

Scaled data based on original data using
LM-31-95 IESNA Approved Method for Photometric Testing of Roadway Luminaires
Using Incandescent Filament and High Intensity Discharge Lamps

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: LUMIERE

Report Number: H45042

Luminaire Tested: **510-12-20MR16-12-CS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-31-95
Report Number: H45042
Test Lab: PEACHTREE CITY
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMIERE
Catalog Number: 510-12-20MR16-12-CS
Description: LUMIERE 12 IN TAHOE BOLLARD
WITH ACRYLIC CONICAL PRISYM DIFFUSION LENS WITH REFLECTIVE CROWN
Light Source: BI PIN MR16 HALOGEN INCANDESCENT LAMP
20W MR16 BAB 36° 20 WATTS
Ballast/Driver: -

Summary

Lumens per Lamp: 240 (1 lamp)
Luminaire Lumens: 42.8 lumens
Efficiency: 17.8%
Efficacy: 2.1 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.19' x L: 0.19' x H: 0.1')
IES Classification: Type V - Short - Cutoff
BUG Rating: B0 - U1 - G0

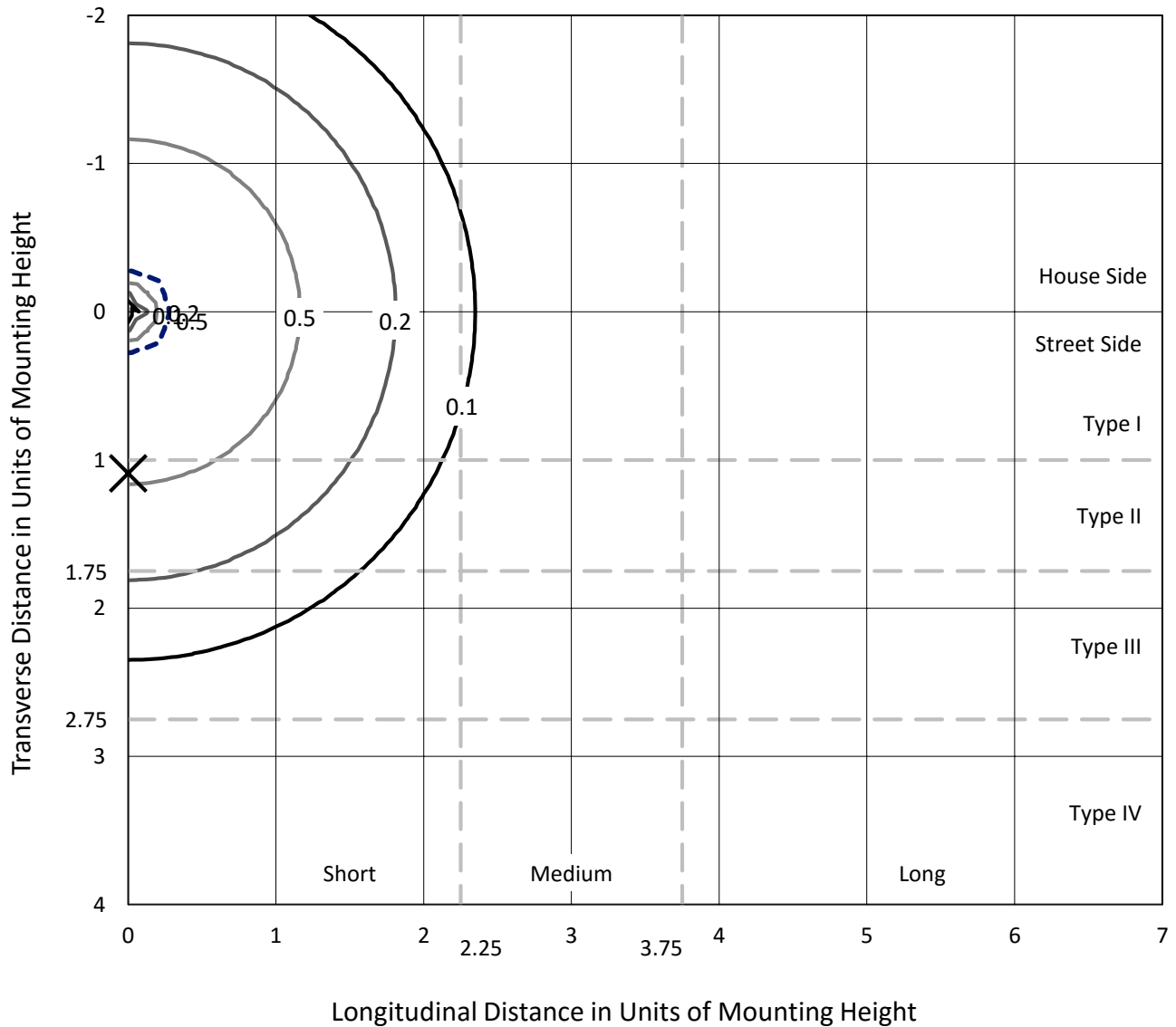
Input Watts (W): 20
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

