

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: McGRAW-EDISON

Report Number: P233981

Luminaire Tested: **CTN-10-4-D-E1-T1-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P233981  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1707-171-24)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: CTN-10-4-D-E1-T1-7050  
Description: CELESTEON HIGH MAST LUMINAIRE  
(10) 70 CRI, 5000K LEDS AND TYPE I OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 46505 lumens  
Efficiency: N/A  
Efficacy: 151.0 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type I - Short - Semi-Cutoff  
BUG Rating: B5 - U0 - G5

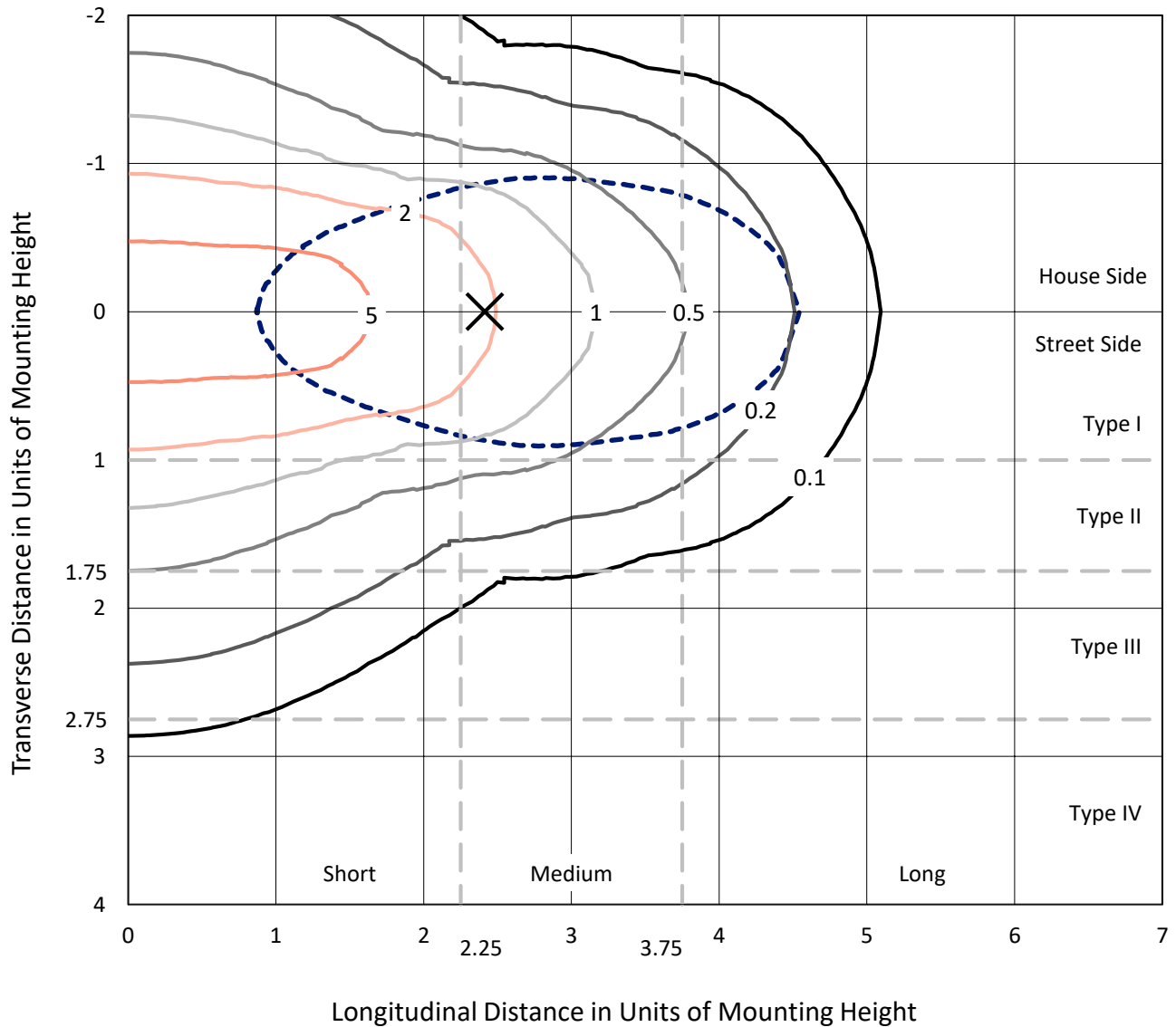
Input Watts (W): 308  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

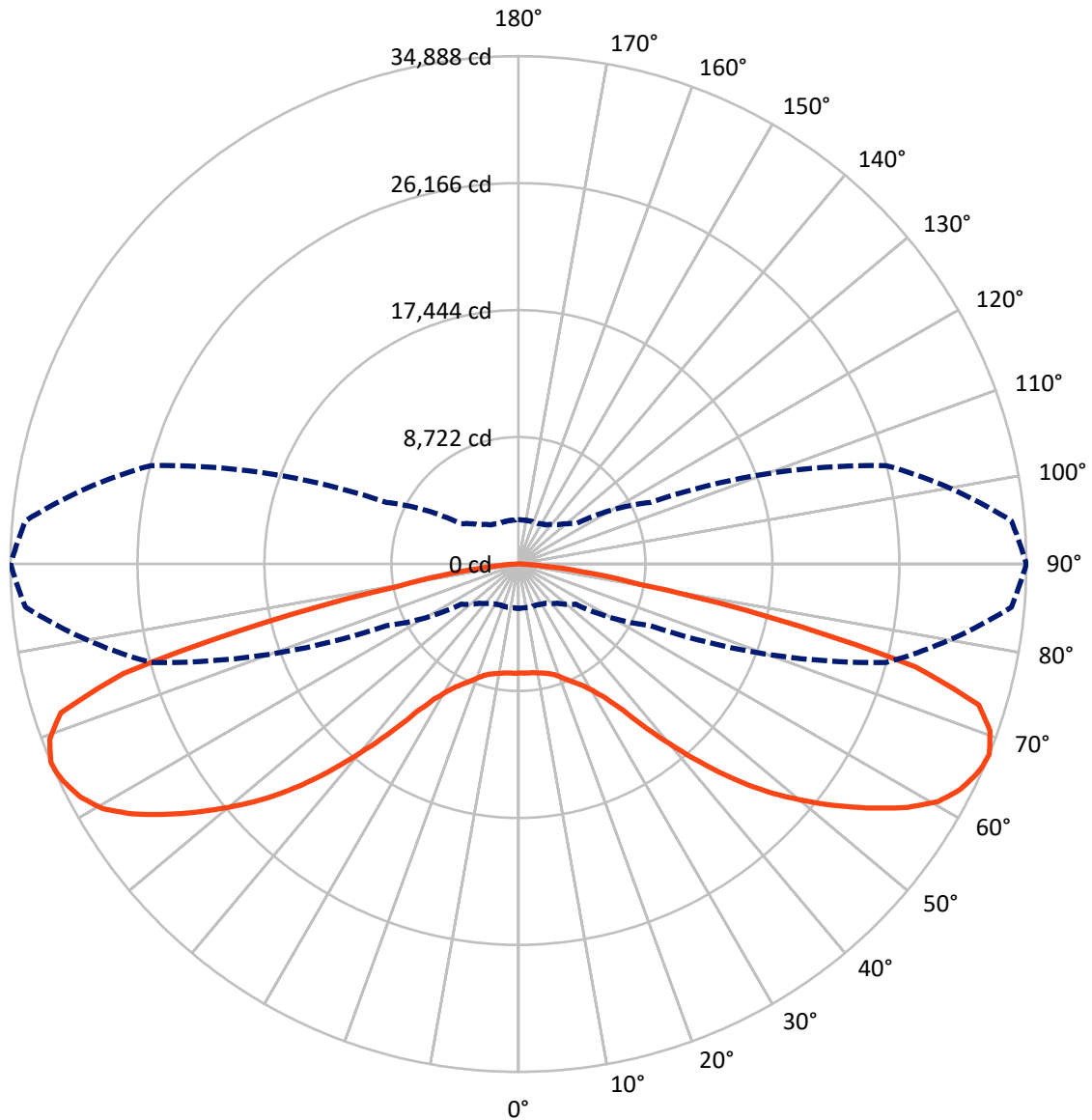
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.4 fc  
 Type I - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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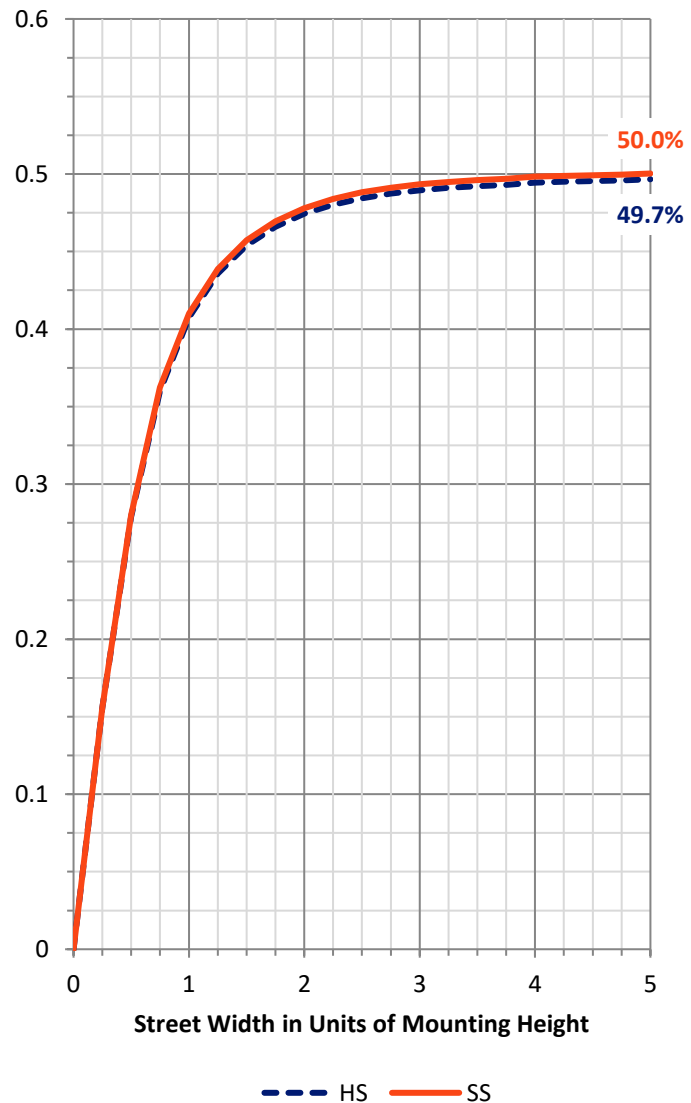
