

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: P551374

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-93-87-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: P551374  
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-93-87-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

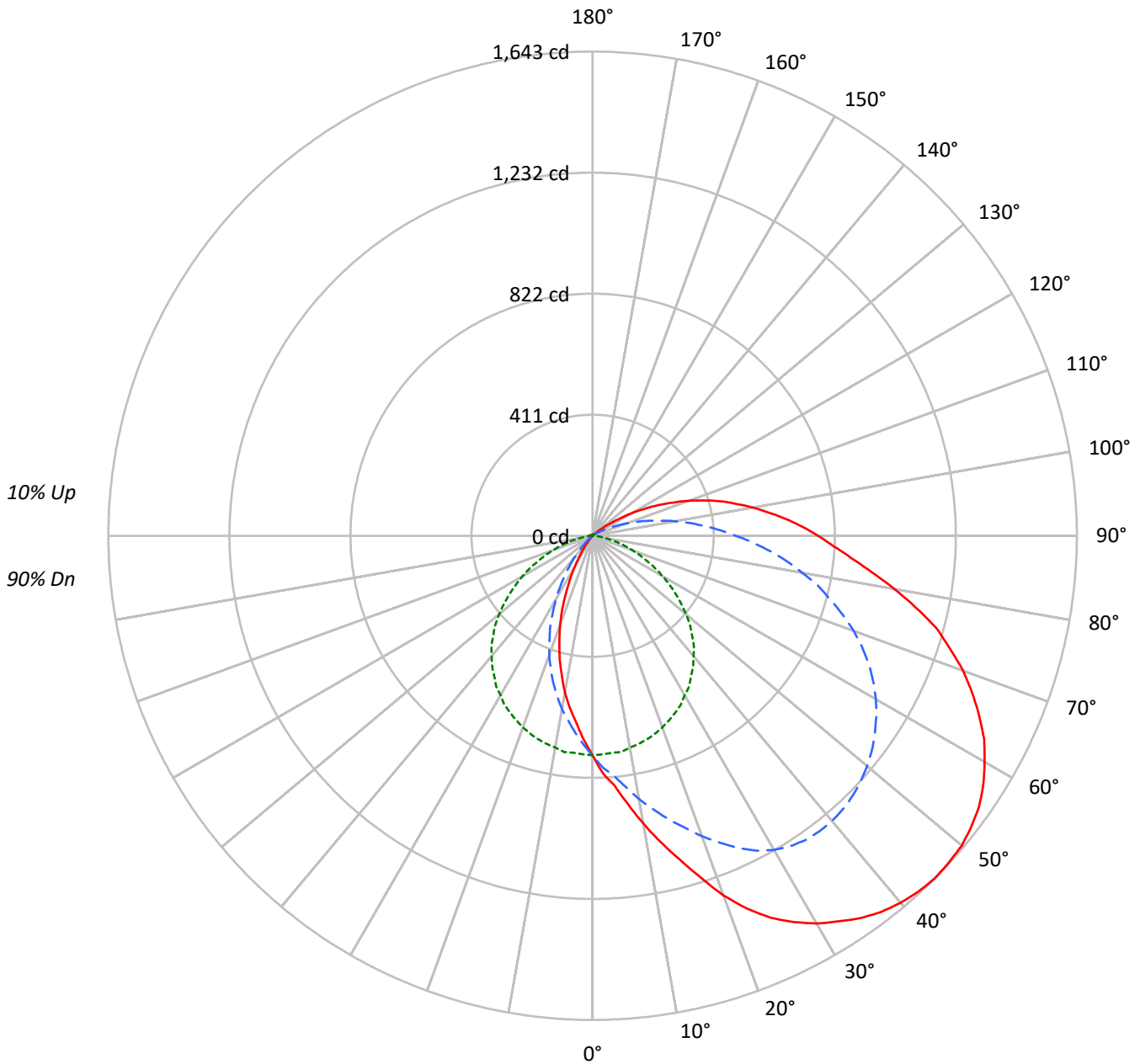
Lumens per Lamp: N/A  
Luminaire Lumens: 3682.9 lumens  
Efficiency: N/A  
Efficacy: 85.1 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P551374

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-93-87-ED1D

### Luminous Intensity Polar Plot





TEST NUMBER: P551374

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-93-87-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°	8019	8019	8019
5°	8802	7902	6592
10°	9961	7805	5433
15°	11164	7705	4234
20°	12591	7580	3118
25°	13774	7434	2048
30°	14654	7240	1154
35°	15416	7030	508
40°	16092	6771	122
45°	16672	6446	0
50°	17158	6016	0
55°	17528	5470	0
60°	17715	4836	0
65°	17788	4118	0
70°	17729	3357	0
75°	17503	2476	13
80°	16794	1516	76
85°	16233	722	105



