

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: P551332

Luminaire Tested: **FCC-X-2-LD4-2HI-40-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: P551332
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-80-96-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

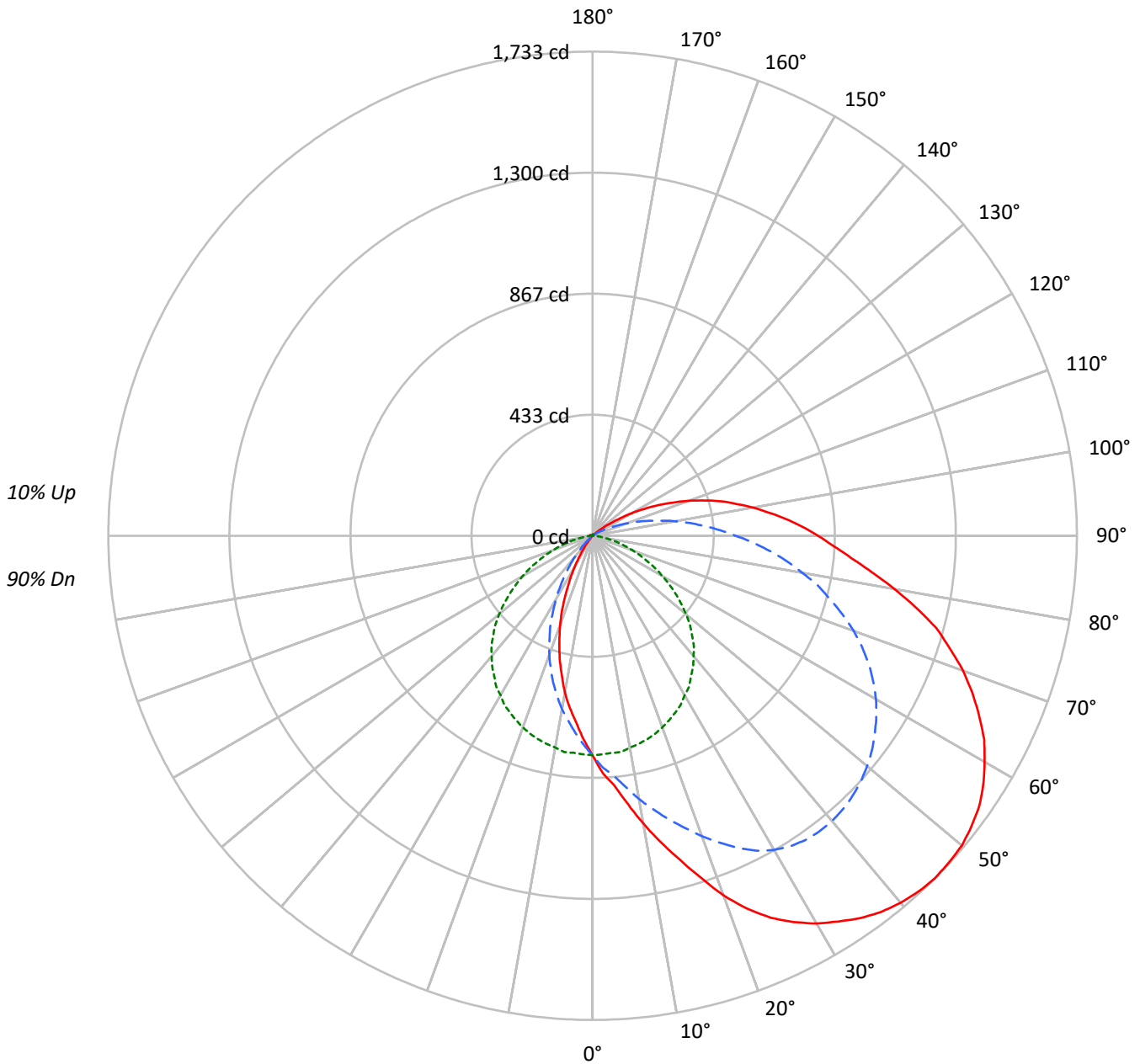
Lumens per Lamp: N/A
Luminaire Lumens: 3885.0 lumens
Efficiency: N/A
Efficacy: 89.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