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	23252.5	0.0	23252.5
	% Fixture	50.0	0.0	50.0
<b>Street Side</b>	Lumens	23252.5	0.0	23252.5
	% Fixture	50.0	0.0	50.0
<b>Total</b>	Lumens	46505.0	0.0	46505.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	711.8	1.5
10°-20°	2117.8	4.6
20°-30°	3504.2	7.5
30°-40°	5134.2	11.0
40°-50°	7553.5	16.2
50°-60°	9795.0	21.1
60°-70°	10410.0	22.4
70°-80°	6426.2	13.8
80°-90°	852.4	1.8
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	46505.0	100.0
0°-180°	46505.0	100.0



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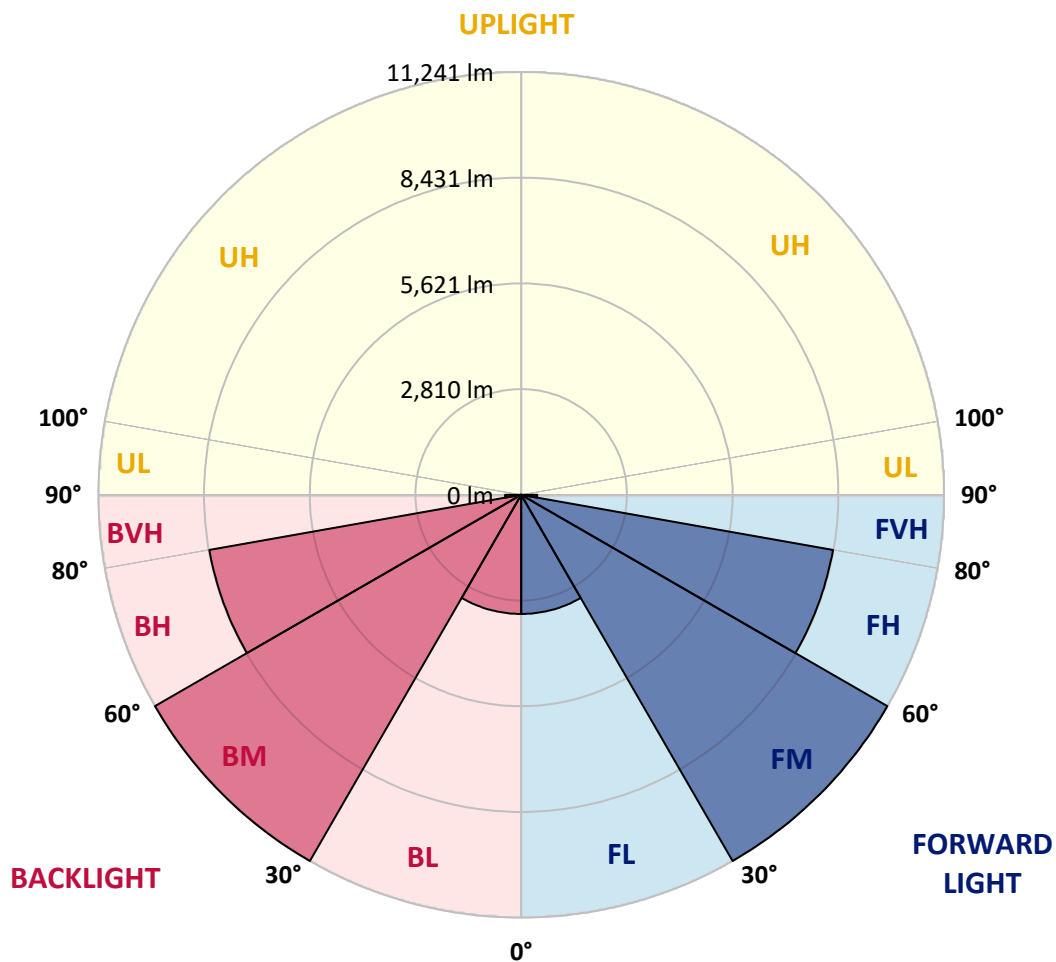
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3166.9	6.8			
FM	(30°-60°)	11241.3	24.2			
FH	(60°-80°)	8418.1	18.1			G4/12000
FVH	(80°-90°)	426.2	0.9			G3/500
BL	(0°-30°)	3166.9	6.8	B4/5000		
BM	(30°-60°)	11241.3	24.2	B5		
BH	(60°-80°)	8418.1	18.1	B5		G5
BVH	(80°-90°)	426.2	0.9			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B5-U0-G5**

Type I Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	7489.3	7489.3	7489.3	7489.3	7489.3	7489.3	7489.3	7489.3	7489.3	7489.3	7489.3
