

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: P551315

Luminaire Tested: **FCC-X-2-LD4-2HI-35-UNV-93-96-ED1D-90**

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: P551315  
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-LD4-2HI-35-UNV-93-96-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K,  
AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

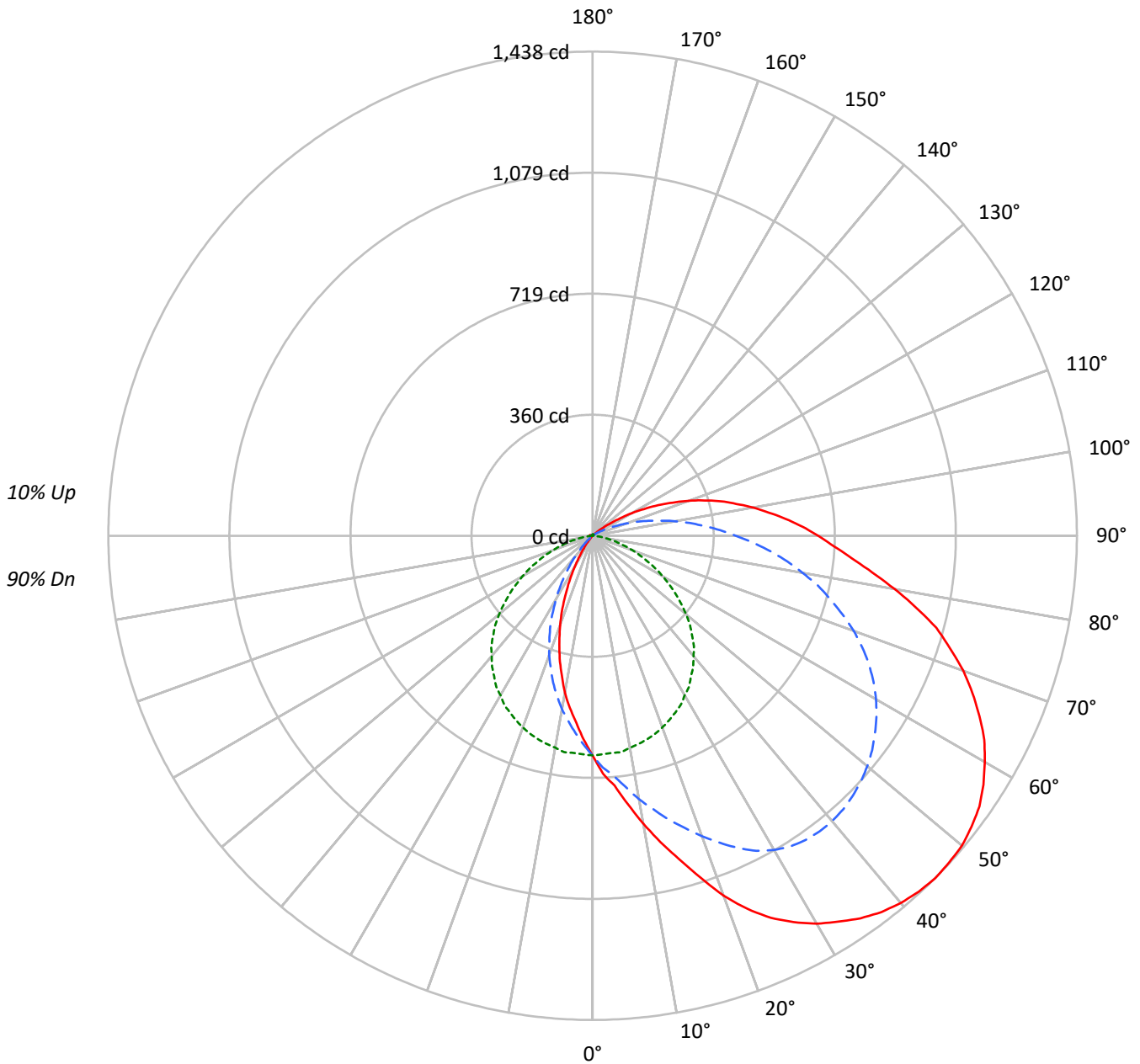
Lumens per Lamp: N/A  
Luminaire Lumens: 3225.0 lumens  
Efficiency: N/A  
Efficacy: 74.5 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 43.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