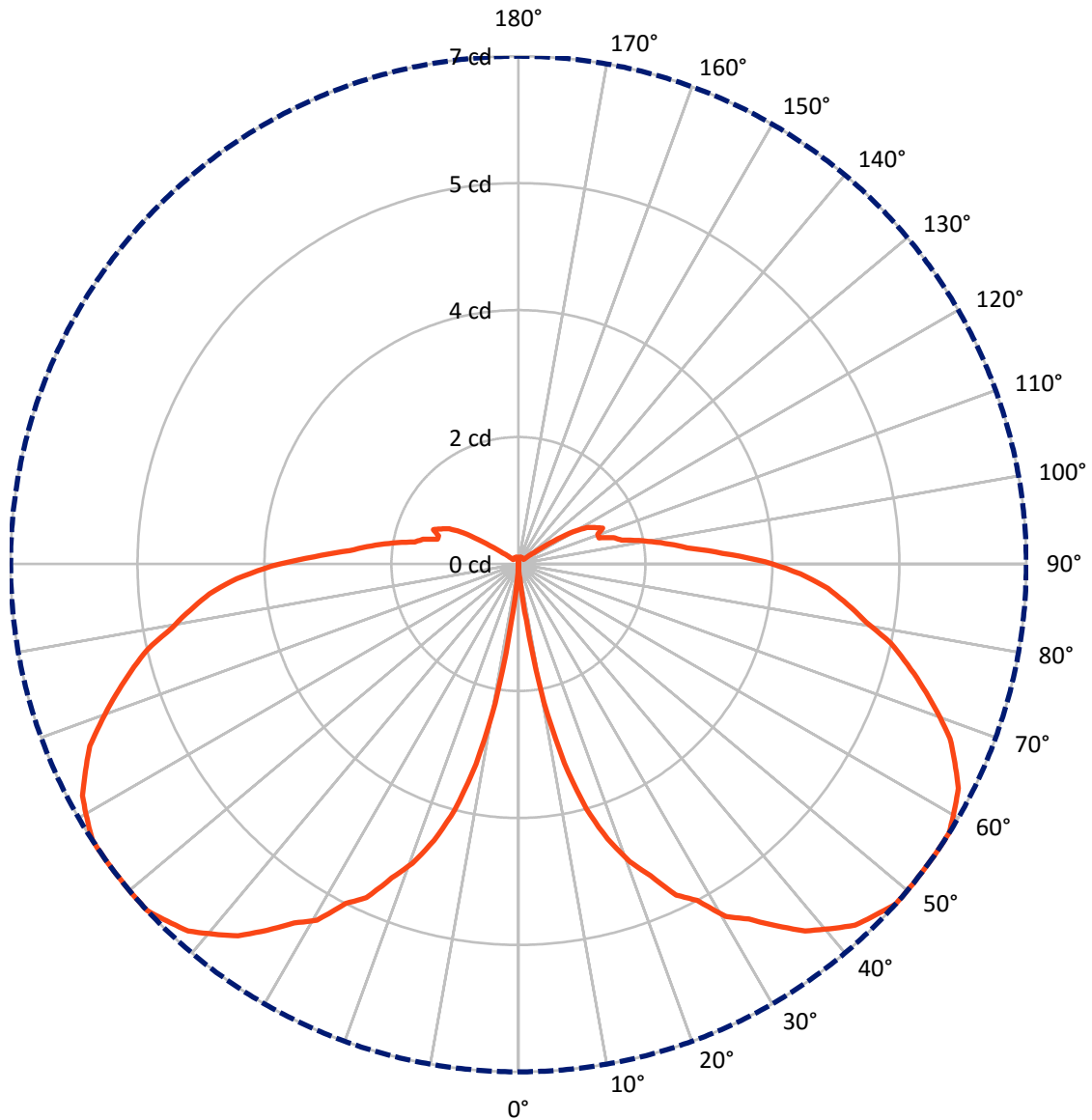


Based on 2 foot mounting height. Maximum calculated value = 1 fc
 Type V - Short - Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 47.5-Deg Vertical

