

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: P551122

Luminaire Tested: **FCC-X-2-LD4-1STD-40-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: P551122
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-40-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 4000K,
AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

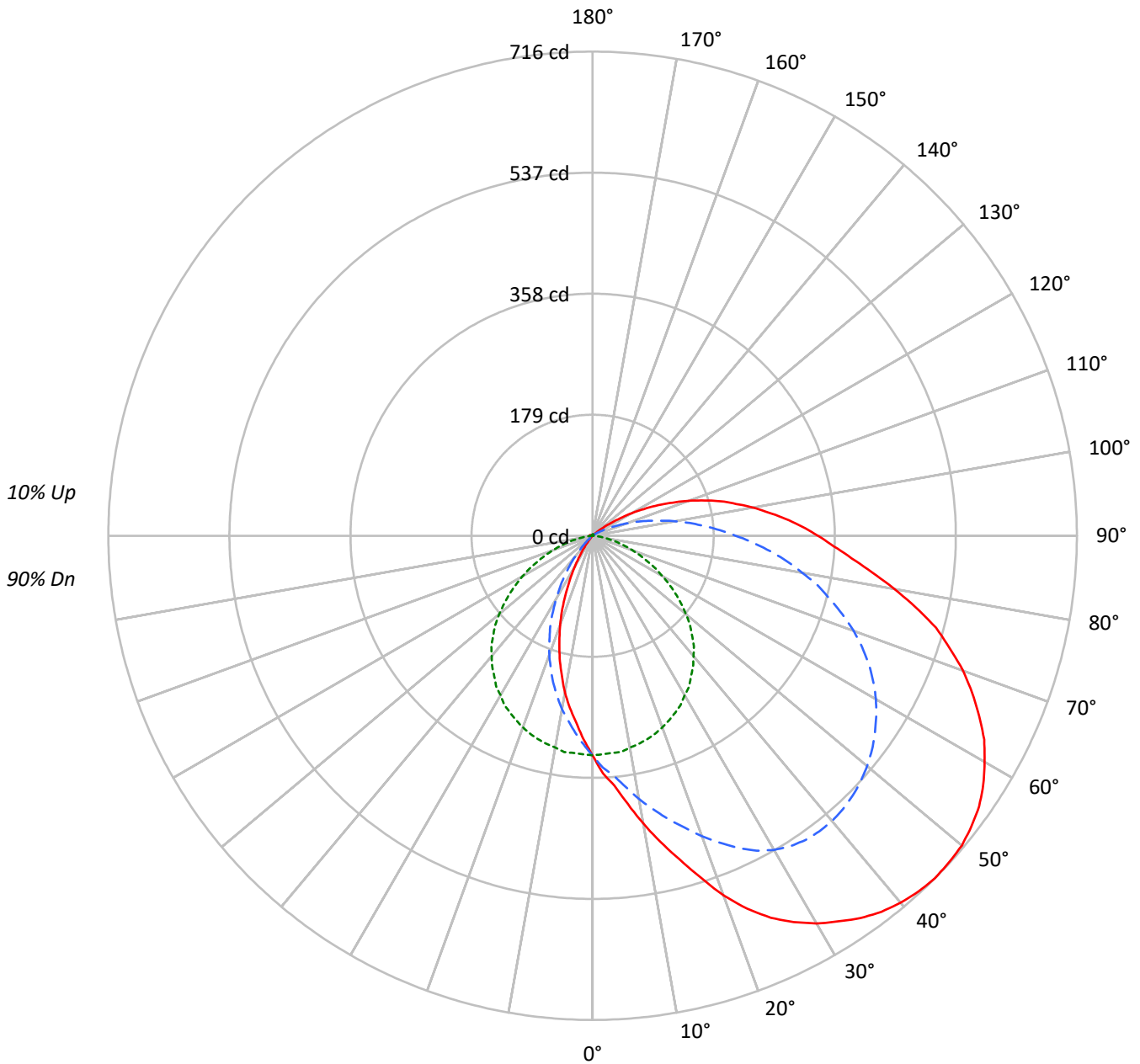
Lumens per Lamp: N/A
Luminaire Lumens: 1605.0 lumens
Efficiency: N/A
Efficacy: 96.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	3495	3495	3495
5°	3837	3444	2873
10°	4341	3401	2367
15°	4864	3358	1846
20°	5487	3303	1359
25°	6003	3240	892
30°	6386	3154	502
35°	6718	3063	221
40°	7012	2950	53
45°	7265	2809	0
50°	7477	2622	0
55°	7639	2384	0
60°	7720	2108	0
65°	7752	1794	0
70°	7726	1462	0
75°	7627	1078	6
80°	7319	660	34
85°	7074	315	46



