

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: FAIL-SAFE

Report Number: P551058

Luminaire Tested: **FCC-X-2-LD4-1STD-35-UNV-93-94-ED1D**

Issue Date: 7/9/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P551058
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-248-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/9/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FCC-X-2-LD4-1STD-35-UNV-93-94-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K,
AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

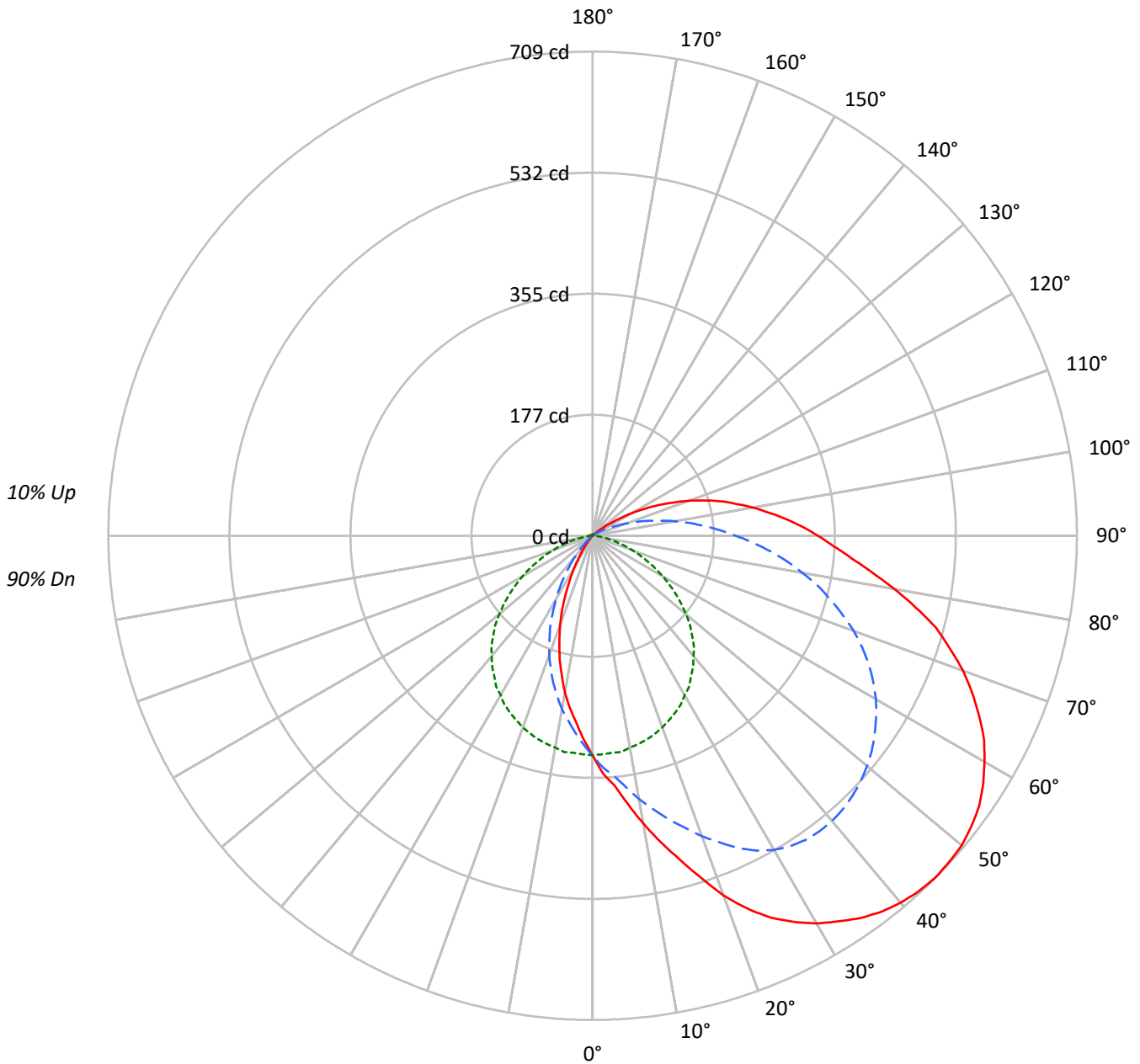
Lumens per Lamp: N/A
Luminaire Lumens: 1588.9 lumens
Efficiency: N/A
Efficacy: 95.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (A_{in}): 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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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	117	117	117	117	113	113	113	113	105	105	105	99	99	99	93	93	93	90																			
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	67																			
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	53																			
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	43																			
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	36																			
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	30																			
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	26																			
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	23																			
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	20																			
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	18																			
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	16																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	3460	3460	3460
5°	3798	3410	2844
10°	4298	3368	2344
15°	4816	3324	1827
20°	5432	3270	1345
25°	5942	3207	883
30°	6322	3123	498
35°	6651	3033	219
40°	6943	2921	52
45°	7193	2781	0
50°	7403	2596	0
55°	7562	2360	0
60°	7643	2086	0
65°	7674	1776	0
70°	7649	1448	0
75°	7551	1069	6
80°	7245	653	32
85°	7004	310	46