TEST NUMBER: P551374

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-93-87-ED1D

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.4	1.9
10°-20°	213.7	5.8
20°-30°	346.0	9.4
30°-40°	444.5	12.1
40°-50°	503.1	13.7
50°-60°	521.3	14.2
60°-70°	491.6	13.3
70°-80°	412.0	11.2
80°-90°	298.6	8.1
90°-100°	196.3	5.3
100°-110°	113.3	3.1
110°-120°	50.0	1.4
120°-130°	13.5	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°	631.0	17.1
0°-40°	1075.5	29.2
0°-60°	2099.9	57.0
0°-90°	3302.1	89.7
90°-120°	359.6	9.8
90°-150°	378.2	10.3
90°-180°	381.0	10.3
0°-180°	3682.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	745	745	745	745	745	
5°	850	817	739	671	637	86
15°	1136	996	715	516	431	328
25°	1430	1169	662	340	213	661
35°	1584	1260	582	165	52	993
45°	1643	1247	476	38	0	1268
55°	1601	1169	344	0	0	1430
65°	1447	1034	205	0	0	1432
75°	1206	835	87	1	1	1265
85°	883	605	14	4	6	754
90°	765	485	4	6	7	419
95°	657	379	2	7	8	515
105°	452	196	2	5	8	477
115°	246	65	3	3	5	246
125°	73	9	4	3	4	73
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	



TEST NUMBER: P551374

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-93-87-ED1D

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	745.0	745.0	745.0	745.0	745.0	745.0	745.0	745.0	745.0	745.0	745.0
2.5°	807.6	806.7	803.8	799.1	792.4	781.0	771.6	763.0	751.6	742.1	724.1
5°	850.3	845.6	841.8	837.0	821.9	811.4	794.3	775.4	757.3	739.3	703.2
7.5°	918.7	911.1	905.4	892.1	871.2	847.5	820.9	802.9	790.5	740.2	678.6
10°	991.7	985.1	973.7	950.0	924.3	890.2	852.2	809.5	771.6	729.8	656.7
12.5°	1063.9	1054.4	1038.2	1007.9	971.8	929.1	876.9	826.6	772.5	723.2	631.1
15°	1136.0	1125.5	1108.5	1071.4	1024.0	968.0	904.4	840.8	777.2	714.6	604.5
17.5°	1214.7	1200.5	1174.9	1133.1	1073.3	1004.1	929.1	852.2	775.4	704.2	576.1
20°	1299.2	1279.3	1251.8	1195.8	1125.5	1043.9	953.8	863.6	774.4	691.8	543.8
22.5°	1369.4	1349.5	1319.1	1261.3	1176.8	1077.1	974.6	871.2	770.6	677.6	513.4
25°	1430.2	1414.0	1380.8	1314.4	1225.2	1112.3	994.6	876.9	764.9	662.4	481.2
27.5°	1477.6	1462.4	1425.4	1357.1	1266.0	1143.6	1009.8	879.7	757.3	647.2	447.9
30°	1519.4	1504.2	1459.6	1389.4	1293.5	1168.2	1024.9	880.7	747.8	624.5	411.9
32.5°	1551.7	1537.4	1491.9	1416.9	1312.5	1185.3	1033.5	879.7	735.5	608.3	373.0
35°	1583.9	1569.7	1516.5	1436.8	1326.7	1192.9	1040.1	875.0	720.3	581.8	336.0
37.5°	1608.6	1592.5	1538.4	1450.1	1333.4	1194.8	1039.2	868.4	704.2	559.9	298.9
40°	1625.7	1608.6	1550.7	1457.7	1335.3	1192.0	1031.6	857.0	685.2	532.4	260.0
42.5°	1637.1	1618.1	1556.4	1469.1	1331.5	1184.4	1020.2	842.7	664.3	508.7	223.0
45°	1642.8	1622.8	1557.3	1459.6	1324.8	1170.1	1003.1	824.7	641.5	476.4	186.0
47.5°	1639.9	1618.1	1552.6	1449.2	1312.5	1155.0	984.1	802.9	614.0	447.9	150.9
50°	1635.2	1612.4	1542.2	1435.9	1295.4	1136.0	963.3	776.3	585.5	412.8	119.6
52.5°	1620.0	1597.2	1530.8	1416.9	1275.5	1114.2	934.8	748.8	555.2	378.7	91.1
55°	1601.0	1580.1	1510.8	1399.8	1249.9	1087.6	908.2	719.4	525.8	343.5	65.5
57.5°	1571.6	1552.6	1486.2	1372.3	1224.2	1058.2	878.8	687.1	488.7	308.4	45.6
60°	1535.5	1516.5	1452.0	1341.0	1194.8	1024.9	846.5	653.9	455.5	273.3	28.5
62.5°	1497.6	1479.5	1412.1	1302.1	1157.8	989.8	811.4	620.7	420.4	241.1	17.1
65°	1447.3	1430.2	1369.4	1255.6	1117.0	951.9	772.5	580.8	384.4	205.0	9.5
67.5°	1394.1	1378.9	1317.2	1212.9	1069.5	910.1	732.6	541.9	346.4	173.7	4.7
70°	1337.2	1318.2	1261.3	1155.0	1021.1	862.7	689.0	502.0	310.3	143.3	0.0
72.5°	1270.7	1256.5	1201.5	1100.9	965.2	812.4	644.4	458.4	270.5	113.9	0.9
75°	1206.2	1188.2	1137.9	1043.0	910.1	759.2	595.0	417.6	231.6	87.3	0.9
77.5°	1122.7	1117.0	1069.5	977.5	857.9	708.0	540.9	368.2	194.5	62.6	0.9
80°	1039.2	1033.5	996.5	912.0	797.2	647.2	490.6	321.7	158.5	41.8	0.9
82.5°	956.6	949.0	913.9	843.7	735.5	596.0	438.4	275.2	125.3	25.6	0.9
85°	882.6	873.1	835.1	770.6	671.9	538.1	384.4	229.7	93.0	14.2	1.9
87.5°	819.0	812.4	770.6	704.2	607.4	484.0	336.9	186.0	65.5	6.6	2.8
90°	764.9	750.7	713.7	643.4	546.6	424.2	286.6	149.0	43.7	3.8	3.8
92.5°	711.8	699.4	658.6	586.5	492.5	373.0	238.2	113.9	27.5	1.9	4.7
95°	656.7	643.4	603.6	537.1	437.5	320.8	195.5	83.5	15.2	1.9	4.7
97.5°	602.6	590.3	548.5	482.1	388.2	275.2	154.7	58.8	7.6	1.9	3.8
100°	552.3	538.1	500.1	433.7	338.8	229.7	119.6	38.0	4.7	1.9	3.8
102.5°	499.2	487.8	448.9	384.4	287.6	187.0	89.2	23.7	1.9	1.9	2.8
105°	451.7	437.5	399.5	333.1	244.8	147.1	62.6	14.2	1.9	1.9	2.8



