

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: P551193

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-80-85-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: P551193
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-80-85-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

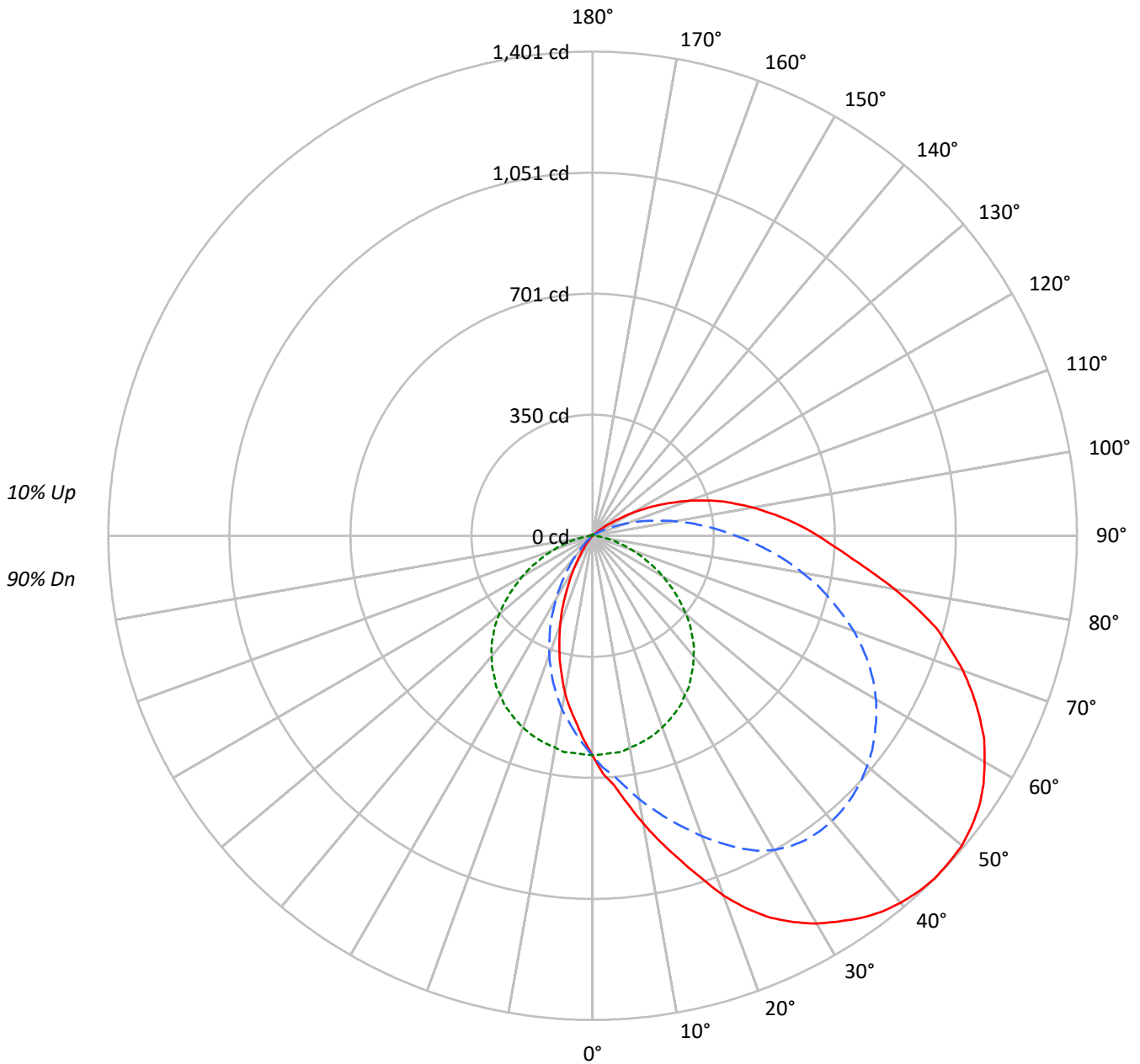
Lumens per Lamp: N/A
Luminaire Lumens: 3140.9 lumens
Efficiency: N/A
Efficacy: 72.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

TEST NUMBER: P551193

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-80-85-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°	6838	6838	6838
5°	7507	6739	5622
10°	8496	6656	4633
15°	9520	6571	3611
20°	10738	6464	2659
25°	11747	6340	1746
30°	12498	6174	984
35°	13147	5994	433
40°	13723	5775	104
45°	14218	5498	0
50°	14633	5132	0
55°	14949	4666	0
60°	15107	4125	0
65°	15170	3511	0
70°	15120	2863	0
75°	14927	2113	12
80°	14323	1291	65
85°	13844	615	90



