

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: P551396

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-80-96-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: P551396
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-80-96-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

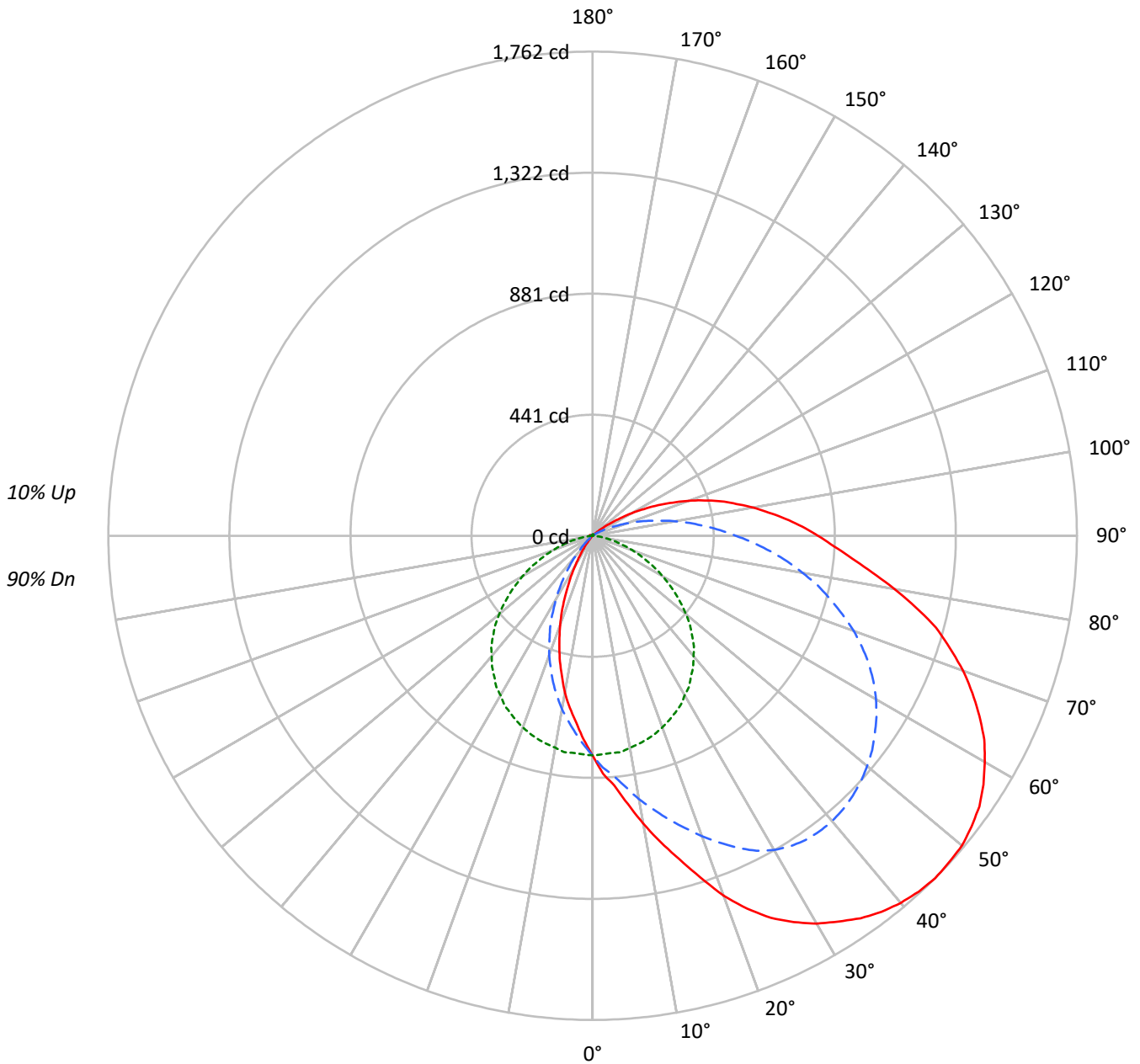
Lumens per Lamp: N/A
Luminaire Lumens: 3951.1 lumens
Efficiency: N/A
Efficacy: 91.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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°	8603	8603	8603
5°	9443	8477	7072
10°	10686	8373	5829
15°	11975	8266	4542
20°	13507	8132	3344
25°	14776	7975	2196
30°	15720	7766	1237
35°	16538	7541	545
40°	17263	7263	131
45°	17884	6916	0
50°	18407	6455	0
55°	18804	5868	0
60°	19004	5189	0
65°	19083	4417	0
70°	19019	3601	0
75°	18777	2657	15
80°	18016	1625	82
85°	17413	778	112



