

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: P551325

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-80-87-ED1D-90**

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: P551325
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-80-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

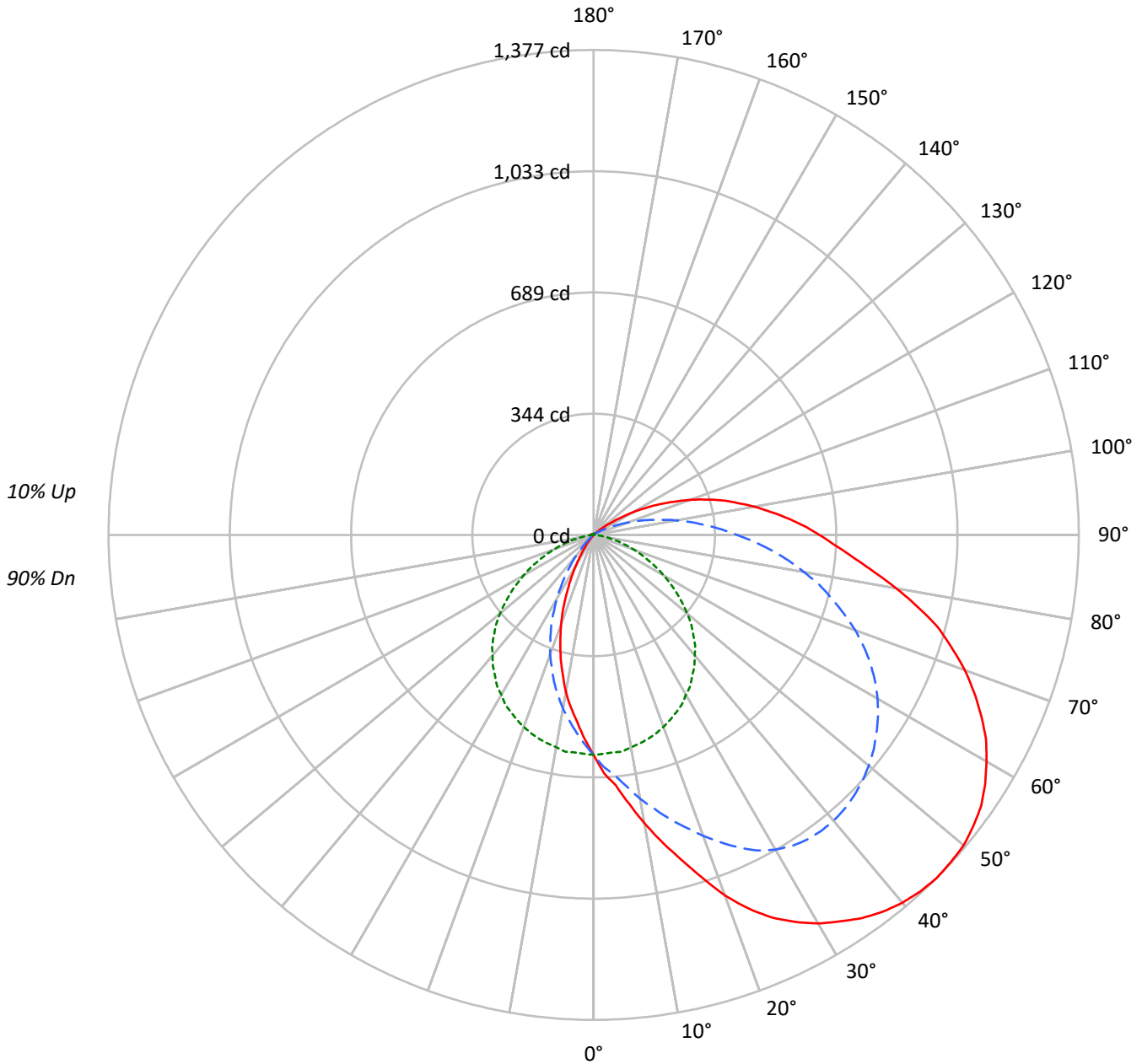
Lumens per Lamp: N/A
Luminaire Lumens: 3088.1 lumens
Efficiency: N/A
Efficacy: 71.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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-80-87-ED1D-90