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CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-80-96-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°	8458	8458	8458
5°	9286	8335	6954
10°	10507	8232	5731
15°	11776	8128	4466
20°	13282	7996	3289
25°	14530	7841	2159
30°	15458	7636	1216
35°	16262	7415	536
40°	16974	7142	129
45°	17586	6799	0
50°	18098	6347	0
55°	18490	5771	0
60°	18686	5102	0
65°	18763	4342	0
70°	18701	3542	0
75°	18464	2612	15
80°	17715	1596	81
85°	17123	763	110



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.3	1.9
10°-20°	225.4	5.8
20°-30°	365.0	9.4
30°-40°	468.9	12.1
40°-50°	530.7	13.7
50°-60°	549.9	14.2
60°-70°	518.6	13.3
70°-80°	434.6	11.2
80°-90°	315.0	8.1
90°-100°	207.0	5.3
100°-110°	119.6	3.1
110°-120°	52.8	1.4
120°-130°	14.3	0.4
130°-140°	3.3	0.1
140°-150°	2.1	0.1
150°-160°	1.5	0.0
160°-170°	0.9	0.0
170°-180°	0.3	0.0
0°-30°	665.6	17.1
0°-40°	1134.5	29.2
0°-60°	2215.1	57.0
0°-90°	3483.2	89.7
90°-120°	379.4	9.8
90°-150°	399.1	10.3
90°-180°	402.0	10.3
0°-180°	3885.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	786	786	786	786	786	
5°	897	861	780	708	672	90
15°	1198	1051	754	545	454	346
25°	1509	1233	699	358	224	697
35°	1671	1329	614	174	55	1048
45°	1733	1316	502	40	0	1338
55°	1689	1233	362	0	0	1508
65°	1527	1091	216	0	0	1510
75°	1272	880	92	1	1	1335
85°	931	638	15	4	6	795
90°	807	512	4	6	7	442
95°	693	400	2	7	9	543
105°	476	207	2	5	8	503
115°	259	69	3	3	5	260
125°	77	10	4	3	4	77
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°	785.8	785.8	785.8	785.8	785.8	785.8	785.8	785.8	785.8	785.8	785.8
2.5°	851.9	850.9	847.9	842.9	835.9	823.9	813.9	804.9	792.8	782.8	763.8
5°	897.0	892.0	888.0	882.9	866.9	855.9	837.9	817.9	798.9	779.8	741.8
7.5°	969.0	961.0	955.0	941.0	919.0	894.0	865.9	846.9	833.9	780.8	715.8
10°	1046.1	1039.1	1027.1	1002.1	975.0	939.0	899.0	853.9	813.9	769.8	692.7
12.5°	1122.2	1112.2	1095.2	1063.1	1025.1	980.1	925.0	871.9	814.9	762.8	665.7
15°	1198.3	1187.3	1169.3	1130.2	1080.2	1021.1	954.0	887.0	819.9	753.8	637.7
17.5°	1281.4	1266.4	1239.3	1195.3	1132.2	1059.1	980.1	899.0	817.9	742.8	607.7
20°	1370.5	1349.4	1320.4	1261.4	1187.3	1101.2	1006.1	911.0	816.9	729.8	573.6
22.5°	1444.5	1423.5	1391.5	1330.4	1241.3	1136.2	1028.1	919.0	812.9	714.8	541.6
25°	1508.6	1491.6	1456.6	1386.5	1292.4	1173.3	1049.1	925.0	806.9	698.7	507.5
27.5°	1558.7	1542.7	1503.6	1431.5	1335.4	1206.3	1065.1	928.0	798.9	682.7	472.5
