

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: P550578

Luminaire Tested: **FCC-X-2-LD4-1HI-40-UNV-81-94-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: P550578
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-LD4-1HI-40-UNV-81-94-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC 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

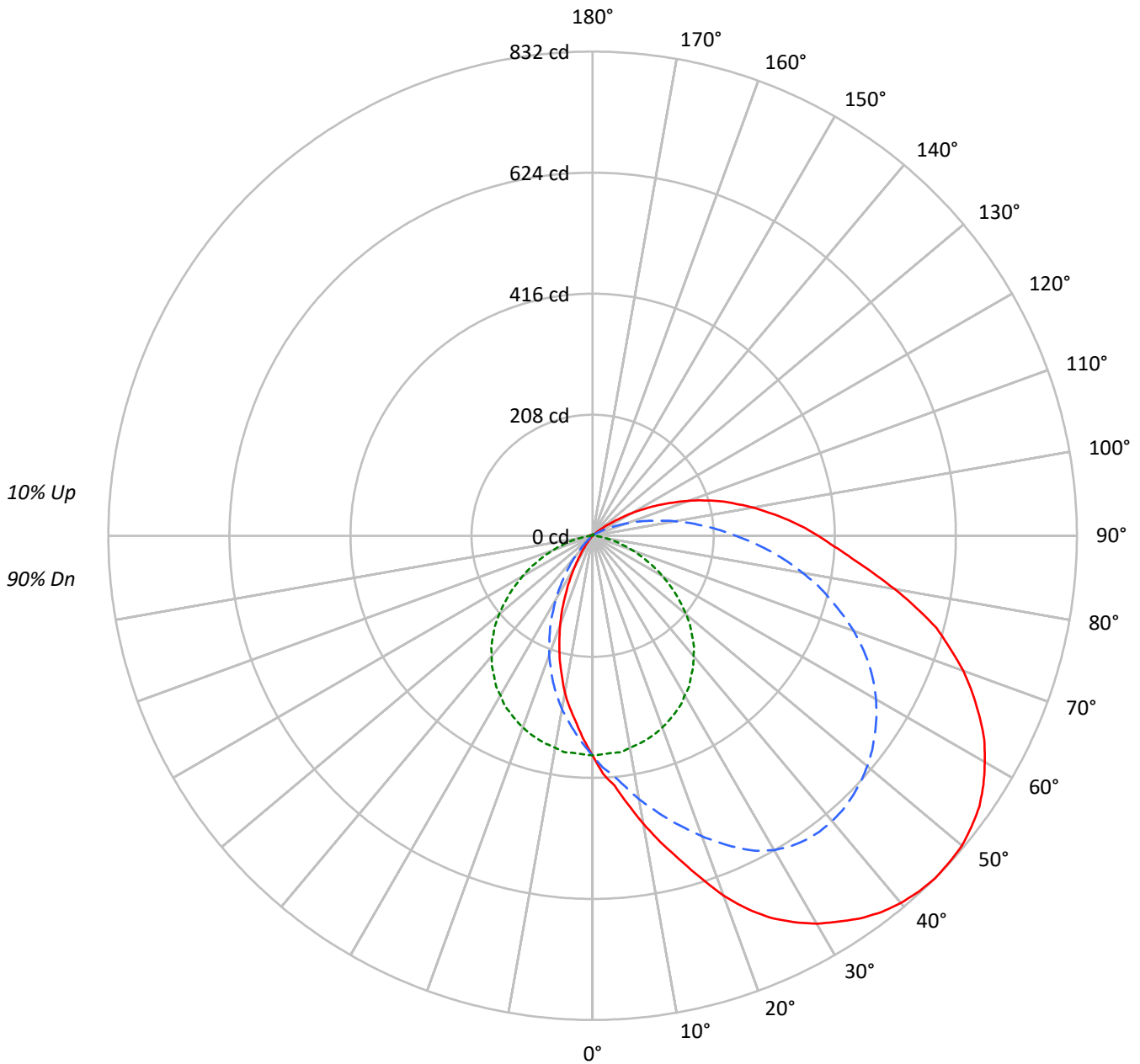
Lumens per Lamp: N/A
Luminaire Lumens: 1865.9 lumens
Efficiency: N/A
Efficacy: 86.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 21.7
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°	4062	4062	4062
5°	4460	4004	3340
10°	5047	3955	2753
15°	5655	3904	2145
20°	6379	3840	1580
25°	6979	3766	1037
30°	7425	3668	584
35°	7811	3561	257
40°	8153	3430	62
45°	8446	3266	0
50°	8694	3049	0
55°	8881	2772	0
60°	8976	2451	0
65°	9013	2087	0
70°	8982	1701	0
75°	8868	1253	7
80°	8509	769	39
85°	8225	366	53



