

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: P551253

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-93-97-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: P551253  
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-30-UNV-93-97-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K,  
AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

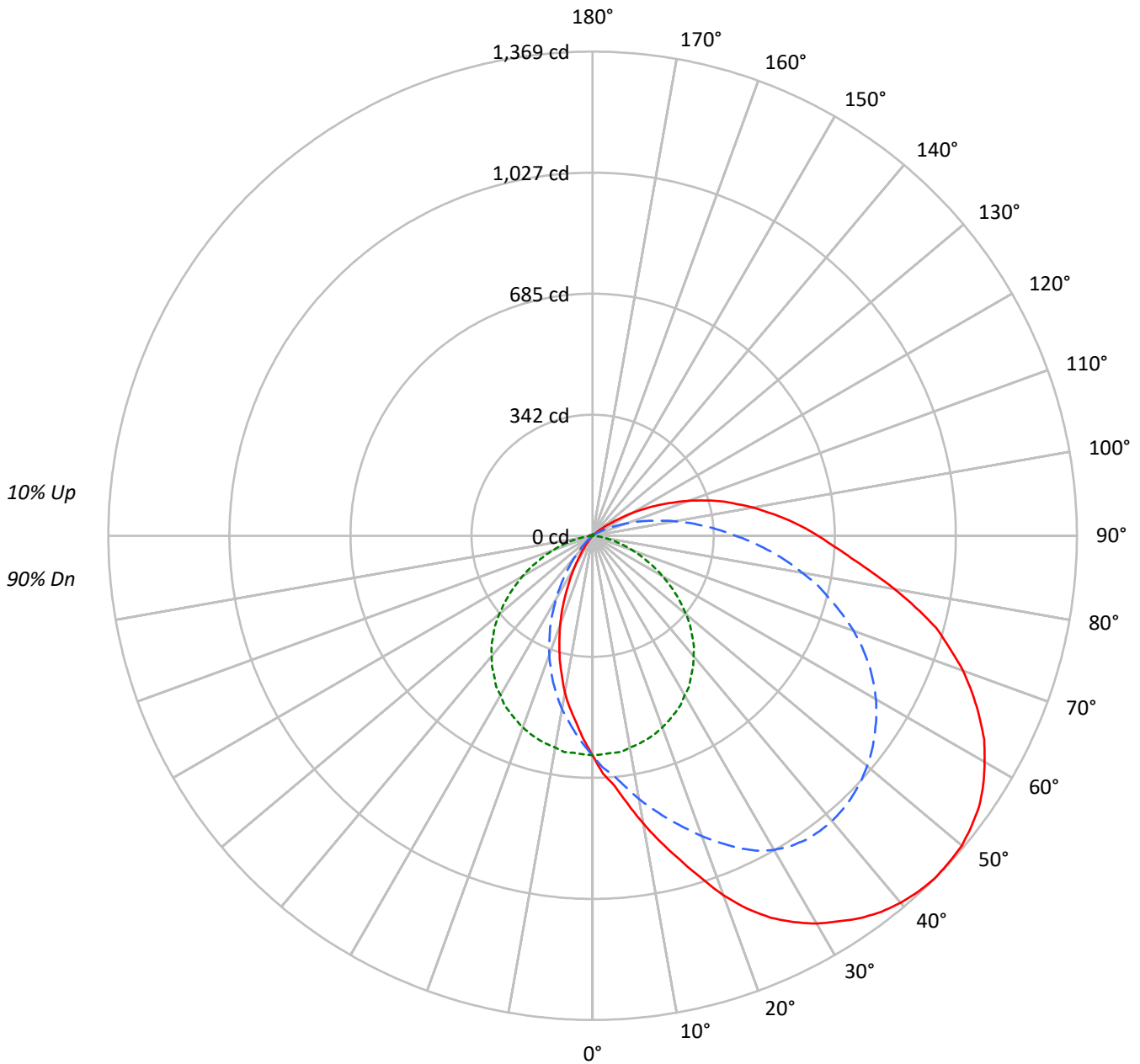
Lumens per Lamp: N/A  
Luminaire Lumens: 3069.1 lumens  
Efficiency: N/A  
Efficacy: 70.9 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P551253

