

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: P551441

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-93-94-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: P551441
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-93-94-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K,
AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

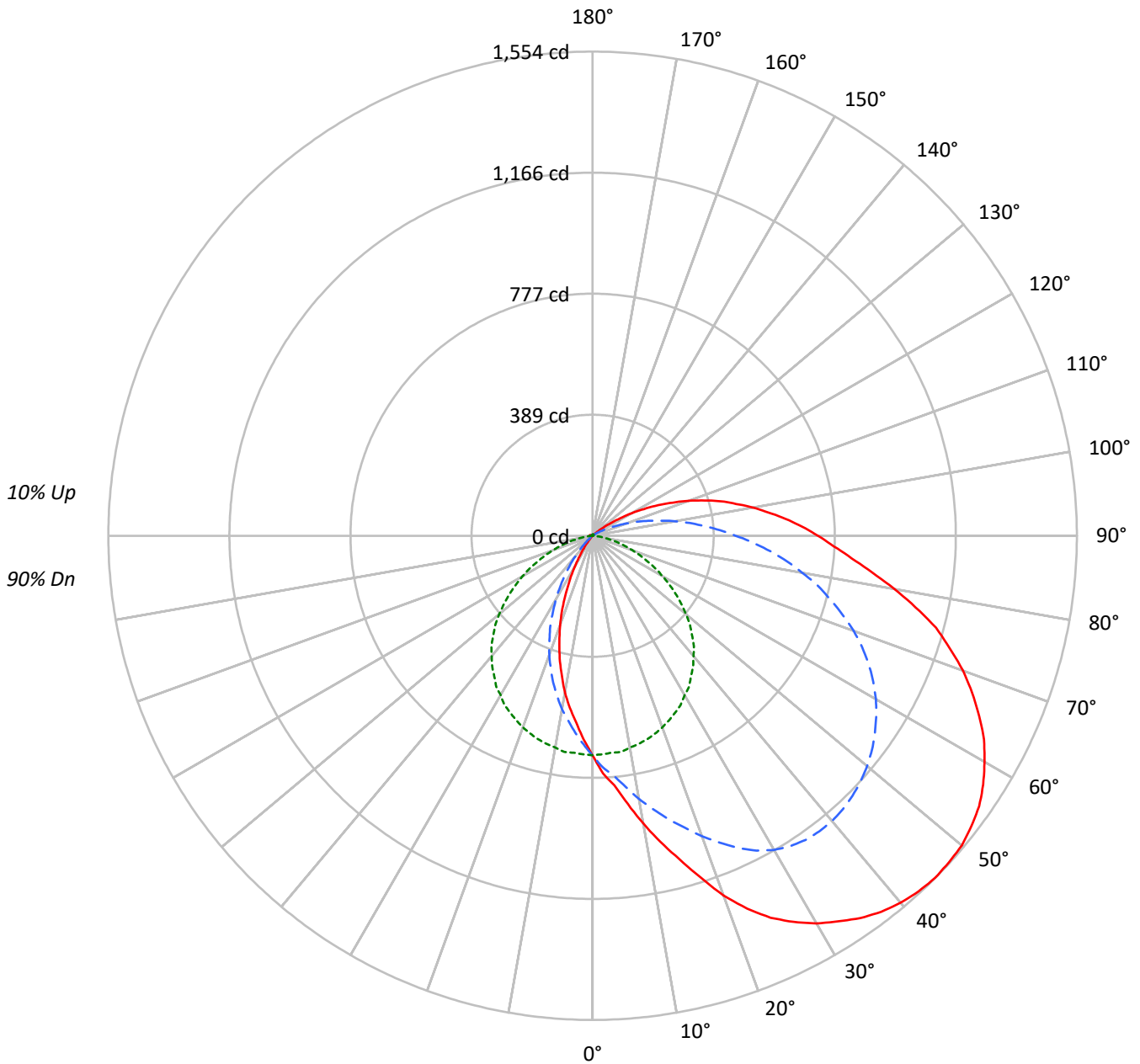
Lumens per Lamp: N/A
Luminaire Lumens: 3483.1 lumens
Efficiency: N/A
Efficacy: 80.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 43.3
Input Voltage (V): NR
Input Current (A_{in}): 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: P551441

