

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: P551352

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-82-84-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: P551352  
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-82-84-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

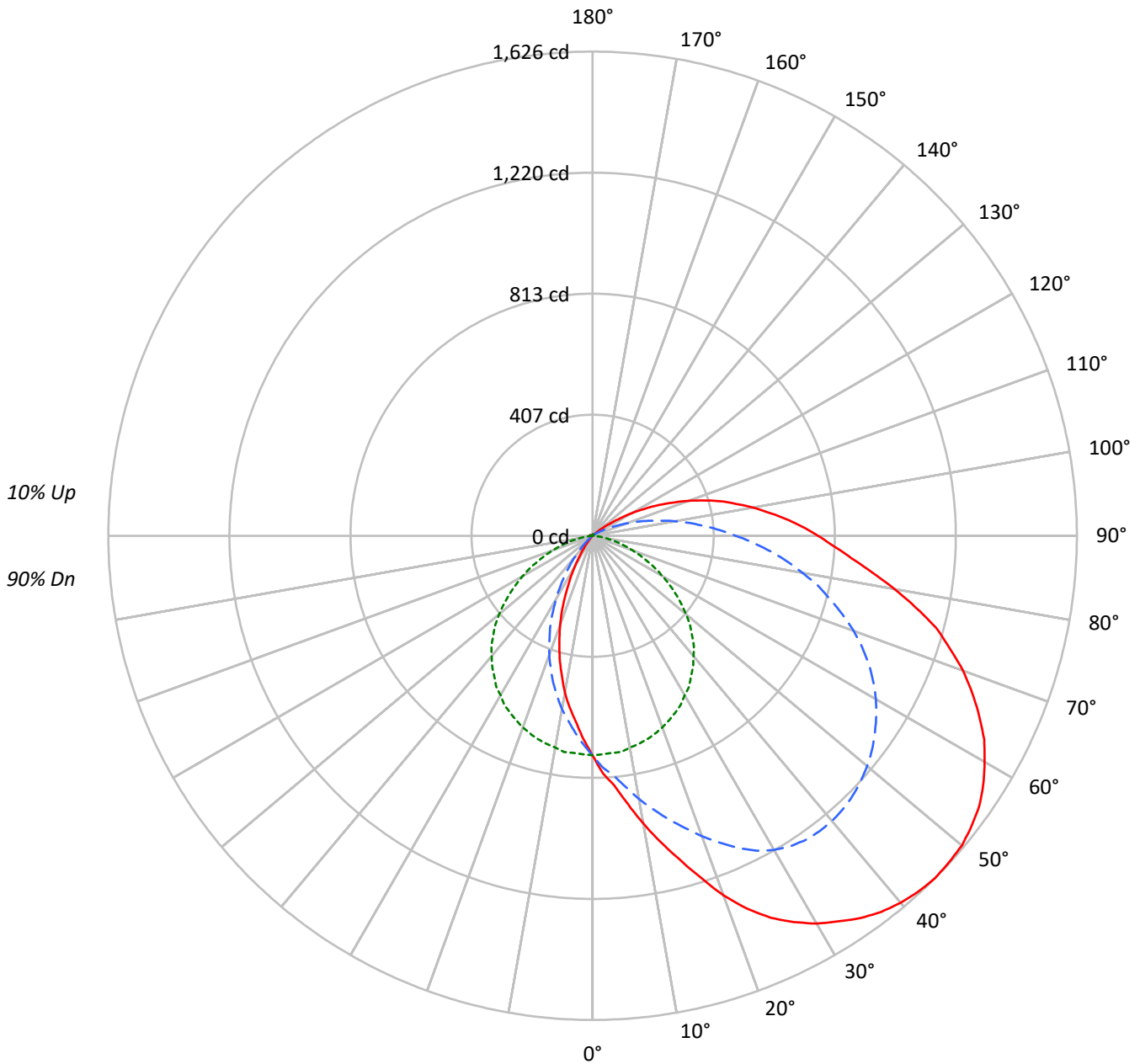
Lumens per Lamp: N/A  
Luminaire Lumens: 3645.0 lumens  
Efficiency: N/A  
Efficacy: 84.2 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 43.3  
Input Voltage (V): NR  
Input Current (Ain): 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: P551352