30°	1602.7	1586.7	1539.7	1465.6	1364.5	1232.3	1081.2	929.0	788.8	658.7	434.5
32.5°	1636.8	1621.7	1573.7	1494.6	1384.5	1250.3	1090.2	928.0	775.8	641.7	393.4
35°	1670.8	1655.8	1599.7	1515.6	1399.5	1258.3	1097.2	923.0	759.8	613.7	354.4
37.5°	1696.8	1679.8	1622.7	1529.6	1406.5	1260.4	1096.2	916.0	742.8	590.6	315.3
40°	1714.8	1696.8	1635.8	1537.6	1408.5	1257.3	1088.2	904.0	722.8	561.6	274.3
42.5°	1726.9	1706.8	1641.8	1549.7	1404.5	1249.3	1076.2	889.0	700.8	536.6	235.3
45°	1732.9	1711.8	1642.8	1539.7	1397.5	1234.3	1058.1	869.9	676.7	502.5	196.2
47.5°	1729.9	1706.8	1637.8	1528.6	1384.5	1218.3	1038.1	846.9	647.7	472.5	159.2
50°	1724.8	1700.8	1626.7	1514.6	1366.5	1198.3	1016.1	818.9	617.7	435.5	126.1
52.5°	1708.8	1684.8	1614.7	1494.6	1345.4	1175.3	986.1	789.8	585.6	399.4	96.1
55°	1688.8	1666.8	1593.7	1476.6	1318.4	1147.2	958.0	758.8	554.6	362.4	69.1
57.5°	1657.8	1637.8	1567.7	1447.6	1291.4	1116.2	927.0	724.8	515.6	325.3	48.1
60°	1619.7	1599.7	1531.6	1414.5	1260.4	1081.2	893.0	689.7	480.5	288.3	30.0
62.5°	1579.7	1560.7	1489.6	1373.5	1221.3	1044.1	855.9	654.7	443.5	254.3	18.0
65°	1526.6	1508.6	1444.5	1324.4	1178.3	1004.1	814.9	612.7	405.4	216.2	10.0
67.5°	1470.6	1454.6	1389.5	1279.4	1128.2	960.0	772.8	571.6	365.4	183.2	5.0
70°	1410.5	1390.5	1330.4	1218.3	1077.2	910.0	726.8	529.6	327.4	151.2	0.0
72.5°	1340.4	1325.4	1267.4	1161.2	1018.1	856.9	679.7	483.5	285.3	120.1	1.0
75°	1272.4	1253.3	1200.3	1100.2	960.0	800.9	627.7	440.5	244.3	92.1	1.0
77.5°	1184.3	1178.3	1128.2	1031.1	905.0	746.8	570.6	388.4	205.2	66.1	1.0
80°	1096.2	1090.2	1051.1	962.0	840.9	682.7	517.6	339.4	167.2	44.0	1.0
82.5°	1009.1	1001.1	964.0	890.0	775.8	628.7	462.5	290.3	132.1	27.0	1.0
85°	931.0	921.0	880.9	812.9	708.8	567.6	405.4	242.3	98.1	15.0	2.0
87.5°	863.9	856.9	812.9	742.8	640.7	510.5	355.4	196.2	69.1	7.0	3.0
90°	806.9	791.8	752.8	678.7	576.6	447.5	302.3	157.2	46.0	4.0	4.0
92.5°	750.8	737.8	694.7	618.7	519.6	393.4	251.3	120.1	29.0	2.0	5.0
95°	692.7	678.7	636.7	566.6	461.5	338.4	206.2	88.1	16.0	2.0	5.0
97.5°	635.7	622.7	578.6	508.5	409.4	290.3	163.2	62.1	8.0	2.0	4.0
100°	582.6	567.6	527.6	457.5	357.4	242.3	126.1	40.0	5.0	2.0	4.0
102.5°	526.6	514.6	473.5	405.4	303.3	197.2	94.1	25.0	2.0	2.0	3.0
105°	476.5	461.5	421.5	351.4	258.3	155.2	66.1	15.0	2.0	2.0	3.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	310.3	298.3	263.3	204.2	131.1	61.1	18.0	3.0	3.0	3.0	3.0
