

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: P551202

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-80-94-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: P551202
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-30-UNV-80-94-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

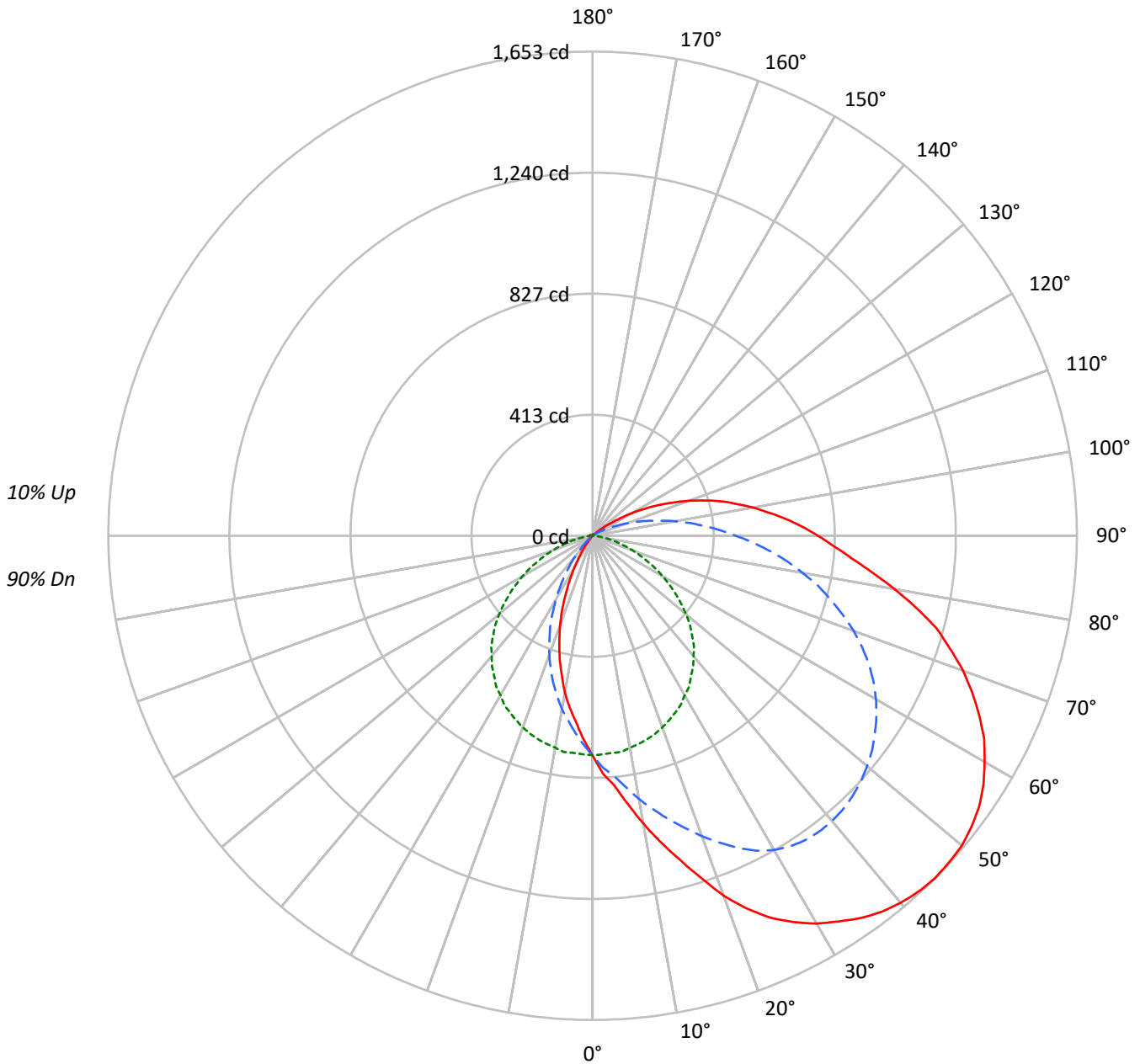
Lumens per Lamp: N/A
Luminaire Lumens: 3706.1 lumens
Efficiency: N/A
Efficacy: 85.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	8069	8069	8069
5°	8857	7951	6634
10°	10023	7854	5467
15°	11233	7754	4260
20°	12669	7628	3137
25°	13860	7481	2060
30°	14746	7285	1160
35°	15512	7073	511
40°	16192	6813	123
45°	16775	6487	0
50°	17265	6054	0
55°	17638	5505	0
60°	17825	4867	0
65°	17899	4144	0
70°	17839	3378	0
75°	17612	2493	15
80°	16899	1523	78
85°	16334	727	105



