

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: E429-134\_320MP

Luminaire Tested: **MPQP-S3/9/GL-320VBU**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: E429-134\_320MP  
Test Lab:  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: MPQP-S3/9/GL-320VBU  
Description: RECESSED COMMERCIAL W/SPECULAR LOUVERS  
Light Source: 320 WATT PULSE-START COATED ED-37 VBU BURN  
Ballast/Driver: -

**Summary**

Lumens per Lamp: 31000 (1 lamp)  
Luminaire Lumens: 18034.4 lumens  
Efficiency: 58.2%  
Efficacy: 51.5 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 - G1

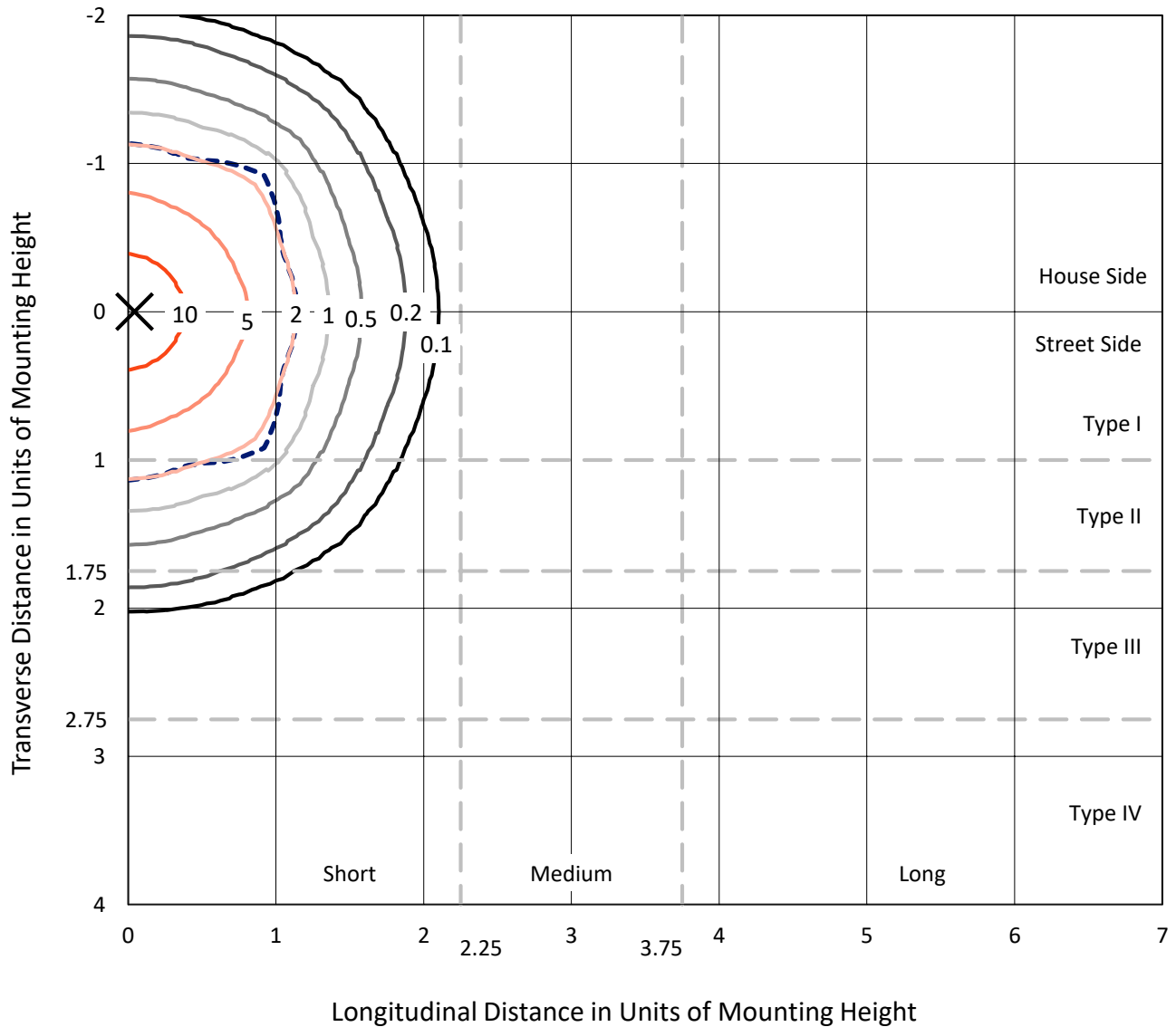
Input Watts (W): 350  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