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.9	1.9
10°-20°	182.2	5.8
20°-30°	295.1	9.4
30°-40°	379.1	12.1
40°-50°	429.1	13.7
50°-60°	444.6	14.2
60°-70°	419.3	13.3
70°-80°	351.3	11.2
80°-90°	254.7	8.1
90°-100°	167.4	5.3
100°-110°	96.7	3.1
110°-120°	42.6	1.4
120°-130°	11.5	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°	538.2	17.1
0°-40°	917.2	29.2
0°-60°	1790.9	57.0
0°-90°	2816.2	89.7
90°-120°	306.7	9.8
90°-150°	322.6	10.3
90°-180°	325.0	10.3
0°-180°	3140.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	635	635	635	635	635	
5°	725	696	630	572	543	73
15°	969	849	609	440	368	279
25°	1220	997	565	290	181	564
35°	1351	1074	496	141	44	847
45°	1401	1064	406	32	0	1082
55°	1365	997	293	0	0	1219
65°	1234	882	175	0	0	1221
75°	1029	712	74	1	1	1079
85°	753	516	12	3	5	643
90°	652	414	3	5	6	358
95°	560	323	2	6	7	439
105°	385	167	2	4	6	407
115°	210	55	2	2	4	210
125°	62	8	3	2	3	62
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°	635.3	635.3	635.3	635.3	635.3	635.3	635.3	635.3	635.3	635.3	635.3
2.5°	688.8	688.0	685.5	681.5	675.8	666.1	658.0	650.7	641.0	632.9	617.5
5°	725.2	721.1	717.9	713.9	700.9	692.0	677.4	661.2	645.9	630.5	599.7
7.5°	783.5	777.0	772.1	760.8	743.0	722.8	700.1	684.7	674.2	631.3	578.7
10°	845.8	840.1	830.4	810.2	788.3	759.2	726.8	690.4	658.0	622.4	560.1
12.5°	907.3	899.2	885.4	859.5	828.8	792.4	747.9	705.0	658.8	616.7	538.2
15°	968.8	959.9	945.3	913.8	873.3	825.5	771.3	717.1	662.9	609.4	515.6
17.5°	1036.0	1023.8	1002.0	966.4	915.4	856.3	792.4	726.8	661.2	600.5	491.3
20°	1108.0	1091.0	1067.5	1019.8	959.9	890.3	813.4	736.5	660.4	590.0	463.8
22.5°	1167.9	1150.9	1125.0	1075.6	1003.6	918.6	831.2	743.0	657.2	577.9	437.9
25°	1219.7	1205.9	1177.6	1121.0	1044.9	948.6	848.2	747.9	652.3	564.9	410.3
27.5°	1260.2	1247.2	1215.7	1157.4	1079.7	975.3	861.2	750.3	645.9	552.0	382.0
30°	1295.8	1282.8	1244.8	1184.9	1103.2	996.3	874.1	751.1	637.8	532.6	351.3
32.5°	1323.3	1311.2	1272.3	1208.4	1119.3	1010.9	881.4	750.3	627.3	518.8	318.1
35°	1350.8	1338.7	1293.4	1225.4	1131.5	1017.4	887.1	746.2	614.3	496.1	286.5
37.5°	1371.9	1358.1	1312.0	1236.7	1137.2	1019.0	886.3	740.6	600.5	477.5	254.9
40°	1386.4	1371.9	1322.5	1243.2	1138.8	1016.6	879.8	730.9	584.4	454.1	221.8
42.5°	1396.1	1380.0	1327.4	1252.9	1135.5	1010.1	870.1	718.7	566.6	433.8	190.2
45°	1401.0	1384.0	1328.2	1244.8	1129.9	997.9	855.5	703.3	547.1	406.3	158.6
47.5°	1398.6	1380.0	1324.1	1235.9	1119.3	985.0	839.3	684.7	523.7	382.0	128.7
50°	1394.5	1375.1	1315.2	1224.6	1104.8	968.8	821.5	662.1	499.4	352.1	102.0
52.5°	1381.6	1362.2	1305.5	1208.4	1087.8	950.2	797.2	638.6	473.5	322.9	77.7
55°	1365.4	1347.6	1288.5	1193.8	1065.9	927.5	774.6	613.5	448.4	293.0	55.8
57.5°	1340.3	1324.1	1267.5	1170.3	1044.1	902.4	749.5	586.0	416.8	263.0	38.8
60°	1309.5	1293.4	1238.3	1143.6	1019.0	874.1	722.0	557.7	388.5	233.1	24.3
62.5°	1277.2	1261.8	1204.3	1110.4	987.4	844.2	692.0	529.3	358.5	205.6	14.6
65°	1234.3	1219.7	1167.9	1070.8	952.6	811.8	658.8	495.3	327.8	174.8	8.1
67.5°	1189.0	1176.0	1123.4	1034.4	912.2	776.2	624.8	462.1	295.4	148.1	4.0
70°	1140.4	1124.2	1075.6	985.0	870.9	735.7	587.6	428.2	264.7	122.2	0.0
72.5°	1083.7	1071.6	1024.7	938.9	823.1	692.8	549.6	390.9	230.7	97.1	0.8
75°	1028.7	1013.3	970.4	889.5	776.2	647.5	507.5	356.1	197.5	74.5	0.8
77.5°	957.5	952.6	912.2	833.6	731.7	603.8	461.3	314.0	165.9	53.4	0.8
80°	886.3	881.4	849.8	777.8	679.9	552.0	418.4	274.4	135.2	35.6	0.8
82.5°	815.8	809.4	779.4	719.5	627.3	508.3	373.9	234.7	106.8	21.9	0.8
85°	752.7	744.6	712.2	657.2	573.0	458.9	327.8	195.9	79.3	12.1	1.6
87.5°	698.5	692.8	657.2	600.5	518.0	412.8	287.3	158.6	55.8	5.7	2.4
90°	652.3	640.2	608.6	548.7	466.2	361.8	244.4	127.1	37.2	3.2	3.2
92.5°	607.0	596.5	561.7	500.2	420.1	318.1	203.1	97.1	23.5	1.6	4.0
95°	560.1	548.7	514.8	458.1	373.1	273.6	166.7	71.2	12.9	1.6	4.0
97.5°	513.9	503.4	467.8	411.2	331.0	234.7	131.9	50.2	6.5	1.6	3.2
100°	471.0	458.9	426.5	369.9	288.9	195.9	102.0	32.4	4.0	1.6	3.2
102.5°	425.7	416.0	382.8	327.8	245.2	159.4	76.1	20.2	1.6	1.6	2.4
105°	385.3	373.1	340.7	284.1	208.8	125.5	53.4	12.1	1.6	1.6	2.4