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	90																			
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	67																			
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	53																			
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	43																			
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	36																			
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	30																			
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	26																			
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	23																			
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	20																			
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	18																			
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	16																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	6723	6723	6723
5°	7381	6626	5527
10°	8352	6544	4556
15°	9360	6461	3550
20°	10556	6356	2614
25°	11549	6233	1716
30°	12287	6070	967
35°	12925	5894	426
40°	13492	5677	102
45°	13978	5404	0
50°	14386	5044	0
55°	14697	4586	0
60°	14854	4056	0
65°	14914	3453	0
70°	14864	2816	0
75°	14675	2076	12
80°	14081	1270	65
85°	13610	605	88



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.8	1.9
10°-20°	179.2	5.8
20°-30°	290.1	9.4
30°-40°	372.7	12.1
40°-50°	421.9	13.7
50°-60°	437.1	14.2
60°-70°	412.2	13.3
70°-80°	345.4	11.2
80°-90°	250.4	8.1
90°-100°	164.6	5.3
100°-110°	95.1	3.1
110°-120°	41.9	1.4
120°-130°	11.4	0.4
130°-140°	2.6	0.1
140°-150°	1.7	0.1
150°-160°	1.2	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	529.1	17.1
0°-40°	901.8	29.2
0°-60°	1760.7	57.0
0°-90°	2768.7	89.7
90°-120°	301.6	9.8
90°-150°	317.3	10.3
90°-180°	319.0	10.3
0°-180°	3088.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	625	625	625	625	625	
5°	713	685	620	563	534	72
15°	952	835	599	433	361	275
25°	1199	980	555	285	178	554
35°	1328	1056	488	138	44	833
45°	1377	1046	399	32	0	1063
55°	1342	980	288	0	0	1199
65°	1213	867	172	0	0	1201
75°	1011	700	73	1	1	1061
85°	740	507	12	3	5	632
90°	641	407	3	5	6	352
95°	551	318	2	6	7	432
105°	379	164	2	4	6	400
115°	206	54	2	2	4	206
125°	61	8	3	2	3	61
135°	3	2	4	3	2	6
145°	1	3	3	2	2	1
155°	2	3	3	2	1	1
165°	2	2	3	2	0	0
175°	2	3	4	2	1	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	624.6	624.6	624.6	624.6	624.6	624.6	624.6	624.6	624.6	624.6	624.6
2.5°	677.1	676.3	674.0	670.0	664.4	654.9	646.9	639.7	630.2	622.2	607.1
5°	713.0	709.0	705.8	701.8	689.1	680.3	666.0	650.1	635.0	619.9	589.6
7.5°	770.2	763.9	759.1	748.0	730.5	710.6	688.3	673.2	662.8	620.6	568.9
10°	831.5	825.9	816.4	796.5	775.0	746.4	714.5	678.7	646.9	611.9	550.6
12.5°	892.0	884.0	870.5	845.0	814.8	779.0	735.2	693.1	647.7	606.3	529.1
15°	952.5	943.7	929.4	898.4	858.6	811.6	758.3	705.0	651.7	599.2	506.9
17.5°	1018.5	1006.6	985.1	950.1	899.9	841.9	779.0	714.5	650.1	590.4	483.0
20°	1089.3	1072.6	1049.5	1002.6	943.7	875.3	799.7	724.1	649.3	580.1	455.9
22.5°	1148.2	1131.5	1106.0	1057.5	986.7	903.1	817.2	730.5	646.1	568.1	430.5
25°	1199.1	1185.6	1157.8	1102.1	1027.3	932.6	833.9	735.2	641.3	555.4	403.4
27.5°	1238.9	1226.2	1195.1	1137.9	1061.5	958.8	846.6	737.6	635.0	542.7	375.6
30°	1273.9	1261.2	1223.8	1164.9	1084.5	979.5	859.4	738.4	627.0	523.6	345.3
32.5°	1301.0	1289.0	1250.8	1188.0	1100.5	993.8	866.5	737.6	616.7	510.0	312.7
35°	1328.0	1316.1	1271.5	1204.7	1112.4	1000.2	872.1	733.6	603.9	487.8	281.7
37.5°	1348.7	1335.2	1289.8	1215.8	1118.0	1001.8	871.3	728.1	590.4	469.5	250.6
40°	1363.0	1348.7	1300.2	1222.2	1119.6	999.4	864.9	718.5	574.5	446.4	218.0
42.5°	1372.6	1356.7	1305.0	1231.8	1116.4	993.0	855.4	706.6	557.0	426.5	187.0
45°	1377.4	1360.7	1305.8	1223.8	1110.8	981.1	841.1	691.5	537.9	399.4	156.0
47.5°	1375.0	1356.7	1301.8	1215.0	1100.5	968.4	825.1	673.2	514.8	375.6	126.5
50°	1371.0	1351.9	1293.0	1203.9	1086.1	952.5	807.6	650.9	490.9	346.1	100.3
52.5°	1358.3	1339.2	1283.5	1188.0	1069.4	934.2	783.8	627.8	465.5	317.5	76.4
55°	1342.4	1324.8	1266.8	1173.7	1047.9	911.9	761.5	603.1	440.8	288.0	54.9
57.5°	1317.7	1301.8	1246.1	1150.6	1026.5	887.2	736.8	576.1	409.8	258.6	38.2
60°	1287.5	1271.5	1217.4	1124.3	1001.8	859.4	709.8	548.2	381.9	229.2	23.9
62.5°	1255.6	1240.5	1184.0	1091.7	970.8	829.9	680.3	520.4	352.5	202.1	14.3
65°	1213.4	1199.1	1148.2	1052.7	936.5	798.1	647.7	487.0	322.3	171.9	8.0
67.5°	1168.9	1156.2	1104.4	1016.9	896.8	763.1	614.3	454.3	290.4	145.6	4.0
70°	1121.1	1105.2	1057.5	968.4	856.2	723.3	577.7	420.9	260.2	120.2	0.0
72.5°	1065.4	1053.5	1007.4	923.0	809.2	681.1	540.3	384.3	226.8	95.5	0.8
75°	1011.3	996.2	954.1	874.5	763.1	636.6	498.9	350.1	194.2	73.2	0.8
77.5°	941.3	936.5	896.8	819.6	719.3	593.6	453.6	308.7	163.1	52.5	0.8
80°	871.3	866.5	835.5	764.7	668.4	542.7	411.4	269.7	132.9	35.0	0.8
82.5°	802.1	795.7	766.3	707.4	616.7	499.7	367.6	230.8	105.0	21.5	0.8
85°	740.0	732.0	700.2	646.1	563.4	451.2	322.3	192.6	78.0	11.9	1.6
87.5°	686.7	681.1	646.1	590.4	509.3	405.8	282.5	156.0	54.9	5.6	2.4
90°	641.3	629.4	598.4	539.5	458.3	355.7	240.3	124.9	36.6	3.2	3.2
92.5°	596.8	586.4	552.2	491.7	413.0	312.7	199.7	95.5	23.1	1.6	4.0
95°	550.6	539.5	506.1	450.4	366.8	268.9	163.9	70.0	12.7	1.6	4.0
97.5°	505.3	494.9	459.9	404.2	325.4	230.8	129.7	49.3	6.4	1.6	3.2
100°	463.1	451.2	419.3	363.6	284.1	192.6	100.3	31.8	4.0	1.6	3.2
102.5°	418.5	409.0	376.4	322.3	241.1	156.8	74.8	19.9	1.6	1.6	2.4
105°	378.8	366.8	335.0	279.3	205.3	123.3	52.5	11.9	1.6	1.6	2.4



