

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: P551368

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-93-84-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: P551368
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-93-84-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS 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

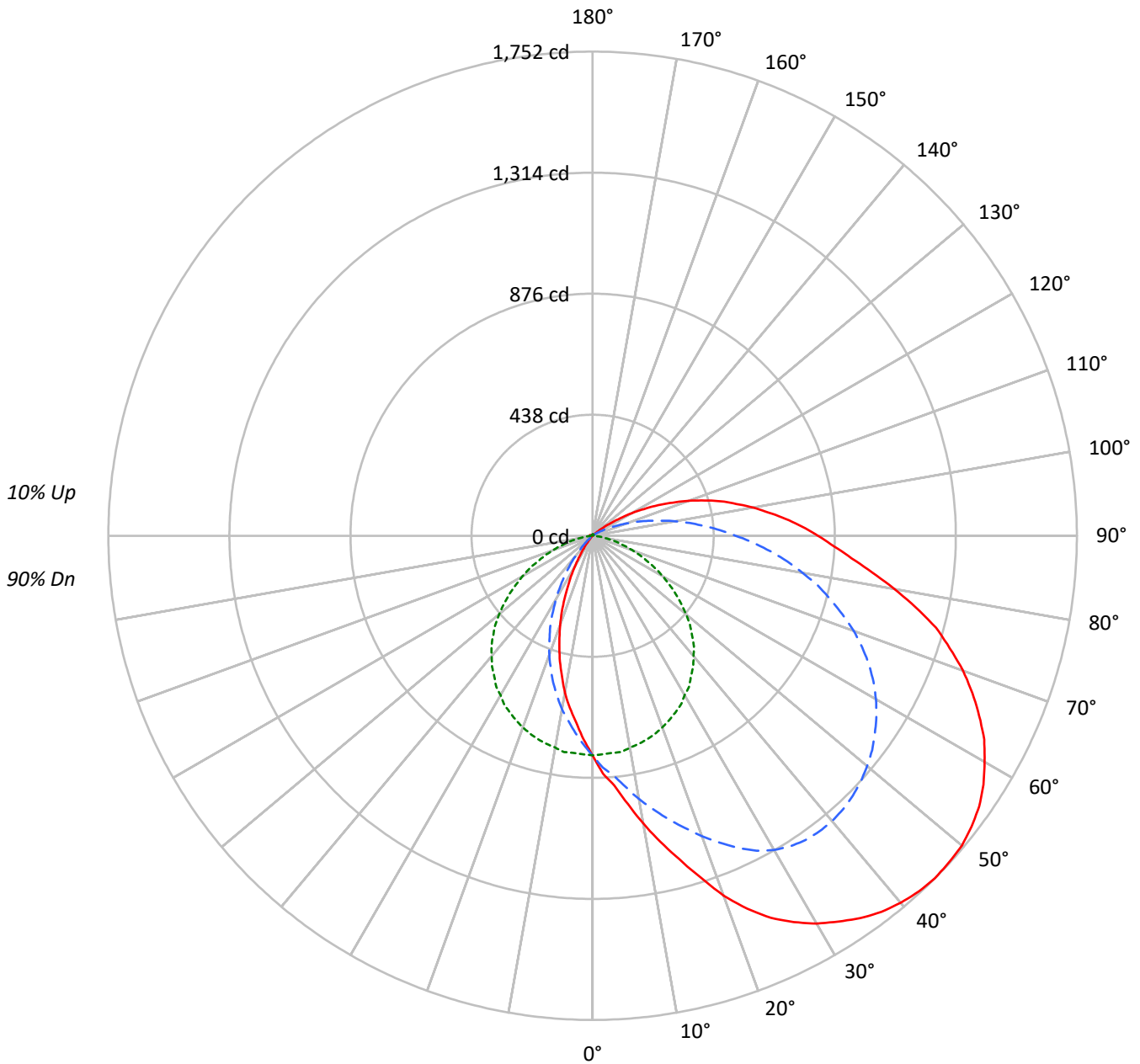
Lumens per Lamp: N/A
Luminaire Lumens: 3927.9 lumens
Efficiency: N/A
Efficacy: 90.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 43.3
Input Voltage (V): NR
Input Current (A_{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: P551368