TEST NUMBER: P551315

CATALOG NUMBER: FCC-X-2-LD4-2HI-35-UNV-93-96-ED1D-90

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	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°	7021	7021	7021
5°	7708	6920	5772
10°	8723	6834	4758
15°	9775	6747	3708
20°	11025	6637	2730
25°	12061	6509	1792
30°	12832	6339	1010
35°	13498	6155	445
40°	14090	5929	107
45°	14598	5645	0
50°	15024	5269	0
55°	15349	4790	0
60°	15512	4235	0
65°	15576	3605	0
70°	15524	2940	0
75°	15326	2169	12
80°	14706	1328	68
85°	14213	636	92



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.5	1.9
10°-20°	187.1	5.8
20°-30°	303.0	9.4
30°-40°	389.2	12.1
40°-50°	440.6	13.7
50°-60°	456.4	14.2
60°-70°	430.5	13.3
70°-80°	360.7	11.2
80°-90°	261.5	8.1
90°-100°	171.9	5.3
100°-110°	99.3	3.1
110°-120°	43.8	1.4
120°-130°	11.9	0.4
130°-140°	2.7	0.1
140°-150°	1.8	0.1
150°-160°	1.3	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	552.6	17.1
0°-40°	941.8	29.2
0°-60°	1838.8	57.0
0°-90°	2891.5	89.7
90°-120°	314.9	9.8
90°-150°	331.3	10.3
90°-180°	334.0	10.4
0°-180°	3225.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	652	652	652	652	652	
5°	745	715	647	588	558	75
15°	995	872	626	452	377	287
25°	1252	1023	580	298	186	579
35°	1387	1103	509	145	46	870
45°	1438	1092	417	33	0	1111
55°	1402	1023	301	0	0	1252
65°	1267	906	180	0	0	1254
75°	1056	731	76	1	1	1108
85°	773	530	12	3	5	660
90°	670	425	3	5	6	367
95°	575	332	2	6	8	451
105°	396	172	2	4	7	417
115°	215	57	2	2	4	216
125°	64	8	3	2	3	64
135°	3	2	4	3	2	6
145°	1	3	3	2	2	1
155°	2	3	3	2	1	1
165°	2	2	3	2	0	0
175°	2	3	4	2	1	0
180°	2	2	2	2	2	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	652.3	652.3	652.3	652.3	652.3	652.3	652.3	652.3	652.3	652.3	652.3
2.5°	707.2	706.4	703.9	699.7	693.9	683.9	675.6	668.1	658.2	649.8	634.1
5°	744.6	740.4	737.1	732.9	719.7	710.5	695.6	678.9	663.1	647.4	615.8
7.5°	804.4	797.8	792.8	781.1	762.9	742.1	718.8	703.0	692.2	648.2	594.2
10°	868.4	862.6	852.6	831.8	809.4	779.5	746.2	708.8	675.6	639.0	575.1
12.5°	931.6	923.2	909.1	882.5	851.0	813.6	767.8	723.8	676.4	633.2	552.6
15°	994.7	985.6	970.6	938.2	896.7	847.6	791.9	736.3	680.6	625.7	529.4
17.5°	1063.7	1051.2	1028.8	992.2	939.9	879.2	813.6	746.2	678.9	616.6	504.4
20°	1137.6	1120.2	1096.1	1047.1	985.6	914.1	835.2	756.2	678.1	605.8	476.2
22.5°	1199.1	1181.7	1155.1	1104.4	1030.4	943.2	853.4	762.9	674.8	593.3	449.6
25°	1252.3	1238.2	1209.1	1150.9	1072.8	973.9	870.9	767.8	669.8	580.0	421.3
27.5°	1293.9	1280.6	1248.2	1188.3	1108.6	1001.4	884.2	770.3	663.1	566.7	392.2
30°	1330.4	1317.1	1278.1	1216.6	1132.7	1023.0	897.5	771.2	654.8	546.8	360.7
32.5°	1358.7	1346.2	1306.3	1240.7	1149.3	1037.9	905.0	770.3	644.0	532.7	326.6
35°	1386.9	1374.5	1327.9	1258.1	1161.7	1044.6	910.8	766.2	630.7	509.4	294.2
37.5°	1408.6	1394.4	1347.1	1269.8	1167.6	1046.2	910.0	760.4	616.6	490.3	261.8
40°	1423.5	1408.6	1357.9	1276.4	1169.2	1043.7	903.3	750.4	600.0	466.2	227.7
42.5°	1433.5	1416.9	1362.9	1286.4	1165.9	1037.1	893.3	737.9	581.7	445.4	195.3
45°	1438.5	1421.0	1363.7	1278.1	1160.1	1024.6	878.4	722.1	561.8	417.2	162.9
47.5°	1436.0	1416.9	1359.5	1268.9	1149.3	1011.3	861.8	703.0	537.7	392.2	132.1
50°	1431.8	1411.9	1350.4	1257.3	1134.3	994.7	843.5	679.8	512.7	361.5	104.7
52.5°	1418.5	1398.6	1340.4	1240.7	1116.9	975.6	818.5	655.7	486.1	331.6	79.8
55°	1401.9	1383.6	1323.0	1225.7	1094.4	952.3	795.3	629.9	460.4	300.8	57.3
57.5°	1376.1	1359.5	1301.4	1201.6	1072.0	926.6	769.5	601.6	428.0	270.1	39.9
60°	1344.6	1327.9	1271.4	1174.2	1046.2	897.5	741.3	572.6	398.9	239.3	24.9
62.5°	1311.3	1295.5	1236.5	1140.1	1013.8	866.7	710.5	543.5	368.1	211.1	15.0