2.5°	7510.2	7486.5	7496.3	7531.1	7404.3	7467.0	7444.7	7500.4	7471.2	7496.3	7508.8
5°	7457.2	7428.0	7441.9	7507.4	7391.8	7455.8	7439.1	7501.8	7464.2	7499.0	7513.0
7.5°	7411.3	7380.6	7405.7	7460.0	7372.2	7443.3	7429.4	7514.4	7483.7	7528.3	7542.2
10°	7382.0	7348.6	7372.2	7432.2	7338.8	7450.3	7437.7	7550.6	7535.3	7596.6	7613.3
12.5°	7309.5	7274.7	7291.4	7370.8	7329.0	7444.7	7475.4	7604.9	7600.8	7674.6	7692.7
15°	7180.0	7145.1	7167.4	7273.3	7288.6	7448.9	7543.6	7696.9	7722.0	7795.8	7811.2
17.5°	7016.9	6991.9	7025.3	7166.0	7262.2	7506.0	7642.6	7837.6	7898.9	7974.2	7995.1
20°	6794.0	6780.1	6840.0	7032.3	7216.2	7547.8	7761.0	8035.5	8146.9	8269.6	8284.9
22.5°	6490.2	6473.5	6598.9	6869.2	7134.0	7557.6	7876.6	8240.3	8446.5	8604.0	8644.4
25°	6148.9	6143.3	6314.7	6670.0	7022.5	7550.6	7989.5	8459.1	8774.0	8981.6	9026.2
27.5°	5813.1	5829.8	6037.4	6456.8	6930.5	7565.9	8119.1	8739.1	9183.6	9442.8	9462.3
30°	5527.4	5541.4	5765.7	6246.4	6842.8	7584.0	8279.3	9073.5	9693.6	10043.3	10100.4