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	246.7	237.1	209.3	162.3	104.2	48.5	14.3	2.4	2.4	2.4	2.4
115°	206.1	191.8	167.1	125.7	77.2	31.8	7.2	2.4	2.4	2.4	2.4
117.5°	164.7	152.8	135.3	95.5	50.9	20.7	4.0	2.4	2.4	2.4	2.4
120°	128.9	117.8	97.9	66.0	34.2	11.9	1.6	2.4	2.4	2.4	2.4
122.5°	92.3	83.5	66.0	43.0	20.7	5.6	2.4	2.4	3.2	3.2	2.4
125°	61.3	56.5	43.8	26.3	12.7	2.4	2.4	2.4	3.2	3.2	2.4
127.5°	39.8	35.8	25.5	15.1	5.6	2.4	2.4	3.2	3.2	3.2	2.4
130°	22.3	19.9	15.1	8.8	2.4	2.4	2.4	3.2	3.2	3.2	2.4
132.5°	12.7	11.9	8.0	1.6	2.4	2.4	2.4	3.2	3.2	3.2	3.2
135°	3.2	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	3.2
137.5°	0.8	0.8	1.6	1.6	2.4	2.4	3.2	4.0	4.0	4.0	3.2
140°	0.8	0.8	1.6	2.4	2.4	2.4	3.2	4.0	4.0	4.0	3.2
142.5°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	3.2	3.2
145°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.0	3.2	3.2	3.2
147.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	3.2	3.2
150°	0.8	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	3.2
152.5°	0.8	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	3.2
155°	1.6	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	4.0
157.5°	1.6	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	4.0
160°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2	3.2
162.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2	3.2
165°	1.6	1.6	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2
167.5°	1.6	1.6	1.6	2.4	2.4	2.4	3.2	3.2	3.2	3.2	3.2
170°	1.6	1.6	1.6	2.4	2.4	2.4	3.2	4.0	4.0	4.0	4.0
172.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	4.0	4.0
175°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	4.0	4.0
177.5°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	4.0	3.2
180°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4