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.8	1.9
10°-20°	215.0	5.8
20°-30°	348.2	9.4
30°-40°	447.3	12.1
40°-50°	506.3	13.7
50°-60°	524.5	14.2
60°-70°	494.7	13.3
70°-80°	414.6	11.2
80°-90°	300.5	8.1
90°-100°	197.5	5.3
100°-110°	114.1	3.1
110°-120°	50.3	1.4
120°-130°	13.6	0.4
130°-140°	3.1	0.1
140°-150°	2.1	0.1
150°-160°	1.4	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	635.0	17.1
0°-40°	1082.2	29.2
0°-60°	2113.0	57.0
0°-90°	3322.8	89.7
90°-120°	361.9	9.8
90°-150°	380.7	10.3
90°-180°	383.0	10.3
0°-180°	3706.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	750	750	750	750	750	
5°	856	822	744	675	641	86
15°	1143	1002	719	520	434	330
25°	1439	1176	667	342	214	665
35°	1594	1268	585	166	52	1000
45°	1653	1255	479	38	0	1276
55°	1611	1176	346	0	0	1439
65°	1456	1041	206	0	0	1441
75°	1214	840	88	1	1	1273
85°	888	609	14	4	6	758
90°	770	488	4	6	7	422
95°	661	382	2	7	9	518
105°	455	197	2	5	8	480
115°	247	65	3	3	5	248
125°	74	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	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	749.6	749.6	749.6	749.6	749.6	749.6	749.6	749.6	749.6	749.6	749.6
2.5°	812.7	811.7	808.8	804.1	797.4	785.9	776.4	767.8	756.3	746.8	728.6
5°	855.6	850.9	847.0	842.3	827.0	816.5	799.3	780.2	762.0	743.9	707.6
7.5°	924.4	916.8	911.0	897.7	876.6	852.8	826.0	807.9	795.5	744.9	682.8
10°	997.9	991.2	979.8	955.9	930.1	895.7	857.5	814.6	776.4	734.4	660.8
12.5°	1070.5	1060.9	1044.7	1014.2	977.9	934.9	882.4	831.8	777.3	727.7	635.0
15°	1143.1	1132.6	1115.4	1078.1	1030.4	974.0	910.1	846.1	782.1	719.1	608.3
17.5°	1222.3	1208.0	1182.2	1140.2	1080.0	1010.3	934.9	857.5	780.2	708.6	579.7
20°	1307.3	1287.3	1259.6	1203.2	1132.6	1050.4	959.7	869.0	779.2	696.2	547.2
22.5°	1378.0	1357.9	1327.4	1269.1	1184.1	1083.9	980.7	876.6	775.4	681.8	516.6
25°	1439.1	1422.9	1389.5	1322.6	1232.8	1119.2	1000.8	882.4	769.7	666.6	484.2
27.5°	1486.9	1471.6	1434.3	1365.6	1273.9	1150.7	1016.1	885.2	762.0	651.3	450.7
30°	1528.9	1513.6	1468.7	1398.0	1301.6	1175.5	1031.3	886.2	752.5	628.4	414.4
32.5°	1561.3	1547.0	1501.2	1425.7	1320.7	1192.7	1039.9	885.2	740.1	612.1	375.3