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-93-94-ED1D-90

Luminous Intensity Polar Plot





TEST NUMBER: P551441

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-93-94-ED1D-90

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	90																			
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	67																			
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	53																			
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	43																			
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	36																			
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	30																			
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	26																			
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	23																			
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	20																			
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	18																			
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	16																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	7583	7583	7583
5°	8324	7472	6234
10°	9421	7381	5139
15°	10557	7287	4005
20°	11907	7169	2948
25°	13026	7030	1936
30°	13859	6845	1091
35°	14579	6648	481
40°	15218	6403	116
45°	15765	6096	0
50°	16227	5690	0
55°	16577	5174	0
60°	16752	4575	0
65°	16822	3895	0
70°	16766	3174	0
75°	16553	2342	13
80°	15881	1433	73
85°	15352	686	99



TEST NUMBER: P551441

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-93-94-ED1D-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.5	1.9
10°-20°	202.1	5.8
20°-30°	327.2	9.4
30°-40°	420.3	12.1
40°-50°	475.8	13.7
50°-60°	493.0	14.2
60°-70°	464.9	13.3
70°-80°	389.6	11.2
80°-90°	282.4	8.1
90°-100°	185.6	5.3
100°-110°	107.2	3.1
110°-120°	47.3	1.4
120°-130°	12.8	0.4
130°-140°	2.9	0.1
140°-150°	1.9	0.1
150°-160°	1.4	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	596.8	17.1
0°-40°	1017.1	29.2
0°-60°	1985.9	57.0
0°-90°	3122.8	89.7
90°-120°	340.1	9.8
90°-150°	357.8	10.3
90°-180°	360.0	10.3
0°-180°	3483.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	704	704	704	704	704	
5°	804	772	699	634	602	81
15°	1074	942	676	488	408	310
25°	1352	1105	626	321	201	625
35°	1498	1191	550	156	49	939
45°	1554	1180	450	36	0	1199
55°	1514	1105	325	0	0	1352
65°	1369	978	194	0	0	1354
75°	1141	789	83	1	1	1196
85°	835	572	14	4	5	713
90°	723	459	4	5	6	397
95°	621	359	2	6	8	487
105°	427	185	2	4	7	451
115°	232	62	3	3	4	233
125°	69	9	4	3	4	69
135°	4	3	4	4	3	6
145°	1	3	4	3	3	1
155°	2	4	4	3	1	1
165°	2	3	4	3	0	1
175°	2	3	4	3	1	0
180°	3	3	3	3	3	