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.6	1.9
10°-20°	229.2	5.8
20°-30°	371.2	9.4
30°-40°	476.8	12.1
40°-50°	539.8	13.7
50°-60°	559.2	14.2
60°-70°	527.4	13.3
70°-80°	442.0	11.2
80°-90°	320.4	8.1
90°-100°	210.5	5.3
100°-110°	121.6	3.1
110°-120°	53.7	1.4
120°-130°	14.6	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°	677.0	17.1
0°-40°	1153.8	29.2
0°-60°	2252.7	57.0
0°-90°	3542.4	89.7
90°-120°	385.8	9.8
90°-150°	405.9	10.3
90°-180°	409.0	10.4
0°-180°	3951.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	799	799	799	799	799	
5°	912	876	793	720	683	92
15°	1219	1068	767	554	462	351
25°	1534	1254	711	364	228	709
35°	1699	1352	624	177	56	1066
45°	1762	1338	511	41	0	1361
55°	1718	1254	368	0	0	1534
65°	1553	1110	220	0	0	1536
75°	1294	895	94	1	1	1357
85°	947	649	15	4	6	809
90°	821	521	4	6	7	450
95°	704	407	2	7	9	553
105°	485	210	2	5	8	511
115°	264	70	3	3	5	264
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°	799.2	799.2	799.2	799.2	799.2	799.2	799.2	799.2	799.2	799.2	799.2
2.5°	866.4	865.4	862.3	857.2	850.1	837.9	827.7	818.5	806.3	796.1	776.8
5°	912.2	907.1	903.0	897.9	881.7	870.5	852.1	831.8	812.4	793.1	754.4
7.5°	985.5	977.4	971.2	957.0	934.6	909.1	880.6	861.3	848.1	794.1	727.9
10°	1063.9	1056.8	1044.5	1019.1	991.6	955.0	914.2	868.4	827.7	782.9	704.5
12.5°	1141.3	1131.1	1113.8	1081.2	1042.5	996.7	940.7	886.7	828.7	775.8	677.0
15°	1218.6	1207.4	1189.1	1149.4	1098.5	1038.4	970.2	902.0	833.8	766.6	648.5
17.5°	1303.1	1287.9	1260.4	1215.6	1151.4	1077.1	996.7	914.2	831.8	755.4	618.0
20°	1393.8	1372.4	1342.8	1282.8	1207.4	1119.9	1023.2	926.5	830.8	742.2	583.4
22.5°	1469.1	1447.7	1415.1	1353.0	1262.4	1155.5	1045.6	934.6	826.7	726.9	550.8
25°	1534.2	1516.9	1481.3	1410.0	1314.3	1193.2	1066.9	940.7	820.6	710.6	516.2
27.5°	1585.1	1568.9	1529.2	1455.9	1358.1	1226.8	1083.2	943.8	812.4	694.3	480.5
30°	1629.9	1613.7	1565.8	1490.5	1387.6	1253.3	1099.5	944.8	802.2	669.9	441.8
32.5°	1664.6	1649.3	1600.4	1520.0	1408.0	1271.6	1108.7	943.8	789.0	652.6	400.1
35°	1699.2	1683.9	1626.9	1541.4	1423.3	1279.7	1115.8	938.7	772.7	624.1	360.4
37.5°	1725.6	1708.3	1650.3	1555.6	1430.4	1281.8	1114.8	931.5	755.4	600.7	320.7
40°	1744.0	1725.6	1663.5	1563.8	1432.4	1278.7	1106.7	919.3	735.1	571.1	279.0
42.5°	1756.2	1735.8	1669.7	1576.0	1428.4	1270.6	1094.4	904.1	712.7	545.7	239.2
45°	1762.3	1740.9	1670.7	1565.8	1421.2	1255.3	1076.1	884.7	688.2	511.1	199.5
47.5°	1759.2	1735.8	1665.6	1554.6	1408.0	1239.0	1055.7	861.3	658.7	480.5	161.9
50°	1754.2	1729.7	1654.4	1540.4	1389.7	1218.6	1033.4	832.8	628.2	442.9	128.3
52.5°	1737.9	1713.4	1642.2	1520.0	1368.3	1195.2	1002.8	803.3	595.6	406.2	97.7
55°	1717.5	1695.1	1620.8	1501.7	1340.8	1166.7	974.3	771.7	564.0	368.5	70.2
57.5°	1685.9	1665.6	1594.3	1472.1	1313.3	1135.2	942.7	737.1	524.3	330.9	48.9
60°	1647.3	1626.9	1557.7	1438.5	1281.8	1099.5	908.1	701.5	488.7	293.2	30.5
62.5°	1606.5	1587.2	1514.9	1396.8	1242.1	1061.9	870.5	665.8	451.0	258.6	18.3
65°	1552.6	1534.2	1469.1	1346.9	1198.3	1021.1	828.7	623.1	412.3	219.9	10.2
67.5°	1495.6	1479.3	1413.1	1301.1	1147.4	976.3	786.0	581.3	371.6	186.3	5.1
70°	1434.5	1414.1	1353.0	1239.0	1095.5	925.4	739.1	538.6	332.9	153.7	0.0
72.5°	1363.2	1347.9	1288.9	1181.0	1035.4	871.5	691.3	491.7	290.2	122.2	1.0
75°	1294.0	1274.6	1220.7	1118.9	976.3	814.5	638.3	448.0	248.4	93.7	1.0
77.5°	1204.4	1198.3	1147.4	1048.6	920.3	759.5	580.3	395.0	208.7	67.2	1.0
80°	1114.8	1108.7	1069.0	978.4	855.2	694.3	526.3	345.1	170.0	44.8	1.0
82.5°	1026.2	1018.1	980.4	905.1	789.0	639.4	470.4	295.2	134.4	27.5	1.0
85°	946.8	936.6	895.9	826.7	720.8	577.3	412.3	246.4	99.8	15.3	2.0
87.5°	878.6	871.5	826.7	755.4	651.6	519.2	361.4	199.5	70.2	7.1	3.1
90°	820.6	805.3	765.6	690.3	586.4	455.1	307.5	159.8	46.8	4.1	4.1
92.5°	763.6	750.3	706.5	629.2	528.4	400.1	255.5	122.2	29.5	2.0	5.1
95°	704.5	690.3	647.5	576.2	469.3	344.1	209.7	89.6	16.3	2.0	5.1
97.5°	646.5	633.2	588.4	517.2	416.4	295.2	165.9	63.1	8.1	2.0	4.1
100°	592.5	577.3	536.5	465.3	363.5	246.4	128.3	40.7	5.1	2.0	4.1
102.5°	535.5	523.3	481.6	412.3	308.5	200.6	95.7	25.5	2.0	2.0	3.1
105°	484.6	469.3	428.6	357.3	262.7	157.8	67.2	15.3	2.0	2.0	3.1