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-82-84-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	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°	7936	7936	7936
5°	8712	7821	6524
10°	9859	7724	5378
15°	11049	7625	4190
20°	12461	7502	3086
25°	13632	7357	2026
30°	14503	7164	1141
35°	15257	6956	503
40°	15926	6701	121
45°	16499	6380	0
50°	16981	5955	0
55°	17348	5414	0
60°	17532	4787	0
65°	17604	4075	0
70°	17546	3322	0
75°	17323	2450	13
80°	16621	1498	76
85°	16065	717	103



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.6	1.9
10°-20°	211.5	5.8
20°-30°	342.4	9.4
30°-40°	439.9	12.1
40°-50°	498.0	13.7
50°-60°	515.9	14.2
60°-70°	486.5	13.3
70°-80°	407.7	11.2
80°-90°	295.5	8.1
90°-100°	194.3	5.3
100°-110°	112.2	3.1
110°-120°	49.5	1.4
120°-130°	13.4	0.4
130°-140°	3.1	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°	624.5	17.1
0°-40°	1064.4	29.2
0°-60°	2078.3	57.0
0°-90°	3268.1	89.7
90°-120°	355.9	9.8
90°-150°	374.4	10.3
90°-180°	377.0	10.3
0°-180°	3645.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	737	737	737	737	737	
5°	842	808	732	664	630	85
15°	1124	986	707	511	426	324
25°	1415	1157	656	336	210	654
35°	1568	1247	576	163	52	983
45°	1626	1235	472	38	0	1255
55°	1584	1157	340	0	0	1415
65°	1432	1024	203	0	0	1417
75°	1194	826	86	1	1	1252
85°	874	599	14	4	6	746
90°	757	480	4	6	7	415
95°	650	375	2	7	8	510
105°	447	194	2	5	8	472
115°	243	64	3	3	5	244
125°	72	9	4	3	4	72
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°	737.3	737.3	737.3	737.3	737.3	737.3	737.3	737.3	737.3	737.3	737.3
2.5°	799.3	798.3	795.5	790.8	784.3	773.0	763.6	755.1	743.9	734.5	716.6
5°	841.6	836.9	833.1	828.4	813.4	803.0	786.1	767.4	749.5	731.7	696.0
7.5°	909.2	901.7	896.0	882.9	862.2	838.7	812.4	794.6	782.4	732.6	671.5
10°	981.5	974.9	963.7	940.2	914.8	881.0	843.4	801.2	763.6	722.3	649.9
12.5°	1052.9	1043.5	1027.5	997.5	961.8	919.5	867.8	818.1	764.5	715.7	624.6
15°	1124.3	1113.9	1097.0	1060.4	1013.4	958.0	895.1	832.2	769.2	707.2	598.3
17.5°	1202.2	1188.1	1162.8	1121.4	1062.3	993.7	919.5	843.4	767.4	696.9	570.1
20°	1285.8	1266.1	1238.8	1183.4	1113.9	1033.2	943.9	854.7	766.4	684.7	538.2
22.5°	1355.3	1335.6	1305.5	1248.2	1164.6	1066.0	964.6	862.2	762.7	670.6	508.1
25°	1415.4	1399.5	1366.6	1300.8	1212.5	1100.8	984.3	867.8	757.0	655.6	476.2
27.5°	1462.4	1447.4	1410.7	1343.1	1252.9	1131.8	999.3	870.7	749.5	640.6	443.3
30°	1503.7	1488.7	1444.5	1375.0	1280.2	1156.2	1014.4	871.6	740.1	618.0	407.6
32.5°	1535.6	1521.6	1476.5	1402.3	1299.0	1173.1	1022.8	870.7	727.9	602.0	369.1
35°	1567.6	1553.5	1500.9	1422.0	1313.0	1180.6	1029.4	866.0	712.9	575.7	332.5
37.5°	1592.0	1576.0	1522.5	1435.1	1319.6	1182.5	1028.5	859.4	696.9	554.1	295.9
40°	1608.9	1592.0	1534.7	1442.7	1321.5	1179.7	1020.9	848.1	678.1	526.9	257.3
42.5°	1620.2	1601.4	1540.3	1453.9	1317.7	1172.2	1009.7	834.0	657.5	503.4	220.7
45°	1625.8	1606.1	1541.3	1444.5	1311.2	1158.1	992.8	816.2	634.9	471.5	184.1
47.5°	1623.0	1601.4	1536.6	1434.2	1299.0	1143.0	974.0	794.6	607.7	443.3	149.3
50°	1618.3	1595.8	1526.2	1421.1	1282.0	1124.3	953.3	768.3	579.5	408.6	118.3
52.5°	1603.3	1580.7	1515.0	1402.3	1262.3	1102.7	925.1	741.1	549.4	374.8	90.2
55°	1584.5	1563.8	1495.3	1385.4	1237.0	1076.4	898.8	711.9	520.3	340.0	64.8
57.5°	1555.4	1536.6	1470.8	1358.1	1211.6	1047.2	869.7	680.0	483.7	305.2	45.1
60°	1519.7	1500.9	1437.0	1327.1	1182.5	1014.4	837.8	647.1	450.8	270.5	28.2
62.5°	1482.1	1464.3	1397.6	1288.6	1145.9	979.6	803.0	614.3	416.1	238.6	16.9
65°	1432.3	1415.4	1355.3	1242.6	1105.5	942.0	764.5	574.8	380.4	202.9	9.4
67.5°	1379.7	1364.7	1303.7	1200.3	1058.5	900.7	725.1	536.3	342.8	171.9	4.7
70°	1323.4	1304.6	1248.2	1143.0	1010.6	853.8	681.9	496.9	307.1	141.8	0.0
72.5°	1257.6	1243.5	1189.1	1089.5	955.2	804.0	637.7	453.6	267.7	112.7	0.9
75°	1193.8	1175.9	1126.1	1032.2	900.7	751.4	588.9	413.3	229.2	86.4	0.9
77.5°	1111.1	1105.5	1058.5	967.4	849.1	700.7	535.4	364.4	192.5	62.0	0.9
80°	1028.5	1022.8	986.2	902.6	789.0	640.6	485.6	318.4	156.9	41.3	0.9
82.5°	946.7	939.2	904.5	835.0	727.9	589.8	433.9	272.4	124.0	25.4	0.9
85°	873.5	864.1	826.5	762.7	665.0	532.5	380.4	227.3	92.0	14.1	1.9
87.5°	810.6	804.0	762.7	696.9	601.1	479.0	333.4	184.1	64.8	6.6	2.8
90°	757.0	742.9	706.3	636.8	541.0	419.8	283.6	147.5	43.2	3.8	3.8
92.5°	704.4	692.2	651.8	580.4	487.5	369.1	235.7	112.7	27.2	1.9	4.7
95°	649.9	636.8	597.4	531.6	433.0	317.5	193.5	82.7	15.0	1.9	4.7
97.5°	596.4	584.2	542.9	477.1	384.1	272.4	153.1	58.2	7.5	1.9	3.8
100°	546.6	532.5	495.0	429.2	335.3	227.3	118.3	37.6	4.7	1.9	3.8
102.5°	494.0	482.8	444.3	380.4	284.6	185.0	88.3	23.5	1.9	1.9	2.8
105°	447.1	433.0	395.4	329.7	242.3	145.6	62.0	14.1	1.9	1.9	2.8



