

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: P551196

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-80-86-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: P551196  
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-80-86-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

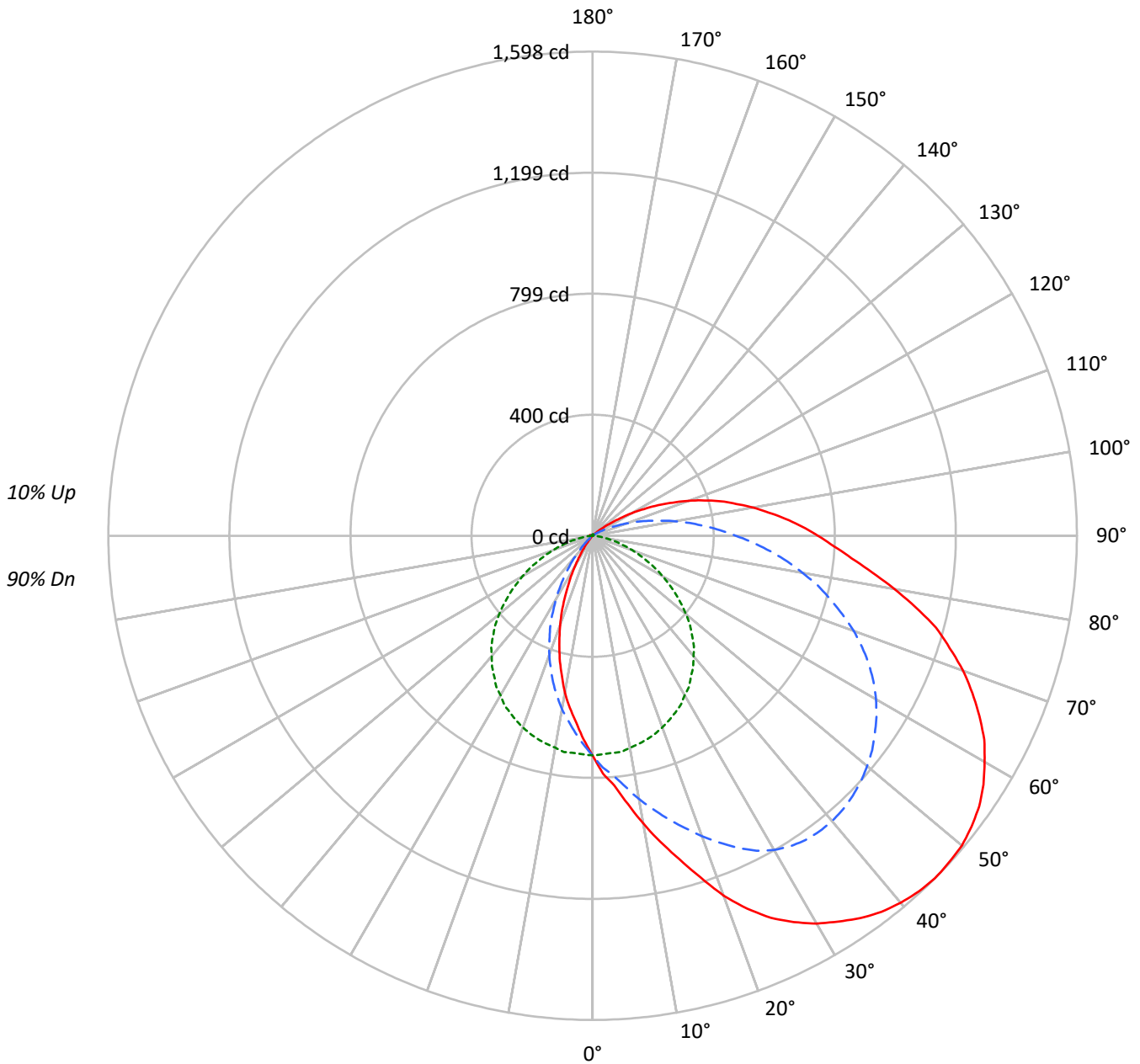
Lumens per Lamp: N/A  
Luminaire Lumens: 3583.0 lumens  
Efficiency: N/A  
Efficacy: 82.7 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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-30-UNV-80-86-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	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°	7802	7802	7802
5°	8563	7687	6413
10°	9691	7593	5286
15°	10860	7496	4119
20°	12249	7375	3033
25°	13400	7232	1992
30°	14256	7042	1122
35°	14997	6839	494
40°	15654	6586	119
45°	16219	6272	0
50°	16692	5853	0
55°	17052	5322	0
60°	17234	4705	0
65°	17305	4005	0
70°	17248	3266	0
75°	17029	2408	13
80°	16339	1473	74
85°	15791	702	101



