

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: P551259

Luminaire Tested: **FCC-X-2-LD4-2HI-35-UNV-80-86-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: P551259
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-35-UNV-80-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

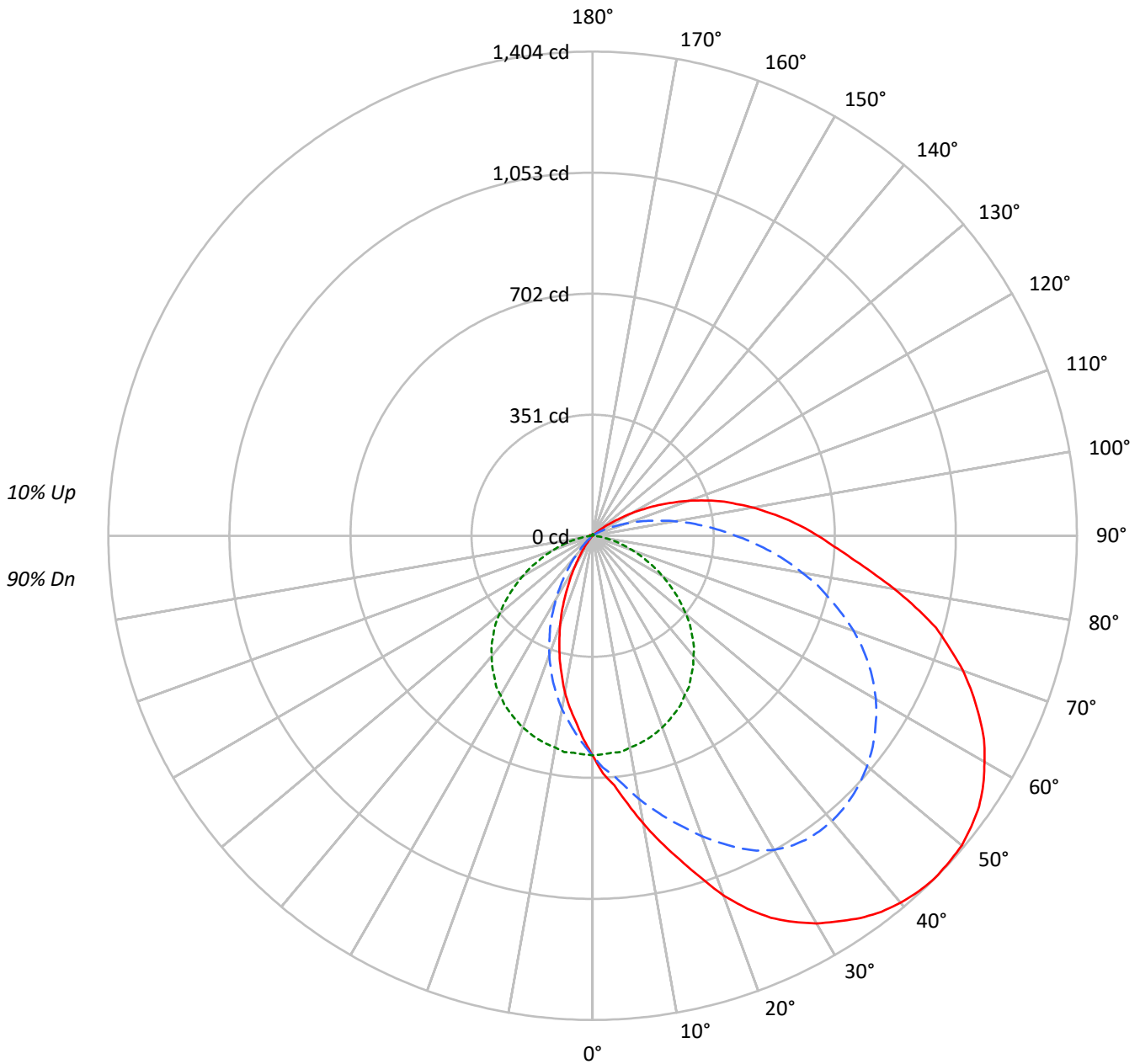
Lumens per Lamp: N/A
Luminaire Lumens: 3146.9 lumens
Efficiency: N/A
Efficacy: 72.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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-35-UNV-80-86-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°	6852	6852	6852
5°	7522	6752	5633
10°	8512	6669	4643
15°	9539	6584	3618
20°	10758	6477	2664
25°	11769	6352	1749
30°	12522	6186	986
35°	13172	6006	434
40°	13750	5785	104
45°	14245	5509	0
50°	14661	5140	0
55°	14977	4674	0
60°	15136	4132	0
65°	15199	3519	0
70°	15149	2867	0
75°	14956	2116	12
80°	14349	1295	66
85°	13869	620	90



