

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: P551333

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-80-97-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: P551333
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-80-97-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

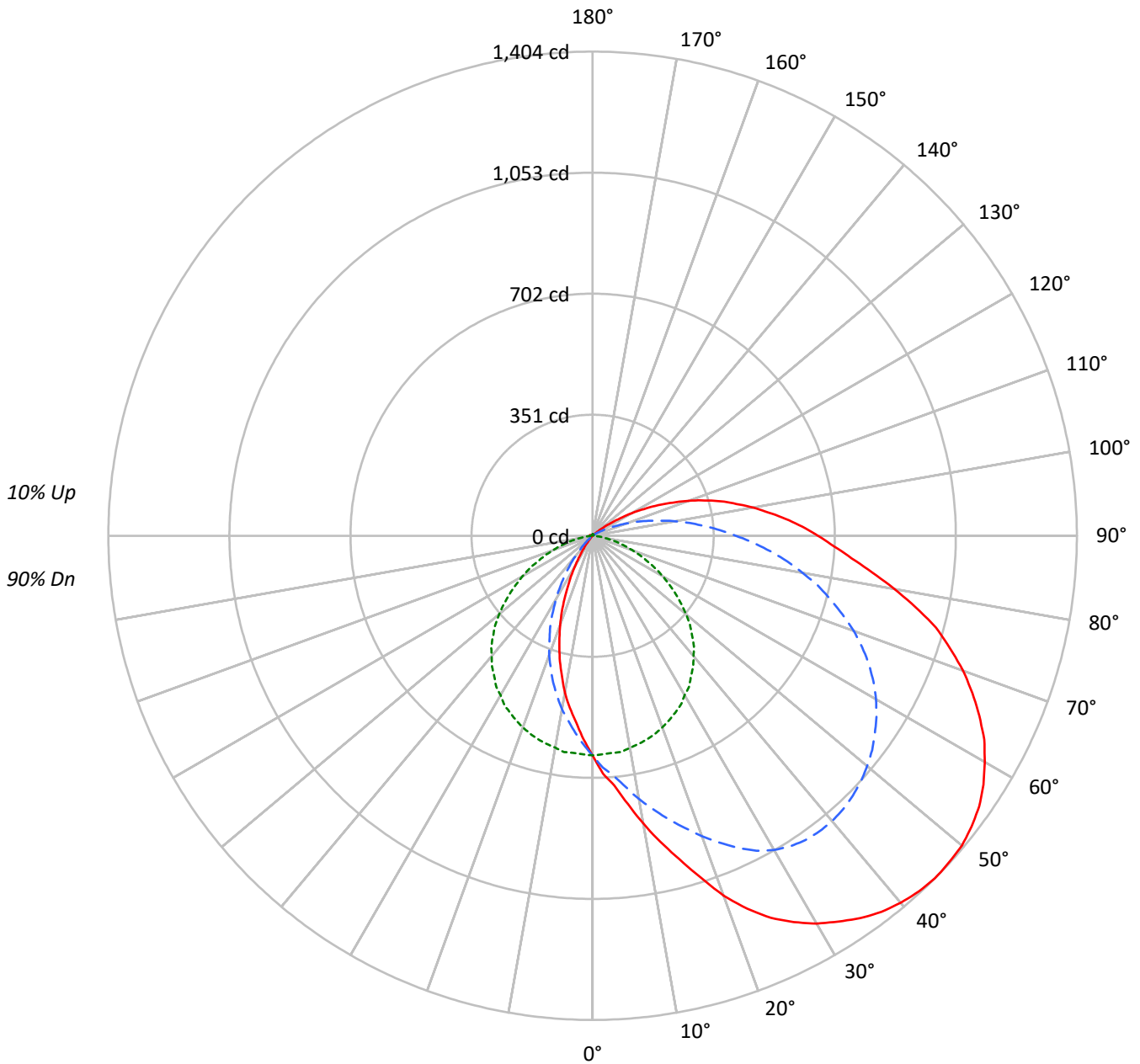
Lumens per Lamp: N/A
Luminaire Lumens: 3147.9 lumens
Efficiency: N/A
Efficacy: 72.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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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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°	6854	6854	6854
5°	7524	6754	5635
10°	8515	6671	4645
15°	9542	6586	3619
20°	10762	6478	2665
25°	11773	6354	1750
30°	12526	6187	986
35°	13176	6008	434
40°	13754	5788	104
45°	14249	5510	0
50°	14665	5143	0
55°	14982	4675	0
60°	15142	4134	0
65°	15204	3519	0
70°	15153	2870	0
75°	14961	2116	12
80°	14354	1295	66
85°	13875	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°	379.9	12.1
40°-50°	430.1	13.7
50°-60°	445.5	14.2
60°-70°	420.2	13.3
70°-80°	352.1	11.2
80°-90°	255.3	8.1
90°-100°	167.8	5.3
100°-110°	96.9	3.1
110°-120°	42.7	1.4
120°-130°	11.6	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°	539.4	17.1
0°-40°	919.3	29.2
0°-60°	1794.9	57.0
0°-90°	2822.5	89.7
90°-120°	307.4	9.8
90°-150°	323.3	10.3
90°-180°	325.0	10.3
0°-180°	3147.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	637	637	637	637	637	
5°	727	698	632	574	544	73
15°	971	851	611	441	368	280
25°	1222	999	566	290	182	565
35°	1354	1077	497	141	45	849
45°	1404	1066	407	32	0	1084
55°	1368	999	294	0	0	1222
65°	1237	884	175	0	0	1224
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	168	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°	636.8	636.8	636.8	636.8	636.8	636.8	636.8	636.8	636.8	636.8	636.8
2.5°	690.3	689.5	687.1	683.0	677.3	667.6	659.5	652.2	642.4	634.3	618.9
5°	726.8	722.7	719.5	715.4	702.5	693.5	678.9	662.7	647.3	631.9	601.1