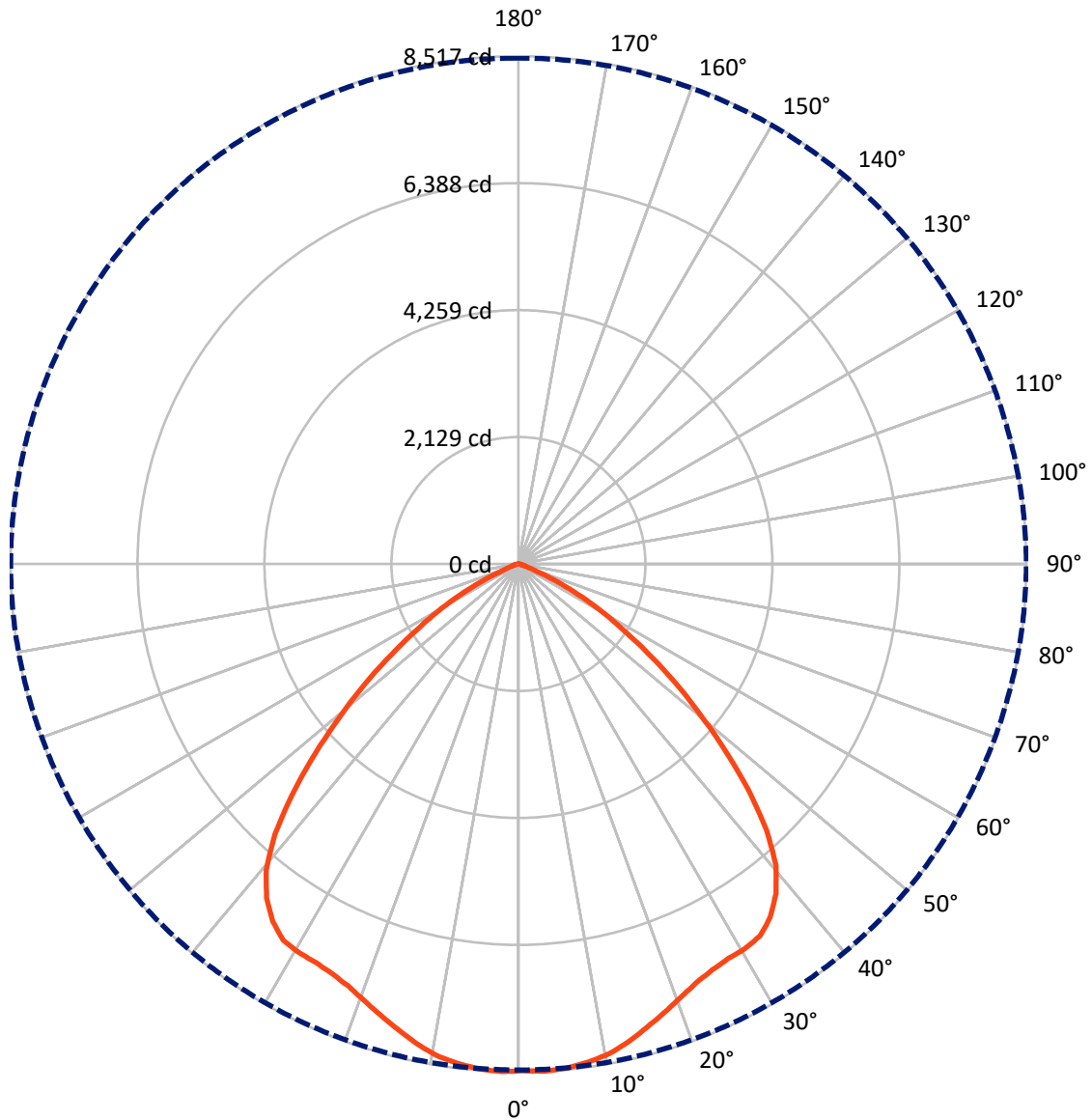
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.6 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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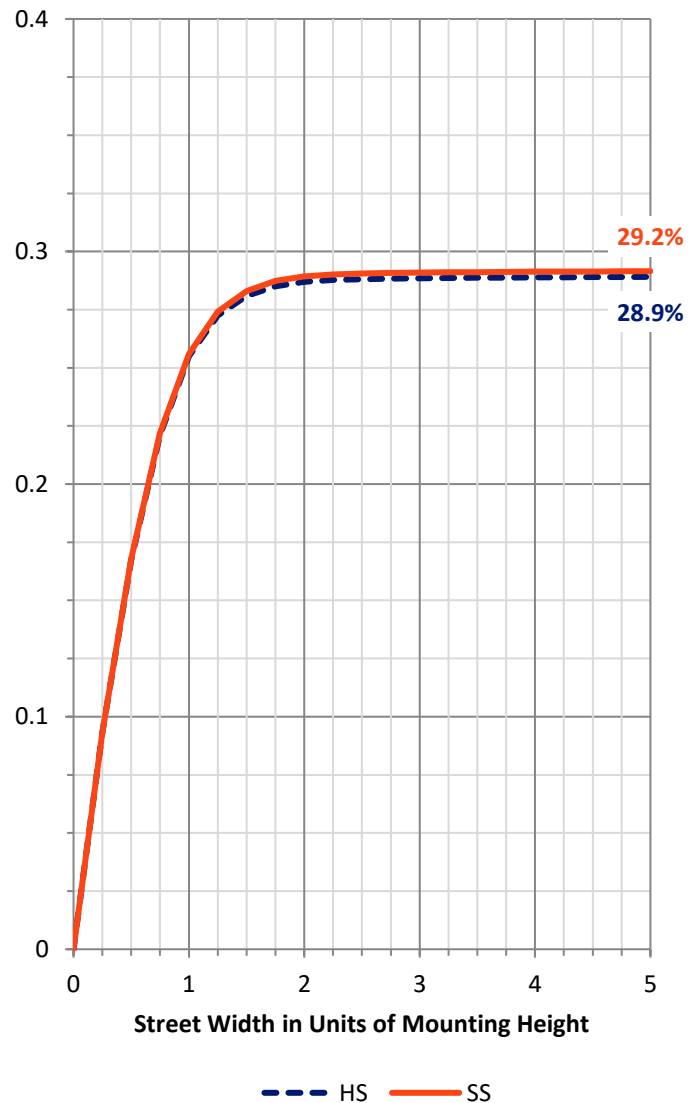
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9017.2	0.0	9017.2
	% Lamp	29.1	0.0	29.1
<b>Street Side</b>	Lumens	9017.2	0.0	9017.2
	% Lamp	29.1	0.0	29.1
<b>Total</b>	Lumens	18034.4	0.0	18034.4
	% Lamp	58.2	0.0	58.2