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.4	1.9
10°-20°	207.9	5.8
20°-30°	336.6	9.4
30°-40°	432.4	12.1
40°-50°	489.5	13.7
50°-60°	507.1	14.2
60°-70°	478.3	13.3
70°-80°	400.8	11.2
80°-90°	290.5	8.1
90°-100°	190.9	5.3
100°-110°	110.3	3.1
110°-120°	48.7	1.4
120°-130°	13.2	0.4
130°-140°	3.0	0.1
140°-150°	2.0	0.1
150°-160°	1.4	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	613.9	17.1
0°-40°	1046.3	29.2
0°-60°	2042.9	57.0
0°-90°	3212.5	89.7
90°-120°	349.9	9.8
90°-150°	368.1	10.3
90°-180°	371.0	10.4
0°-180°	3583.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	725	725	725	725	725	
5°	827	794	719	653	620	83
15°	1105	969	695	502	419	319
25°	1391	1137	644	330	207	643
35°	1541	1226	566	161	51	966
45°	1598	1214	464	37	0	1234
55°	1558	1137	334	0	0	1391
65°	1408	1006	199	0	0	1393
75°	1174	812	85	1	1	1231
85°	859	589	14	4	6	733
90°	744	472	4	6	6	408
95°	639	369	2	6	8	501
105°	440	191	2	5	7	464
115°	239	63	3	3	5	239
125°	71	9	4	3	4	71
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°	724.8	724.8	724.8	724.8	724.8	724.8	724.8	724.8	724.8	724.8	724.8
2.5°	785.7	784.8	782.0	777.4	770.9	759.8	750.6	742.3	731.2	722.0	704.4
5°	827.2	822.6	818.9	814.3	799.5	789.4	772.8	754.3	736.8	719.2	684.1
7.5°	893.7	886.3	880.8	867.9	847.5	824.5	798.6	781.1	769.1	720.1	660.1
10°	964.8	958.3	947.3	924.2	899.2	866.0	829.1	787.5	750.6	710.0	638.9
12.5°	1035.0	1025.7	1010.0	980.5	945.4	903.9	853.1	804.2	751.5	703.5	614.0
15°	1105.1	1095.0	1078.4	1042.4	996.2	941.7	879.9	818.0	756.1	695.2	588.1
17.5°	1181.8	1167.9	1143.0	1102.4	1044.2	976.8	903.9	829.1	754.3	685.1	560.4
20°	1263.9	1244.5	1217.8	1163.3	1095.0	1015.6	927.9	840.2	753.4	673.1	529.0
22.5°	1332.3	1312.9	1283.3	1227.0	1144.8	1047.9	948.2	847.5	749.7	659.2	499.5
25°	1391.3	1375.6	1343.3	1278.7	1191.9	1082.1	967.6	853.1	744.1	644.4	468.1
27.5°	1437.5	1422.7	1386.7	1320.3	1231.6	1112.5	982.3	855.9	736.8	629.7	435.8
30°	1478.1	1463.4	1420.0	1351.6	1258.4	1136.5	997.1	856.8	727.5	607.5	400.7
32.5°	1509.5	1495.7	1451.4	1378.4	1276.9	1153.1	1005.4	855.9	715.5	591.8	362.8
35°	1540.9	1527.1	1475.4	1397.8	1290.7	1160.5	1011.9	851.2	700.8	566.0	326.8
37.5°	1564.9	1549.2	1496.6	1410.7	1297.2	1162.4	1011.0	844.8	685.1	544.7	290.8
40°	1581.5	1564.9	1508.6	1418.1	1299.0	1159.6	1003.6	833.7	666.6	517.9	253.0
42.5°	1592.6	1574.1	1514.1	1429.2	1295.3	1152.2	992.5	819.9	646.3	494.9	217.0
45°	1598.2	1578.8	1515.1	1420.0	1288.9	1138.4	975.9	802.3	624.1	463.5	181.0
47.5°	1595.4	1574.1	1510.4	1409.8	1276.9	1123.6	957.4	781.1	597.3	435.8	146.8
50°	1590.8	1568.6	1500.3	1396.9	1260.2	1105.1	937.1	755.2	569.6	401.6	116.3
52.5°	1576.0	1553.8	1489.2	1378.4	1240.9	1083.9	909.4	728.4	540.1	368.4	88.6
55°	1557.5	1537.2	1469.8	1361.8	1215.9	1058.0	883.6	699.8	511.5	334.2	63.7
57.5°	1528.9	1510.4	1445.8	1335.0	1191.0	1029.4	854.9	668.4	475.5	300.1	44.3
60°	1493.8	1475.4	1412.6	1304.6	1162.4	997.1	823.5	636.1	443.2	265.9	27.7
62.5°	1456.9	1439.4	1373.8	1266.7	1126.4	963.0	789.4	603.8	409.0	234.5	16.6
65°	1408.0	1391.3	1332.3	1221.5	1086.7	926.0	751.5	565.0	373.9	199.4	9.2
67.5°	1356.3	1341.5	1281.5	1179.9	1040.5	885.4	712.8	527.2	337.0	169.0	4.6
70°	1300.9	1282.4	1227.0	1123.6	993.4	839.2	670.3	488.4	301.9	139.4	0.0
72.5°	1236.2	1222.4	1168.8	1071.0	938.9	790.3	626.9	445.9	263.1	110.8	0.9
75°	1173.5	1155.9	1107.0	1014.7	885.4	738.6	578.9	406.2	225.3	84.9	0.9
77.5°	1092.2	1086.7	1040.5	951.0	834.6	688.7	526.3	358.2	189.3	60.9	0.9
80°	1011.0	1005.4	969.4	887.2	775.5	629.7	477.3	313.0	154.2	40.6	0.9
82.5°	930.6	923.3	889.1	820.8	715.5	579.8	426.5	267.7	121.9	24.9	0.9
85°	858.6	849.4	812.5	749.7	653.7	523.5	373.9	223.4	90.5	13.8	1.8
87.5°	796.8	790.3	749.7	685.1	590.9	470.9	327.8	181.0	63.7	6.5	2.8
90°	744.1	730.3	694.3	626.0	531.8	412.7	278.8	145.0	42.5	3.7	3.7
92.5°	692.4	680.4	640.7	570.6	479.2	362.8	231.7	110.8	26.8	1.8	4.6
95°	638.9	626.0	587.2	522.6	425.6	312.1	190.2	81.2	14.8	1.8	4.6
97.5°	586.3	574.3	533.6	469.0	377.6	267.7	150.5	57.2	7.4	1.8	3.7
100°	537.3	523.5	486.6	421.9	329.6	223.4	116.3	36.9	4.6	1.8	3.7
102.5°	485.6	474.6	436.7	373.9	279.7	181.9	86.8	23.1	1.8	1.8	2.8
105°	439.5	425.6	388.7	324.1	238.2	143.1	60.9	13.8	1.8	1.8	2.8