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.1	1.9
10°-20°	93.1	5.8
20°-30°	150.8	9.4
30°-40°	193.7	12.1
40°-50°	219.3	13.7
50°-60°	227.2	14.2
60°-70°	214.2	13.3
70°-80°	179.5	11.2
80°-90°	130.1	8.1
90°-100°	85.5	5.3
100°-110°	49.4	3.1
110°-120°	21.8	1.4
120°-130°	5.9	0.4
130°-140°	1.4	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	275.0	17.1
0°-40°	468.7	29.2
0°-60°	915.1	57.0
0°-90°	1439.0	89.7
90°-120°	156.7	9.8
90°-150°	164.8	10.3
90°-180°	166.0	10.3
0°-180°	1605.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	325	325	325	325	325	
5°	371	356	322	292	278	37
15°	495	434	311	225	188	143
25°	623	509	289	148	93	288
35°	690	549	254	72	23	433
45°	716	544	208	16	0	553
55°	698	509	150	0	0	623
65°	631	451	89	0	0	624
75°	526	364	38	0	0	551
85°	385	264	6	2	2	328
90°	333	212	2	2	3	183
95°	286	165	1	3	4	225
105°	197	85	1	2	3	208
115°	107	28	1	1	2	107
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°	324.7	324.7	324.7	324.7	324.7	324.7	324.7	324.7	324.7	324.7	324.7
2.5°	351.9	351.5	350.3	348.2	345.3	340.4	336.2	332.5	327.5	323.4	315.6
5°	370.6	368.5	366.8	364.8	358.2	353.6	346.2	337.9	330.0	322.2	306.5
7.5°	400.3	397.0	394.5	388.8	379.7	369.3	357.7	349.9	344.5	322.6	295.7
10°	432.2	429.3	424.3	414.0	402.8	387.9	371.4	352.8	336.2	318.0	286.2
12.5°	463.6	459.5	452.4	439.2	423.5	404.9	382.1	360.2	336.6	315.1	275.0
15°	495.0	490.5	483.1	466.9	446.2	421.8	394.1	366.4	338.7	311.4	263.4
17.5°	529.4	523.2	512.0	493.8	467.7	437.6	404.9	371.4	337.9	306.9	251.0
20°	566.2	557.5	545.5	521.1	490.5	454.9	415.6	376.3	337.5	301.5	237.0
22.5°	596.8	588.1	574.9	549.6	512.8	469.4	424.7	379.7	335.8	295.3	223.7
25°	623.3	616.2	601.7	572.8	533.9	484.7	433.4	382.1	333.3	288.7	209.7
27.5°	643.9	637.3	621.2	591.4	551.7	498.4	440.0	383.4	330.0	282.1	195.2
30°	662.1	655.5	636.1	605.5	563.7	509.1	446.7	383.8	325.9	272.1	179.5
32.5°	676.2	670.0	650.1	617.5	572.0	516.5	450.4	383.4	320.5	265.1	162.5
35°	690.2	684.0	660.9	626.1	578.2	519.9	453.3	381.3	313.9	253.5	146.4
37.5°	701.0	694.0	670.4	631.9	581.1	520.7	452.9	378.4	306.9	244.0	130.3
40°	708.4	701.0	675.8	635.2	581.9	519.4	449.6	373.5	298.6	232.0	113.3
42.5°	713.4	705.1	678.3	640.2	580.2	516.1	444.6	367.3	289.5	221.7	97.2
45°	715.9	707.2	678.7	636.1	577.3	509.9	437.1	359.4	279.6	207.6	81.1
47.5°	714.7	705.1	676.6	631.5	572.0	503.3	428.9	349.9	267.6	195.2	65.8
50°	712.6	702.7	672.1	625.7	564.5	495.0	419.8	338.3	255.2	179.9	52.1
52.5°	706.0	696.0	667.1	617.5	555.8	485.5	407.4	326.3	241.9	165.0	39.7
55°	697.7	688.6	658.4	610.0	544.7	474.0	395.8	313.5	229.1	149.7	28.5
57.5°	684.9	676.6	647.7	598.0	533.5	461.1	383.0	299.4	213.0	134.4	19.9
60°	669.2	660.9	632.8	584.4	520.7	446.7	368.9	285.0	198.5	119.1	12.4
62.5°	652.6	644.8	615.4	567.4	504.6	431.4	353.6	270.5	183.2	105.0	7.4
65°	630.7	623.3	596.8	547.2	486.8	414.8	336.6	253.1	167.5	89.3	4.1
67.5°	607.5	600.9	574.0	528.5	466.1	396.6	319.3	236.1	151.0	75.7	2.1
70°	582.7	574.4	549.6	503.3	445.0	375.9	300.3	218.8	135.2	62.4	0.0
72.5°	553.8	547.6	523.6	479.7	420.6	354.0	280.8	199.8	117.9	49.6	0.4
75°	525.6	517.8	495.9	454.5	396.6	330.9	259.3	182.0	100.9	38.0	0.4
77.5°	489.3	486.8	466.1	426.0	373.9	308.5	235.7	160.5	84.8	27.3	0.4
80°	452.9	450.4	434.2	397.4	347.4	282.1	213.8	140.2	69.1	18.2	0.4
82.5°	416.9	413.6	398.3	367.7	320.5	259.7	191.1	119.9	54.6	11.2	0.4
85°	384.6	380.5	363.9	335.8	292.8	234.5	167.5	100.1	40.5	6.2	0.8
87.5°	356.9	354.0	335.8	306.9	264.7	210.9	146.8	81.1	28.5	2.9	1.2
90°	333.3	327.1	311.0	280.4	238.2	184.9	124.9	64.9	19.0	1.7	1.7
92.5°	310.2	304.8	287.0	255.6	214.6	162.5	103.8	49.6	12.0	0.8	2.1
95°	286.2	280.4	263.0	234.1	190.7	139.8	85.2	36.4	6.6	0.8	2.1
97.5°	262.6	257.2	239.0	210.1	169.2	119.9	67.4	25.6	3.3	0.8	1.7
100°	240.7	234.5	218.0	189.0	147.6	100.1	52.1	16.5	2.1	0.8	1.7
102.5°	217.5	212.6	195.6	167.5	125.3	81.5	38.9	10.3	0.8	0.8	1.2
105°	196.9	190.7	174.1	145.2	106.7	64.1	27.3	6.2	0.8	0.8	1.2