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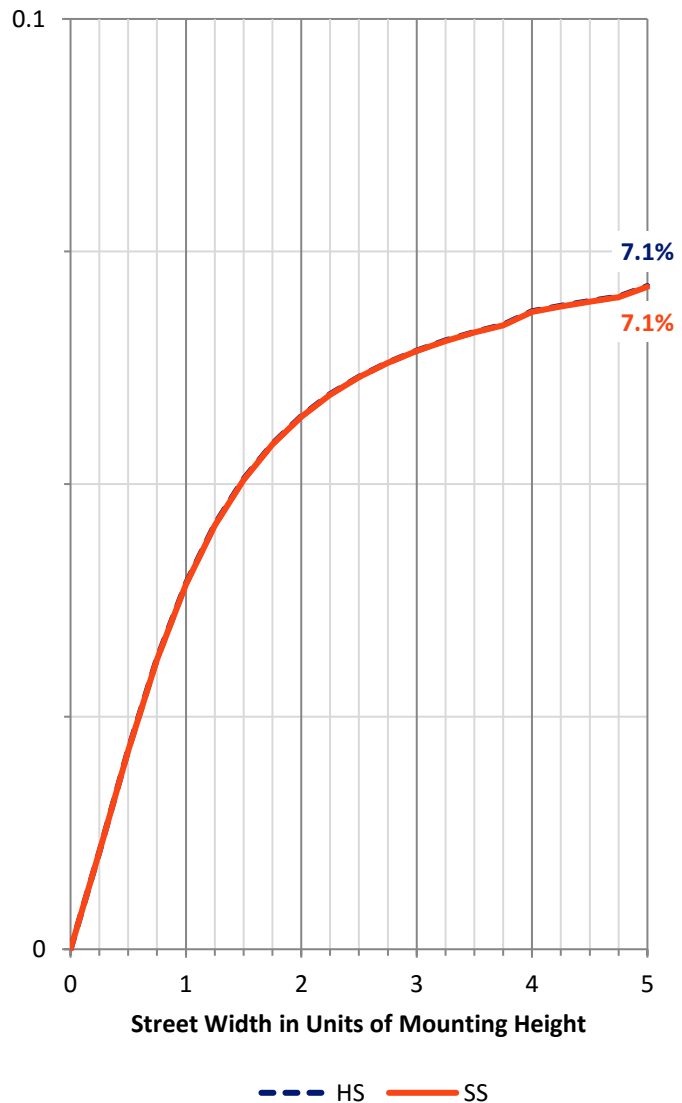
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	18.4	3.0	21.4
	% Lamp	7.7	1.2	8.9
Street Side	Lumens	18.4	3.0	21.4
	% Lamp	7.7	1.2	8.9
Total	Lumens	36.9	6.0	42.8
	% Lamp	15.4	2.5	17.8

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	0.1	0.2	0.0
10°-20°	1.0	2.4	0.4
20°-30°	2.4	5.6	1.0
30°-40°	4.0	9.3	1.7
40°-50°	5.5	12.8	2.3
50°-60°	6.4	15.1	2.7
60°-70°	6.7	15.7	2.8
70°-80°	6.0	14.0	2.5
80°-90°	4.7	11.0	2.0
90°-100°	2.7	6.4	1.1
100°-110°	1.5	3.5	0.6
110°-120°	1.2	2.7	0.5
120°-130°	0.4	0.9	0.2
130°-140°	0.1	0.2	0.0
140°-150°	0.1	0.1	0.0
150°-160°	0.0	0.1	0.0
160°-170°	0.0	0.1	0.0
170°-180°	0.0	0.0	0.0
0°-90°	36.9	86.1	15.4
0°-180°	42.8	100.0	17.8



