

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: P551124

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-93-96-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: P551124
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-93-96-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K,
AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

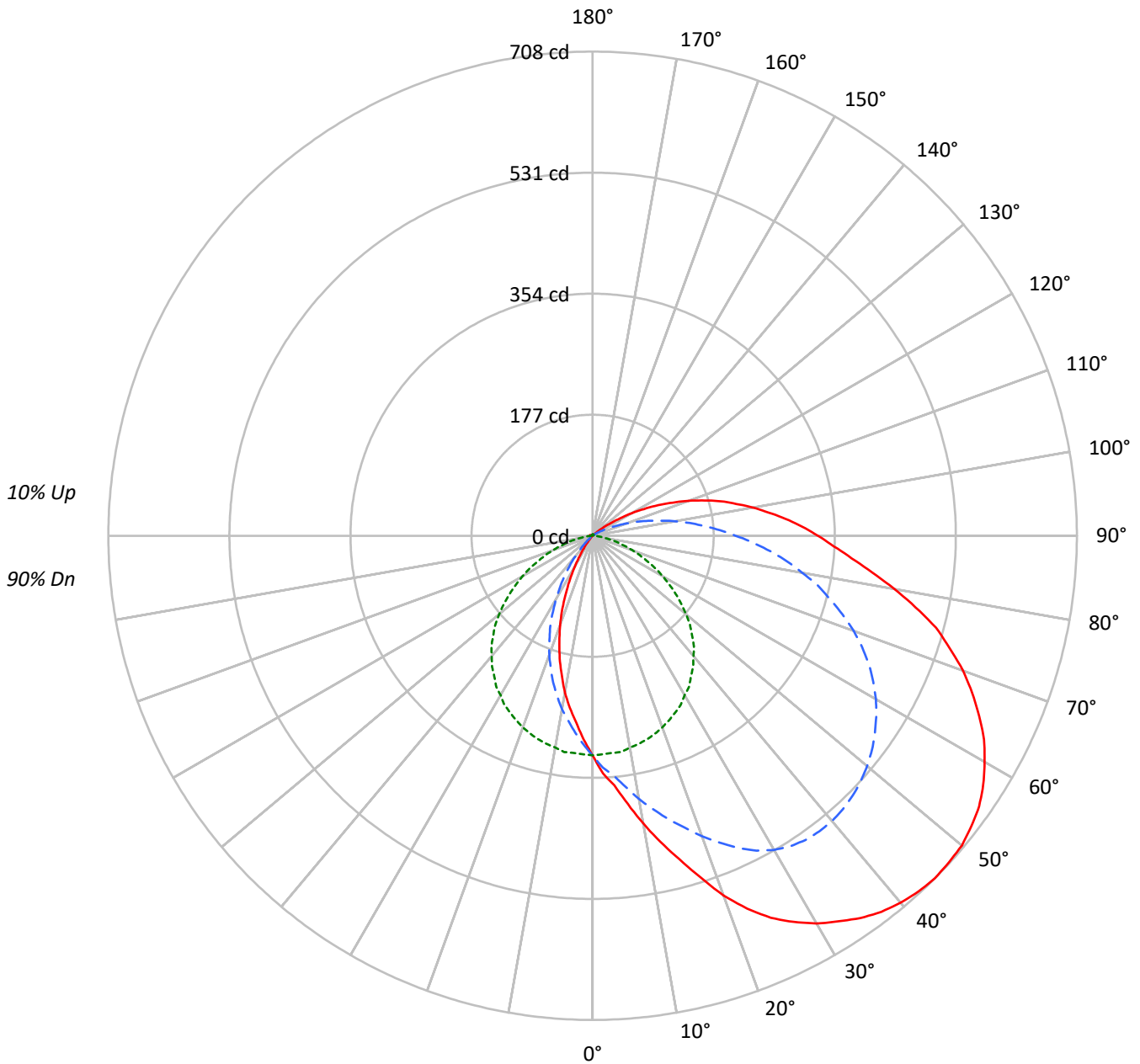
Lumens per Lamp: N/A
Luminaire Lumens: 1586.9 lumens
Efficiency: N/A
Efficacy: 95.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	3455	3455	3455
5°	3793	3405	2841
10°	4292	3363	2341
15°	4810	3320	1825
20°	5425	3266	1343
25°	5936	3203	882
30°	6314	3120	497
35°	6643	3029	219
40°	6934	2917	52
45°	7184	2778	0
50°	7393	2593	0
55°	7553	2357	0
60°	7634	2085	0
65°	7665	1774	0
70°	7639	1445	0
75°	7543	1066	6
80°	7237	653	32
85°	6994	310	46