32.5°	5258.5	5290.6	5519.1	6017.9	6745.2	7618.9	8486.9	9509.7	10319.2	10871.0	10942.0
35°	5037.0	5064.8	5287.8	5785.2	6590.6	7646.7	8761.4	10061.4	11251.3	12169.6	12279.6
37.5°	4840.5	4874.0	5066.2	5570.6	6406.6	7656.5	9034.5	10741.4	12513.7	13975.4	14318.1
40°	4698.4	4724.9	4890.7	5356.1	6208.8	7611.9	9346.6	11502.1	13932.2	16130.9	16507.1
42.5°	4581.4	4603.6	4740.2	5145.7	5985.9	7524.1	9637.8	12260.1	15431.4	18414.6	18905.0
45°	4462.9	4468.5	4599.5	4964.5	5760.1	7384.8	9856.6	12986.1	17010.1	20744.3	21318.3
47.5°	4357.0	4350.1	4453.2	4786.2	5517.7	7150.7	9941.6	13588.0	18544.2	22927.7	23554.7
50°	4258.1	4228.8	4318.0	4616.2	5282.2	6814.9	9834.3	14004.6	20157.7	25037.2	25593.2
52.5°	4110.4	4096.5	4181.5	4449.0	5046.7	6413.6	9480.4	14224.8	21878.5	27035.3	27616.3
55°	3978.0	3968.3	4056.1	4279.0	4815.4	6005.4	8870.1	14164.9	23574.2	28962.3	29606.0
57.5°	3831.7	3824.8	3907.0	4093.7	4560.5	5626.4	8114.9	13777.5	25088.8	30626.0	31535.8
60°	3688.2	3692.4	3745.3	3905.6	4301.3	5208.4	7253.8	13103.1	26296.8	32132.2	33125.6