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.2	1.9
10°-20°	108.3	5.8
20°-30°	175.3	9.4
30°-40°	225.2	12.1
40°-50°	254.9	13.7
50°-60°	264.1	14.2
60°-70°	249.1	13.3
70°-80°	208.7	11.2
80°-90°	151.3	8.1
90°-100°	99.4	5.3
100°-110°	57.4	3.1
110°-120°	25.3	1.4
120°-130°	6.8	0.4
130°-140°	1.6	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	319.7	17.1
0°-40°	544.9	29.2
0°-60°	1063.9	57.0
0°-90°	1673.0	89.7
90°-120°	182.2	9.8
90°-150°	191.6	10.3
90°-180°	193.0	10.3
0°-180°	1865.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	377	377	377	377	377	
5°	431	414	375	340	323	43
15°	576	505	362	262	218	166
25°	725	592	336	172	108	335
35°	802	638	295	84	26	503
45°	832	632	241	19	0	643
55°	811	592	174	0	0	724
65°	733	524	104	0	0	725
75°	611	423	44	0	0	641
85°	447	306	7	2	3	382
90°	388	246	2	3	3	212
95°	333	192	1	3	4	261
105°	229	99	1	2	4	241
115°	124	33	1	1	2	125
125°	37	5	2	1	2	37
135°	2	1	2	2	1	3
145°	0	2	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	2	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°	377.4	377.4	377.4	377.4	377.4	377.4	377.4	377.4	377.4	377.4	377.4
2.5°	409.2	408.7	407.3	404.9	401.5	395.7	390.9	386.6	380.8	376.0	366.9
5°	430.8	428.4	426.5	424.1	416.4	411.1	402.4	392.8	383.7	374.6	356.3
7.5°	465.4	461.6	458.7	452.0	441.4	429.4	415.9	406.8	400.5	375.0	343.8
10°	502.5	499.1	493.3	481.3	468.3	451.0	431.8	410.1	390.9	369.8	332.7
12.5°	539.0	534.2	526.0	510.6	492.4	470.7	444.3	418.8	391.4	366.4	319.7
15°	575.5	570.3	561.6	542.9	518.8	490.4	458.2	426.0	393.8	362.1	306.3
17.5°	615.5	608.2	595.3	574.1	543.8	508.7	470.7	431.8	392.8	356.8	291.9
20°	658.2	648.2	634.2	605.8	570.3	528.9	483.2	437.6	392.4	350.5	275.5
22.5°	693.8	683.7	668.3	639.0	596.2	545.7	493.8	441.4	390.4	343.3	260.1
25°	724.6	716.4	699.6	665.9	620.7	563.5	503.9	444.3	387.5	335.6	243.8
27.5°	748.6	741.0	722.2	687.6	641.4	579.4	511.6	445.7	383.7	327.9	226.9
30°	769.8	762.1	739.5	703.9	655.4	591.9	519.3	446.2	378.9	316.4	208.7
32.5°	786.1	778.9	755.9	717.9	665.0	600.5	523.6	445.7	372.6	308.2	189.0