TEST NUMBER: P551441

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-93-94-ED1D-90

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	704.5	704.5	704.5	704.5	704.5	704.5	704.5	704.5	704.5	704.5	704.5
2.5°	763.8	762.9	760.2	755.7	749.4	738.6	729.7	721.6	710.8	701.8	684.8
5°	804.1	799.7	796.1	791.6	777.2	767.4	751.2	733.2	716.2	699.1	665.0
7.5°	868.8	861.6	856.2	843.6	823.9	801.5	776.3	759.3	747.6	700.0	641.7
10°	937.9	931.6	920.8	898.4	874.2	841.8	805.9	765.6	729.7	690.2	621.1
12.5°	1006.1	997.1	981.9	953.1	919.0	878.6	829.3	781.7	730.6	683.9	596.8
15°	1074.3	1064.4	1048.3	1013.3	968.4	915.4	855.3	795.2	735.0	675.8	571.7
17.5°	1148.8	1135.3	1111.1	1071.6	1015.1	949.5	878.6	805.9	733.2	665.9	544.8
20°	1228.7	1209.8	1183.8	1130.8	1064.4	987.2	902.0	816.7	732.3	654.3	514.3
22.5°	1295.1	1276.2	1247.5	1192.8	1112.9	1018.6	921.7	823.9	728.8	640.8	485.5
25°	1352.5	1337.3	1305.8	1243.0	1158.7	1051.9	940.6	829.3	723.4	626.4	455.0
27.5°	1397.4	1383.0	1348.0	1283.4	1197.2	1081.5	954.9	832.0	716.2	612.1	423.6
30°	1436.9	1422.5	1380.3	1313.9	1223.3	1104.8	969.3	832.9	707.2	590.5	389.5
32.5°	1467.4	1453.9	1410.8	1339.9	1241.2	1121.0	977.4	832.0	695.6	575.3	352.7
35°	1497.9	1484.4	1434.2	1358.8	1254.7	1128.1	983.6	827.5	681.2	550.2	317.7
37.5°	1521.2	1506.0	1454.8	1371.4	1261.0	1129.9	982.7	821.2	665.9	529.5	282.7
40°	1537.4	1521.2	1466.5	1378.5	1262.8	1127.2	975.6	810.4	648.0	503.5	245.9
42.5°	1548.2	1530.2	1471.9	1389.3	1259.2	1120.1	964.8	797.0	628.2	481.1	210.9
45°	1553.5	1534.7	1472.8	1380.3	1252.9	1106.6	948.6	779.9	606.7	450.5	175.9
47.5°	1550.9	1530.2	1468.3	1370.5	1241.2	1092.2	930.7	759.3	580.7	423.6	142.7
50°	1546.4	1524.8	1458.4	1357.9	1225.1	1074.3	910.9	734.1	553.7	390.4	113.1
52.5°	1532.0	1510.5	1447.6	1339.9	1206.2	1053.6	884.0	708.1	525.0	358.1	86.2
55°	1514.1	1494.3	1428.8	1323.8	1182.0	1028.5	858.9	680.3	497.2	324.9	61.9
57.5°	1486.2	1468.3	1405.5	1297.8	1157.8	1000.7	831.1	649.8	462.2	291.7	43.1
60°	1452.1	1434.2	1373.2	1268.1	1129.9	969.3	800.6	618.4	430.8	258.5	26.9
62.5°	1416.2	1399.2	1335.5	1231.4	1094.9	936.1	767.4	587.0	397.6	228.0	16.2
65°	1368.7	1352.5	1295.1	1187.4	1056.3	900.2	730.6	549.3	363.5	193.9	9.0
67.5°	1318.4	1304.0	1245.7	1147.0	1011.5	860.7	692.9	512.5	327.6	164.2	4.5
70°	1264.6	1246.6	1192.8	1092.2	965.7	815.8	651.6	474.8	293.5	135.5	0.0
72.5°	1201.7	1188.3	1136.2	1041.1	912.7	768.2	609.4	433.5	255.8	107.7	0.9
75°	1140.7	1123.7	1076.1	986.3	860.7	718.0	562.7	394.9	219.0	82.6	0.9
77.5°	1061.7	1056.3	1011.5	924.4	811.3	669.5	511.6	348.2	184.0	59.2	0.9
80°	982.7	977.4	942.4	862.5	753.9	612.1	464.0	304.2	149.9	39.5	0.9
82.5°	904.7	897.5	864.3	797.9	695.6	563.6	414.6	260.3	118.5	24.2	0.9
85°	834.7	825.7	789.8	728.8	635.4	508.9	363.5	217.2	88.0	13.5	1.8
87.5°	774.5	768.2	728.8	665.9	574.4	457.7	318.6	175.9	61.9	6.3	2.7
90°	723.4	709.9	674.9	608.5	517.0	401.2	271.0	140.9	41.3	3.6	3.6
92.5°	673.1	661.4	622.9	554.6	465.8	352.7	225.3	107.7	26.0	1.8	4.5
95°	621.1	608.5	570.8	508.0	413.7	303.4	184.9	79.0	14.4	1.8	4.5
97.5°	569.9	558.2	518.7	455.9	367.1	260.3	146.3	55.6	7.2	1.8	3.6
100°	522.3	508.9	473.0	410.2	320.4	217.2	113.1	35.9	4.5	1.8	3.6
102.5°	472.1	461.3	424.5	363.5	271.9	176.8	84.4	22.4	1.8	1.8	2.7
105°	427.2	413.7	377.8	315.0	231.6	139.1	59.2	13.5	1.8	1.8	2.7



