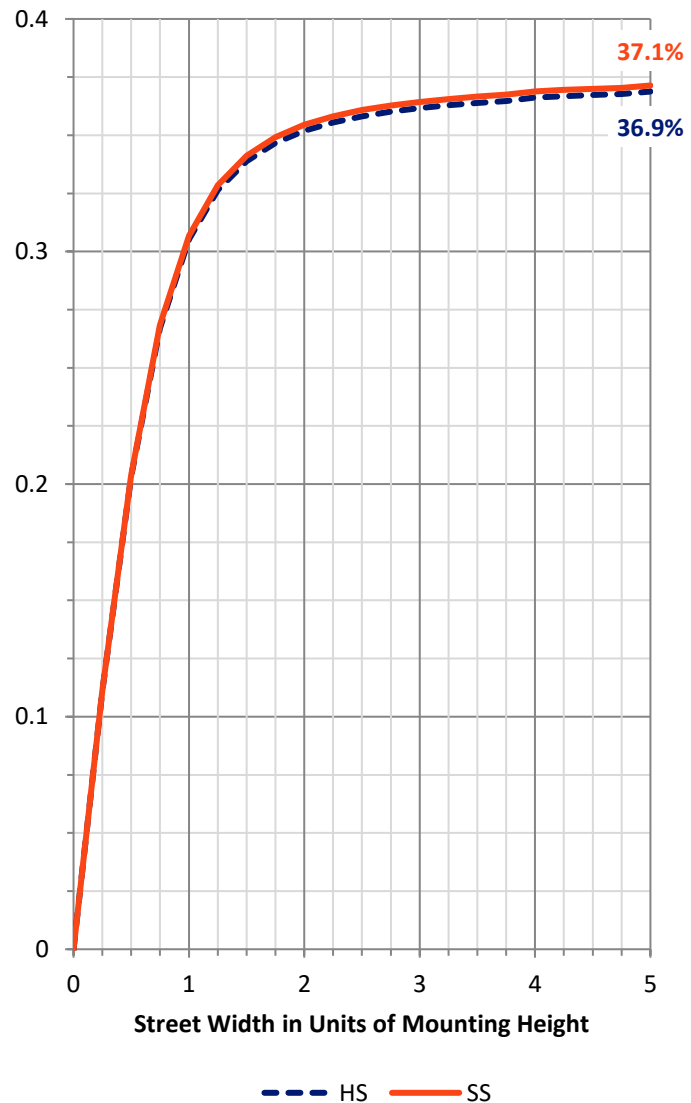
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11185.0	0.0	11185.0
	% Lamp	37.3	0.0	37.3
Street Side	Lumens	11185.0	0.0	11185.0
	% Lamp	37.3	0.0	37.3
Total	Lumens	22370.0	0.0	22370.0
	% Lamp	74.6	0.0	74.6

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	921.8	4.1	3.1
10°-20°	2712.2	12.1	9.0
20°-30°	4188.4	18.7	14.0
30°-40°	4815.6	21.5	16.1
40°-50°	4170.6	18.6	13.9
50°-60°	2716.1	12.1	9.1
60°-70°	1591.6	7.1	5.3
70°-80°	905.6	4.0	3.0
80°-90°	348.0	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°	22370.0	100.0	74.6
0°-180°	22370.0	100.0	74.6