35°	802.5	795.3	768.4	728.0	672.2	604.4	527.0	443.3	364.9	294.7	170.2
37.5°	815.0	806.8	779.4	734.7	675.6	605.4	526.5	440.0	356.8	283.7	151.5
40°	823.7	815.0	785.7	738.5	676.5	603.9	522.7	434.2	347.2	269.7	131.7
42.5°	829.4	819.8	788.6	744.3	674.6	600.1	516.9	427.0	336.6	257.7	113.0
45°	832.3	822.2	789.0	739.5	671.2	592.9	508.2	417.8	325.0	241.4	94.2
47.5°	830.9	819.8	786.6	734.2	665.0	585.2	498.6	406.8	311.1	226.9	76.5
50°	828.5	816.9	781.3	727.5	656.3	575.5	488.0	393.3	296.7	209.2	60.6
52.5°	820.8	809.2	775.6	717.9	646.2	564.5	473.6	379.4	281.3	191.8	46.2
55°	811.2	800.6	765.5	709.2	633.2	551.0	460.1	364.5	266.4	174.1	33.2
57.5°	796.2	786.6	753.0	695.3	620.3	536.1	445.2	348.1	247.6	156.3	23.1
60°	778.0	768.4	735.7	679.4	605.4	519.3	428.9	331.3	230.8	138.5	14.4
62.5°	758.7	749.6	715.5	659.7	586.6	501.5	411.1	314.5	213.0	122.1	8.7
65°	733.3	724.6	693.8	636.1	565.9	482.3	391.4	294.3	194.7	103.9	4.8
67.5°	706.3	698.6	667.4	614.5	541.9	461.1	371.2	274.6	175.5	88.0	2.4
70°	677.5	667.9	639.0	585.2	517.4	437.1	349.1	254.4	157.2	72.6	0.0
72.5°	643.8	636.6	608.7	557.8	489.0	411.6	326.5	232.2	137.0	57.7	0.5
75°	611.1	602.0	576.5	528.4	461.1	384.7	301.5	211.6	117.3	44.2	0.5
77.5°	568.8	565.9	541.9	495.2	434.7	358.7	274.1	186.6	98.6	31.7	0.5
80°	526.5	523.6	504.9	462.1	403.9	327.9	248.6	163.0	80.3	21.2	0.5
82.5°	484.7	480.8	463.0	427.5	372.6	302.0	222.1	139.4	63.5	13.0	0.5
85°	447.2	442.4	423.1	390.4	340.4	272.6	194.7	116.4	47.1	7.2	1.0
87.5°	415.0	411.6	390.4	356.8	307.7	245.2	170.7	94.2	33.2	3.4	1.4
90°	387.5	380.3	361.6	326.0	277.0	214.9	145.2	75.5	22.1	1.9	1.9
92.5°	360.6	354.4	333.7	297.1	249.5	189.0	120.7	57.7	13.9	1.0	2.4
95°	332.7	326.0	305.8	272.1	221.7	162.5	99.0	42.3	7.7	1.0	2.4
97.5°	305.3	299.1	277.9	244.3	196.7	139.4	78.4	29.8	3.8	1.0	1.9
100°	279.8	272.6	253.4	219.7	171.7	116.4	60.6	19.2	2.4	1.0	1.9
102.5°	252.9	247.1	227.4	194.7	145.7	94.7	45.2	12.0	1.0	1.0	1.4
105°	228.9	221.7	202.4	168.8	124.1	74.5	31.7	7.2	1.0	1.0	1.4