TEST NUMBER: P551441

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-93-94-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	278.2	267.5	236.0	183.1	117.6	54.7	16.2	2.7	2.7	2.7	2.7
115°	232.4	216.3	188.5	141.8	87.1	35.9	8.1	2.7	2.7	2.7	2.7
117.5°	185.8	172.3	152.6	107.7	57.4	23.3	4.5	2.7	2.7	2.7	2.7
120°	145.4	132.8	110.4	74.5	38.6	13.5	1.8	2.7	2.7	2.7	2.7
122.5°	104.1	94.2	74.5	48.5	23.3	6.3	2.7	2.7	3.6	3.6	2.7
125°	69.1	63.7	49.4	29.6	14.4	2.7	2.7	2.7	3.6	3.6	2.7
127.5°	44.9	40.4	28.7	17.1	6.3	2.7	2.7	3.6	3.6	3.6	2.7
130°	25.1	22.4	17.1	9.9	2.7	2.7	2.7	3.6	3.6	3.6	2.7
132.5°	14.4	13.5	9.0	1.8	2.7	2.7	2.7	3.6	3.6	3.6	3.6
135°	3.6	1.8	1.8	1.8	2.7	2.7	3.6	3.6	4.5	4.5	3.6
137.5°	0.9	0.9	1.8	1.8	2.7	2.7	3.6	4.5	4.5	4.5	3.6
140°	0.9	0.9	1.8	2.7	2.7	2.7	3.6	4.5	4.5	4.5	3.6
142.5°	0.9	1.8	1.8	2.7	2.7	3.6	3.6	4.5	4.5	3.6	3.6
145°	0.9	1.8	1.8	2.7	2.7	3.6	3.6	4.5	3.6	3.6	3.6
147.5°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	4.5	4.5	3.6	3.6
150°	0.9	1.8	1.8	2.7	3.6	3.6	3.6	4.5	3.6	3.6	3.6
152.5°	0.9	1.8	1.8	2.7	3.6	3.6	3.6	4.5	3.6	3.6	3.6
155°	1.8	1.8	1.8	2.7	3.6	3.6	3.6	4.5	3.6	3.6	4.5
157.5°	1.8	1.8	1.8	2.7	3.6	3.6	3.6	4.5	3.6	3.6	4.5
160°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	3.6	3.6	3.6	3.6
162.5°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	3.6	3.6	3.6	3.6
165°	1.8	1.8	1.8	1.8	2.7	2.7	3.6	3.6	3.6	3.6	3.6
167.5°	1.8	1.8	1.8	2.7	2.7	2.7	3.6	3.6	3.6	3.6	3.6
170°	1.8	1.8	1.8	2.7	2.7	2.7	3.6	4.5	4.5	4.5	4.5
172.5°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	4.5	4.5	4.5	4.5
175°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	4.5	4.5	4.5	4.5
177.5°	0.9	1.8	1.8	2.7	2.7	3.6	3.6	4.5	4.5	4.5	3.6
180°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7



TEST NUMBER: P551441

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-93-94-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	704.5	704.5	704.5
2.5°	670.4	657.9	654.3
5°	634.5	613.9	602.2
7.5°	598.6	570.8	557.3
10°	565.4	525.9	511.6
12.5°	525.9	480.2	457.7
15°	488.2	429.0	407.5
17.5°	446.1	379.6	354.5
20°	406.6	330.3	304.2
22.5°	361.7	281.8	253.1
25°	321.3	233.3	201.0
27.5°	276.4	184.0	156.2
30°	234.2	140.9	113.1
32.5°	193.9	103.2	78.1
35°	156.2	70.0	49.4
37.5°	120.3	43.1	25.1
40°	87.1	22.4	11.7
42.5°	58.3	10.8	6.3
45°	35.9	5.4	0.0
47.5°	20.6	0.0	0.0
50°	10.8	0.0	0.0
52.5°	4.5	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	2.7
80°	1.8	3.6	4.5
82.5°	3.6	4.5	4.5
85°	3.6	4.5	5.4
87.5°	4.5	5.4	6.3
90°	5.4	6.3	6.3
92.5°	5.4	7.2	7.2
95°	6.3	7.2	8.1
97.5°	7.2	8.1	8.1
100°	6.3	8.1	9.0
102.5°	5.4	8.1	8.1
105°	4.5	6.3	7.2



TEST NUMBER: P551441

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-93-94-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.6	4.5	4.5
115°	2.7	3.6	4.5
117.5°	2.7	3.6	3.6
120°	2.7	2.7	3.6
122.5°	2.7	2.7	3.6
125°	2.7	2.7	3.6
127.5°	3.6	2.7	2.7
130°	2.7	2.7	2.7
132.5°	3.6	2.7	2.7
135°	3.6	2.7	2.7
137.5°	3.6	2.7	2.7
140°	3.6	2.7	2.7
142.5°	3.6	2.7	2.7
145°	2.7	2.7	2.7
147.5°	2.7	2.7	2.7
150°	2.7	2.7	1.8
152.5°	2.7	1.8	1.8
155°	2.7	1.8	0.9
157.5°	3.6	1.8	0.9
160°	2.7	1.8	0.9
162.5°	2.7	1.8	0.9
165°	2.7	1.8	0.0
167.5°	2.7	1.8	0.9
170°	2.7	1.8	0.9
172.5°	2.7	1.8	0.9
175°	2.7	0.9	0.9
177.5°	2.7	0.9	0.9
180°	2.7	2.7	2.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	376.9	366.2	330.3	271.0	189.4	105.9	39.5	7.2	1.8	2.7	2.7
110°	328.5	319.5	282.7	225.3	152.6	79.0	26.0	4.5	2.7	2.7	2.7





107.5°	3.6	5.4	6.3
110°	3.6	4.5	5.4



(END OF REPORT)