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	805.2	4.5	2.6
10°-20°	2274.5	12.6	7.3
20°-30°	3422.6	19.0	11.0
30°-40°	4193.2	23.3	13.5
40°-50°	4030.0	22.3	13.0
50°-60°	2473.1	13.7	8.0
60°-70°	714.8	4.0	2.3
70°-80°	100.2	0.6	0.3
80°-90°	20.8	0.1	0.1
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°	18034.4	100.0	58.2
0°-180°	18034.4	100.0	58.2

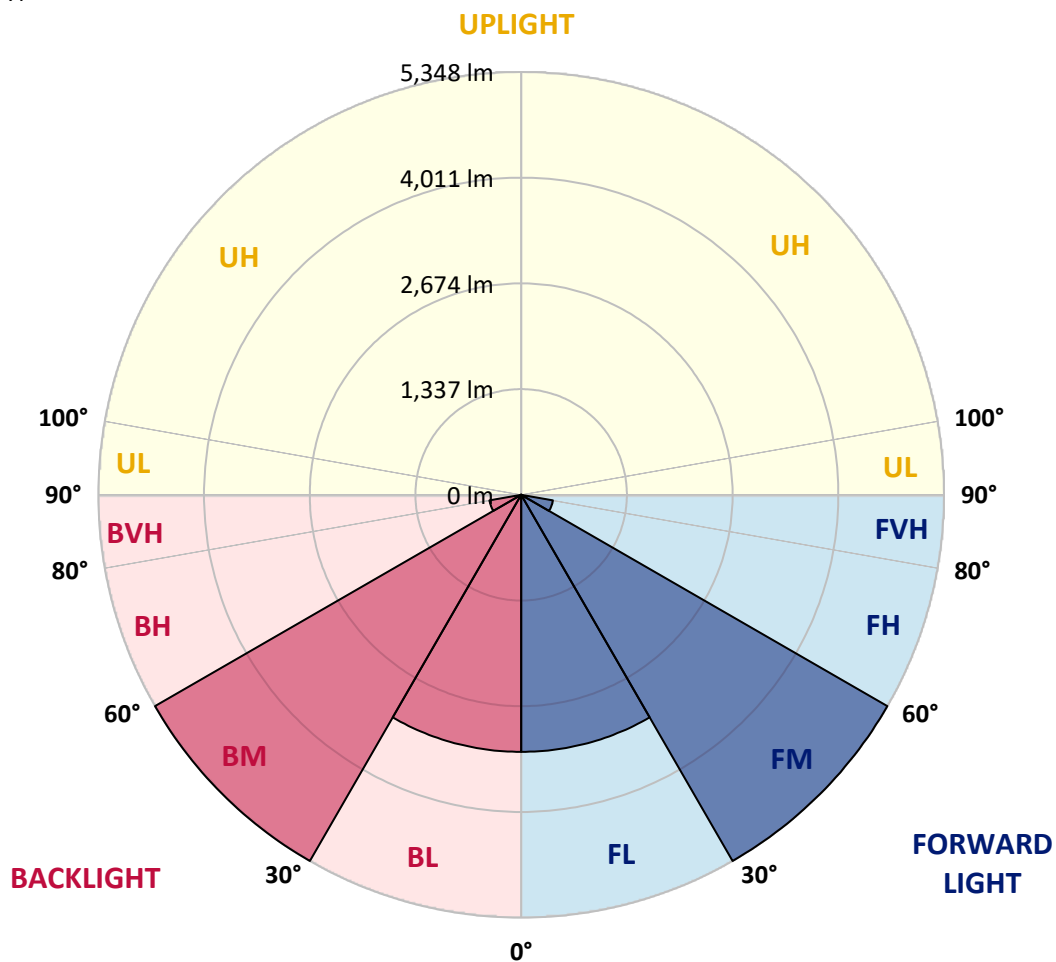


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3251.2	10.5			
FM	(30°-60°)	5348.2	17.3			
FH	(60°-80°)	407.5	1.3			G0/660
FVH	(80°-90°)	10.4	0.0			G1/100
BL	(0°-30°)	3251.2	10.5	B4/5000		
BM	(30°-60°)	5348.2	17.3	B4/8500		
BH	(60°-80°)	407.5	1.3	B1/500		G0/660
BVH	(80°-90°)	10.4	0.0			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	
Trapped Light		12965.6	41.8			