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CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-80-96-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	315.6	303.4	267.8	207.7	133.4	62.1	18.3	3.1	3.1	3.1	3.1
115°	263.7	245.4	213.8	160.9	98.8	40.7	9.2	3.1	3.1	3.1	3.1
117.5°	210.7	195.5	173.1	122.2	65.2	26.5	5.1	3.1	3.1	3.1	3.1
120°	164.9	150.7	125.2	84.5	43.8	15.3	2.0	3.1	3.1	3.1	3.1
122.5°	118.1	106.9	84.5	55.0	26.5	7.1	3.1	3.1	4.1	4.1	3.1
125°	78.4	72.3	56.0	33.6	16.3	3.1	3.1	3.1	4.1	4.1	3.1
127.5°	50.9	45.8	32.6	19.3	7.1	3.1	3.1	4.1	4.1	4.1	3.1
130°	28.5	25.5	19.3	11.2	3.1	3.1	3.1	4.1	4.1	4.1	3.1
132.5°	16.3	15.3	10.2	2.0	3.1	3.1	3.1	4.1	4.1	4.1	4.1
135°	4.1	2.0	2.0	2.0	3.1	3.1	4.1	4.1	5.1	5.1	4.1
137.5°	1.0	1.0	2.0	2.0	3.1	3.1	4.1	5.1	5.1	5.1	4.1
140°	1.0	1.0	2.0	3.1	3.1	3.1	4.1	5.1	5.1	5.1	4.1
142.5°	1.0	2.0	2.0	3.1	3.1	4.1	4.1	5.1	5.1	4.1	4.1
145°	1.0	2.0	2.0	3.1	3.1	4.1	4.1	5.1	4.1	4.1	4.1
147.5°	2.0	2.0	2.0	3.1	3.1	4.1	4.1	5.1	5.1	4.1	4.1
150°	1.0	2.0	2.0	3.1	4.1	4.1	4.1	5.1	4.1	4.1	4.1
152.5°	1.0	2.0	2.0	3.1	4.1	4.1	4.1	5.1	4.1	4.1	4.1
155°	2.0	2.0	2.0	3.1	4.1	4.1	4.1	5.1	4.1	4.1	5.1
157.5°	2.0	2.0	2.0	3.1	4.1	4.1	4.1	5.1	4.1	4.1	5.1
160°	2.0	2.0	2.0	3.1	3.1	4.1	4.1	4.1	4.1	4.1	4.1
162.5°	2.0	2.0	2.0	3.1	3.1	4.1	4.1	4.1	4.1	4.1	4.1
165°	2.0	2.0	2.0	2.0	3.1	3.1	4.1	4.1	4.1	4.1	4.1
167.5°	2.0	2.0	2.0	3.1	3.1	3.1	4.1	4.1	4.1	4.1	4.1
170°	2.0	2.0	2.0	3.1	3.1	3.1	4.1	5.1	5.1	5.1	5.1
172.5°	2.0	2.0	2.0	3.1	3.1	4.1	4.1	5.1	5.1	5.1	5.1
175°	2.0	2.0	2.0	3.1	3.1	4.1	4.1	5.1	5.1	5.1	5.1
177.5°	1.0	2.0	2.0	3.1	3.1	4.1	4.1	5.1	5.1	5.1	4.1
180°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	799.2	799.2	799.2
2.5°	760.5	746.3	742.2
5°	719.8	696.4	683.1
7.5°	679.1	647.5	632.2
10°	641.4	596.6	580.3
12.5°	596.6	544.7	519.2
15°	553.8	486.6	462.2
17.5°	506.0	430.6	402.1
20°	461.2	374.7	345.1
22.5°	410.3	319.7	287.1
25°	364.5	264.7	228.0
27.5°	313.6	208.7	177.1
30°	265.7	159.8	128.3
32.5°	219.9	117.1	88.6
35°	177.1	79.4	56.0
37.5°	136.4	48.9	28.5
40°	98.8	25.5	13.2
42.5°	66.2	12.2	7.1
45°	40.7	6.1	0.0
47.5°	23.4	0.0	0.0
50°	12.2	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	3.1
80°	2.0	4.1	5.1
82.5°	4.1	5.1	5.1
85°	4.1	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	9.2
97.5°	8.1	9.2	9.2
100°	7.1	9.2	10.2
102.5°	6.1	9.2	9.2
105°	5.1	7.1	8.1