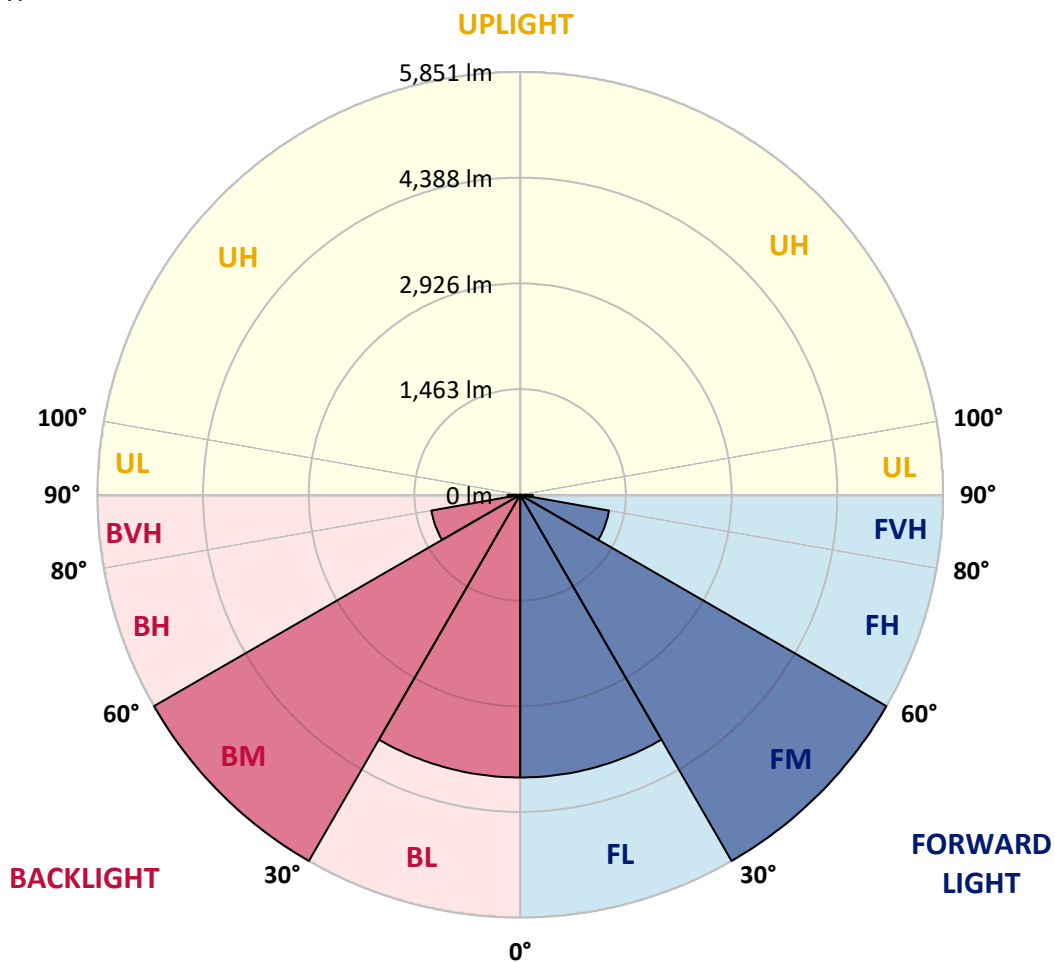


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3911.3	13.0			
FM	(30°-60°)	5851.1	19.5			
FH	(60°-80°)	1248.6	4.2			G1/1800
FVH	(80°-90°)	174.0	0.6			G2/225
BL	(0°-30°)	3911.3	13.0	B4/5000		
BM	(30°-60°)	5851.1	19.5	B4/8500		
BH	(60°-80°)	1248.6	4.2	B3/2500		G1/1800
BVH	(80°-90°)	174.0	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		7630.0	25.4			

BUG Rating: B4-U0-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°	9666.0	9666.0	9666.0	9666.0	9666.0	9666.0	9666.0	9666.0	9666.0
2.5°	9659.2	9655.5	9662.2	9664.5	9667.5	9664.5	9662.2	9655.5	9659.2
5°	9654.8	9653.2	9657.0	9665.2	9667.5	9665.2	9657.0	9653.2	9654.8
7.5°	9651.8	9648.8	9657.0	9663.8	9666.0	9663.8	9657.0	9648.8	9651.8
10°	9647.2	9645.0	9653.2	9657.0	9659.2	9657.0	9653.2	9645.0	9647.2
12.5°	9635.2	9631.5	9630.0	9633.8	9639.8	9633.8	9630.0	9631.5	9635.2
15°	9603.0	9603.0	9597.0	9594.8	9595.5	9594.8	9597.0	9603.0	9603.0
17.5°	9546.0	9544.5	9534.8	9531.8	9527.2	9531.8	9534.8	9544.5	9546.0
20°	9459.8	9444.0	9435.0	9428.2	9435.8	9428.2	9435.0	9444.0	9459.8
22.5°	9346.5	9321.0	9300.0	9288.0	9294.0	9288.0	9300.0	9321.0	9346.5
25°	9174.8	9163.5	9123.8	9089.2	9064.5	9089.2	9123.8	9163.5	9174.8
27.5°	8919.0	8928.8	8894.2	8817.8	8776.5	8817.8	8894.2	8928.8	8919.0
30°	8583.8	8610.8	8599.5	8490.8	8427.8	8490.8	8599.5	8610.8	8583.8
32.5°	8174.2	8225.2	8250.0	8087.2	8009.2	8087.2	8250.0	8225.2	8174.2
35°	7712.2	7852.5	7838.2	7656.0	7527.8	7656.0	7838.2	7852.5	7712.2
37.5°	7242.0	7350.8	7392.8	7164.0	7033.5	7164.0	7392.8	7350.8	7242.0
40°	6729.0	6816.8	6915.0	6584.2	6432.0	6584.2	6915.0	6816.8	6729.0
42.5°	6086.2	6214.5	6264.8	5978.2	5761.5	5978.2	6264.8	6214.5	6086.2
45°	5388.0	5563.5	5594.2	5348.2	5121.8	5348.2	5594.2	5563.5	5388.0
47.5°	4813.5	4839.8	4858.5	4662.8	4443.8	4662.8	4839.8	4813.5	4813.5
50°	4041.8	4164.8	4173.0	4062.8	3818.2	4062.8	4173.0	4164.8	4041.8
52.5°	3509.2	3563.2	3514.5	3525.8	3240.0	3525.8	3514.5	3563.2	3509.2
55°	3015.0	3072.8	2986.5	3025.5	2665.5	3025.5	2986.5	3072.8	3015.0
57.5°	2581.5	2665.5	2574.8	2611.5	2232.0	2611.5	2574.8	2665.5	2581.5
60°	2204.2	2304.8	2212.5	2209.5	1935.8	2209.5	2212.5	2304.8	2204.2
62.5°	1864.5	1938.8	1887.0	1860.8	1653.8	1860.8	1887.0	1938.8	1864.5
65°	1581.8	1627.5	1605.0	1567.5	1405.5	1567.5	1605.0	1627.5	1581.8
67.5°	1328.2	1356.8	1389.8	1333.5	1212.8	1333.5	1389.8	1356.8	1328.2
70°	1107.8	1140.0	1194.0	1131.0	1059.8	1131.0	1194.0	1140.0	1107.8
72.5°	947.2	989.2	1025.2	971.2	944.2	971.2	1025.2	989.2	947.2
75°	820.5	846.0	870.8	822.0	828.8	822.0	870.8	846.0	820.5
77.5°	727.5	732.0	762.0	724.5	720.8	724.5	762.0	732.0	727.5
80°	597.8	612.0	627.0	594.0	596.2	594.0	627.0	612.0	597.8
82.5°	458.2	484.5	484.5	468.0	457.5	468.0	484.5	484.5	458.2
85°	305.2	340.5	333.0	334.5	304.5	334.5	333.0	340.5	305.2
87.5°	145.5	184.5	174.0	183.8	155.2	183.8	174.0	184.5	145.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)