

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: P551240

Luminaire Tested: **FCC-X-2-LD4-2HI-30-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: P551240
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-93-84-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

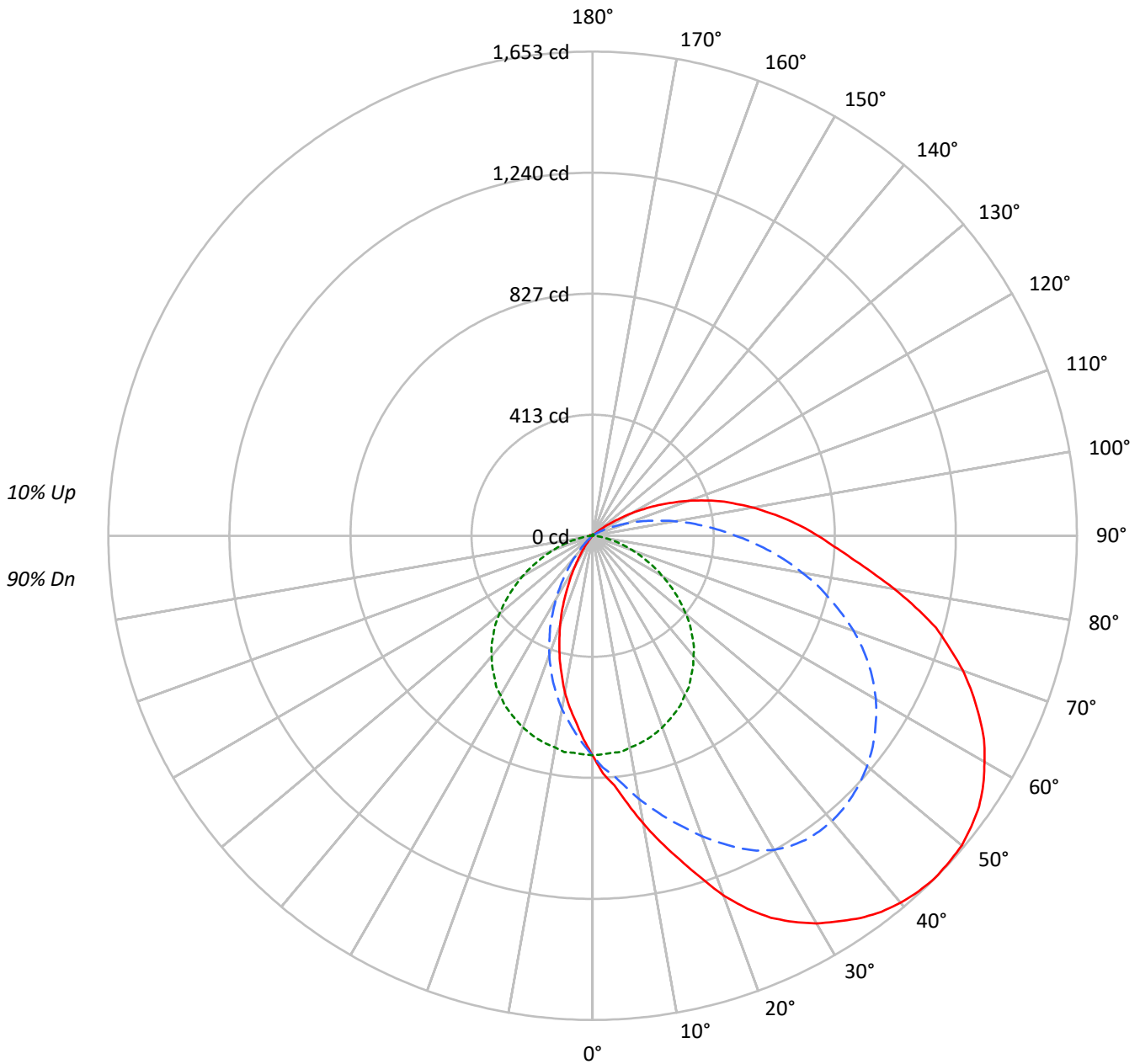
Lumens per Lamp: N/A
Luminaire Lumens: 3705.1 lumens
Efficiency: N/A
Efficacy: 85.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	8066	8066	8066
5°	8855	7949	6632
10°	10021	7852	5466
15°	11230	7752	4259
20°	12666	7626	3136
25°	13856	7479	2060
30°	14742	7282	1160
35°	15508	7071	511
40°	16188	6811	123
45°	16771	6485	0
50°	17260	6053	0
55°	17633	5503	0
60°	17821	4867	0
65°	17894	4142	0
70°	17835	3378	0
75°	17608	2490	15
80°	16894	1523	78
85°	16330	727	105



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.8	1.9
10°-20°	214.9	5.8
20°-30°	348.1	9.4
30°-40°	447.1	12.1
40°-50°	506.2	13.7
50°-60°	524.4	14.2
60°-70°	494.5	13.3
70°-80°	414.4	11.2
80°-90°	300.4	8.1
90°-100°	197.4	5.3
100°-110°	114.0	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°	634.8	17.1
0°-40°	1081.9	29.2
0°-60°	2112.5	57.0
0°-90°	3321.9	89.7
90°-120°	361.8	9.8
90°-150°	380.6	10.3
90°-180°	383.0	10.3
0°-180°	3705.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	749	749	749	749	749	
5°	855	822	744	675	641	86
15°	1143	1002	719	519	433	330
25°	1439	1176	666	342	214	665
35°	1593	1267	585	166	52	999
45°	1653	1255	479	38	0	1276
55°	1611	1176	346	0	0	1438
65°	1456	1041	206	0	0	1440
75°	1213	840	88	1	1	1273
85°	888	609	14	4	6	758
90°	770	488	4	6	7	422
95°	661	381	2	7	9	518
105°	454	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°	749.4	749.4	749.4	749.4	749.4	749.4	749.4	749.4	749.4	749.4	749.4
2.5°	812.4	811.5	808.6	803.8	797.2	785.7	776.2	767.6	756.1	746.6	728.4
5°	855.4	850.6	846.8	842.0	826.8	816.3	799.1	780.0	761.8	743.7	707.4
