

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: P551367

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-93-84-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: P551367  
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-40-UNV-93-84-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

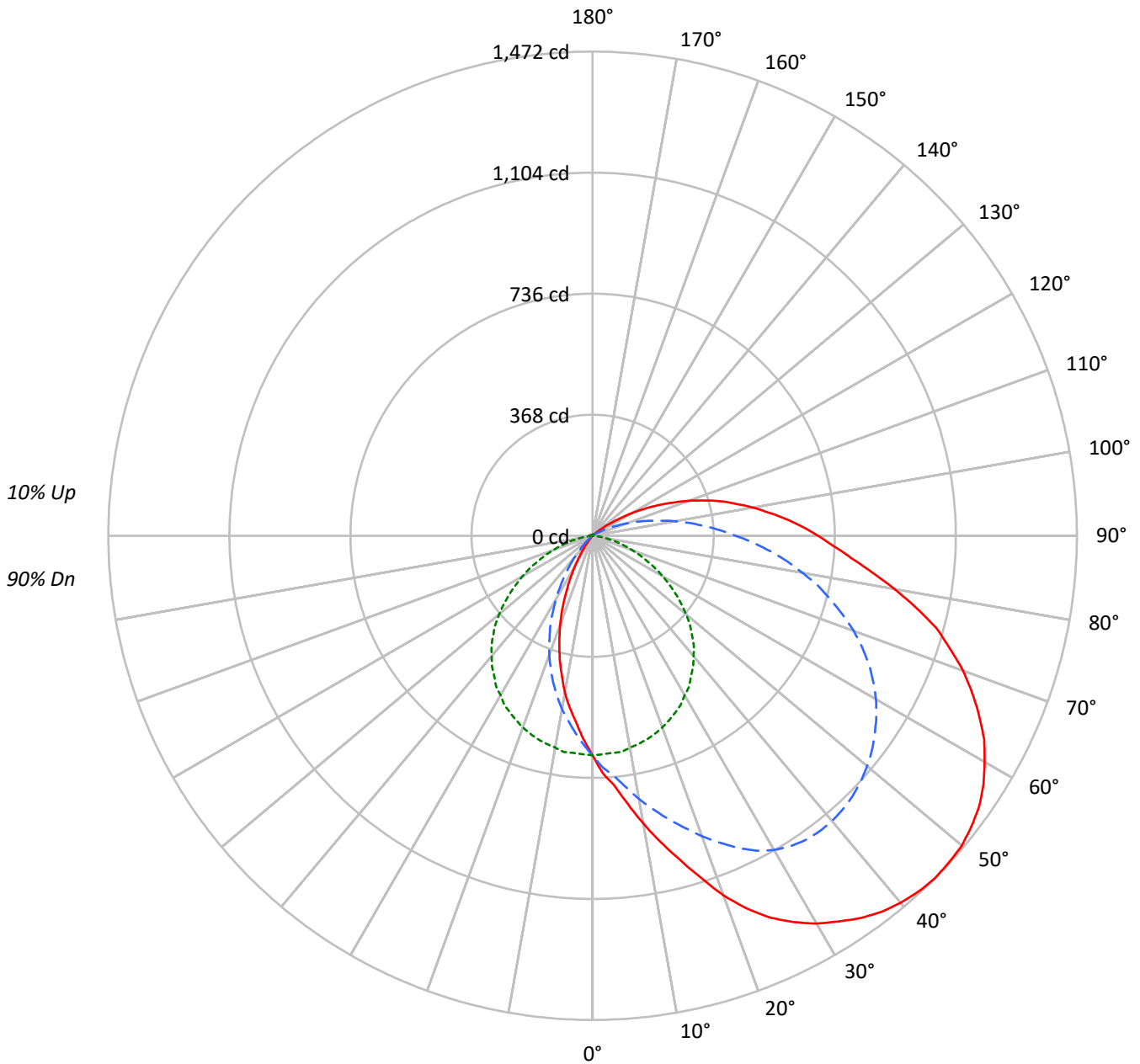
Lumens per Lamp: N/A  
Luminaire Lumens: 3300.2 lumens  
Efficiency: N/A  
Efficacy: 76.2 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P551367

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-93-84-ED1D-90

### 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°	7185	7185	7185
5°	7887	7080	5907
10°	8925	6993	4869
15°	10002	6904	3794
20°	11281	6792	2794
25°	12342	6661	1835
30°	13131	6486	1033
35°	13813	6299	455
40°	14418	6066	110
45°	14937	5776	0
50°	15373	5391	0
55°	15705	4901	0
60°	15872	4334	0
65°	15939	3690	0
70°	15885	3008	0
75°	15683	2218	13
80°	15047	1357	69
85°	14544	651	94



