

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: P551434

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-93-85-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: P551434  
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-50-UNV-93-85-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

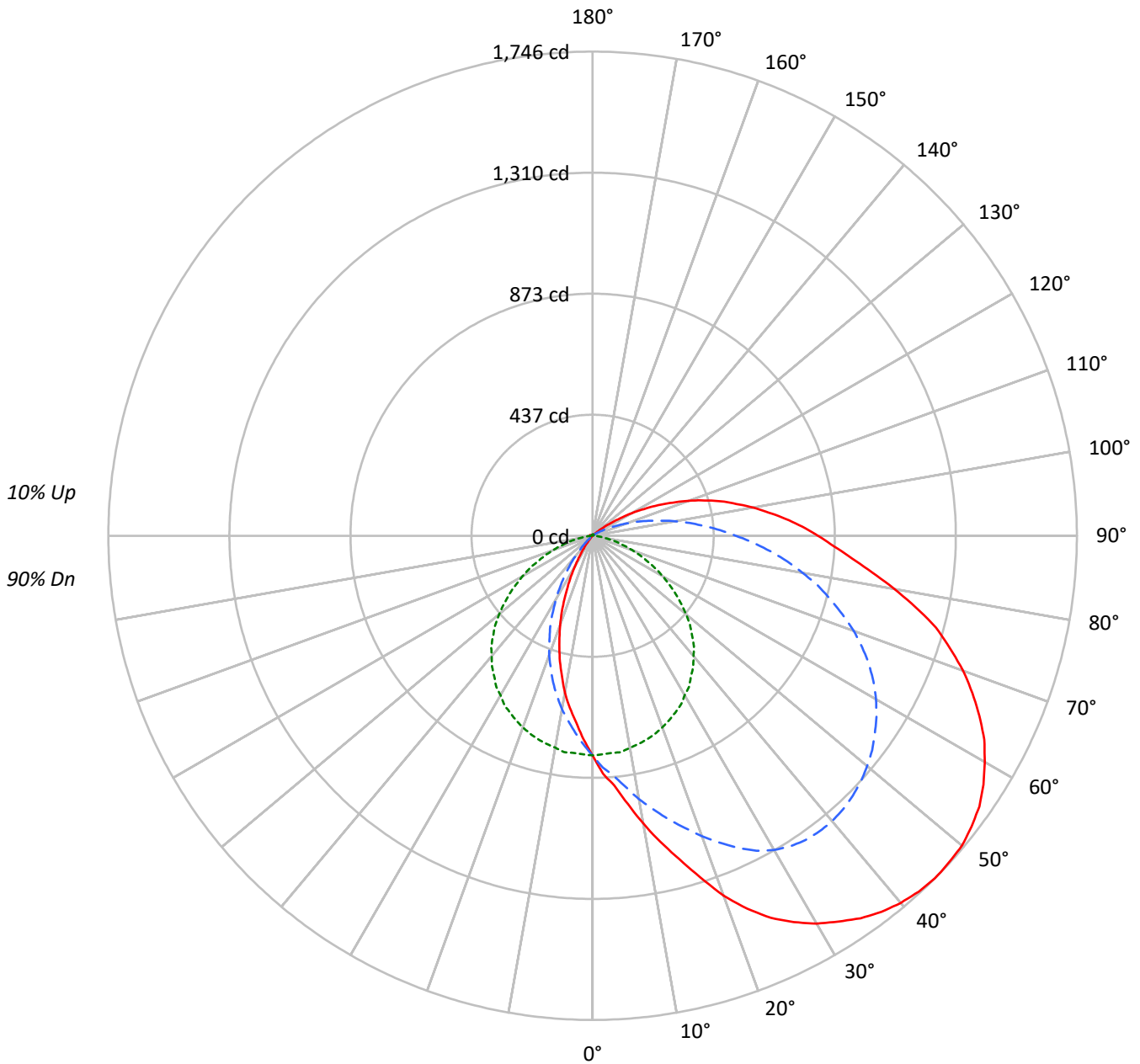
Lumens per Lamp: N/A  
Luminaire Lumens: 3914.9 lumens  
Efficiency: N/A  
Efficacy: 90.4 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P551434