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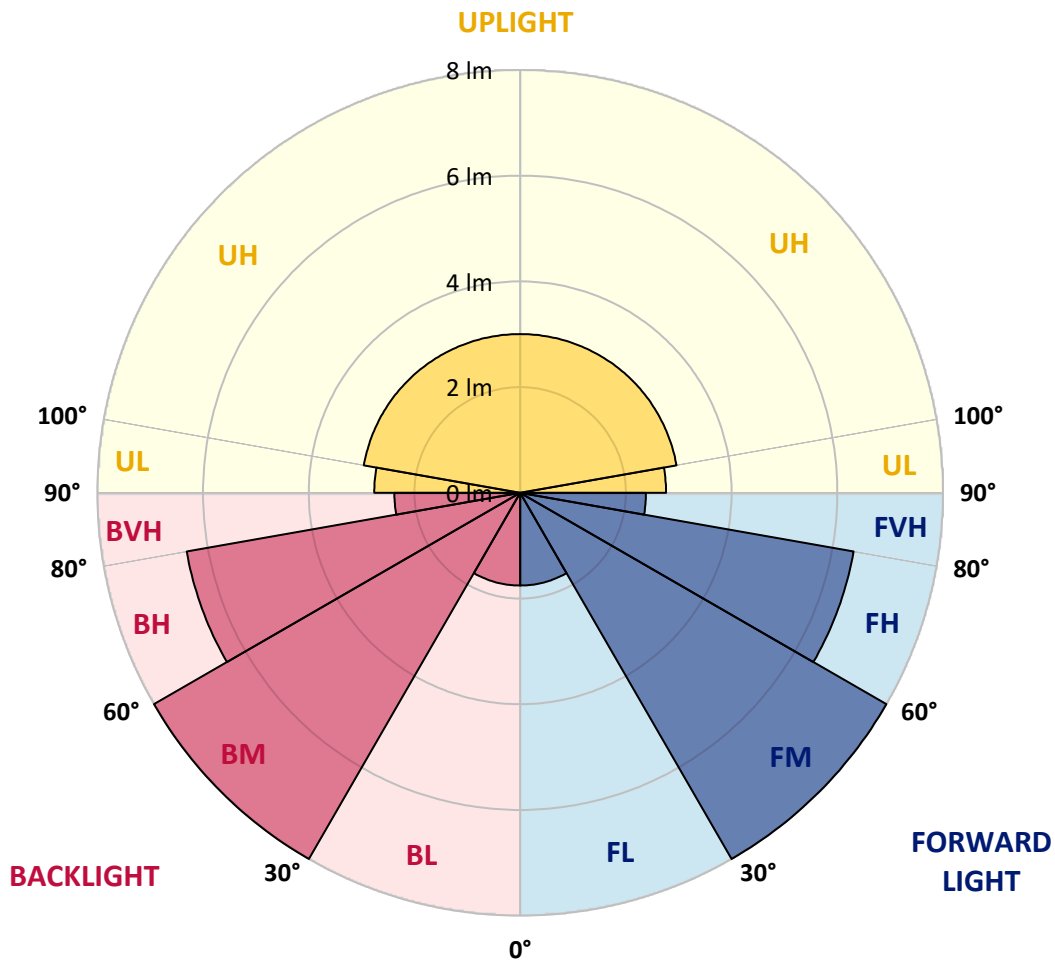
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1.7	0.7			
FM (30°-60°)	8.0	3.3			
FH (60°-80°)	6.4	2.7			G0/660
FVH (80°-90°)	2.4	1.0			G0/10
BL (0°-30°)	1.7	0.7	B0/110		
BM (30°-60°)	8.0	3.3	B0/220		
BH (60°-80°)	6.4	2.7	B0/110		G0/660
BVH (80°-90°)	2.4	1.0			G0/10
UL (90°-100°)	2.7	1.1		U1/10	
UH (100°-180°)	3.0	1.2		U1/10	
Trapped Light	197.2	82.2			

BUG Rating: B0-U1-G0

Type V Short



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CANDELA DISTRIBUTION (FULL):

	0°
0°	0.0
2.5°	0.0
5°	0.2
7.5°	0.8
10°	2.0
12.5°	2.9
15°	3.6
17.5°	4.1
20°	4.5
22.5°	4.8
25°	5.2
27.5°	5.4
30°	5.8
32.5°	6.0
35°	6.3
37.5°	6.6
40°	6.8
42.5°	7.0
45°	7.1
47.5°	7.2
50°	7.2
52.5°	7.2
55°	7.2
57.5°	7.2
60°	7.1
62.5°	7.0
65°	6.8
67.5°	6.6
70°	6.3
72.5°	6.0
75°	5.7
77.5°	5.4
80°	5.0
82.5°	4.7
85°	4.4
87.5°	4.0
90°	3.5
92.5°	2.9
95°	2.4
97.5°	2.1
100°	1.8
102.5°	1.5
105°	1.4
107.5°	1.2
110°	1.2

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CANDELA DISTRIBUTION (continued):

	0°
112.5°	1.3
115°	1.2
117.5°	1.1
120°	0.9
122.5°	0.6
125°	0.3
127.5°	0.2
130°	0.1
132.5°	0.1
135°	0.1
137.5°	0.1
140°	0.1
142.5°	0.1
145°	0.1
147.5°	0.1
150°	0.1
152.5°	0.1
155°	0.1
157.5°	0.1
160°	0.1
162.5°	0.1
165°	0.1
167.5°	0.1
170°	0.1
172.5°	0.1
175°	0.0
177.5°	0.0
180°	0.0

(END OF REPORT)