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CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-80-96-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	4.1	5.1	5.1
115°	3.1	4.1	5.1
117.5°	3.1	4.1	4.1
120°	3.1	3.1	4.1
122.5°	3.1	3.1	4.1
125°	3.1	3.1	4.1
127.5°	4.1	3.1	3.1
130°	3.1	3.1	3.1
132.5°	4.1	3.1	3.1
135°	4.1	3.1	3.1
137.5°	4.1	3.1	3.1
140°	4.1	3.1	3.1
142.5°	4.1	3.1	3.1
145°	3.1	3.1	3.1
147.5°	3.1	3.1	3.1
150°	3.1	3.1	2.0
152.5°	3.1	2.0	2.0
155°	3.1	2.0	1.0
157.5°	4.1	2.0	1.0
160°	3.1	2.0	1.0
162.5°	3.1	2.0	1.0
165°	3.1	2.0	0.0
167.5°	3.1	2.0	1.0
170°	3.1	2.0	1.0
172.5°	3.1	2.0	1.0
175°	3.1	1.0	1.0
177.5°	3.1	1.0	1.0
180°	3.1	3.1	3.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	427.6	415.4	374.7	307.5	214.8	120.1	44.8	8.1	2.0	3.1	3.1
110°	372.6	362.4	320.7	255.5	173.1	89.6	29.5	5.1	3.1	3.1	3.1





107.5°	4.1	6.1	7.1
110°	4.1	5.1	6.1



(END OF REPORT)