115°	259.3	241.3	210.2	158.2	97.1	40.0	9.0	3.0	3.0	3.0	3.0
117.5°	207.2	192.2	170.2	120.1	64.1	26.0	5.0	3.0	3.0	3.0	3.0
120°	162.2	148.2	123.1	83.1	43.0	15.0	2.0	3.0	3.0	3.0	3.0
122.5°	116.1	105.1	83.1	54.1	26.0	7.0	3.0	3.0	4.0	4.0	3.0
125°	77.1	71.1	55.1	33.0	16.0	3.0	3.0	3.0	4.0	4.0	3.0
127.5°	50.1	45.0	32.0	19.0	7.0	3.0	3.0	4.0	4.0	4.0	3.0
130°	28.0	25.0	19.0	11.0	3.0	3.0	3.0	4.0	4.0	4.0	3.0
132.5°	16.0	15.0	10.0	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	5.0	5.0	4.0
137.5°	1.0	1.0	2.0	2.0	3.0	3.0	4.0	5.0	5.0	5.0	4.0
140°	1.0	1.0	2.0	3.0	3.0	3.0	4.0	5.0	5.0	5.0	4.0
142.5°	1.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	4.0	4.0
145°	1.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	4.0	4.0	4.0
147.5°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	4.0	4.0
150°	1.0	2.0	2.0	3.0	4.0	4.0	4.0	5.0	4.0	4.0	4.0
152.5°	1.0	2.0	2.0	3.0	4.0	4.0	4.0	5.0	4.0	4.0	4.0
155°	2.0	2.0	2.0	3.0	4.0	4.0	4.0	5.0	4.0	4.0	5.0
157.5°	2.0	2.0	2.0	3.0	4.0	4.0	4.0	5.0	4.0	4.0	5.0
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	5.0	5.0	5.0	5.0
172.5°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	5.0	5.0
175°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	5.0	5.0
177.5°	1.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	5.0	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°	785.8	785.8	785.8
2.5°	747.8	733.8	729.8
5°	707.8	684.7	671.7
7.5°	667.7	636.7	621.7
10°	630.7	586.6	570.6
12.5°	586.6	535.6	510.5
15°	544.6	478.5	454.5
17.5°	497.5	423.5	395.4
20°	453.5	368.4	339.4
22.5°	403.4	314.3	282.3
25°	358.4	260.3	224.2
27.5°	308.3	205.2	174.2
30°	261.3	157.2	126.1
32.5°	216.2	115.1	87.1
35°	174.2	78.1	55.1
37.5°	134.1	48.1	28.0
40°	97.1	25.0	13.0
42.5°	65.1	12.0	7.0
45°	40.0	6.0	0.0
47.5°	23.0	0.0	0.0
50°	12.0	0.0	0.0
52.5°	5.0	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	5.0
82.5°	4.0	5.0	5.0
85°	4.0	5.0	6.0
87.5°	5.0	6.0	7.0
90°	6.0	7.0	7.0
92.5°	6.0	8.0	8.0
95°	7.0	8.0	9.0
97.5°	8.0	9.0	9.0
100°	7.0	9.0	10.0
102.5°	6.0	9.0	9.0
105°	5.0	7.0	8.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	4.0	5.0	5.0
115°	3.0	4.0	5.0
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°	420.5	408.4	368.4	302.3	211.2	118.1	44.0	8.0	2.0	3.0	3.0
110°	366.4	356.4	315.3	251.3	170.2	88.1	29.0	5.0	3.0	3.0	3.0





107.5°	4.0	6.0	7.0
110°	4.0	5.0	6.0



(END OF REPORT)