

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: P551272

Luminaire Tested: **FCC-X-2-LD4-2HI-35-UNV-81-84-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: P551272  
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-81-84-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

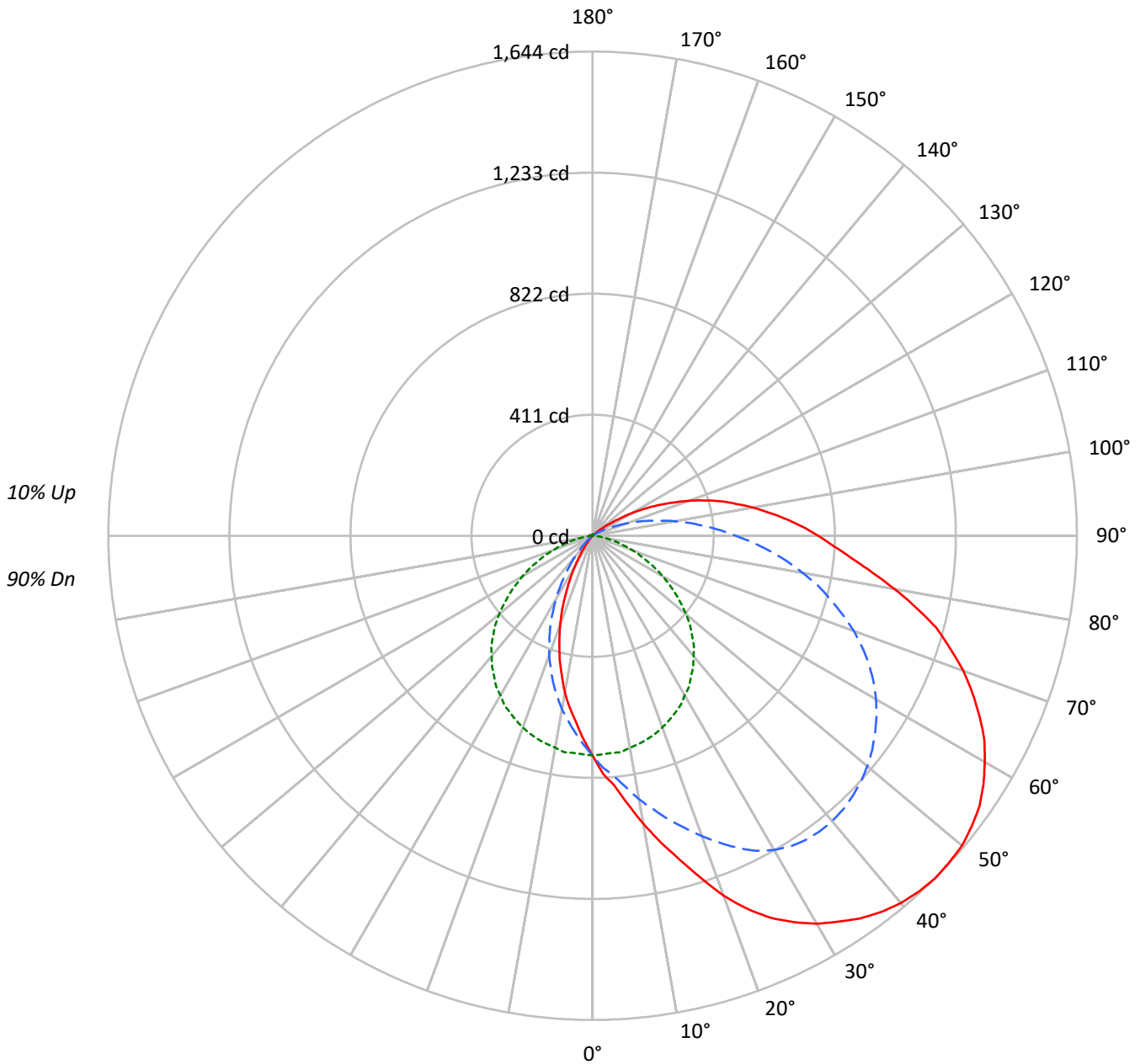
Lumens per Lamp: N/A  
Luminaire Lumens: 3687.2 lumens  
Efficiency: N/A  
Efficacy: 85.2 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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

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CATALOG NUMBER: FCC-X-2-LD4-2HI-35-UNV-81-84-ED1D