35°	1593.8	1579.5	1526.0	1445.8	1335.0	1200.4	1046.6	880.5	724.8	585.4	338.1
37.5°	1618.6	1602.4	1548.0	1459.2	1341.7	1202.3	1045.7	873.8	708.6	563.4	300.8
40°	1635.8	1618.6	1560.4	1466.8	1343.6	1199.4	1038.0	862.3	689.5	535.7	261.7
42.5°	1647.3	1628.2	1566.1	1478.3	1339.8	1191.8	1026.6	848.0	668.5	511.9	224.4
45°	1653.0	1633.0	1567.1	1468.7	1333.1	1177.5	1009.4	829.9	645.5	479.4	187.2
47.5°	1650.2	1628.2	1562.3	1458.2	1320.7	1162.2	990.3	807.9	617.9	450.7	151.8
50°	1645.4	1622.5	1551.8	1444.8	1303.5	1143.1	969.3	781.1	589.2	415.4	120.3
52.5°	1630.1	1607.2	1540.3	1425.7	1283.5	1121.1	940.6	753.5	558.6	381.0	91.7
55°	1611.0	1590.0	1520.3	1408.5	1257.7	1094.4	913.9	723.9	529.0	345.7	65.9
57.5°	1581.4	1562.3	1495.4	1380.9	1231.9	1064.8	884.3	691.4	491.8	310.4	45.8
60°	1545.1	1526.0	1461.1	1349.3	1202.3	1031.3	851.8	658.0	458.4	275.0	28.6
62.5°	1506.9	1488.8	1421.0	1310.2	1165.0	996.0	816.5	624.5	423.0	242.6	17.2
65°	1456.3	1439.1	1378.0	1263.4	1124.0	957.8	777.3	584.4	386.8	206.3	9.5
67.5°	1402.8	1387.5	1325.5	1220.4	1076.2	915.8	737.2	545.3	348.6	174.8	4.8
70°	1345.5	1326.4	1269.1	1162.2	1027.5	868.0	693.3	505.2	312.3	144.2	0.0
72.5°	1278.7	1264.4	1209.0	1107.7	971.2	817.4	648.4	461.2	272.2	114.6	1.0
75°	1213.7	1195.6	1145.0	1049.5	915.8	764.0	598.8	420.2	233.0	87.9	1.0
77.5°	1129.7	1124.0	1076.2	983.6	863.3	712.4	544.3	370.5	195.8	63.0	1.0
80°	1045.7	1039.9	1002.7	917.7	802.2	651.3	493.7	323.7	159.5	42.0	1.0
82.5°	962.6	954.9	919.6	848.9	740.1	599.7	441.2	276.9	126.1	25.8	1.0
85°	888.1	878.6	840.4	775.4	676.1	541.5	386.8	231.1	93.6	14.3	1.9
87.5°	824.1	817.4	775.4	708.6	611.2	487.0	339.0	187.2	65.9	6.7	2.9
90°	769.7	755.4	718.1	647.5	550.1	426.9	288.4	149.9	43.9	3.8	3.8
92.5°	716.2	703.8	662.7	590.2	495.6	375.3	239.7	114.6	27.7	1.9	4.8
95°	660.8	647.5	607.3	540.5	440.2	322.8	196.7	84.0	15.3	1.9	4.8
97.5°	606.4	594.0	552.0	485.1	390.6	276.9	155.7	59.2	7.6	1.9	3.8
100°	555.8	541.5	503.3	436.4	340.9	231.1	120.3	38.2	4.8	1.9	3.8
102.5°	502.3	490.8	451.7	386.8	289.3	188.1	89.8	23.9	1.9	1.9	2.9
105°	454.6	440.2	402.0	335.2	246.4	148.0	63.0	14.3	1.9	1.9	2.9