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-93-85-ED1D

### Luminous Intensity Polar Plot





TEST NUMBER: P551434

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-93-85-ED1D

**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°	8524	8524	8524
5°	9357	8400	7007
10°	10589	8297	5776
15°	11866	8190	4501
20°	13384	8057	3314
25°	14642	7902	2177
30°	15577	7695	1226
35°	16387	7472	540
40°	17105	7197	130
45°	17721	6852	0
50°	18239	6395	0
55°	18633	5815	0
60°	18830	5141	0
65°	18908	4377	0
70°	18845	3568	0
75°	18606	2632	15
80°	17851	1611	81
85°	17255	768	112



TEST NUMBER: P551434

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	75.9	1.9
10°-20°	227.1	5.8
20°-30°	367.8	9.4
30°-40°	472.5	12.1
40°-50°	534.8	13.7
50°-60°	554.1	14.2
60°-70°	522.6	13.3
70°-80°	437.9	11.2
80°-90°	317.4	8.1
90°-100°	208.6	5.3
100°-110°	120.5	3.1
110°-120°	53.2	1.4
120°-130°	14.4	0.4
130°-140°	3.3	0.1
140°-150°	2.1	0.1
150°-160°	1.5	0.0
160°-170°	0.9	0.0
170°-180°	0.3	0.0
0°-30°	670.8	17.1
0°-40°	1143.3	29.2
0°-60°	2232.2	57.0
0°-90°	3510.1	89.7
90°-120°	382.3	9.8
90°-150°	402.1	10.3
90°-180°	405.0	10.3
0°-180°	3914.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	792	792	792	792	792	
5°	904	868	786	713	677	91
15°	1208	1059	760	549	458	348
25°	1520	1242	704	361	226	703
35°	1684	1339	618	176	56	1056
45°	1746	1326	506	40	0	1348
55°	1702	1242	365	0	0	1520
65°	1538	1100	218	0	0	1522
75°	1282	887	93	1	1	1345
85°	938	643	15	4	6	801
90°	813	516	4	6	7	446
95°	698	403	2	7	9	548
105°	480	208	2	5	8	507
115°	261	69	3	3	5	262
125°	78	10	4	3	4	78
135°	4	3	5	4	3	7
145°	1	4	4	3	3	1
155°	2	4	4	3	1	1
165°	2	3	4	3	0	1
175°	2	4	5	3	1	0
180°	3	3	3	3	3	