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.7	1.9
10°-20°	92.1	5.8
20°-30°	149.1	9.4
30°-40°	191.5	12.1
40°-50°	216.8	13.7
50°-60°	224.6	14.2
60°-70°	211.8	13.3
70°-80°	177.5	11.2
80°-90°	128.7	8.1
90°-100°	84.6	5.3
100°-110°	48.8	3.1
110°-120°	21.5	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°	271.9	17.1
0°-40°	463.4	29.2
0°-60°	904.9	57.0
0°-90°	1422.9	89.7
90°-120°	155.0	9.8
90°-150°	162.9	10.3
90°-180°	164.0	10.3
0°-180°	1586.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	321	321	321	321	321	
5°	366	352	319	289	274	37
15°	490	429	308	222	186	141
25°	616	504	285	146	92	285
35°	682	543	251	71	22	428
45°	708	538	205	16	0	546
55°	690	504	148	0	0	616
65°	624	446	88	0	0	617
75°	520	360	38	0	0	545
85°	380	261	6	2	2	325
90°	330	209	2	2	3	181
95°	283	163	1	3	4	222
105°	195	84	1	2	3	205
115°	106	28	1	1	2	106
125°	32	4	2	1	2	31
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°	321.0	321.0	321.0	321.0	321.0	321.0	321.0	321.0	321.0	321.0	321.0
2.5°	348.0	347.6	346.4	344.3	341.5	336.6	332.5	328.8	323.9	319.8	312.0
5°	366.4	364.4	362.7	360.7	354.1	349.6	342.3	334.1	326.3	318.6	303.0
7.5°	395.8	392.6	390.1	384.4	375.4	365.2	353.7	346.0	340.6	319.0	292.4
10°	427.3	424.5	419.6	409.3	398.3	383.6	367.2	348.8	332.5	314.5	283.0
12.5°	458.4	454.3	447.4	434.3	418.7	400.3	377.9	356.2	332.9	311.6	271.9
15°	489.5	485.0	477.6	461.7	441.2	417.1	389.7	362.3	334.9	307.9	260.5
17.5°	523.4	517.3	506.3	488.3	462.5	432.7	400.3	367.2	334.1	303.4	248.2
20°	559.8	551.2	539.4	515.3	485.0	449.8	411.0	372.1	333.7	298.1	234.3
22.5°	590.1	581.5	568.4	543.5	507.1	464.1	420.0	375.4	332.1	292.0	221.2
25°	616.3	609.3	595.0	566.4	527.9	479.3	428.6	377.9	329.6	285.4	207.3
27.5°	636.7	630.2	614.2	584.8	545.5	492.8	435.1	379.1	326.3	278.9	193.0
30°	654.7	648.2	628.9	598.7	557.4	503.4	441.6	379.5	322.2	269.1	177.5
32.5°	668.6	662.5	642.8	610.5	565.6	510.8	445.3	379.1	316.9	262.1	160.7
35°	682.5	676.4	653.5	619.1	571.7	514.0	448.2	377.0	310.4	250.7	144.8
37.5°	693.1	686.2	662.9	624.8	574.6	514.8	447.8	374.2	303.4	241.3	128.8
40°	700.5	693.1	668.2	628.1	575.4	513.6	444.5	369.3	295.2	229.4	112.0
42.5°	705.4	697.2	670.6	633.0	573.7	510.3	439.6	363.1	286.3	219.2	96.1
45°	707.9	699.3	671.1	628.9	570.9	504.2	432.2	355.4	276.4	205.3	80.2
47.5°	706.6	697.2	669.0	624.4	565.6	497.7	424.1	346.0	264.6	193.0	65.0
50°	704.6	694.8	664.5	618.7	558.2	489.5	415.1	334.5	252.3	177.9	51.5
52.5°	698.0	688.2	659.6	610.5	549.6	480.1	402.8	322.6	239.2	163.2	39.3
55°	689.9	680.9	651.0	603.2	538.6	468.6	391.3	310.0	226.5	148.0	28.2
57.5°	677.2	669.0	640.4	591.3	527.5	456.0	378.7	296.1	210.6	132.9	19.6
60°	661.7	653.5	625.7	577.8	514.8	441.6	364.8	281.8	196.3	117.8	12.3
62.5°	645.3	637.5	608.5	561.1	498.9	426.5	349.6	267.4	181.2	103.9	7.4
65°	623.6	616.3	590.1	541.0	481.3	410.2	332.9	250.3	165.6	88.3	4.1
67.5°	600.7	594.2	567.6	522.6	460.9	392.2	315.7	233.5	149.3	74.8	2.0
70°	576.2	568.0	543.5	497.7	440.0	371.7	296.9	216.3	133.7	61.7	0.0
72.5°	547.6	541.4	517.7	474.4	415.9	350.0	277.7	197.5	116.5	49.1	0.4
75°	519.8	512.0	490.3	449.4	392.2	327.1	256.4	179.9	99.8	37.6	0.4
77.5°	483.8	481.3	460.9	421.2	369.7	305.1	233.1	158.7	83.8	27.0	0.4
80°	447.8	445.3	429.4	393.0	343.5	278.9	211.4	138.6	68.3	18.0	0.4
82.5°	412.2	408.9	393.8	363.5	316.9	256.8	188.9	118.6	54.0	11.0	0.4
85°	380.3	376.2	359.9	332.1	289.5	231.9	165.6	99.0	40.1	6.1	0.8
87.5°	352.9	350.0	332.1	303.4	261.7	208.6	145.2	80.2	28.2	2.9	1.2
90°	329.6	323.5	307.5	277.3	235.5	182.8	123.5	64.2	18.8	1.6	1.6
92.5°	306.7	301.4	283.8	252.7	212.2	160.7	102.6	49.1	11.9	0.8	2.0
95°	283.0	277.3	260.1	231.5	188.5	138.2	84.2	36.0	6.5	0.8	2.0
97.5°	259.7	254.4	236.4	207.7	167.3	118.6	66.7	25.4	3.3	0.8	1.6
100°	238.0	231.9	215.5	186.9	146.0	99.0	51.5	16.4	2.0	0.8	1.6
102.5°	215.1	210.2	193.4	165.6	123.9	80.6	38.4	10.2	0.8	0.8	1.2
105°	194.7	188.5	172.2	143.5	105.5	63.4	27.0	6.1	0.8	0.8	1.2