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	286.2	275.1	242.8	188.3	120.9	56.3	16.6	2.8	2.8	2.8	2.8
115°	239.1	222.5	193.9	145.9	89.6	36.9	8.3	2.8	2.8	2.8	2.8
117.5°	191.1	177.3	157.0	110.8	59.1	24.0	4.6	2.8	2.8	2.8	2.8
120°	149.6	136.6	113.6	76.6	39.7	13.8	1.8	2.8	2.8	2.8	2.8
122.5°	107.1	96.9	76.6	49.9	24.0	6.5	2.8	2.8	3.7	3.7	2.8
125°	71.1	65.6	50.8	30.5	14.8	2.8	2.8	2.8	3.7	3.7	2.8
127.5°	46.2	41.5	29.5	17.5	6.5	2.8	2.8	3.7	3.7	3.7	2.8
130°	25.9	23.1	17.5	10.2	2.8	2.8	2.8	3.7	3.7	3.7	2.8
132.5°	14.8	13.8	9.2	1.8	2.8	2.8	2.8	3.7	3.7	3.7	3.7
135°	3.7	1.8	1.8	1.8	2.8	2.8	3.7	3.7	4.6	4.6	3.7
137.5°	0.9	0.9	1.8	1.8	2.8	2.8	3.7	4.6	4.6	4.6	3.7
140°	0.9	0.9	1.8	2.8	2.8	2.8	3.7	4.6	4.6	4.6	3.7
142.5°	0.9	1.8	1.8	2.8	2.8	3.7	3.7	4.6	4.6	3.7	3.7
145°	0.9	1.8	1.8	2.8	2.8	3.7	3.7	4.6	3.7	3.7	3.7
147.5°	1.8	1.8	1.8	2.8	2.8	3.7	3.7	4.6	4.6	3.7	3.7
150°	0.9	1.8	1.8	2.8	3.7	3.7	3.7	4.6	3.7	3.7	3.7
152.5°	0.9	1.8	1.8	2.8	3.7	3.7	3.7	4.6	3.7	3.7	3.7
155°	1.8	1.8	1.8	2.8	3.7	3.7	3.7	4.6	3.7	3.7	4.6
157.5°	1.8	1.8	1.8	2.8	3.7	3.7	3.7	4.6	3.7	3.7	4.6
160°	1.8	1.8	1.8	2.8	2.8	3.7	3.7	3.7	3.7	3.7	3.7
162.5°	1.8	1.8	1.8	2.8	2.8	3.7	3.7	3.7	3.7	3.7	3.7
165°	1.8	1.8	1.8	1.8	2.8	2.8	3.7	3.7	3.7	3.7	3.7
167.5°	1.8	1.8	1.8	2.8	2.8	2.8	3.7	3.7	3.7	3.7	3.7
170°	1.8	1.8	1.8	2.8	2.8	2.8	3.7	4.6	4.6	4.6	4.6
172.5°	1.8	1.8	1.8	2.8	2.8	3.7	3.7	4.6	4.6	4.6	4.6
175°	1.8	1.8	1.8	2.8	2.8	3.7	3.7	4.6	4.6	4.6	4.6
177.5°	0.9	1.8	1.8	2.8	2.8	3.7	3.7	4.6	4.6	4.6	3.7
180°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	724.8	724.8	724.8
2.5°	689.7	676.7	673.1
5°	652.7	631.5	619.5
7.5°	615.8	587.2	573.3
10°	581.7	541.0	526.3
12.5°	541.0	493.9	470.9
15°	502.3	441.3	419.2
17.5°	458.9	390.5	364.7
20°	418.2	339.8	313.0
22.5°	372.1	289.9	260.4
25°	330.5	240.0	206.8
27.5°	284.4	189.3	160.6
30°	241.0	145.0	116.3
32.5°	199.4	106.2	80.3
35°	160.6	72.0	50.8
37.5°	123.7	44.3	25.9
40°	89.6	23.1	12.0
42.5°	60.0	11.1	6.5
45°	36.9	5.5	0.0
47.5°	21.2	0.0	0.0
50°	11.1	0.0	0.0
52.5°	4.6	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	1.8	2.8
80°	1.8	3.7	4.6
82.5°	3.7	4.6	4.6
85°	3.7	4.6	5.5
87.5°	4.6	5.5	6.5
90°	5.5	6.5	6.5
92.5°	5.5	7.4	7.4
95°	6.5	7.4	8.3
97.5°	7.4	8.3	8.3
100°	6.5	8.3	9.2
102.5°	5.5	8.3	8.3
105°	4.6	6.5	7.4