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	296.0	284.6	251.2	194.8	125.1	58.3	17.2	2.9	2.9	2.9	2.9
115°	247.3	230.1	200.5	150.9	92.6	38.2	8.6	2.9	2.9	2.9	2.9
117.5°	197.7	183.4	162.3	114.6	61.1	24.8	4.8	2.9	2.9	2.9	2.9
120°	154.7	141.3	117.5	79.3	41.1	14.3	1.9	2.9	2.9	2.9	2.9
122.5°	110.8	100.3	79.3	51.6	24.8	6.7	2.9	2.9	3.8	3.8	2.9
125°	73.5	67.8	52.5	31.5	15.3	2.9	2.9	2.9	3.8	3.8	2.9
127.5°	47.7	43.0	30.6	18.1	6.7	2.9	2.9	3.8	3.8	3.8	2.9
130°	26.7	23.9	18.1	10.5	2.9	2.9	2.9	3.8	3.8	3.8	2.9
132.5°	15.3	14.3	9.5	1.9	2.9	2.9	2.9	3.8	3.8	3.8	3.8
135°	3.8	1.9	1.9	1.9	2.9	2.9	3.8	3.8	4.8	4.8	3.8
137.5°	1.0	1.0	1.9	1.9	2.9	2.9	3.8	4.8	4.8	4.8	3.8
140°	1.0	1.0	1.9	2.9	2.9	2.9	3.8	4.8	4.8	4.8	3.8
142.5°	1.0	1.9	1.9	2.9	2.9	3.8	3.8	4.8	4.8	3.8	3.8
145°	1.0	1.9	1.9	2.9	2.9	3.8	3.8	4.8	3.8	3.8	3.8
147.5°	1.9	1.9	1.9	2.9	2.9	3.8	3.8	4.8	4.8	3.8	3.8
150°	1.0	1.9	1.9	2.9	3.8	3.8	3.8	4.8	3.8	3.8	3.8
152.5°	1.0	1.9	1.9	2.9	3.8	3.8	3.8	4.8	3.8	3.8	3.8
155°	1.9	1.9	1.9	2.9	3.8	3.8	3.8	4.8	3.8	3.8	4.8
157.5°	1.9	1.9	1.9	2.9	3.8	3.8	3.8	4.8	3.8	3.8	4.8
160°	1.9	1.9	1.9	2.9	2.9	3.8	3.8	3.8	3.8	3.8	3.8
162.5°	1.9	1.9	1.9	2.9	2.9	3.8	3.8	3.8	3.8	3.8	3.8
165°	1.9	1.9	1.9	1.9	2.9	2.9	3.8	3.8	3.8	3.8	3.8
167.5°	1.9	1.9	1.9	2.9	2.9	2.9	3.8	3.8	3.8	3.8	3.8
170°	1.9	1.9	1.9	2.9	2.9	2.9	3.8	4.8	4.8	4.8	4.8
172.5°	1.9	1.9	1.9	2.9	2.9	3.8	3.8	4.8	4.8	4.8	4.8
175°	1.9	1.9	1.9	2.9	2.9	3.8	3.8	4.8	4.8	4.8	4.8
177.5°	1.0	1.9	1.9	2.9	2.9	3.8	3.8	4.8	4.8	4.8	3.8
180°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	749.6	749.6	749.6
2.5°	713.3	700.0	696.2
5°	675.1	653.2	640.8
7.5°	637.0	607.3	593.0
10°	601.6	559.6	544.3
12.5°	559.6	510.9	487.0
15°	519.5	456.5	433.5
17.5°	474.6	403.9	377.2
20°	432.6	351.4	323.7
22.5°	384.8	299.9	269.3
25°	341.9	248.3	213.9
27.5°	294.1	195.8	166.2
30°	249.2	149.9	120.3
32.5°	206.3	109.8	83.1
35°	166.2	74.5	52.5
37.5°	128.0	45.8	26.7
40°	92.6	23.9	12.4
42.5°	62.1	11.5	6.7
45°	38.2	5.7	0.0
47.5°	22.0	0.0	0.0
50°	11.5	0.0	0.0
52.5°	4.8	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	1.9	2.9
80°	1.9	3.8	4.8
82.5°	3.8	4.8	4.8
85°	3.8	4.8	5.7
87.5°	4.8	5.7	6.7
90°	5.7	6.7	6.7
92.5°	5.7	7.6	7.6
95°	6.7	7.6	8.6
97.5°	7.6	8.6	8.6
100°	6.7	8.6	9.5
102.5°	5.7	8.6	8.6
105°	4.8	6.7	7.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.8	4.8	4.8
115°	2.9	3.8	4.8
117.5°	2.9	3.8	3.8
120°	2.9	2.9	3.8
122.5°	2.9	2.9	3.8
125°	2.9	2.9	3.8
127.5°	3.8	2.9	2.9
130°	2.9	2.9	2.9
132.5°	3.8	2.9	2.9
135°	3.8	2.9	2.9
137.5°	3.8	2.9	2.9
140°	3.8	2.9	2.9
142.5°	3.8	2.9	2.9
145°	2.9	2.9	2.9
147.5°	2.9	2.9	2.9
150°	2.9	2.9	1.9
152.5°	2.9	1.9	1.9
155°	2.9	1.9	1.0
157.5°	3.8	1.9	1.0
160°	2.9	1.9	1.0
162.5°	2.9	1.9	1.0
165°	2.9	1.9	0.0
167.5°	2.9	1.9	1.0
170°	2.9	1.9	1.0
172.5°	2.9	1.9	1.0
175°	2.9	1.0	1.0
177.5°	2.9	1.0	1.0
180°	2.9	2.9	2.9



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	401.1	389.6	351.4	288.4	201.5	112.7	42.0	7.6	1.9	2.9	2.9
110°	349.5	340.0	300.8	239.7	162.3	84.0	27.7	4.8	2.9	2.9	2.9





107.5°	3.8	5.7	6.7
110°	3.8	4.8	5.7



(END OF REPORT)