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CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-93-94-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	128.2	123.2	108.8	84.4	54.2	25.2	7.4	1.2	1.2	1.2	1.2
115°	107.1	99.7	86.8	65.3	40.1	16.5	3.7	1.2	1.2	1.2	1.2
117.5°	85.6	79.4	70.3	49.6	26.5	10.8	2.1	1.2	1.2	1.2	1.2
120°	67.0	61.2	50.9	34.3	17.8	6.2	0.8	1.2	1.2	1.2	1.2
122.5°	48.0	43.4	34.3	22.3	10.8	2.9	1.2	1.2	1.7	1.7	1.2
125°	31.8	29.4	22.7	13.6	6.6	1.2	1.2	1.2	1.7	1.7	1.2
127.5°	20.7	18.6	13.2	7.9	2.9	1.2	1.2	1.7	1.7	1.7	1.2
130°	11.6	10.3	7.9	4.5	1.2	1.2	1.2	1.7	1.7	1.7	1.2
132.5°	6.6	6.2	4.1	0.8	1.2	1.2	1.2	1.7	1.7	1.7	1.7
135°	1.7	0.8	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	1.7
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.7	2.1	2.1	2.1	1.7
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.7	2.1	2.1	2.1	1.7
142.5°	0.4	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	1.7	1.7
145°	0.4	0.8	0.8	1.2	1.2	1.7	1.7	2.1	1.7	1.7	1.7
147.5°	0.8	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	1.7	1.7
150°	0.4	0.8	0.8	1.2	1.7	1.7	1.7	2.1	1.7	1.7	1.7
152.5°	0.4	0.8	0.8	1.2	1.7	1.7	1.7	2.1	1.7	1.7	1.7
155°	0.8	0.8	0.8	1.2	1.7	1.7	1.7	2.1	1.7	1.7	2.1
157.5°	0.8	0.8	0.8	1.2	1.7	1.7	1.7	2.1	1.7	1.7	2.1
160°	0.8	0.8	0.8	1.2	1.2	1.7	1.7	1.7	1.7	1.7	1.7
162.5°	0.8	0.8	0.8	1.2	1.2	1.7	1.7	1.7	1.7	1.7	1.7
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.7	1.7	1.7	1.7	1.7
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.7	1.7	1.7	1.7	1.7
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.7	2.1	2.1	2.1	2.1
172.5°	0.8	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	2.1	2.1
175°	0.8	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	2.1	2.1
177.5°	0.4	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	2.1	1.7
180°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2