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-93-97-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°	6682	6682	6682
5°	7336	6584	5493
10°	8301	6503	4528
15°	9302	6421	3528
20°	10492	6316	2598
25°	11477	6195	1706
30°	12211	6033	961
35°	12846	5858	423
40°	13409	5641	102
45°	13892	5372	0
50°	14298	5014	0
55°	14606	4559	0
60°	14761	4031	0
65°	14823	3431	0
70°	14772	2797	0
75°	14585	2065	12
80°	13994	1262	65
85°	13527	605	86



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.5	1.9
10°-20°	178.0	5.8
20°-30°	288.3	9.4
30°-40°	370.4	12.1
40°-50°	419.3	13.7
50°-60°	434.4	14.2
60°-70°	409.6	13.3
70°-80°	343.3	11.2
80°-90°	248.8	8.1
90°-100°	163.5	5.3
100°-110°	94.5	3.1
110°-120°	41.7	1.4
120°-130°	11.3	0.4
130°-140°	2.6	0.1
140°-150°	1.7	0.1
150°-160°	1.2	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	525.8	17.1
0°-40°	896.2	29.2
0°-60°	1749.8	57.0
0°-90°	2751.6	89.7
90°-120°	299.7	9.8
90°-150°	315.3	10.3
90°-180°	317.0	10.3
0°-180°	3069.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	621	621	621	621	621	
5°	709	680	616	559	531	71
15°	947	830	596	430	359	273
25°	1192	974	552	283	177	551
35°	1320	1050	485	138	44	828
45°	1369	1040	397	32	0	1057
55°	1334	974	286	0	0	1191
65°	1206	862	171	0	0	1193
75°	1005	696	73	1	1	1054
85°	736	504	12	3	5	628
90°	637	404	3	5	6	349
95°	547	316	2	6	7	429
105°	376	163	2	4	6	397
115°	205	54	2	2	4	205
125°	61	8	3	2	3	61
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°	620.8	620.8	620.8	620.8	620.8	620.8	620.8	620.8	620.8	620.8	620.8
2.5°	673.0	672.2	669.8	665.9	660.3	650.8	642.9	635.8	626.3	618.4	603.4
5°	708.6	704.6	701.4	697.5	684.8	676.1	661.9	646.1	631.1	616.0	586.0
7.5°	765.5	759.2	754.4	743.4	726.0	706.2	684.0	669.0	658.7	616.8	565.4
10°	826.4	820.9	811.4	791.6	770.2	741.8	710.1	674.6	642.9	608.1	547.2
12.5°	886.5	878.6	865.1	839.8	809.8	774.2	730.7	688.8	643.7	602.6	525.9
15°	946.6	937.9	923.7	892.8	853.3	806.6	753.6	700.7	647.7	595.5	503.7
17.5°	1012.2	1000.4	979.0	944.2	894.4	836.7	774.2	710.1	646.1	586.8	480.0
20°	1082.6	1066.0	1043.1	996.4	937.9	869.9	794.8	719.6	645.3	576.5	453.1
22.5°	1141.1	1124.5	1099.2	1051.0	980.6	897.6	812.2	726.0	642.1	564.6	427.8
25°	1191.7	1178.3	1150.6	1095.3	1020.9	926.8	828.8	730.7	637.4	552.0	400.9
27.5°	1231.3	1218.6	1187.8	1130.9	1054.9	952.9	841.4	733.1	631.1	539.3	373.3
30°	1266.1	1253.4	1216.3	1157.7	1077.9	973.5	854.1	733.9	623.2	520.4	343.2
32.5°	1293.0	1281.1	1243.2	1180.7	1093.7	987.7	861.2	733.1	612.9	506.9	310.8
35°	1319.9	1308.0	1263.7	1197.3	1105.6	994.0	866.7	729.1	600.2	484.8	279.9
37.5°	1340.4	1327.0	1281.9	1208.4	1111.1	995.6	865.9	723.6	586.8	466.6	249.1
40°	1354.7	1340.4	1292.2	1214.7	1112.7	993.3	859.6	714.1	571.0	443.6	216.7
42.5°	1364.1	1348.3	1296.9	1224.2	1109.5	986.9	850.1	702.2	553.6	423.9	185.8
45°	1368.9	1352.3	1297.7	1216.3	1104.0	975.1	835.9	687.2	534.6	397.0	155.0
47.5°	1366.5	1348.3	1293.8	1207.6	1093.7	962.4	820.1	669.0	511.7	373.3	125.7
50°	1362.6	1343.6	1285.1	1196.5	1079.5	946.6	802.7	646.9	487.9	344.0	99.6
52.5°	1349.9	1330.9	1275.6	1180.7	1062.8	928.4	778.9	623.9	462.6	315.5	75.9
55°	1334.1	1316.7	1259.0	1166.4	1041.5	906.3	756.8	599.4	438.1	286.3	54.6