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.9	1.9
10°-20°	191.5	5.8
20°-30°	310.0	9.4
30°-40°	398.3	12.1
40°-50°	450.8	13.7
50°-60°	467.1	14.2
60°-70°	440.5	13.3
70°-80°	369.1	11.2
80°-90°	267.6	8.1
90°-100°	175.9	5.3
100°-110°	101.6	3.1
110°-120°	44.8	1.4
120°-130°	12.2	0.4
130°-140°	2.8	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°	565.4	17.1
0°-40°	963.7	29.2
0°-60°	1881.6	57.0
0°-90°	2958.8	89.7
90°-120°	322.3	9.8
90°-150°	339.1	10.3
90°-180°	341.0	10.3
0°-180°	3300.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	668	668	668	668	668	
5°	762	732	662	601	571	77
15°	1018	892	640	463	386	293
25°	1282	1047	594	304	190	592
35°	1419	1129	521	148	47	890
45°	1472	1118	427	34	0	1136
55°	1434	1047	308	0	0	1281
65°	1297	927	184	0	0	1283
75°	1081	748	78	1	1	1134
85°	791	542	13	3	5	675
90°	685	435	3	5	6	376
95°	588	340	2	6	8	462
105°	405	176	2	4	7	427
115°	220	58	3	3	4	221
125°	66	8	3	3	3	65
135°	3	3	4	3	3	6
145°	1	3	3	3	3	1
155°	2	3	3	3	1	1
165°	2	3	3	3	0	0
175°	2	3	4	3	1	0
180°	3	3	3	3	3	