62.5°	3521.0	3516.8	3555.8	3689.6	4004.5	4756.9	6405.3	12168.2	27004.6	33447.5	34082.9
65°	3295.3	3280.0	3324.5	3409.5	3645.0	4294.3	5569.2	11036.8	27022.7	34101.0	34641.6
66°	3199.1	3182.4	3222.8	3282.7	3504.3	4107.6	5261.3	10557.5	26745.5	34120.5	34792.1
67.5°	3050.1	3030.5	3057.0	3084.9	3284.1	3809.4	4809.9	10014.0	26138.0	33997.9	34888.2
70°	2679.4	2682.2	2710.1	2700.3	2802.0	3146.2	3972.5	9005.3	23207.7	33501.8	34372.7
72.5°	2085.9	2062.2	2021.8	1982.7	2031.5	2333.9	3008.3	7557.6	19004.0	31363.0	33056.0
75°	1346.0	1341.8	1340.4	1387.8	1394.7	1599.6	2324.1	6097.3	14814.2	25738.1	28175.0
77.5°	841.6	834.6	894.5	1010.2	1028.3	1033.9	1524.3	4634.3	10709.3	16469.5	17747.2
80°	603.3	603.3	607.5	622.8	720.4	735.7	1053.4	2909.3	6090.4	8028.5	8435.4
82.5°	457.0	450.1	451.4	458.4	466.8	501.6	634.0	1291.6	2432.8	4068.6	4603.6
85°	330.2	340.0	356.7	344.2	310.7	314.9	359.5	444.5	934.9	1575.9	1704.1
87.5°	119.8	137.9	142.1	147.7	142.1	143.5	147.7	139.3	189.5	388.7	448.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)