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

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	8028	8028	8028
5°	8812	7910	6600
10°	9972	7813	5439
15°	11175	7714	4238
20°	12604	7588	3121
25°	13789	7442	2050
30°	14670	7246	1154
35°	15432	7037	509
40°	16109	6778	123
45°	16689	6453	0
50°	17176	6024	0
55°	17547	5476	0
60°	17734	4842	0
65°	17807	4122	0
70°	17747	3362	0
75°	17522	2479	15
80°	16812	1516	78
85°	16249	727	105



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.4	1.9
10°-20°	213.9	5.8
20°-30°	346.4	9.4
30°-40°	445.0	12.1
40°-50°	503.7	13.7
50°-60°	521.8	14.2
60°-70°	492.1	13.3
70°-80°	412.4	11.2
80°-90°	299.0	8.1
90°-100°	196.5	5.3
100°-110°	113.5	3.1
110°-120°	50.1	1.4
120°-130°	13.6	0.4
130°-140°	3.1	0.1
140°-150°	2.1	0.1
150°-160°	1.4	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	631.7	17.1
0°-40°	1076.7	29.2
0°-60°	2102.2	57.0
0°-90°	3305.7	89.7
90°-120°	360.1	9.8
90°-150°	378.9	10.3
90°-180°	381.0	10.3
0°-180°	3687.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	746	746	746	746	746	
5°	851	818	740	672	638	86
15°	1137	997	715	517	431	328
25°	1432	1170	663	340	213	662
35°	1586	1261	582	165	52	994
45°	1644	1249	477	38	0	1270
55°	1603	1170	344	0	0	1431
65°	1449	1036	205	0	0	1433
75°	1208	836	87	1	1	1266
85°	884	606	14	4	6	755
90°	766	486	4	6	7	420
95°	657	380	2	7	9	516
105°	452	196	2	5	8	477
115°	246	65	3	3	5	246
125°	73	9	4	3	4	73
135°	4	3	5	4	3	7
145°	1	3	4	3	3	1
155°	2	4	4	3	1	1
165°	2	3	4	3	0	1
175°	2	3	5	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°	745.8	745.8	745.8	745.8	745.8	745.8	745.8	745.8	745.8	745.8	745.8
2.5°	808.5	807.5	804.7	799.9	793.3	781.9	772.4	763.8	752.4	742.9	724.9
5°	851.2	846.5	842.7	837.9	822.7	812.3	795.2	776.2	758.1	740.1	704.0
7.5°	919.7	912.1	906.4	893.0	872.1	848.4	821.8	803.7	791.4	741.0	679.3
10°	992.8	986.2	974.8	951.0	925.4	891.1	853.1	810.4	772.4	730.6	657.4
12.5°	1065.0	1055.5	1039.4	1009.0	972.9	930.1	877.8	827.5	773.3	723.9	631.8
15°	1137.2	1126.8	1109.7	1072.6	1025.1	969.1	905.4	841.7	778.1	715.4	605.2
17.5°	1216.1	1201.8	1176.2	1134.4	1074.5	1005.2	930.1	853.1	776.2	704.9	576.7
20°	1300.6	1280.7	1253.1	1197.1	1126.8	1045.1	954.8	864.5	775.2	692.6	544.4
22.5°	1370.9	1351.0	1320.6	1262.6	1178.1	1078.3	975.7	872.1	771.4	678.3	514.0
25°	1431.7	1415.6	1382.3	1315.8	1226.5	1113.5	995.7	877.8	765.7	663.1	481.7