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.8	1.9
10°-20°	92.2	5.8
20°-30°	149.3	9.4
30°-40°	191.8	12.1
40°-50°	217.1	13.7
50°-60°	224.9	14.2
60°-70°	212.1	13.3
70°-80°	177.7	11.2
80°-90°	128.8	8.1
90°-100°	84.7	5.3
100°-110°	48.9	3.1
110°-120°	21.6	1.4
120°-130°	5.8	0.4
130°-140°	1.3	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	272.3	17.1
0°-40°	464.0	29.2
0°-60°	906.0	57.0
0°-90°	1424.7	89.7
90°-120°	155.1	9.8
90°-150°	163.1	10.3
90°-180°	164.0	10.3
0°-180°	1588.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	321	321	321	321	321	
5°	367	352	319	290	275	37
15°	490	430	308	223	186	141
25°	617	504	286	147	92	285
35°	683	544	251	71	22	429
45°	709	538	206	16	0	547
55°	691	504	148	0	0	617
65°	624	446	88	0	0	618
75°	520	360	38	0	0	546
85°	381	261	6	2	2	325
90°	330	209	2	2	3	181
95°	283	164	1	3	4	222
105°	195	85	1	2	3	206
115°	106	28	1	1	2	106
125°	32	4	2	1	2	32
135°	2	1	2	2	1	3
145°	0	1	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	1	2	1	0	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	321.4	321.4	321.4	321.4	321.4	321.4	321.4	321.4	321.4	321.4	321.4
2.5°	348.4	348.0	346.8	344.8	341.9	337.0	332.9	329.2	324.3	320.2	312.4
5°	366.9	364.8	363.2	361.1	354.6	350.1	342.7	334.5	326.7	319.0	303.4
7.5°	396.3	393.1	390.6	384.9	375.9	365.6	354.2	346.4	341.1	319.4	292.8
10°	427.9	425.0	420.1	409.9	398.8	384.1	367.7	349.3	332.9	314.9	283.3
12.5°	459.0	454.9	447.9	434.8	419.3	400.8	378.3	356.6	333.3	312.0	272.3
15°	490.1	485.6	478.2	462.3	441.8	417.6	390.2	362.8	335.3	308.3	260.8
17.5°	524.1	518.0	506.9	488.9	463.1	433.2	400.8	367.7	334.5	303.8	248.5
20°	560.5	551.9	540.1	515.9	485.6	450.4	411.5	372.6	334.1	298.5	234.6
22.5°	590.8	582.2	569.1	544.2	507.7	464.7	420.5	375.9	332.5	292.3	221.5
25°	617.0	610.1	595.7	567.1	528.6	479.9	429.1	378.3	330.0	285.8	207.6
27.5°	637.5	631.0	615.0	585.5	546.2	493.4	435.7	379.6	326.7	279.2	193.3
30°	655.5	649.0	629.7	599.4	558.1	504.0	442.2	380.0	322.6	269.4	177.7
32.5°	669.4	663.3	643.7	611.3	566.3	511.4	445.9	379.6	317.3	262.5	160.9
35°	683.4	677.2	654.3	619.9	572.4	514.7	448.8	377.5	310.8	251.0	144.9
37.5°	694.0	687.1	663.7	625.6	575.3	515.5	448.3	374.6	303.8	241.6	129.0
40°	701.4	694.0	669.0	628.9	576.1	514.3	445.1	369.7	295.6	229.7	112.2
42.5°	706.3	698.1	671.5	633.8	574.5	511.0	440.2	363.6	286.6	219.5	96.2
45°	708.8	700.2	671.9	629.7	571.6	504.8	432.8	355.8	276.8	205.5	80.3