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-93-84-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°	8552	8552	8552
5°	9388	8428	7031
10°	10624	8323	5795
15°	11905	8218	4516
20°	13428	8085	3325
25°	14690	7929	2183
30°	15630	7721	1230
35°	16442	7496	542
40°	17162	7221	131
45°	17780	6875	0
50°	18299	6417	0
55°	18694	5834	0
60°	18894	5159	0
65°	18971	4391	0
70°	18908	3580	0
75°	18667	2640	15
80°	17911	1614	82
85°	17312	773	112



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.1	1.9
10°-20°	227.9	5.8
20°-30°	369.0	9.4
30°-40°	474.0	12.1
40°-50°	536.6	13.7
50°-60°	555.9	14.2
60°-70°	524.3	13.3
70°-80°	439.4	11.2
80°-90°	318.5	8.1
90°-100°	209.3	5.3
100°-110°	120.9	3.1
110°-120°	53.3	1.4
120°-130°	14.4	0.4
130°-140°	3.3	0.1
140°-150°	2.2	0.1
150°-160°	1.5	0.0
160°-170°	0.9	0.0
170°-180°	0.3	0.0
0°-30°	673.0	17.1
0°-40°	1147.1	29.2
0°-60°	2239.6	57.0
0°-90°	3521.8	89.7
90°-120°	383.5	9.8
90°-150°	403.4	10.3
90°-180°	406.0	10.3
0°-180°	3927.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	794	794	794	794	794	
5°	907	871	788	716	679	91
15°	1212	1062	762	551	460	349
25°	1525	1246	706	362	227	705
35°	1689	1344	620	176	56	1059
45°	1752	1330	508	40	0	1353
55°	1708	1246	366	0	0	1525
65°	1544	1103	219	0	0	1527
75°	1286	890	93	1	1	1349
85°	941	645	15	4	6	804
90°	816	518	4	6	7	447
95°	700	404	2	7	9	549
105°	482	209	2	5	8	508
115°	262	69	3	3	5	263
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	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	794.5	794.5	794.5	794.5	794.5	794.5	794.5	794.5	794.5	794.5	794.5
2.5°	861.3	860.3	857.3	852.2	845.1	833.0	822.9	813.8	801.6	791.5	772.3
5°	906.9	901.8	897.8	892.7	876.5	865.4	847.2	826.9	807.7	788.5	750.0
7.5°	979.8	971.7	965.6	951.4	929.2	903.9	875.5	856.3	843.1	789.5	723.7
10°	1057.7	1050.6	1038.5	1013.2	985.8	949.4	908.9	863.4	822.9	778.3	700.4
12.5°	1134.6	1124.5	1107.3	1074.9	1036.4	990.9	935.2	881.6	823.9	771.3	673.1
15°	1211.5	1200.4	1182.2	1142.7	1092.1	1032.4	964.6	896.8	829.0	762.2	644.7
17.5°	1295.6	1280.4	1253.0	1208.5	1144.7	1070.9	990.9	908.9	826.9	751.0	614.4
20°	1385.6	1364.4	1335.0	1275.3	1200.4	1113.4	1017.2	921.1	825.9	737.9	580.0
22.5°	1460.5	1439.3	1406.9	1345.2	1255.1	1148.8	1039.5	929.2	821.9	722.7	547.6
25°	1525.3	1508.1	1472.7	1401.8	1306.7	1186.2	1060.7	935.2	815.8	706.5	513.2