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	291.2	279.9	247.0	191.6	123.0	57.3	16.9	2.8	2.8	2.8	2.8
115°	243.3	226.4	197.2	148.4	91.1	37.6	8.5	2.8	2.8	2.8	2.8
117.5°	194.4	180.3	159.7	112.7	60.1	24.4	4.7	2.8	2.8	2.8	2.8
120°	152.2	139.0	115.5	78.0	40.4	14.1	1.9	2.8	2.8	2.8	2.8
122.5°	109.0	98.6	78.0	50.7	24.4	6.6	2.8	2.8	3.8	3.8	2.8
125°	72.3	66.7	51.7	31.0	15.0	2.8	2.8	2.8	3.8	3.8	2.8
127.5°	47.0	42.3	30.1	17.8	6.6	2.8	2.8	3.8	3.8	3.8	2.8
130°	26.3	23.5	17.8	10.3	2.8	2.8	2.8	3.8	3.8	3.8	2.8
132.5°	15.0	14.1	9.4	1.9	2.8	2.8	2.8	3.8	3.8	3.8	3.8
135°	3.8	1.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	4.7	3.8
137.5°	0.9	0.9	1.9	1.9	2.8	2.8	3.8	4.7	4.7	4.7	3.8
140°	0.9	0.9	1.9	2.8	2.8	2.8	3.8	4.7	4.7	4.7	3.8
142.5°	0.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	4.7	3.8	3.8
145°	0.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	3.8	3.8	3.8
147.5°	1.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	4.7	3.8	3.8
150°	0.9	1.9	1.9	2.8	3.8	3.8	3.8	4.7	3.8	3.8	3.8
152.5°	0.9	1.9	1.9	2.8	3.8	3.8	3.8	4.7	3.8	3.8	3.8
155°	1.9	1.9	1.9	2.8	3.8	3.8	3.8	4.7	3.8	3.8	4.7
157.5°	1.9	1.9	1.9	2.8	3.8	3.8	3.8	4.7	3.8	3.8	4.7
160°	1.9	1.9	1.9	2.8	2.8	3.8	3.8	3.8	3.8	3.8	3.8
162.5°	1.9	1.9	1.9	2.8	2.8	3.8	3.8	3.8	3.8	3.8	3.8
165°	1.9	1.9	1.9	1.9	2.8	2.8	3.8	3.8	3.8	3.8	3.8
167.5°	1.9	1.9	1.9	2.8	2.8	2.8	3.8	3.8	3.8	3.8	3.8
170°	1.9	1.9	1.9	2.8	2.8	2.8	3.8	4.7	4.7	4.7	4.7
172.5°	1.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	4.7	4.7	4.7
175°	1.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	4.7	4.7	4.7
177.5°	0.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	4.7	4.7	3.8
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°	737.3	737.3	737.3
2.5°	701.6	688.5	684.7
5°	664.0	642.4	630.2
7.5°	626.5	597.4	583.3
10°	591.7	550.4	535.4
12.5°	550.4	502.5	479.0
15°	510.9	449.0	426.4
17.5°	466.8	397.3	371.0
20°	425.5	345.6	318.4
22.5°	378.5	294.9	264.9
25°	336.2	244.2	210.4
27.5°	289.3	192.5	163.4
30°	245.1	147.5	118.3
32.5°	202.9	108.0	81.7
35°	163.4	73.3	51.7
37.5°	125.9	45.1	26.3
40°	91.1	23.5	12.2
42.5°	61.0	11.3	6.6
45°	37.6	5.6	0.0
47.5°	21.6	0.0	0.0
50°	11.3	0.0	0.0
52.5°	4.7	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	1.9	2.8
80°	1.9	3.8	4.7
82.5°	3.8	4.7	4.7
85°	3.8	4.7	5.6
87.5°	4.7	5.6	6.6
90°	5.6	6.6	6.6
92.5°	5.6	7.5	7.5
95°	6.6	7.5	8.5
97.5°	7.5	8.5	8.5
100°	6.6	8.5	9.4
102.5°	5.6	8.5	8.5
105°	4.7	6.6	7.5