47.5°	707.5	698.1	669.9	625.2	566.3	498.3	424.6	346.4	264.9	193.3	65.1
50°	705.5	695.7	665.4	619.5	558.9	490.1	415.6	334.9	252.6	178.1	51.6
52.5°	698.9	689.1	660.4	611.3	550.3	480.7	403.3	323.1	239.5	163.4	39.3
55°	690.7	681.7	651.8	603.9	539.2	469.2	391.8	310.4	226.8	148.2	28.3
57.5°	678.0	669.9	641.2	592.1	528.2	456.5	379.1	296.4	210.9	133.1	19.7
60°	662.5	654.3	626.5	578.5	515.5	442.2	365.2	282.1	196.5	117.9	12.3
62.5°	646.1	638.3	609.3	561.8	499.5	427.1	350.1	267.8	181.4	104.0	7.4
65°	624.4	617.0	590.8	541.7	481.9	410.7	333.3	250.6	165.8	88.4	4.1
67.5°	601.5	594.9	568.3	523.3	461.4	392.7	316.1	233.8	149.4	74.9	2.0
70°	576.9	568.7	544.2	498.3	440.6	372.2	297.3	216.6	133.9	61.8	0.0
72.5°	548.3	542.1	518.4	475.0	416.4	350.5	278.0	197.8	116.7	49.1	0.4
75°	520.4	512.6	490.9	450.0	392.7	327.6	256.7	180.2	99.9	37.7	0.4
77.5°	484.4	481.9	461.4	421.7	370.1	305.4	233.4	158.9	83.9	27.0	0.4
80°	448.3	445.9	429.9	393.5	343.9	279.2	211.7	138.8	68.4	18.0	0.4
82.5°	412.7	409.4	394.3	364.0	317.3	257.1	189.2	118.7	54.0	11.1	0.4
85°	380.8	376.7	360.3	332.5	289.9	232.2	165.8	99.1	40.1	6.1	0.8
87.5°	353.4	350.5	332.5	303.8	262.0	208.8	145.4	80.3	28.3	2.9	1.2
90°	330.0	323.9	307.9	277.6	235.8	183.0	123.7	64.3	18.8	1.6	1.6
92.5°	307.1	301.8	284.2	253.0	212.5	160.9	102.8	49.1	11.9	0.8	2.0
95°	283.3	277.6	260.4	231.7	188.8	138.4	84.3	36.0	6.6	0.8	2.0
97.5°	260.0	254.7	236.7	208.0	167.5	118.7	66.7	25.4	3.3	0.8	1.6
100°	238.3	232.2	215.8	187.1	146.2	99.1	51.6	16.4	2.0	0.8	1.6
102.5°	215.4	210.5	193.7	165.8	124.1	80.7	38.5	10.2	0.8	0.8	1.2
105°	194.9	188.8	172.4	143.7	105.6	63.5	27.0	6.1	0.8	0.8	1.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	126.9	122.0	107.7	83.5	53.6	25.0	7.4	1.2	1.2	1.2	1.2
115°	106.0	98.7	86.0	64.7	39.7	16.4	3.7	1.2	1.2	1.2	1.2
117.5°	84.8	78.6	69.6	49.1	26.2	10.6	2.0	1.2	1.2	1.2	1.2
120°	66.3	60.6	50.4	34.0	17.6	6.1	0.8	1.2	1.2	1.2	1.2
122.5°	47.5	43.0	34.0	22.1	10.6	2.9	1.2	1.2	1.6	1.6	1.2
125°	31.5	29.1	22.5	13.5	6.6	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	20.5	18.4	13.1	7.8	2.9	1.2	1.2	1.6	1.6	1.6	1.2
130°	11.5	10.2	7.8	4.5	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.6	6.1	4.1	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6
135°	1.6	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.6	2.0	2.0	2.0	1.6
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	1.6
142.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