65°	1267.3	1252.3	1199.1	1099.4	978.1	833.5	676.4	508.6	336.6	179.5	8.3
67.5°	1220.7	1207.5	1153.4	1062.0	936.5	796.9	641.5	474.5	303.3	152.1	4.2
70°	1170.9	1154.3	1104.4	1011.3	894.2	755.4	603.3	439.6	271.7	125.5	0.0
72.5°	1112.7	1100.3	1052.1	964.0	845.1	711.3	564.3	401.4	236.8	99.7	0.8
75°	1056.2	1040.4	996.4	913.3	796.9	664.8	521.0	365.6	202.8	76.5	0.8
77.5°	983.1	978.1	936.5	855.9	751.2	619.9	473.7	322.4	170.4	54.8	0.8
80°	910.0	905.0	872.6	798.6	698.0	566.7	429.6	281.7	138.8	36.6	0.8
82.5°	837.7	831.0	800.3	738.8	644.0	521.9	383.9	241.0	109.7	22.4	0.8
85°	772.8	764.5	731.3	674.8	588.4	471.2	336.6	201.1	81.4	12.5	1.7
87.5°	717.2	711.3	674.8	616.6	531.8	423.8	295.0	162.9	57.3	5.8	2.5
90°	669.8	657.3	624.9	563.4	478.7	371.5	251.0	130.5	38.2	3.3	3.3
92.5°	623.3	612.5	576.7	513.6	431.3	326.6	208.6	99.7	24.1	1.7	4.2
95°	575.1	563.4	528.5	470.3	383.1	280.9	171.2	73.1	13.3	1.7	4.2
97.5°	527.7	516.9	480.3	422.2	339.9	241.0	135.5	51.5	6.6	1.7	3.3
100°	483.6	471.2	437.9	379.8	296.7	201.1	104.7	33.2	4.2	1.7	3.3
102.5°	437.1	427.1	393.1	336.6	251.8	163.7	78.1	20.8	1.7	1.7	2.5
105°	395.6	383.1	349.9	291.7	214.4	128.8	54.8	12.5	1.7	1.7	2.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	257.6	247.6	218.6	169.5	108.9	50.7	15.0	2.5	2.5	2.5	2.5
115°	215.2	200.3	174.5	131.3	80.6	33.2	7.5	2.5	2.5	2.5	2.5
117.5°	172.0	159.6	141.3	99.7	53.2	21.6	4.2	2.5	2.5	2.5	2.5
120°	134.6	123.0	102.2	69.0	35.7	12.5	1.7	2.5	2.5	2.5	2.5
122.5°	96.4	87.3	69.0	44.9	21.6	5.8	2.5	2.5	3.3	3.3	2.5
125°	64.0	59.0	45.7	27.4	13.3	2.5	2.5	2.5	3.3	3.3	2.5
127.5°	41.6	37.4	26.6	15.8	5.8	2.5	2.5	3.3	3.3	3.3	2.5
130°	23.3	20.8	15.8	9.1	2.5	2.5	2.5	3.3	3.3	3.3	2.5
132.5°	13.3	12.5	8.3	1.7	2.5	2.5	2.5	3.3	3.3	3.3	3.3
135°	3.3	1.7	1.7	1.7	2.5	2.5	3.3	3.3	4.2	4.2	3.3
137.5°	0.8	0.8	1.7	1.7	2.5	2.5	3.3	4.2	4.2	4.2	3.3
140°	0.8	0.8	1.7	2.5	2.5	2.5	3.3	4.2	4.2	4.2	3.3
142.5°	0.8	1.7	1.7	2.5	2.5	3.3	3.3	4.2	4.2	3.3	3.3
145°	0.8	1.7	1.7	2.5	2.5	3.3	3.3	4.2	3.3	3.3	3.3
147.5°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	4.2	4.2	3.3	3.3
150°	0.8	1.7	1.7	2.5	3.3	3.3	3.3	4.2	3.3	3.3	3.3
152.5°	0.8	1.7	1.7	2.5	3.3	3.3	3.3	4.2	3.3	3.3	3.3
155°	1.7	1.7	1.7	2.5	3.3	3.3	3.3	4.2	3.3	3.3	4.2
157.5°	1.7	1.7	1.7	2.5	3.3	3.3	3.3	4.2	3.3	3.3	4.2
160°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	3.3	3.3	3.3	3.3
162.5°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	3.3	3.3	3.3	3.3
165°	1.7	1.7	1.7	1.7	2.5	2.5	3.3	3.3	3.3	3.3	3.3
167.5°	1.7	1.7	1.7	2.5	2.5	2.5	3.3	3.3	3.3	3.3	3.3
170°	1.7	1.7	1.7	2.5	2.5	2.5	3.3	4.2	4.2	4.2	4.2
172.5°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	4.2	4.2	4.2	4.2
175°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	4.2	4.2	4.2	4.2
177.5°	0.8	1.7	1.7	2.5	2.5	3.3	3.3	4.2	4.2	4.2	3.3
180°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	652.3	652.3	652.3
2.5°	620.8	609.1	605.8
5°	587.5	568.4	557.6
7.5°	554.3	528.5	516.1
10°	523.5	487.0	473.7
12.5°	487.0	444.6	423.8
15°	452.1	397.2	377.3
17.5°	413.0	351.5	328.2
20°	376.4	305.8	281.7
22.5°	334.9	260.9	234.3
25°	297.5	216.1	186.1
27.5°	255.9	170.4	144.6
30°	216.9	130.5	104.7
32.5°	179.5	95.6	72.3
35°	144.6	64.8	45.7
37.5°	111.4	39.9	23.3
40°	80.6	20.8	10.8
42.5°	54.0	10.0	5.8
45°	33.2	5.0	0.0
47.5°	19.1	0.0	0.0
50°	10.0	0.0	0.0
52.5°	4.2	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°	0.8	0.8	0.8
77.5°	0.8	1.7	2.5
80°	1.7	3.3	4.2
82.5°	3.3	4.2	4.2
85°	3.3	4.2	5.0
87.5°	4.2	5.0	5.8
90°	5.0	5.8	5.8
92.5°	5.0	6.6	6.6
95°	5.8	6.6	7.5
97.5°	6.6	7.5	7.5
100°	5.8	7.5	8.3
102.5°	5.0	7.5	7.5
105°	4.2	5.8	6.6