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.8	4.7	4.7
115°	2.8	3.8	4.7
117.5°	2.8	3.8	3.8
120°	2.8	2.8	3.8
122.5°	2.8	2.8	3.8
125°	2.8	2.8	3.8
127.5°	3.8	2.8	2.8
130°	2.8	2.8	2.8
132.5°	3.8	2.8	2.8
135°	3.8	2.8	2.8
137.5°	3.8	2.8	2.8
140°	3.8	2.8	2.8
142.5°	3.8	2.8	2.8
145°	2.8	2.8	2.8
147.5°	2.8	2.8	2.8
150°	2.8	2.8	1.9
152.5°	2.8	1.9	1.9
155°	2.8	1.9	0.9
157.5°	3.8	1.9	0.9
160°	2.8	1.9	0.9
162.5°	2.8	1.9	0.9
165°	2.8	1.9	0.0
167.5°	2.8	1.9	0.9
170°	2.8	1.9	0.9
172.5°	2.8	1.9	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°	394.5	383.2	345.6	283.6	198.2	110.8	41.3	7.5	1.9	2.8	2.8
110°	343.8	334.4	295.9	235.7	159.7	82.7	27.2	4.7	2.8	2.8	2.8







107.5°	3.8	5.6	6.6
110°	3.8	4.7	5.6



(END OF REPORT)