27.5°	1479.2	1464.0	1427.0	1358.6	1267.4	1144.8	1010.9	880.7	758.1	647.9	448.4
30°	1521.0	1505.8	1461.2	1390.9	1294.9	1169.5	1026.1	881.6	748.6	625.1	412.3
32.5°	1553.3	1539.1	1493.5	1418.4	1313.9	1186.6	1034.6	880.7	736.3	609.0	373.4
35°	1585.6	1571.4	1518.2	1438.4	1328.2	1194.2	1041.3	875.9	721.1	582.4	336.3
37.5°	1610.3	1594.2	1540.0	1451.7	1334.8	1196.1	1040.3	869.3	704.9	560.5	299.3
40°	1627.4	1610.3	1552.4	1459.3	1336.7	1193.3	1032.7	857.9	685.9	533.0	260.3
42.5°	1638.8	1619.8	1558.1	1470.7	1332.9	1185.7	1021.3	843.6	665.0	509.2	223.3
45°	1644.5	1624.6	1559.0	1461.2	1326.3	1171.4	1004.2	825.6	642.2	476.9	186.2
47.5°	1641.7	1619.8	1554.3	1450.7	1313.9	1156.2	985.2	803.7	614.7	448.4	151.1
50°	1636.9	1614.1	1543.8	1437.4	1296.8	1137.2	964.3	777.1	586.2	413.3	119.7
52.5°	1621.7	1598.9	1532.4	1418.4	1276.9	1115.4	935.8	749.6	555.8	379.1	91.2
55°	1602.7	1581.8	1512.5	1401.3	1251.2	1088.8	909.2	720.1	526.3	343.9	65.6
57.5°	1573.3	1554.3	1487.8	1373.8	1225.6	1059.3	879.7	687.8	489.3	308.8	45.6
60°	1537.2	1518.2	1453.6	1342.4	1196.1	1026.1	847.4	654.6	456.0	273.6	28.5
62.5°	1499.2	1481.1	1413.7	1303.5	1159.1	990.9	812.3	621.3	420.9	241.3	17.1
65°	1448.8	1431.7	1370.9	1256.9	1118.2	952.9	773.3	581.4	384.8	205.2	9.5
67.5°	1395.6	1380.4	1318.7	1214.2	1070.7	911.1	733.4	542.5	346.8	173.9	4.8
70°	1338.6	1319.6	1262.6	1156.2	1022.3	863.6	689.7	502.6	310.7	143.5	0.0
72.5°	1272.1	1257.9	1202.8	1102.1	966.2	813.2	645.1	458.9	270.8	114.0	1.0
75°	1207.5	1189.5	1139.1	1044.1	911.1	760.0	595.7	418.0	231.8	87.4	1.0
77.5°	1123.9	1118.2	1070.7	978.6	858.8	708.7	541.5	368.6	194.8	62.7	1.0
80°	1040.3	1034.6	997.6	913.0	798.0	647.9	491.2	322.1	158.7	41.8	1.0
82.5°	957.7	950.1	914.9	844.6	736.3	596.6	438.9	275.5	125.4	25.7	1.0
85°	883.5	874.0	836.0	771.4	672.6	538.7	384.8	229.9	93.1	14.3	1.9
87.5°	819.9	813.2	771.4	704.9	608.0	484.5	337.3	186.2	65.6	6.7	2.9
90°	765.7	751.5	714.4	644.1	547.2	424.7	286.9	149.2	43.7	3.8	3.8
92.5°	712.5	700.2	659.3	587.1	493.1	373.4	238.5	114.0	27.6	1.9	4.8
95°	657.4	644.1	604.2	537.7	438.0	321.1	195.7	83.6	15.2	1.9	4.8
97.5°	603.3	590.9	549.1	482.6	388.6	275.5	154.9	58.9	7.6	1.9	3.8
100°	552.9	538.7	500.7	434.2	339.2	229.9	119.7	38.0	4.8	1.9	3.8
102.5°	499.7	488.3	449.4	384.8	287.9	187.2	89.3	23.8	1.9	1.9	2.9
105°	452.2	438.0	400.0	333.5	245.1	147.3	62.7	14.3	1.9	1.9	2.9