TEST NUMBER: P551434

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-93-85-ED1D

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	791.9	791.9	791.9	791.9	791.9	791.9	791.9	791.9	791.9	791.9	791.9
2.5°	858.5	857.5	854.5	849.4	842.4	830.2	820.2	811.1	799.0	788.9	769.7
5°	903.9	898.8	894.8	889.8	873.6	862.5	844.4	824.2	805.0	785.9	747.5
7.5°	976.5	968.5	962.4	948.3	926.1	900.9	872.6	853.4	840.3	786.9	721.3
10°	1054.2	1047.1	1035.0	1009.8	982.6	946.3	905.9	860.5	820.2	775.8	698.1
12.5°	1130.9	1120.8	1103.6	1071.3	1033.0	987.6	932.1	878.7	821.2	768.7	670.9
15°	1207.5	1196.4	1178.3	1138.9	1088.5	1029.0	961.4	893.8	826.2	759.6	642.6
17.5°	1291.3	1276.1	1248.9	1204.5	1141.0	1067.3	987.6	905.9	824.2	748.5	612.3
20°	1381.1	1359.9	1330.6	1271.1	1196.4	1109.7	1013.8	918.0	823.2	735.4	578.0
22.5°	1455.7	1434.5	1402.2	1340.7	1250.9	1145.0	1036.0	926.1	819.1	720.3	545.8
25°	1520.3	1503.1	1467.8	1397.2	1302.4	1182.3	1057.2	932.1	813.1	704.1	511.5
27.5°	1570.7	1554.6	1515.2	1442.6	1345.7	1215.6	1073.4	935.2	805.0	688.0	476.2
30°	1615.1	1599.0	1551.5	1476.9	1375.0	1241.8	1089.5	936.2	794.9	663.8	437.8
32.5°	1649.4	1634.3	1585.8	1506.1	1395.2	1260.0	1098.6	935.2	781.8	646.6	396.5
35°	1683.7	1668.6	1612.1	1527.3	1410.3	1268.1	1105.6	930.1	765.7	618.4	357.1
37.5°	1709.9	1692.8	1635.3	1541.5	1417.4	1270.1	1104.6	923.1	748.5	595.2	317.8
40°	1728.1	1709.9	1648.4	1549.5	1419.4	1267.1	1096.6	910.9	728.4	565.9	276.4
42.5°	1740.2	1720.0	1654.4	1561.6	1415.4	1259.0	1084.5	895.8	706.2	540.7	237.1
45°	1746.2	1725.1	1655.4	1551.5	1408.3	1243.9	1066.3	876.6	682.0	506.4	197.7
47.5°	1743.2	1720.0	1650.4	1540.4	1395.2	1227.7	1046.1	853.4	652.7	476.2	160.4
50°	1738.2	1714.0	1639.3	1526.3	1377.0	1207.5	1023.9	825.2	622.4	438.8	127.1
52.5°	1722.0	1697.8	1627.2	1506.1	1355.8	1184.3	993.7	795.9	590.1	402.5	96.8
55°	1701.9	1679.7	1606.0	1488.0	1328.6	1156.1	965.4	764.7	558.9	365.2	69.6
57.5°	1670.6	1650.4	1579.8	1458.7	1301.4	1124.8	934.2	730.4	519.5	327.9	48.4
60°	1632.2	1612.1	1543.5	1425.4	1270.1	1089.5	899.9	695.1	484.2	290.5	30.3
62.5°	1591.9	1572.7	1501.1	1384.1	1230.7	1052.2	862.5	659.8	446.9	256.2	18.2
65°	1538.4	1520.3	1455.7	1334.6	1187.4	1011.8	821.2	617.4	408.6	217.9	10.1
67.5°	1481.9	1465.8	1400.2	1289.3	1136.9	967.4	778.8	576.0	368.2	184.6	5.0
70°	1421.4	1401.2	1340.7	1227.7	1085.5	917.0	732.4	533.7	329.9	152.3	0.0
72.5°	1350.8	1335.7	1277.1	1170.2	1026.0	863.5	685.0	487.3	287.5	121.1	1.0
75°	1282.2	1263.0	1209.6	1108.7	967.4	807.0	632.5	443.9	246.1	92.8	1.0
77.5°	1193.4	1187.4	1136.9	1039.1	912.0	752.6	575.0	391.4	206.8	66.6	1.0
80°	1104.6	1098.6	1059.2	969.5	847.4	688.0	521.6	342.0	168.5	44.4	1.0
82.5°	1016.9	1008.8	971.5	896.8	781.8	633.5	466.1	292.6	133.2	27.2	1.0
85°	938.2	928.1	887.7	819.1	714.2	572.0	408.6	244.1	98.9	15.1	2.0
87.5°	870.6	863.5	819.1	748.5	645.6	514.5	358.1	197.7	69.6	7.1	3.0
90°	813.1	798.0	758.6	684.0	581.1	450.9	304.7	158.4	46.4	4.0	4.0
92.5°	756.6	743.5	700.1	623.4	523.6	396.5	253.2	121.1	29.3	2.0	5.0
95°	698.1	684.0	641.6	571.0	465.1	341.0	207.8	88.8	16.1	2.0	5.0
97.5°	640.6	627.5	583.1	512.5	412.6	292.6	164.4	62.5	8.1	2.0	4.0
100°	587.1	572.0	531.6	461.0	360.1	244.1	127.1	40.4	5.0	2.0	4.0
102.5°	530.6	518.5	477.2	408.6	305.7	198.7	94.8	25.2	2.0	2.0	3.0
105°	480.2	465.1	424.7	354.1	260.3	156.4	66.6	15.1	2.0	2.0	3.0