57.5°	1309.6	1293.8	1238.4	1143.5	1020.1	881.8	732.3	572.5	407.3	257.0	38.0
60°	1279.5	1263.7	1209.9	1117.4	995.6	854.1	705.4	544.9	379.6	227.8	23.7
62.5°	1247.9	1232.9	1176.7	1085.0	964.8	824.8	676.1	517.2	350.3	200.9	14.2
65°	1206.0	1191.7	1141.1	1046.2	930.8	793.2	643.7	484.0	320.3	170.8	7.9
67.5°	1161.7	1149.0	1097.6	1010.7	891.2	758.4	610.5	451.6	288.6	144.7	4.0
70°	1114.2	1098.4	1051.0	962.4	850.9	718.8	574.1	418.3	258.6	119.4	0.0
72.5°	1058.9	1047.0	1001.2	917.3	804.3	676.9	537.0	382.0	225.4	94.9	0.8
75°	1005.1	990.1	948.2	869.1	758.4	632.6	495.8	348.0	193.0	72.8	0.8
77.5°	935.5	930.8	891.2	814.5	714.9	589.9	450.8	306.8	162.1	52.2	0.8
80°	865.9	861.2	830.3	760.0	664.3	539.3	408.8	268.1	132.1	34.8	0.8
82.5°	797.1	790.8	761.5	703.0	612.9	496.6	365.4	229.3	104.4	21.4	0.8
85°	735.5	727.5	695.9	642.1	559.9	448.4	320.3	191.4	77.5	11.9	1.6
87.5°	682.5	676.9	642.1	586.8	506.1	403.3	280.7	155.0	54.6	5.5	2.4
90°	637.4	625.5	594.7	536.2	455.5	353.5	238.8	124.2	36.4	3.2	3.2
92.5°	593.1	582.8	548.8	488.7	410.4	310.8	198.5	94.9	22.9	1.6	4.0
95°	547.2	536.2	503.0	447.6	364.6	267.3	162.9	69.6	12.7	1.6	4.0
97.5°	502.2	491.9	457.1	401.7	323.4	229.3	128.9	49.0	6.3	1.6	3.2
100°	460.3	448.4	416.8	361.4	282.3	191.4	99.6	31.6	4.0	1.6	3.2
102.5°	416.0	406.5	374.1	320.3	239.6	155.8	74.3	19.8	1.6	1.6	2.4
105°	376.4	364.6	332.9	277.6	204.0	122.6	52.2	11.9	1.6	1.6	2.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	245.2	235.7	208.0	161.3	103.6	48.2	14.2	2.4	2.4	2.4	2.4
115°	204.8	190.6	166.1	124.9	76.7	31.6	7.1	2.4	2.4	2.4	2.4
117.5°	163.7	151.8	134.4	94.9	50.6	20.6	4.0	2.4	2.4	2.4	2.4
120°	128.1	117.0	97.3	65.6	34.0	11.9	1.6	2.4	2.4	2.4	2.4
122.5°	91.7	83.0	65.6	42.7	20.6	5.5	2.4	2.4	3.2	3.2	2.4
125°	60.9	56.1	43.5	26.1	12.7	2.4	2.4	2.4	3.2	3.2	2.4
127.5°	39.5	35.6	25.3	15.0	5.5	2.4	2.4	3.2	3.2	3.2	2.4
130°	22.1	19.8	15.0	8.7	2.4	2.4	2.4	3.2	3.2	3.2	2.4
132.5°	12.7	11.9	7.9	1.6	2.4	2.4	2.4	3.2	3.2	3.2	3.2
135°	3.2	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	3.2
137.5°	0.8	0.8	1.6	1.6	2.4	2.4	3.2	4.0	4.0	4.0	3.2
140°	0.8	0.8	1.6	2.4	2.4	2.4	3.2	4.0	4.0	4.0	3.2
142.5°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	3.2	3.2
145°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.0	3.2	3.2	3.2
147.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	3.2	3.2
150°	0.8	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	3.2
152.5°	0.8	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	3.2
155°	1.6	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	4.0
157.5°	1.6	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	4.0
160°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2	3.2
162.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2	3.2
165°	1.6	1.6	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2
167.5°	1.6	1.6	1.6	2.4	2.4	2.4	3.2	3.2	3.2	3.2	3.2
170°	1.6	1.6	1.6	2.4	2.4	2.4	3.2	4.0	4.0	4.0	4.0
172.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	4.0	4.0
175°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	4.0	4.0
177.5°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	4.0	3.2
180°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4