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**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	667.5	667.5	667.5	667.5	667.5	667.5	667.5	667.5	667.5	667.5	667.5
2.5°	723.6	722.8	720.2	716.0	710.0	699.8	691.3	683.7	673.5	665.0	648.8
5°	761.9	757.6	754.2	750.0	736.4	727.0	711.7	694.7	678.6	662.4	630.1
7.5°	823.1	816.3	811.2	799.3	780.6	759.3	735.5	719.4	708.3	663.3	608.0
10°	888.6	882.6	872.4	851.2	828.2	797.6	763.6	725.3	691.3	653.9	588.4
12.5°	953.2	944.7	930.3	903.1	870.7	832.5	785.7	740.6	692.2	648.0	565.5
15°	1017.8	1008.5	993.2	960.0	917.5	867.3	810.4	753.4	696.4	640.3	541.7
17.5°	1088.4	1075.7	1052.7	1015.3	961.7	899.7	832.5	763.6	694.7	630.9	516.2
20°	1164.1	1146.2	1121.6	1071.4	1008.5	935.4	854.6	773.8	693.9	619.9	487.2
22.5°	1227.0	1209.2	1182.0	1130.1	1054.4	965.1	873.3	780.6	690.5	607.1	460.0
25°	1281.5	1267.0	1237.2	1177.7	1097.8	996.6	891.1	785.7	685.4	593.5	431.1
27.5°	1324.0	1310.4	1277.2	1216.0	1134.3	1024.7	904.8	788.3	678.6	579.9	401.4
30°	1361.4	1347.8	1307.8	1244.9	1159.0	1046.8	918.4	789.1	670.1	559.5	369.0
32.5°	1390.3	1377.5	1336.7	1269.5	1176.0	1062.1	926.0	788.3	659.0	545.1	334.2
35°	1419.2	1406.4	1358.8	1287.4	1188.8	1068.9	932.0	784.0	645.4	521.3	301.0
37.5°	1441.3	1426.9	1378.4	1299.3	1194.7	1070.6	931.1	778.1	630.9	501.7	267.9
40°	1456.6	1441.3	1389.4	1306.1	1196.4	1068.0	924.3	767.8	613.9	477.0	233.0
42.5°	1466.8	1449.8	1394.5	1316.3	1193.0	1061.2	914.1	755.1	595.2	455.8	199.8
45°	1471.9	1454.1	1395.4	1307.8	1187.1	1048.5	898.8	738.9	574.8	426.9	166.7
47.5°	1469.4	1449.8	1391.1	1298.5	1176.0	1034.9	881.8	719.4	550.2	401.4	135.2
50°	1465.1	1444.7	1381.8	1286.6	1160.7	1017.8	863.1	695.6	524.7	369.9	107.1
52.5°	1451.5	1431.1	1371.6	1269.5	1142.8	998.3	837.6	670.9	497.4	339.3	81.6
55°	1434.5	1415.8	1353.7	1254.2	1119.9	974.5	813.8	644.6	471.1	307.8	58.7
57.5°	1408.2	1391.1	1331.6	1229.6	1096.9	948.1	787.4	615.6	437.9	276.4	40.8
60°	1375.8	1358.8	1301.0	1201.5	1070.6	918.4	758.5	585.9	408.2	244.9	25.5
62.5°	1341.8	1325.7	1265.3	1166.7	1037.4	886.9	727.0	556.1	376.7	216.0	15.3
65°	1296.8	1281.5	1227.0	1125.0	1000.8	852.9	692.2	520.4	344.4	183.7	8.5
67.5°	1249.1	1235.5	1180.3	1086.7	958.3	815.5	656.5	485.5	310.4	155.6	4.3
70°	1198.1	1181.1	1130.1	1034.9	915.0	773.0	617.3	449.8	278.1	128.4	0.0
72.5°	1138.6	1125.8	1076.5	986.4	864.8	727.9	577.4	410.7	242.3	102.0	0.9
75°	1080.8	1064.6	1019.5	934.5	815.5	680.3	533.2	374.1	207.5	78.2	0.9
77.5°	1005.9	1000.8	958.3	875.8	768.7	634.3	484.7	329.9	174.3	56.1	0.9
80°	931.1	926.0	892.8	817.2	714.3	579.9	439.6	288.3	142.0	37.4	0.9
82.5°	857.1	850.3	818.9	755.9	659.0	534.0	392.9	246.6	112.2	23.0	0.9
85°	790.8	782.3	748.3	690.5	602.0	482.1	344.4	205.8	83.3	12.8	1.7
87.5°	733.8	727.9	690.5	630.9	544.2	433.7	301.9	166.7	58.7	6.0	2.6
90°	685.4	672.6	639.4	576.5	489.8	380.1	256.8	133.5	39.1	3.4	3.4
92.5°	637.7	626.7	590.1	525.5	441.3	334.2	213.4	102.0	24.7	1.7	4.3
95°	588.4	576.5	540.8	481.3	392.0	287.4	175.2	74.8	13.6	1.7	4.3
97.5°	540.0	528.9	491.5	432.0	347.8	246.6	138.6	52.7	6.8	1.7	3.4
100°	494.9	482.1	448.1	388.6	303.6	205.8	107.1	34.0	4.3	1.7	3.4
102.5°	447.3	437.1	402.2	344.4	257.7	167.5	79.9	21.3	1.7	1.7	2.6
105°	404.8	392.0	358.0	298.5	219.4	131.8	56.1	12.8	1.7	1.7	2.6