**BUG Rating: B4-U0-G1**  
 Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	8496.6	8496.6	8496.6	8496.6	8496.6	8496.6	8496.6	8496.6	8496.6
2.5°	8485.4	8493.1	8505.2	8504.3	8517.2	8504.3	8505.2	8493.1	8485.4
5°	8466.4	8480.2	8493.1	8483.7	8492.3	8483.7	8493.1	8480.2	8466.4
7.5°	8410.5	8429.4	8429.4	8432.0	8435.4	8432.0	8429.4	8429.4	8410.5
10°	8338.1	8355.4	8333.0	8353.6	8353.6	8333.0	8355.4	8338.1	
12.5°	8234.8	8234.8	8226.2	8225.3	8221.9	8225.3	8226.2	8234.8	8234.8
15°	8099.6	8084.1	8067.8	8046.2	8062.6	8046.2	8067.8	8084.1	8099.6
17.5°	7946.3	7913.6	7870.6	7863.7	7911.9	7863.7	7870.6	7913.6	7946.3
20°	7811.1	7742.2	7659.6	7696.6	7761.2	7696.6	7659.6	7742.2	7811.1
22.5°	7682.8	7578.6	7445.2	7527.8	7629.4	7527.8	7445.2	7578.6	7682.8
25°	7607.1	7438.3	7225.6	7380.6	7544.2	7380.6	7225.6	7438.3	7607.1
27.5°	7513.2	7325.5	6974.1	7276.4	7495.1	7276.4	6974.1	7325.5	7513.2
30°	7368.5	7164.4	6740.8	7136.0	7484.8	7136.0	6740.8	7164.4	7368.5
32.5°	7180.8	6898.4	6568.6	6985.3	7438.3	6985.3	6568.6	6898.4	7180.8
35°	6982.8	6571.1	6448.9	6748.5	7274.7	6748.5	6448.9	6571.1	6982.8
37.5°	6770.1	6236.2	6345.5	6406.7	7014.6	6406.7	6345.5	6236.2	6770.1
40°	6455.8	5868.5	6237.0	5984.7	6650.4	5984.7	6237.0	5868.5	6455.8
42.5°	5963.2	5462.9	6098.4	5541.2	6101.8	5541.2	6098.4	5462.9	5963.2
45°	5322.5	4929.9	5871.1	4991.0	5408.6	4991.0	5871.1	4929.9	5322.5
47.5°	4573.4	4338.3	5539.5	4402.9	4658.6	4402.9	5539.5	4338.3	4573.4
50°	3845.7	3736.4	5019.4	3767.4	3918.1	3767.4	5019.4	3736.4	3845.7
52.5°	3087.1	3114.6	4229.8	3164.6	3268.8	3164.6	4229.8	3114.6	3087.1
55°	2481.7	2511.9	3354.9	2573.0	2619.5	2573.0	3354.9	2511.9	2481.7
57.5°	1987.4	1942.7	2511.0	1990.0	2033.1	1990.0	2511.0	1942.7	1987.4
60°	1582.7	1473.4	1788.5	1485.4	1575.0	1485.4	1788.5	1473.4	1582.7
62.5°	990.3	1025.6	1212.4	1047.1	1122.9	1047.1	1212.4	1025.6	990.3
65°	396.1	548.5	743.1	671.7	708.7	671.7	743.1	548.5	396.1
67.5°	190.3	236.8	419.4	368.6	350.5	368.6	419.4	236.8	190.3
70°	149.0	149.8	209.2	186.0	179.1	186.0	209.2	149.8	149.0
72.5°	110.2	113.7	116.2	124.9	124.0	124.9	116.2	113.7	110.2
75°	84.4	87.0	83.5	88.7	88.7	88.7	83.5	87.0	84.4
77.5°	63.7	64.6	62.9	66.3	62.9	66.3	62.9	64.6	63.7
80°	47.4	48.2	46.5	45.6	43.1	45.6	46.5	48.2	47.4
82.5°	32.7	31.9	31.0	29.3	26.7	29.3	31.0	31.9	32.7
85°	18.1	17.2	16.4	16.4	14.6	16.4	16.4	17.2	18.1
87.5°	6.9	6.9	6.0	6.0	5.2	6.0	6.0	6.9	6.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)