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.0	1.9
10°-20°	182.6	5.8
20°-30°	295.7	9.4
30°-40°	379.8	12.1
40°-50°	429.9	13.7
50°-60°	445.4	14.2
60°-70°	420.1	13.3
70°-80°	352.0	11.2
80°-90°	255.2	8.1
90°-100°	167.7	5.3
100°-110°	96.9	3.1
110°-120°	42.7	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°	539.2	17.1
0°-40°	919.0	29.2
0°-60°	1794.3	57.0
0°-90°	2821.6	89.7
90°-120°	307.3	9.8
90°-150°	323.2	10.3
90°-180°	325.0	10.3
0°-180°	3146.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	637	637	637	637	637	
5°	727	698	632	573	544	73
15°	971	851	611	441	368	280
25°	1222	999	566	290	182	565
35°	1353	1076	497	141	45	849
45°	1404	1066	407	32	0	1084
55°	1368	999	294	0	0	1222
65°	1237	884	175	0	0	1223
75°	1031	713	75	1	1	1081
85°	754	517	12	3	5	644
90°	654	415	3	5	6	358
95°	561	324	2	6	7	440
105°	386	167	2	4	6	407
115°	210	56	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°	636.6	636.6	636.6	636.6	636.6	636.6	636.6	636.6	636.6	636.6	636.6
2.5°	690.1	689.3	686.8	682.8	677.1	667.4	659.3	652.0	642.2	634.1	618.7
5°	726.6	722.5	719.3	715.2	702.2	693.3	678.7	662.5	647.1	631.7	600.9
7.5°	785.0	778.5	773.6	762.3	744.4	724.1	701.4	686.0	675.5	632.5	579.8
10°	847.4	841.7	832.0	811.7	789.8	760.6	728.2	691.7	659.3	623.6	561.1
12.5°	909.0	900.9	887.1	861.2	830.4	793.9	749.3	706.3	660.1	617.9	539.3
15°	970.7	961.7	947.1	915.5	875.0	827.1	772.8	718.5	664.1	610.6	516.5
17.5°	1038.0	1025.8	1003.9	968.2	917.1	857.9	793.9	728.2	662.5	601.7	492.2
20°	1110.1	1093.1	1069.6	1021.7	961.7	892.0	815.0	737.9	661.7	591.2	464.7
22.5°	1170.1	1153.1	1127.2	1077.7	1005.5	920.4	832.8	744.4	658.5	579.0	438.7
25°	1222.0	1208.3	1179.9	1123.1	1046.9	950.4	849.8	749.3	653.6	566.0	411.1
27.5°	1262.6	1249.6	1218.0	1159.6	1081.8	977.1	862.8	751.7	647.1	553.0	382.7
30°	1298.3	1285.3	1247.2	1187.2	1105.3	998.2	875.8	752.5	639.0	533.6	351.9
32.5°	1325.8	1313.7	1274.7	1210.7	1121.5	1012.8	883.1	751.7	628.5	519.8	318.7
35°	1353.4	1341.2	1295.8	1227.7	1133.6	1019.3	888.8	747.7	615.5	497.1	287.1
37.5°	1374.5	1360.7	1314.5	1239.1	1139.3	1020.9	887.9	742.0	601.7	478.4	255.4
40°	1389.1	1374.5	1325.0	1245.6	1140.9	1018.5	881.5	732.2	585.5	454.9	222.2
42.5°	1398.8	1382.6	1329.9	1255.3	1137.7	1012.0	871.7	720.1	567.6	434.6	190.6
45°	1403.7	1386.7	1330.7	1247.2	1132.0	999.8	857.1	704.7	548.2	407.1	158.9
47.5°	1401.2	1382.6	1326.6	1238.3	1121.5	986.9	840.9	686.0	524.7	382.7	128.9
50°	1397.2	1377.7	1317.7	1226.9	1106.9	970.7	823.1	663.3	500.3	352.7	102.2
52.5°	1384.2	1364.8	1308.0	1210.7	1089.9	952.0	798.7	639.8	474.4	323.6	77.8
55°	1368.0	1350.2	1291.0	1196.1	1068.0	929.3	776.0	614.7	449.2	293.5	56.0
57.5°	1342.9	1326.6	1269.9	1172.6	1046.1	904.2	750.9	587.1	417.6	263.5	38.9
60°	1312.0	1295.8	1240.7	1145.8	1020.9	875.8	723.3	558.7	389.2	233.5	24.3
62.5°	1279.6	1264.2	1206.6	1112.6	989.3	845.8	693.3	530.3	359.2	206.0	14.6
65°	1236.6	1222.0	1170.1	1072.8	954.4	813.3	660.1	496.3	328.4	175.2	8.1
67.5°	1191.2	1178.2	1125.5	1036.3	913.9	777.7	626.0	463.0	296.0	148.4	4.1
70°	1142.6	1126.4	1077.7	986.9	872.5	737.1	588.7	429.0	265.2	122.4	0.0
72.5°	1085.8	1073.6	1026.6	940.7	824.7	694.1	550.6	391.7	231.1	97.3	0.8
75°	1030.7	1015.3	972.3	891.2	777.7	648.7	508.4	356.8	197.9	74.6	0.8
77.5°	959.3	954.4	913.9	835.2	733.1	604.9	462.2	314.6	166.2	53.5	0.8
80°	887.9	883.1	851.5	779.3	681.2	553.0	419.2	274.9	135.4	35.7	0.8
82.5°	817.4	810.9	780.9	720.9	628.5	509.3	374.6	235.2	107.0	21.9	0.8
85°	754.1	746.0	713.6	658.5	574.1	459.8	328.4	196.2	79.5	12.2	1.6
87.5°	699.8	694.1	658.5	601.7	519.0	413.6	287.9	158.9	56.0	5.7	2.4
90°	653.6	641.4	609.8	549.8	467.1	362.5	244.9	127.3	37.3	3.2	3.2
92.5°	608.2	597.6	562.8	501.1	420.9	318.7	203.5	97.3	23.5	1.6	4.1
95°	561.1	549.8	515.7	459.0	373.8	274.1	167.0	71.4	13.0	1.6	4.1
97.5°	514.9	504.4	468.7	411.9	331.7	235.2	132.2	50.3	6.5	1.6	3.2
100°	471.9	459.8	427.3	370.6	289.5	196.2	102.2	32.4	4.1	1.6	3.2
102.5°	426.5	416.8	383.6	328.4	245.7	159.7	76.2	20.3	1.6	1.6	2.4
105°	386.0	373.8	341.4	284.6	209.2	125.7	53.5	12.2	1.6	1.6	2.4