27.5°	1575.9	1559.7	1520.3	1447.4	1350.2	1219.6	1076.9	938.3	807.7	690.3	477.7
30°	1620.5	1604.3	1556.7	1481.8	1379.6	1246.0	1093.1	939.3	797.6	666.0	439.3
32.5°	1654.9	1639.7	1591.1	1511.1	1399.8	1264.2	1102.2	938.3	784.4	648.8	397.8
35°	1689.3	1674.1	1617.4	1532.4	1415.0	1272.3	1109.3	933.2	768.2	620.4	358.3
37.5°	1715.6	1698.4	1640.7	1546.6	1422.1	1274.3	1108.3	926.1	751.0	597.2	318.8
40°	1733.8	1715.6	1653.9	1554.7	1424.1	1271.3	1100.2	914.0	730.8	567.8	277.3
42.5°	1746.0	1725.7	1659.9	1566.8	1420.1	1263.2	1088.1	898.8	708.5	542.5	237.9
45°	1752.0	1730.8	1660.9	1556.7	1413.0	1248.0	1069.8	879.6	684.2	508.1	198.4
47.5°	1749.0	1725.7	1655.9	1545.6	1399.8	1231.8	1049.6	856.3	654.9	477.7	160.9
50°	1743.9	1719.6	1644.7	1531.4	1381.6	1211.5	1027.3	827.9	624.5	440.3	127.5
52.5°	1727.7	1703.5	1632.6	1511.1	1360.3	1188.3	997.0	798.6	592.1	403.8	97.2
55°	1707.5	1685.2	1611.3	1492.9	1333.0	1159.9	968.6	767.2	560.7	366.4	69.8
57.5°	1676.1	1655.9	1585.0	1463.6	1305.7	1128.6	937.3	732.8	521.3	328.9	48.6
60°	1637.7	1617.4	1548.6	1430.2	1274.3	1093.1	902.8	697.4	485.8	291.5	30.4
62.5°	1597.2	1577.9	1506.1	1388.7	1234.8	1055.7	865.4	661.9	448.4	257.1	18.2
65°	1543.5	1525.3	1460.5	1339.1	1191.3	1015.2	823.9	619.4	409.9	218.6	10.1
67.5°	1486.9	1470.7	1404.9	1293.5	1140.7	970.7	781.4	577.9	369.4	185.2	5.1
70°	1426.1	1405.9	1345.2	1231.8	1089.1	920.0	734.8	535.4	331.0	152.8	0.0
72.5°	1355.3	1340.1	1281.4	1174.1	1029.4	866.4	687.3	488.9	288.5	121.5	1.0
75°	1286.4	1267.2	1213.6	1112.4	970.7	809.7	634.6	445.3	247.0	93.1	1.0
77.5°	1197.4	1191.3	1140.7	1042.5	915.0	755.1	576.9	392.7	207.5	66.8	1.0
80°	1108.3	1102.2	1062.8	972.7	850.2	690.3	523.3	343.1	169.0	44.5	1.0
82.5°	1020.3	1012.2	974.7	899.8	784.4	635.6	467.6	293.5	133.6	27.3	1.0
85°	941.3	931.2	890.7	821.9	716.6	573.9	409.9	244.9	99.2	15.2	2.0
87.5°	873.5	866.4	821.9	751.0	647.8	516.2	359.3	198.4	69.8	7.1	3.0
90°	815.8	800.6	761.1	686.2	583.0	452.4	305.7	158.9	46.6	4.0	4.0
92.5°	759.1	746.0	702.4	625.5	525.3	397.8	254.1	121.5	29.4	2.0	5.1
95°	700.4	686.2	643.7	572.9	466.6	342.1	208.5	89.1	16.2	2.0	5.1
97.5°	642.7	629.6	585.0	514.2	414.0	293.5	165.0	62.8	8.1	2.0	4.0
100°	589.1	573.9	533.4	462.6	361.3	244.9	127.5	40.5	5.1	2.0	4.0
102.5°	532.4	520.2	478.7	409.9	306.7	199.4	95.1	25.3	2.0	2.0	3.0
105°	481.8	466.6	426.1	355.3	261.1	156.9	66.8	15.2	2.0	2.0	3.0