TEST NUMBER: P551122

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-93-94-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	324.7	324.7	324.7
2.5°	308.9	303.1	301.5
5°	292.4	282.9	277.5
7.5°	275.9	263.0	256.8
10°	260.5	242.4	235.7
12.5°	242.4	221.3	210.9
15°	225.0	197.7	187.8
17.5°	205.5	174.9	163.4
20°	187.3	152.2	140.2
22.5°	166.7	129.9	116.6
25°	148.1	107.5	92.6
27.5°	127.4	84.8	72.0
30°	107.9	64.9	52.1
32.5°	89.3	47.6	36.0
35°	72.0	32.3	22.7
37.5°	55.4	19.9	11.6
40°	40.1	10.3	5.4
42.5°	26.9	5.0	2.9
45°	16.5	2.5	0.0
47.5°	9.5	0.0	0.0
50°	5.0	0.0	0.0
52.5°	2.1	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	1.7	2.1
82.5°	1.7	2.1	2.1
85°	1.7	2.1	2.5
87.5°	2.1	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°	2.1	2.9	3.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.7	2.1	2.1
115°	1.2	1.7	2.1
117.5°	1.2	1.7	1.7
120°	1.2	1.2	1.7
122.5°	1.2	1.2	1.7
125°	1.2	1.2	1.7
127.5°	1.7	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.7	1.2	1.2
135°	1.7	1.2	1.2
137.5°	1.7	1.2	1.2
140°	1.7	1.2	1.2
142.5°	1.7	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°	1.7	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°	173.7	168.7	152.2	124.9	87.3	48.8	18.2	3.3	0.8	1.2	1.2
110°	151.4	147.2	130.3	103.8	70.3	36.4	12.0	2.1	1.2	1.2	1.2





107.5°	1.7	2.5	2.9
110°	1.7	2.1	2.5



(END OF REPORT)