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	263.6	253.4	223.6	173.5	111.4	51.9	15.3	2.6	2.6	2.6	2.6
115°	220.2	204.9	178.6	134.4	82.5	34.0	7.7	2.6	2.6	2.6	2.6
117.5°	176.0	163.3	144.6	102.0	54.4	22.1	4.3	2.6	2.6	2.6	2.6
120°	137.8	125.8	104.6	70.6	36.6	12.8	1.7	2.6	2.6	2.6	2.6
122.5°	98.6	89.3	70.6	45.9	22.1	6.0	2.6	2.6	3.4	3.4	2.6
125°	65.5	60.4	46.8	28.1	13.6	2.6	2.6	2.6	3.4	3.4	2.6
127.5°	42.5	38.3	27.2	16.2	6.0	2.6	2.6	3.4	3.4	3.4	2.6
130°	23.8	21.3	16.2	9.4	2.6	2.6	2.6	3.4	3.4	3.4	2.6
132.5°	13.6	12.8	8.5	1.7	2.6	2.6	2.6	3.4	3.4	3.4	3.4
135°	3.4	1.7	1.7	1.7	2.6	2.6	3.4	3.4	4.3	4.3	3.4
137.5°	0.9	0.9	1.7	1.7	2.6	2.6	3.4	4.3	4.3	4.3	3.4
140°	0.9	0.9	1.7	2.6	2.6	2.6	3.4	4.3	4.3	4.3	3.4
142.5°	0.9	1.7	1.7	2.6	2.6	3.4	3.4	4.3	4.3	3.4	3.4
145°	0.9	1.7	1.7	2.6	2.6	3.4	3.4	4.3	3.4	3.4	3.4
147.5°	1.7	1.7	1.7	2.6	2.6	3.4	3.4	4.3	4.3	3.4	3.4
150°	0.9	1.7	1.7	2.6	3.4	3.4	3.4	4.3	3.4	3.4	3.4
152.5°	0.9	1.7	1.7	2.6	3.4	3.4	3.4	4.3	3.4	3.4	3.4
155°	1.7	1.7	1.7	2.6	3.4	3.4	3.4	4.3	3.4	3.4	4.3
157.5°	1.7	1.7	1.7	2.6	3.4	3.4	3.4	4.3	3.4	3.4	4.3
160°	1.7	1.7	1.7	2.6	2.6	3.4	3.4	3.4	3.4	3.4	3.4
162.5°	1.7	1.7	1.7	2.6	2.6	3.4	3.4	3.4	3.4	3.4	3.4
165°	1.7	1.7	1.7	1.7	2.6	2.6	3.4	3.4	3.4	3.4	3.4
167.5°	1.7	1.7	1.7	2.6	2.6	2.6	3.4	3.4	3.4	3.4	3.4
170°	1.7	1.7	1.7	2.6	2.6	2.6	3.4	4.3	4.3	4.3	4.3
172.5°	1.7	1.7	1.7	2.6	2.6	3.4	3.4	4.3	4.3	4.3	4.3
175°	1.7	1.7	1.7	2.6	2.6	3.4	3.4	4.3	4.3	4.3	4.3
177.5°	0.9	1.7	1.7	2.6	2.6	3.4	3.4	4.3	4.3	4.3	3.4
180°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	667.5	667.5	667.5
2.5°	635.2	623.3	619.9
5°	601.2	581.6	570.6
7.5°	567.2	540.8	528.1
10°	535.7	498.3	484.7
12.5°	498.3	454.9	433.7
15°	462.6	406.5	386.1
17.5°	422.6	359.7	335.9
20°	385.2	312.9	288.3
22.5°	342.7	267.0	239.8
25°	304.4	221.1	190.5
27.5°	261.9	174.3	148.0
30°	221.9	133.5	107.1
32.5°	183.7	97.8	74.0
35°	148.0	66.3	46.8
37.5°	113.9	40.8	23.8
40°	82.5	21.3	11.1
42.5°	55.3	10.2	6.0
45°	34.0	5.1	0.0
47.5°	19.6	0.0	0.0
50°	10.2	0.0	0.0
52.5°	4.3	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°	0.9	0.9	0.9
77.5°	0.9	1.7	2.6
80°	1.7	3.4	4.3
82.5°	3.4	4.3	4.3
85°	3.4	4.3	5.1
87.5°	4.3	5.1	6.0
90°	5.1	6.0	6.0
92.5°	5.1	6.8	6.8
95°	6.0	6.8	7.7
97.5°	6.8	7.7	7.7
100°	6.0	7.7	8.5
102.5°	5.1	7.7	7.7
105°	4.3	6.0	6.8





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.4	4.3	4.3
115°	2.6	3.4	4.3
117.5°	2.6	3.4	3.4
120°	2.6	2.6	3.4
122.5°	2.6	2.6	3.4
125°	2.6	2.6	3.4
127.5°	3.4	2.6	2.6
130°	2.6	2.6	2.6
132.5°	3.4	2.6	2.6
135°	3.4	2.6	2.6
137.5°	3.4	2.6	2.6
140°	3.4	2.6	2.6
142.5°	3.4	2.6	2.6
145°	2.6	2.6	2.6
147.5°	2.6	2.6	2.6
150°	2.6	2.6	1.7
152.5°	2.6	1.7	1.7
155°	2.6	1.7	0.9
157.5°	3.4	1.7	0.9
160°	2.6	1.7	0.9
162.5°	2.6	1.7	0.9
165°	2.6	1.7	0.0
167.5°	2.6	1.7	0.9
170°	2.6	1.7	0.9
172.5°	2.6	1.7	0.9
175°	2.6	0.9	0.9
177.5°	2.6	0.9	0.9
180°	2.6	2.6	2.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	357.1	346.9	312.9	256.8	179.4	100.3	37.4	6.8	1.7	2.6	2.6
110°	311.2	302.7	267.9	213.4	144.6	74.8	24.7	4.3	2.6	2.6	2.6







107.5°	3.4	5.1	6.0
110°	3.4	4.3	5.1



(END OF REPORT)