TEST NUMBER: P551434

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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	312.7	300.6	265.3	205.8	132.2	61.5	18.2	3.0	3.0	3.0	3.0
115°	261.3	243.1	211.8	159.4	97.9	40.4	9.1	3.0	3.0	3.0	3.0
117.5°	208.8	193.7	171.5	121.1	64.6	26.2	5.0	3.0	3.0	3.0	3.0
120°	163.4	149.3	124.1	83.7	43.4	15.1	2.0	3.0	3.0	3.0	3.0
122.5°	117.0	105.9	83.7	54.5	26.2	7.1	3.0	3.0	4.0	4.0	3.0
125°	77.7	71.6	55.5	33.3	16.1	3.0	3.0	3.0	4.0	4.0	3.0
127.5°	50.4	45.4	32.3	19.2	7.1	3.0	3.0	4.0	4.0	4.0	3.0
130°	28.2	25.2	19.2	11.1	3.0	3.0	3.0	4.0	4.0	4.0	3.0
132.5°	16.1	15.1	10.1	2.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0
135°	4.0	2.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	4.0
137.5°	1.0	1.0	2.0	2.0	3.0	3.0	4.0	5.0	5.0	5.0	4.0
140°	1.0	1.0	2.0	3.0	3.0	3.0	4.0	5.0	5.0	5.0	4.0
142.5°	1.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	4.0	4.0
145°	1.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	4.0	4.0	4.0
147.5°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	4.0	4.0
150°	1.0	2.0	2.0	3.0	4.0	4.0	4.0	5.0	4.0	4.0	4.0
152.5°	1.0	2.0	2.0	3.0	4.0	4.0	4.0	5.0	4.0	4.0	4.0
155°	2.0	2.0	2.0	3.0	4.0	4.0	4.0	5.0	4.0	4.0	5.0
157.5°	2.0	2.0	2.0	3.0	4.0	4.0	4.0	5.0	4.0	4.0	5.0
160°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
162.5°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
165°	2.0	2.0	2.0	2.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0
167.5°	2.0	2.0	2.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0
170°	2.0	2.0	2.0	3.0	3.0	3.0	4.0	5.0	5.0	5.0	5.0
172.5°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	5.0	5.0
175°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	5.0	5.0
177.5°	1.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	5.0	4.0
180°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	791.9	791.9	791.9
2.5°	753.6	739.5	735.4
5°	713.2	690.0	676.9
7.5°	672.9	641.6	626.5
10°	635.5	591.2	575.0
12.5°	591.2	539.7	514.5
15°	548.8	482.2	458.0
17.5°	501.4	426.7	398.5
20°	457.0	371.2	342.0
22.5°	406.5	316.8	284.5
25°	361.2	262.3	226.0
27.5°	310.7	206.8	175.5
30°	263.3	158.4	127.1
32.5°	217.9	116.0	87.8
35°	175.5	78.7	55.5
37.5°	135.2	48.4	28.2
40°	97.9	25.2	13.1
42.5°	65.6	12.1	7.1
45°	40.4	6.1	0.0
47.5°	23.2	0.0	0.0
50°	12.1	0.0	0.0
52.5°	5.0	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°	1.0	1.0	1.0
77.5°	1.0	2.0	3.0
80°	2.0	4.0	5.0
82.5°	4.0	5.0	5.0
85°	4.0	5.0	6.1
87.5°	5.0	6.1	7.1
90°	6.1	7.1	7.1
92.5°	6.1	8.1	8.1
95°	7.1	8.1	9.1
97.5°	8.1	9.1	9.1
100°	7.1	9.1	10.1
102.5°	6.1	9.1	9.1
105°	5.0	7.1	8.1





TEST NUMBER: P551434

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-93-85-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	4.0	5.0	5.0
115°	3.0	4.0	5.0
117.5°	3.0	4.0	4.0
120°	3.0	3.0	4.0
122.5°	3.0	3.0	4.0
125°	3.0	3.0	4.0
127.5°	4.0	3.0	3.0
130°	3.0	3.0	3.0
132.5°	4.0	3.0	3.0
135°	4.0	3.0	3.0
137.5°	4.0	3.0	3.0
140°	4.0	3.0	3.0
142.5°	4.0	3.0	3.0
145°	3.0	3.0	3.0
147.5°	3.0	3.0	3.0
150°	3.0	3.0	2.0
152.5°	3.0	2.0	2.0
155°	3.0	2.0	1.0
157.5°	4.0	2.0	1.0
160°	3.0	2.0	1.0
162.5°	3.0	2.0	1.0
165°	3.0	2.0	0.0
167.5°	3.0	2.0	1.0
170°	3.0	2.0	1.0
172.5°	3.0	2.0	1.0
175°	3.0	1.0	1.0
177.5°	3.0	1.0	1.0
180°	3.0	3.0	3.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	423.7	411.6	371.2	304.7	212.9	119.0	44.4	8.1	2.0	3.0	3.0
110°	369.2	359.1	317.8	253.2	171.5	88.8	29.3	5.0	3.0	3.0	3.0







107.5°	4.0	6.1	7.1
110°	4.0	5.0	6.1



(END OF REPORT)