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CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-93-84-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	313.8	301.6	266.2	206.5	132.6	61.7	18.2	3.0	3.0	3.0	3.0
115°	262.1	243.9	212.6	159.9	98.2	40.5	9.1	3.0	3.0	3.0	3.0
117.5°	209.5	194.3	172.1	121.5	64.8	26.3	5.1	3.0	3.0	3.0	3.0
120°	164.0	149.8	124.5	84.0	43.5	15.2	2.0	3.0	3.0	3.0	3.0
122.5°	117.4	106.3	84.0	54.7	26.3	7.1	3.0	3.0	4.0	4.0	3.0
125°	77.9	71.9	55.7	33.4	16.2	3.0	3.0	3.0	4.0	4.0	3.0
127.5°	50.6	45.5	32.4	19.2	7.1	3.0	3.0	4.0	4.0	4.0	3.0
130°	28.3	25.3	19.2	11.1	3.0	3.0	3.0	4.0	4.0	4.0	3.0
132.5°	16.2	15.2	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	5.1	5.1	4.0
137.5°	1.0	1.0	2.0	2.0	3.0	3.0	4.0	5.1	5.1	5.1	4.0
140°	1.0	1.0	2.0	3.0	3.0	3.0	4.0	5.1	5.1	5.1	4.0
142.5°	1.0	2.0	2.0	3.0	3.0	4.0	4.0	5.1	5.1	4.0	4.0
145°	1.0	2.0	2.0	3.0	3.0	4.0	4.0	5.1	4.0	4.0	4.0
147.5°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	5.1	5.1	4.0	4.0
150°	1.0	2.0	2.0	3.0	4.0	4.0	4.0	5.1	4.0	4.0	4.0
152.5°	1.0	2.0	2.0	3.0	4.0	4.0	4.0	5.1	4.0	4.0	4.0
155°	2.0	2.0	2.0	3.0	4.0	4.0	4.0	5.1	4.0	4.0	5.1
157.5°	2.0	2.0	2.0	3.0	4.0	4.0	4.0	5.1	4.0	4.0	5.1
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	5.1	5.1	5.1	5.1
172.5°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	5.1	5.1	5.1	5.1
175°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	5.1	5.1	5.1	5.1
177.5°	1.0	2.0	2.0	3.0	3.0	4.0	4.0	5.1	5.1	5.1	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°	794.5	794.5	794.5
2.5°	756.1	741.9	737.9
5°	715.6	692.3	679.2
7.5°	675.1	643.7	628.5
10°	637.7	593.1	576.9
12.5°	593.1	541.5	516.2
15°	550.6	483.8	459.5
17.5°	503.0	428.1	399.8
20°	458.5	372.5	343.1
22.5°	407.9	317.8	285.4
25°	362.4	263.2	226.7
27.5°	311.7	207.5	176.1
30°	264.2	158.9	127.5
32.5°	218.6	116.4	88.1
35°	176.1	78.9	55.7
37.5°	135.6	48.6	28.3
40°	98.2	25.3	13.2
42.5°	65.8	12.1	7.1
45°	40.5	6.1	0.0
47.5°	23.3	0.0	0.0
50°	12.1	0.0	0.0
52.5°	5.1	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	5.1
82.5°	4.0	5.1	5.1
85°	4.0	5.1	6.1
87.5°	5.1	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°	5.1	7.1	8.1



TEST NUMBER: P551368

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-93-84-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	4.0	5.1	5.1
115°	3.0	4.0	5.1
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°	425.1	413.0	372.5	305.7	213.6	119.4	44.5	8.1	2.0	3.0	3.0
110°	370.4	360.3	318.8	254.1	172.1	89.1	29.4	5.1	3.0	3.0	3.0





107.5°	4.0	6.1	7.1
110°	4.0	5.1	6.1



(END OF REPORT)