7.5°	924.1	916.5	910.8	897.4	876.4	852.5	825.8	807.7	795.3	744.7	682.6
10°	997.7	991.0	979.5	955.6	929.9	895.5	857.3	814.4	776.2	734.2	660.6
12.5°	1070.2	1060.7	1044.4	1013.9	977.6	934.6	882.1	831.5	777.1	727.5	634.9
15°	1142.8	1132.3	1115.1	1077.8	1030.1	973.8	909.8	845.9	781.9	718.9	608.1
17.5°	1222.0	1207.7	1181.9	1139.9	1079.8	1010.1	934.6	857.3	780.0	708.4	579.5
20°	1307.0	1286.9	1259.2	1202.9	1132.3	1050.2	959.5	868.8	779.0	696.0	547.0
22.5°	1377.6	1357.6	1327.0	1268.8	1183.8	1083.6	980.5	876.4	775.2	681.6	516.5
25°	1438.7	1422.5	1389.1	1322.2	1232.5	1118.9	1000.5	882.1	769.5	666.4	484.0
27.5°	1486.5	1471.2	1433.9	1365.2	1273.6	1150.4	1015.8	885.0	761.8	651.1	450.6
30°	1528.5	1513.2	1468.3	1397.7	1301.2	1175.2	1031.1	886.0	752.3	628.2	414.3
32.5°	1560.9	1546.6	1500.8	1425.4	1320.3	1192.4	1039.7	885.0	739.9	612.0	375.2
35°	1593.4	1579.1	1525.6	1445.4	1334.7	1200.0	1046.3	880.2	724.6	585.2	338.0
37.5°	1618.2	1602.0	1547.6	1458.8	1341.3	1202.0	1045.4	873.5	708.4	563.3	300.7
40°	1635.4	1618.2	1560.0	1466.4	1343.3	1199.1	1037.7	862.1	689.3	535.6	261.6
42.5°	1646.8	1627.7	1565.7	1477.9	1339.4	1191.5	1026.3	847.8	668.3	511.7	224.4
45°	1652.6	1632.5	1566.6	1468.3	1332.7	1177.1	1009.1	829.6	645.4	479.3	187.1
47.5°	1649.7	1627.7	1561.9	1457.8	1320.3	1161.9	990.0	807.7	617.7	450.6	151.8
50°	1644.9	1622.0	1551.4	1444.4	1303.2	1142.8	969.0	780.9	589.0	415.3	120.3
52.5°	1629.7	1606.7	1539.9	1425.4	1283.1	1120.8	940.4	753.3	558.5	380.9	91.7
55°	1610.6	1589.6	1519.9	1408.2	1257.3	1094.1	913.6	723.7	528.9	345.6	65.9
57.5°	1581.0	1561.9	1495.0	1380.5	1231.6	1064.5	884.0	691.2	491.7	310.3	45.8
60°	1544.7	1525.6	1460.7	1349.0	1202.0	1031.1	851.6	657.8	458.3	275.0	28.6
62.5°	1506.5	1488.4	1420.6	1309.8	1164.7	995.7	816.3	624.4	422.9	242.5	17.2
65°	1455.9	1438.7	1377.6	1263.1	1123.7	957.6	777.1	584.3	386.6	206.2	9.5
67.5°	1402.4	1387.2	1325.1	1220.1	1075.9	915.5	737.0	545.1	348.5	174.7	4.8