TEST NUMBER: P551253

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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	620.8	620.8	620.8
2.5°	590.7	579.7	576.5
5°	559.1	540.9	530.6
7.5°	527.5	503.0	491.1
10°	498.2	463.4	450.8
12.5°	463.4	423.1	403.3
15°	430.2	378.0	359.0
17.5°	393.0	334.5	312.4
20°	358.2	291.0	268.1
22.5°	318.7	248.3	223.0
25°	283.1	205.6	177.1
27.5°	243.6	162.1	137.6
30°	206.4	124.2	99.6
32.5°	170.8	90.9	68.8
35°	137.6	61.7	43.5
37.5°	106.0	38.0	22.1
40°	76.7	19.8	10.3
42.5°	51.4	9.5	5.5
45°	31.6	4.7	0.0
47.5°	18.2	0.0	0.0
50°	9.5	0.0	0.0
52.5°	4.0	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°	0.8	0.8	0.8
77.5°	0.8	1.6	2.4
80°	1.6	3.2	4.0
82.5°	3.2	4.0	4.0
85°	3.2	4.0	4.7
87.5°	4.0	4.7	5.5
90°	4.7	5.5	5.5
92.5°	4.7	6.3	6.3
95°	5.5	6.3	7.1
97.5°	6.3	7.1	7.1
100°	5.5	7.1	7.9
102.5°	4.7	7.1	7.1
105°	4.0	5.5	6.3





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.2	4.0	4.0
115°	2.4	3.2	4.0
117.5°	2.4	3.2	3.2
120°	2.4	2.4	3.2
122.5°	2.4	2.4	3.2
125°	2.4	2.4	3.2
127.5°	3.2	2.4	2.4
130°	2.4	2.4	2.4
132.5°	3.2	2.4	2.4
135°	3.2	2.4	2.4
137.5°	3.2	2.4	2.4
140°	3.2	2.4	2.4
142.5°	3.2	2.4	2.4
145°	2.4	2.4	2.4
147.5°	2.4	2.4	2.4
150°	2.4	2.4	1.6
152.5°	2.4	1.6	1.6
155°	2.4	1.6	0.8
157.5°	3.2	1.6	0.8
160°	2.4	1.6	0.8
162.5°	2.4	1.6	0.8
165°	2.4	1.6	0.0
167.5°	2.4	1.6	0.8
170°	2.4	1.6	0.8
172.5°	2.4	1.6	0.8
175°	2.4	0.8	0.8
177.5°	2.4	0.8	0.8
180°	2.4	2.4	2.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	332.1	322.7	291.0	238.8	166.9	93.3	34.8	6.3	1.6	2.4	2.4
110°	289.4	281.5	249.1	198.5	134.4	69.6	22.9	4.0	2.4	2.4	2.4







107.5°	3.2	4.7	5.5
110°	3.2	4.0	4.7



(END OF REPORT)