TEST NUMBER: P551374

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-93-87-ED1D

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	294.2	282.8	249.6	193.6	124.3	57.9	17.1	2.8	2.8	2.8	2.8
115°	245.8	228.7	199.3	149.9	92.1	38.0	8.5	2.8	2.8	2.8	2.8
117.5°	196.4	182.2	161.3	113.9	60.7	24.7	4.7	2.8	2.8	2.8	2.8
120°	153.7	140.5	116.7	78.8	40.8	14.2	1.9	2.8	2.8	2.8	2.8
122.5°	110.1	99.6	78.8	51.2	24.7	6.6	2.8	2.8	3.8	3.8	2.8
125°	73.1	67.4	52.2	31.3	15.2	2.8	2.8	2.8	3.8	3.8	2.8
127.5°	47.5	42.7	30.4	18.0	6.6	2.8	2.8	3.8	3.8	3.8	2.8
130°	26.6	23.7	18.0	10.4	2.8	2.8	2.8	3.8	3.8	3.8	2.8
132.5°	15.2	14.2	9.5	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



TEST NUMBER: P551374

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-93-87-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	745.0	745.0	745.0
2.5°	708.9	695.6	691.8
5°	671.0	649.1	636.8
7.5°	633.0	603.6	589.3
10°	597.9	556.1	540.9
12.5°	556.1	507.7	484.0
15°	516.3	453.6	430.9
17.5°	471.7	401.4	374.9
20°	429.9	349.2	321.7
22.5°	382.5	298.0	267.6
25°	339.7	246.7	212.6
27.5°	292.3	194.5	165.1
30°	247.7	149.0	119.6
32.5°	205.0	109.1	82.6
35°	165.1	74.0	52.2
37.5°	127.2	45.6	26.6
40°	92.1	23.7	12.3
42.5°	61.7	11.4	6.6
45°	38.0	5.7	0.0
47.5°	21.8	0.0	0.0
50°	11.4	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	5.7
87.5°	4.7	5.7	6.6
90°	5.7	6.6	6.6
92.5°	5.7	7.6	7.6
95°	6.6	7.6	8.5
97.5°	7.6	8.5	8.5
100°	6.6	8.5	9.5
102.5°	5.7	8.5	8.5
105°	4.7	6.6	7.6





TEST NUMBER: P551374

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-93-87-ED1D

**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°	398.6	387.2	349.2	286.6	200.2	112.0	41.8	7.6	1.9	2.8	2.8
110°	347.3	337.9	298.9	238.2	161.3	83.5	27.5	4.7	2.8	2.8	2.8







107.5°	3.8	5.7	6.6
110°	3.8	4.7	5.7



(END OF REPORT)