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.3	4.2	4.2
115°	2.5	3.3	4.2
117.5°	2.5	3.3	3.3
120°	2.5	2.5	3.3
122.5°	2.5	2.5	3.3
125°	2.5	2.5	3.3
127.5°	3.3	2.5	2.5
130°	2.5	2.5	2.5
132.5°	3.3	2.5	2.5
135°	3.3	2.5	2.5
137.5°	3.3	2.5	2.5
140°	3.3	2.5	2.5
142.5°	3.3	2.5	2.5
145°	2.5	2.5	2.5
147.5°	2.5	2.5	2.5
150°	2.5	2.5	1.7
152.5°	2.5	1.7	1.7
155°	2.5	1.7	0.8
157.5°	3.3	1.7	0.8
160°	2.5	1.7	0.8
162.5°	2.5	1.7	0.8
165°	2.5	1.7	0.0
167.5°	2.5	1.7	0.8
170°	2.5	1.7	0.8
172.5°	2.5	1.7	0.8
175°	2.5	0.8	0.8
177.5°	2.5	0.8	0.8
180°	2.5	2.5	2.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	349.0	339.1	305.8	251.0	175.3	98.1	36.6	6.6	1.7	2.5	2.5
110°	304.1	295.8	261.8	208.6	141.3	73.1	24.1	4.2	2.5	2.5	2.5







107.5°	3.3	5.0	5.8
110°	3.3	4.2	5.0



(END OF REPORT)