TEST NUMBER: P551272

CATALOG NUMBER: FCC-X-2-LD4-2HI-35-UNV-81-84-ED1D

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	294.5	283.1	249.9	193.8	124.5	58.0	17.1	2.9	2.9	2.9	2.9
115°	246.1	229.0	199.5	150.1	92.2	38.0	8.6	2.9	2.9	2.9	2.9
117.5°	196.7	182.4	161.5	114.0	60.8	24.7	4.8	2.9	2.9	2.9	2.9
120°	153.9	140.6	116.9	78.9	40.9	14.3	1.9	2.9	2.9	2.9	2.9
122.5°	110.2	99.8	78.9	51.3	24.7	6.7	2.9	2.9	3.8	3.8	2.9
125°	73.2	67.5	52.3	31.4	15.2	2.9	2.9	2.9	3.8	3.8	2.9
127.5°	47.5	42.8	30.4	18.1	6.7	2.9	2.9	3.8	3.8	3.8	2.9
130°	26.6	23.8	18.1	10.5	2.9	2.9	2.9	3.8	3.8	3.8	2.9
132.5°	15.2	14.3	9.5	1.9	2.9	2.9	2.9	3.8	3.8	3.8	3.8
135°	3.8	1.9	1.9	1.9	2.9	2.9	3.8	3.8	4.8	4.8	3.8
137.5°	1.0	1.0	1.9	1.9	2.9	2.9	3.8	4.8	4.8	4.8	3.8
140°	1.0	1.0	1.9	2.9	2.9	2.9	3.8	4.8	4.8	4.8	3.8
142.5°	1.0	1.9	1.9	2.9	2.9	3.8	3.8	4.8	4.8	3.8	3.8
145°	1.0	1.9	1.9	2.9	2.9	3.8	3.8	4.8	3.8	3.8	3.8
147.5°	1.9	1.9	1.9	2.9	2.9	3.8	3.8	4.8	4.8	3.8	3.8
150°	1.0	1.9	1.9	2.9	3.8	3.8	3.8	4.8	3.8	3.8	3.8
152.5°	1.0	1.9	1.9	2.9	3.8	3.8	3.8	4.8	3.8	3.8	3.8
155°	1.9	1.9	1.9	2.9	3.8	3.8	3.8	4.8	3.8	3.8	4.8
157.5°	1.9	1.9	1.9	2.9	3.8	3.8	3.8	4.8	3.8	3.8	4.8
160°	1.9	1.9	1.9	2.9	2.9	3.8	3.8	3.8	3.8	3.8	3.8
162.5°	1.9	1.9	1.9	2.9	2.9	3.8	3.8	3.8	3.8	3.8	3.8
165°	1.9	1.9	1.9	1.9	2.9	2.9	3.8	3.8	3.8	3.8	3.8
167.5°	1.9	1.9	1.9	2.9	2.9	2.9	3.8	3.8	3.8	3.8	3.8
170°	1.9	1.9	1.9	2.9	2.9	2.9	3.8	4.8	4.8	4.8	4.8
172.5°	1.9	1.9	1.9	2.9	2.9	3.8	3.8	4.8	4.8	4.8	4.8
175°	1.9	1.9	1.9	2.9	2.9	3.8	3.8	4.8	4.8	4.8	4.8
177.5°	1.0	1.9	1.9	2.9	2.9	3.8	3.8	4.8	4.8	4.8	3.8
180°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9



TEST NUMBER: P551272

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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	745.8	745.8	745.8
2.5°	709.7	696.4	692.6
5°	671.7	649.8	637.5
7.5°	633.7	604.2	590.0
10°	598.5	556.7	541.5
12.5°	556.7	508.3	484.5
15°	516.8	454.1	431.3
17.5°	472.2	401.9	375.3
20°	430.4	349.6	322.1
22.5°	382.9	298.3	267.9
25°	340.1	247.0	212.8
27.5°	292.6	194.8	165.3
30°	248.0	149.2	119.7
32.5°	205.2	109.3	82.7
35°	165.3	74.1	52.3
37.5°	127.3	45.6	26.6
40°	92.2	23.8	12.4
42.5°	61.8	11.4	6.7
45°	38.0	5.7	0.0
47.5°	21.9	0.0	0.0
50°	11.4	0.0	0.0
52.5°	4.8	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°	1.0	1.0	1.0
77.5°	1.0	1.9	2.9
80°	1.9	3.8	4.8
82.5°	3.8	4.8	4.8
85°	3.8	4.8	5.7
87.5°	4.8	5.7	6.7
90°	5.7	6.7	6.7
92.5°	5.7	7.6	7.6
95°	6.7	7.6	8.6
97.5°	7.6	8.6	8.6
100°	6.7	8.6	9.5
102.5°	5.7	8.6	8.6
105°	4.8	6.7	7.6





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.8	4.8	4.8
115°	2.9	3.8	4.8
117.5°	2.9	3.8	3.8
120°	2.9	2.9	3.8
122.5°	2.9	2.9	3.8
125°	2.9	2.9	3.8
127.5°	3.8	2.9	2.9
130°	2.9	2.9	2.9
132.5°	3.8	2.9	2.9
135°	3.8	2.9	2.9
137.5°	3.8	2.9	2.9
140°	3.8	2.9	2.9
142.5°	3.8	2.9	2.9
145°	2.9	2.9	2.9
147.5°	2.9	2.9	2.9
150°	2.9	2.9	1.9
152.5°	2.9	1.9	1.9
155°	2.9	1.9	1.0
157.5°	3.8	1.9	1.0
160°	2.9	1.9	1.0
162.5°	2.9	1.9	1.0
165°	2.9	1.9	0.0
167.5°	2.9	1.9	1.0
170°	2.9	1.9	1.0
172.5°	2.9	1.9	1.0
175°	2.9	1.0	1.0
177.5°	2.9	1.0	1.0
180°	2.9	2.9	2.9



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	399.0	387.6	349.6	286.9	200.5	112.1	41.8	7.6	1.9	2.9	2.9
110°	347.7	338.2	299.3	238.5	161.5	83.6	27.6	4.8	2.9	2.9	2.9







107.5°	3.8	5.7	6.7
110°	3.8	4.8	5.7



(END OF REPORT)