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.7	4.6	4.6
115°	2.8	3.7	4.6
117.5°	2.8	3.7	3.7
120°	2.8	2.8	3.7
122.5°	2.8	2.8	3.7
125°	2.8	2.8	3.7
127.5°	3.7	2.8	2.8
130°	2.8	2.8	2.8
132.5°	3.7	2.8	2.8
135°	3.7	2.8	2.8
137.5°	3.7	2.8	2.8
140°	3.7	2.8	2.8
142.5°	3.7	2.8	2.8
145°	2.8	2.8	2.8
147.5°	2.8	2.8	2.8
150°	2.8	2.8	1.8
152.5°	2.8	1.8	1.8
155°	2.8	1.8	0.9
157.5°	3.7	1.8	0.9
160°	2.8	1.8	0.9
162.5°	2.8	1.8	0.9
165°	2.8	1.8	0.0
167.5°	2.8	1.8	0.9
170°	2.8	1.8	0.9
172.5°	2.8	1.8	0.9
175°	2.8	0.9	0.9
177.5°	2.8	0.9	0.9
180°	2.8	2.8	2.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	387.8	376.7	339.8	278.8	194.8	108.9	40.6	7.4	1.8	2.8	2.8
110°	337.9	328.7	290.8	231.7	157.0	81.2	26.8	4.6	2.8	2.8	2.8







107.5°	3.7	5.5	6.5
110°	3.7	4.6	5.5



(END OF REPORT)