TEST NUMBER: P551124

CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-93-96-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	126.8	121.9	107.5	83.4	53.6	24.9	7.4	1.2	1.2	1.2	1.2
115°	105.9	98.6	85.9	64.6	39.7	16.4	3.7	1.2	1.2	1.2	1.2
117.5°	84.6	78.5	69.5	49.1	26.2	10.6	2.0	1.2	1.2	1.2	1.2
120°	66.2	60.5	50.3	33.9	17.6	6.1	0.8	1.2	1.2	1.2	1.2
122.5°	47.4	42.9	33.9	22.1	10.6	2.9	1.2	1.2	1.6	1.6	1.2
125°	31.5	29.0	22.5	13.5	6.5	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	20.4	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°	6.5	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°	321.0	321.0	321.0
2.5°	305.5	299.7	298.1
5°	289.1	279.7	274.4
7.5°	272.8	260.1	253.9
10°	257.6	239.6	233.1
12.5°	239.6	218.8	208.6
15°	222.5	195.5	185.7
17.5°	203.2	173.0	161.5
20°	185.2	150.5	138.6
22.5°	164.8	128.4	115.3
25°	146.4	106.3	91.6
27.5°	126.0	83.8	71.2
30°	106.7	64.2	51.5
32.5°	88.3	47.0	35.6
35°	71.2	31.9	22.5
37.5°	54.8	19.6	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°	171.8	166.8	150.5	123.5	86.3	48.3	18.0	3.3	0.8	1.2	1.2
110°	149.7	145.6	128.8	102.6	69.5	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)