TEST NUMBER: P550578

CATALOG NUMBER: FCC-X-2-LD4-1HI-40-UNV-81-94-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	149.1	143.3	126.5	98.1	63.0	29.3	8.7	1.4	1.4	1.4	1.4
115°	124.5	115.9	101.0	76.0	46.6	19.2	4.3	1.4	1.4	1.4	1.4
117.5°	99.5	92.3	81.7	57.7	30.8	12.5	2.4	1.4	1.4	1.4	1.4
120°	77.9	71.2	59.1	39.9	20.7	7.2	1.0	1.4	1.4	1.4	1.4
122.5°	55.8	50.5	39.9	26.0	12.5	3.4	1.4	1.4	1.9	1.9	1.4
125°	37.0	34.1	26.4	15.9	7.7	1.4	1.4	1.4	1.9	1.9	1.4
127.5°	24.0	21.6	15.4	9.1	3.4	1.4	1.4	1.9	1.9	1.9	1.4
130°	13.5	12.0	9.1	5.3	1.4	1.4	1.4	1.9	1.9	1.9	1.4
132.5°	7.7	7.2	4.8	1.0	1.4	1.4	1.4	1.9	1.9	1.9	1.9
135°	1.9	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	1.9
137.5°	0.5	0.5	1.0	1.0	1.4	1.4	1.9	2.4	2.4	2.4	1.9
140°	0.5	0.5	1.0	1.4	1.4	1.4	1.9	2.4	2.4	2.4	1.9
142.5°	0.5	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
145°	0.5	1.0	1.0	1.4	1.4	1.9	1.9	2.4	1.9	1.9	1.9
147.5°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	1.9	1.9
150°	0.5	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
152.5°	0.5	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	1.9
155°	1.0	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
157.5°	1.0	1.0	1.0	1.4	1.9	1.9	1.9	2.4	1.9	1.9	2.4
160°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
162.5°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	1.9	1.9	1.9	1.9
165°	1.0	1.0	1.0	1.0	1.4	1.4	1.9	1.9	1.9	1.9	1.9
167.5°	1.0	1.0	1.0	1.4	1.4	1.4	1.9	1.9	1.9	1.9	1.9
170°	1.0	1.0	1.0	1.4	1.4	1.4	1.9	2.4	2.4	2.4	2.4
172.5°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
175°	1.0	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	2.4	2.4
177.5°	0.5	1.0	1.0	1.4	1.4	1.9	1.9	2.4	2.4	2.4	1.9
180°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	377.4	377.4	377.4
2.5°	359.2	352.4	350.5
5°	339.9	328.9	322.6
7.5°	320.7	305.8	298.6
10°	302.9	281.8	274.1
12.5°	281.8	257.2	245.2
15°	261.6	229.8	218.3
17.5°	239.0	203.4	189.9
20°	217.8	176.9	163.0
22.5°	193.8	151.0	135.6
25°	172.1	125.0	107.7
27.5°	148.1	98.6	83.7
30°	125.5	75.5	60.6
32.5°	103.9	55.3	41.8
35°	83.7	37.5	26.4
37.5°	64.4	23.1	13.5
40°	46.6	12.0	6.3
42.5°	31.3	5.8	3.4
45°	19.2	2.9	0.0
47.5°	11.1	0.0	0.0
50°	5.8	0.0	0.0
52.5°	2.4	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°	0.5	0.5	0.5
77.5°	0.5	1.0	1.4
80°	1.0	1.9	2.4
82.5°	1.9	2.4	2.4
85°	1.9	2.4	2.9
87.5°	2.4	2.9	3.4
90°	2.9	3.4	3.4
92.5°	2.9	3.8	3.8
95°	3.4	3.8	4.3
97.5°	3.8	4.3	4.3
100°	3.4	4.3	4.8
102.5°	2.9	4.3	4.3
105°	2.4	3.4	3.8



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CATALOG NUMBER: FCC-X-2-LD4-1HI-40-UNV-81-94-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.9	2.4	2.4
115°	1.4	1.9	2.4
117.5°	1.4	1.9	1.9
120°	1.4	1.4	1.9
122.5°	1.4	1.4	1.9
125°	1.4	1.4	1.9
127.5°	1.9	1.4	1.4
130°	1.4	1.4	1.4
132.5°	1.9	1.4	1.4
135°	1.9	1.4	1.4
137.5°	1.9	1.4	1.4
140°	1.9	1.4	1.4
142.5°	1.9	1.4	1.4
145°	1.4	1.4	1.4
147.5°	1.4	1.4	1.4
150°	1.4	1.4	1.0
152.5°	1.4	1.0	1.0
155°	1.4	1.0	0.5
157.5°	1.9	1.0	0.5
160°	1.4	1.0	0.5
162.5°	1.4	1.0	0.5
165°	1.4	1.0	0.0
167.5°	1.4	1.0	0.5
170°	1.4	1.0	0.5
172.5°	1.4	1.0	0.5
175°	1.4	0.5	0.5
177.5°	1.4	0.5	0.5
180°	1.4	1.4	1.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	201.9	196.2	176.9	145.2	101.5	56.7	21.2	3.8	1.0	1.4	1.4
110°	176.0	171.2	151.5	120.7	81.7	42.3	13.9	2.4	1.4	1.4	1.4





107.5°	1.9	2.9	3.4
110°	1.9	2.4	2.9



(END OF REPORT)