145°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	1.6	1.6	1.6
147.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
150°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
152.5°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
155°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
157.5°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
160°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
162.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6	1.6
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	2.0
172.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
175°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
177.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	1.6
180°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	321.4	321.4	321.4
2.5°	305.9	300.1	298.5
5°	289.5	280.1	274.7
7.5°	273.1	260.4	254.3
10°	258.0	239.9	233.4
12.5°	239.9	219.1	208.8
15°	222.7	195.7	185.9
17.5°	203.5	173.2	161.7
20°	185.5	150.7	138.8
22.5°	165.0	128.6	115.5
25°	146.6	106.5	91.7
27.5°	126.1	83.9	71.2
30°	106.9	64.3	51.6
32.5°	88.4	47.1	35.6
35°	71.2	31.9	22.5
37.5°	54.9	19.7	11.5
40°	39.7	10.2	5.3
42.5°	26.6	4.9	2.9
45°	16.4	2.5	0.0
47.5°	9.4	0.0	0.0
50°	4.9	0.0	0.0
52.5°	2.0	0.0	0.0
55°	0.0	0.0	0.0
57.5°	0.0	0.0	0.0
60°	0.0	0.0	0.0
62.5°	0.0	0.0	0.0
65°	0.0	0.0	0.0
67.5°	0.0	0.0	0.0
70°	0.0	0.0	0.0
72.5°	0.0	0.0	0.0
75°	0.4	0.4	0.4
77.5°	0.4	0.8	1.2
80°	0.8	1.6	2.0
82.5°	1.6	2.0	2.0
85°	1.6	2.0	2.5
87.5°	2.0	2.5	2.9
90°	2.5	2.9	2.9
92.5°	2.5	3.3	3.3
95°	2.9	3.3	3.7
97.5°	3.3	3.7	3.7
100°	2.9	3.7	4.1
102.5°	2.5	3.7	3.7
105°	2.0	2.9	3.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.6	2.0	2.0
115°	1.2	1.6	2.0
117.5°	1.2	1.6	1.6
120°	1.2	1.2	1.6
122.5°	1.2	1.2	1.6
125°	1.2	1.2	1.6
127.5°	1.6	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.6	1.2	1.2
135°	1.6	1.2	1.2
137.5°	1.6	1.2	1.2
140°	1.6	1.2	1.2
142.5°	1.6	1.2	1.2
145°	1.2	1.2	1.2
147.5°	1.2	1.2	1.2
150°	1.2	1.2	0.8
152.5°	1.2	0.8	0.8
155°	1.2	0.8	0.4
157.5°	1.6	0.8	0.4
160°	1.2	0.8	0.4
162.5°	1.2	0.8	0.4
165°	1.2	0.8	0.0
167.5°	1.2	0.8	0.4
170°	1.2	0.8	0.4
172.5°	1.2	0.8	0.4
175°	1.2	0.4	0.4
177.5°	1.2	0.4	0.4
180°	1.2	1.2	1.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







107.5°	172.0	167.1	150.7	123.7	86.4	48.3	18.0	3.3	0.8	1.2	1.2
110°	149.9	145.8	129.0	102.8	69.6	36.0	11.9	2.0	1.2	1.2	1.2





107.5°	1.6	2.5	2.9
110°	1.6	2.0	2.5



(END OF REPORT)