TEST NUMBER: P551325

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-80-87-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	624.6	624.6	624.6
2.5°	594.4	583.3	580.1
5°	562.6	544.3	533.9
7.5°	530.7	506.1	494.1
10°	501.3	466.3	453.6
12.5°	466.3	425.7	405.8
15°	432.9	380.3	361.2
17.5°	395.5	336.6	314.3
20°	360.5	292.8	269.7
22.5°	320.7	249.9	224.4
25°	284.9	206.9	178.2
27.5°	245.1	163.1	138.5
30°	207.7	124.9	100.3
32.5°	171.9	91.5	69.2
35°	138.5	62.1	43.8
37.5°	106.6	38.2	22.3
40°	77.2	19.9	10.3
42.5°	51.7	9.5	5.6
45°	31.8	4.8	0.0
47.5°	18.3	0.0	0.0
50°	9.5	0.0	0.0
52.5°	4.0	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°	0.8	0.8	0.8
77.5°	0.8	1.6	2.4
80°	1.6	3.2	4.0
82.5°	3.2	4.0	4.0
85°	3.2	4.0	4.8
87.5°	4.0	4.8	5.6
90°	4.8	5.6	5.6
92.5°	4.8	6.4	6.4
95°	5.6	6.4	7.2
97.5°	6.4	7.2	7.2
100°	5.6	7.2	8.0
102.5°	4.8	7.2	7.2
105°	4.0	5.6	6.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.2	4.0	4.0
115°	2.4	3.2	4.0
117.5°	2.4	3.2	3.2
120°	2.4	2.4	3.2
122.5°	2.4	2.4	3.2
125°	2.4	2.4	3.2
127.5°	3.2	2.4	2.4
130°	2.4	2.4	2.4
132.5°	3.2	2.4	2.4
135°	3.2	2.4	2.4
137.5°	3.2	2.4	2.4
140°	3.2	2.4	2.4
142.5°	3.2	2.4	2.4
145°	2.4	2.4	2.4
147.5°	2.4	2.4	2.4
150°	2.4	2.4	1.6
152.5°	2.4	1.6	1.6
155°	2.4	1.6	0.8
157.5°	3.2	1.6	0.8
160°	2.4	1.6	0.8
162.5°	2.4	1.6	0.8
165°	2.4	1.6	0.0
167.5°	2.4	1.6	0.8
170°	2.4	1.6	0.8
172.5°	2.4	1.6	0.8
175°	2.4	0.8	0.8
177.5°	2.4	0.8	0.8
180°	2.4	2.4	2.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	334.2	324.6	292.8	240.3	167.9	93.9	35.0	6.4	1.6	2.4	2.4
110°	291.2	283.3	250.6	199.7	135.3	70.0	23.1	4.0	2.4	2.4	2.4





107.5°	3.2	4.8	5.6
110°	3.2	4.0	4.8



(END OF REPORT)