TEST NUMBER: P551259

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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	251.4	241.7	213.3	165.4	106.2	49.5	14.6	2.4	2.4	2.4	2.4
115°	210.0	195.4	170.3	128.1	78.7	32.4	7.3	2.4	2.4	2.4	2.4
117.5°	167.9	155.7	137.9	97.3	51.9	21.1	4.1	2.4	2.4	2.4	2.4
120°	131.4	120.0	99.7	67.3	34.9	12.2	1.6	2.4	2.4	2.4	2.4
122.5°	94.1	85.1	67.3	43.8	21.1	5.7	2.4	2.4	3.2	3.2	2.4
125°	62.4	57.6	44.6	26.8	13.0	2.4	2.4	2.4	3.2	3.2	2.4
127.5°	40.5	36.5	25.9	15.4	5.7	2.4	2.4	3.2	3.2	3.2	2.4
130°	22.7	20.3	15.4	8.9	2.4	2.4	2.4	3.2	3.2	3.2	2.4
132.5°	13.0	12.2	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	4.1	4.1	3.2
137.5°	0.8	0.8	1.6	1.6	2.4	2.4	3.2	4.1	4.1	4.1	3.2
140°	0.8	0.8	1.6	2.4	2.4	2.4	3.2	4.1	4.1	4.1	3.2
142.5°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.1	4.1	3.2	3.2
145°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.1	3.2	3.2	3.2
147.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.1	4.1	3.2	3.2
150°	0.8	1.6	1.6	2.4	3.2	3.2	3.2	4.1	3.2	3.2	3.2
152.5°	0.8	1.6	1.6	2.4	3.2	3.2	3.2	4.1	3.2	3.2	3.2
155°	1.6	1.6	1.6	2.4	3.2	3.2	3.2	4.1	3.2	3.2	4.1
157.5°	1.6	1.6	1.6	2.4	3.2	3.2	3.2	4.1	3.2	3.2	4.1
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	4.1	4.1	4.1	4.1
172.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.1	4.1	4.1	4.1
175°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.1	4.1	4.1	4.1
177.5°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.1	4.1	4.1	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



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	636.6	636.6	636.6
2.5°	605.7	594.4	591.2
5°	573.3	554.7	544.1
7.5°	540.9	515.7	503.6
10°	510.9	475.2	462.2
12.5°	475.2	433.8	413.6
15°	441.1	387.6	368.2
17.5°	403.0	343.0	320.3
20°	367.3	298.4	274.9
22.5°	326.8	254.6	228.7
25°	290.3	210.8	181.6
27.5°	249.8	166.2	141.1
30°	211.6	127.3	102.2
32.5°	175.2	93.3	70.5
35°	141.1	63.3	44.6
37.5°	108.7	38.9	22.7
40°	78.7	20.3	10.5
42.5°	52.7	9.7	5.7
45°	32.4	4.9	0.0
47.5°	18.7	0.0	0.0
50°	9.7	0.0	0.0
52.5°	4.1	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°	0.8	0.8	0.8
77.5°	0.8	1.6	2.4
80°	1.6	3.2	4.1
82.5°	3.2	4.1	4.1
85°	3.2	4.1	4.9
87.5°	4.1	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°	4.1	5.7	6.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.2	4.1	4.1
115°	2.4	3.2	4.1
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°	340.6	330.9	298.4	244.9	171.1	95.7	35.7	6.5	1.6	2.4	2.4
110°	296.8	288.7	255.4	203.5	137.9	71.4	23.5	4.1	2.4	2.4	2.4





107.5°	3.2	4.9	5.7
110°	3.2	4.1	4.9



(END OF REPORT)