TEST NUMBER: P551193

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-80-85-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	250.9	241.2	212.9	165.1	106.0	49.4	14.6	2.4	2.4	2.4	2.4
115°	209.6	195.1	170.0	127.9	78.5	32.4	7.3	2.4	2.4	2.4	2.4
117.5°	167.5	155.4	137.6	97.1	51.8	21.0	4.0	2.4	2.4	2.4	2.4
120°	131.1	119.8	99.6	67.2	34.8	12.1	1.6	2.4	2.4	2.4	2.4
122.5°	93.9	85.0	67.2	43.7	21.0	5.7	2.4	2.4	3.2	3.2	2.4
125°	62.3	57.5	44.5	26.7	12.9	2.4	2.4	2.4	3.2	3.2	2.4
127.5°	40.5	36.4	25.9	15.4	5.7	2.4	2.4	3.2	3.2	3.2	2.4
130°	22.7	20.2	15.4	8.9	2.4	2.4	2.4	3.2	3.2	3.2	2.4
132.5°	12.9	12.1	8.1	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: P551193

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-80-85-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	635.3	635.3	635.3
2.5°	604.6	593.3	590.0
5°	572.2	553.6	543.1
7.5°	539.8	514.8	502.6
10°	509.9	474.3	461.3
12.5°	474.3	433.0	412.8
15°	440.3	386.9	367.5
17.5°	402.3	342.4	319.7
20°	366.6	297.8	274.4
22.5°	326.2	254.1	228.2
25°	289.8	210.4	181.3
27.5°	249.3	165.9	140.8
30°	211.2	127.1	102.0
32.5°	174.8	93.1	70.4
35°	140.8	63.1	44.5
37.5°	108.5	38.8	22.7
40°	78.5	20.2	10.5
42.5°	52.6	9.7	5.7
45°	32.4	4.9	0.0
47.5°	18.6	0.0	0.0
50°	9.7	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	4.9
87.5°	4.0	4.9	5.7
90°	4.9	5.7	5.7
92.5°	4.9	6.5	6.5
95°	5.7	6.5	7.3
97.5°	6.5	7.3	7.3
100°	5.7	7.3	8.1
102.5°	4.9	7.3	7.3
105°	4.0	5.7	6.5



TEST NUMBER: P551193

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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°	339.9	330.2	297.8	244.4	170.8	95.5	35.6	6.5	1.6	2.4	2.4
110°	296.2	288.1	254.9	203.1	137.6	71.2	23.5	4.0	2.4	2.4	2.4





107.5°	3.2	4.9	5.7
110°	3.2	4.0	4.9



(END OF REPORT)