70°	1345.2	1326.1	1268.8	1161.9	1027.2	867.8	693.1	505.0	312.2	144.2	0.0
72.5°	1278.3	1264.0	1208.6	1107.4	970.9	817.2	648.2	461.1	272.1	114.6	1.0
75°	1213.4	1195.3	1144.7	1049.2	915.5	763.8	598.6	420.1	232.9	87.8	1.0
77.5°	1129.4	1123.7	1075.9	983.3	863.0	712.2	544.2	370.4	195.7	63.0	1.0
80°	1045.4	1039.7	1002.4	917.5	801.9	651.1	493.6	323.6	159.4	42.0	1.0
82.5°	962.3	954.7	919.4	848.7	739.9	599.5	441.1	276.9	126.0	25.8	1.0
85°	887.9	878.3	840.1	775.2	675.9	541.3	386.6	231.0	93.6	14.3	1.9
87.5°	823.9	817.2	775.2	708.4	611.0	486.9	338.9	187.1	65.9	6.7	2.9
90°	769.5	755.2	717.9	647.3	549.9	426.7	288.3	149.9	43.9	3.8	3.8
92.5°	716.0	703.6	662.6	590.0	495.5	375.2	239.6	114.6	27.7	1.9	4.8
95°	660.6	647.3	607.2	540.4	440.1	322.7	196.7	84.0	15.3	1.9	4.8
97.5°	606.2	593.8	551.8	485.0	390.5	276.9	155.6	59.2	7.6	1.9	3.8
100°	555.6	541.3	503.1	436.3	340.8	231.0	120.3	38.2	4.8	1.9	3.8
102.5°	502.2	490.7	451.6	386.6	289.3	188.1	89.7	23.9	1.9	1.9	2.9
105°	454.4	440.1	401.9	335.1	246.3	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	284.5	251.1	194.8	125.1	58.2	17.2	2.9	2.9	2.9	2.9
115°	247.3	230.1	200.5	150.8	92.6	38.2	8.6	2.9	2.9	2.9	2.9
117.5°	197.6	183.3	162.3	114.6	61.1	24.8	4.8	2.9	2.9	2.9	2.9
120°	154.7	141.3	117.4	79.2	41.1	14.3	1.9	2.9	2.9	2.9	2.9
122.5°	110.7	100.2	79.2	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°	749.4	749.4	749.4
2.5°	713.2	699.8	696.0
5°	675.0	653.0	640.6
7.5°	636.8	607.2	592.9
10°	601.5	559.4	544.2
12.5°	559.4	510.8	486.9
15°	519.4	456.3	433.4
17.5°	474.5	403.8	377.1
20°	432.5	351.3	323.6
22.5°	384.7	299.8	269.2
25°	341.8	248.2	213.9
27.5°	294.0	195.7	166.1
30°	249.2	149.9	120.3
32.5°	206.2	109.8	83.1
35°	166.1	74.5	52.5
37.5°	127.9	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°	401.0	389.5	351.3	288.3	201.4	112.7	42.0	7.6	1.9	2.9	2.9
110°	349.4	339.9	300.7	239.6	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)