7.5°	785.2	778.7	773.9	762.5	744.6	724.4	701.7	686.2	675.7	632.7	580.0
10°	847.7	842.0	832.3	812.0	790.1	760.9	728.4	691.9	659.5	623.8	561.3
12.5°	909.3	901.2	887.4	861.5	830.6	794.1	749.5	706.5	660.3	618.1	539.4
15°	971.0	962.0	947.4	915.8	875.2	827.4	773.0	718.7	664.3	610.8	516.7
17.5°	1038.3	1026.1	1004.2	968.5	917.4	858.2	794.1	728.4	662.7	601.9	492.4
20°	1110.5	1093.5	1069.9	1022.1	962.0	892.3	815.2	738.2	661.9	591.3	464.8
22.5°	1170.5	1153.5	1127.5	1078.0	1005.8	920.7	833.1	744.6	658.7	579.2	438.8
25°	1222.4	1208.6	1180.2	1123.5	1047.2	950.7	850.1	749.5	653.8	566.2	411.3
27.5°	1263.0	1250.0	1218.4	1160.0	1082.1	977.5	863.1	752.0	647.3	553.2	382.9
30°	1298.7	1285.7	1247.6	1187.5	1105.6	998.5	876.1	752.8	639.2	533.7	352.0
32.5°	1326.3	1314.1	1275.2	1211.1	1121.8	1013.1	883.4	752.0	628.7	520.0	318.8
35°	1353.8	1341.7	1296.2	1228.1	1134.0	1019.6	889.0	747.9	615.7	497.2	287.2
37.5°	1374.9	1361.1	1314.9	1239.5	1139.7	1021.3	888.2	742.2	601.9	478.6	255.5
40°	1389.5	1374.9	1325.4	1245.9	1141.3	1018.8	881.7	732.5	585.7	455.1	222.3
42.5°	1399.3	1383.0	1330.3	1255.7	1138.1	1012.3	872.0	720.3	567.8	434.8	190.6
45°	1404.1	1387.1	1331.1	1247.6	1132.4	1000.2	857.4	704.9	548.3	407.2	159.0
47.5°	1401.7	1383.0	1327.1	1238.6	1121.8	987.2	841.2	686.2	524.8	382.9	129.0
50°	1397.6	1378.2	1318.1	1227.3	1107.2	971.0	823.3	663.5	500.5	352.9	102.2
52.5°	1384.7	1365.2	1308.4	1211.1	1090.2	952.3	799.0	640.0	474.5	323.7	77.9
55°	1368.4	1350.6	1291.4	1196.5	1068.3	929.6	776.3	614.9	449.4	293.6	56.0
57.5°	1343.3	1327.1	1270.3	1172.9	1046.4	904.4	751.1	587.3	417.8	263.6	38.9
60°	1312.5	1296.2	1241.1	1146.2	1021.3	876.1	723.6	558.9	389.4	233.6	24.3
62.5°	1280.0	1264.6	1207.0	1112.9	989.6	846.0	693.5	530.5	359.3	206.0	14.6
65°	1237.0	1222.4	1170.5	1073.2	954.7	813.6	660.3	496.4	328.5	175.2	8.1
67.5°	1191.6	1178.6	1125.9	1036.7	914.2	777.9	626.2	463.2	296.1	148.4	4.1
70°	1142.9	1126.7	1078.0	987.2	872.8	737.3	588.9	429.1	265.3	122.5	0.0
72.5°	1086.2	1074.0	1026.9	941.0	825.0	694.4	550.8	391.8	231.2	97.3	0.8
75°	1031.0	1015.6	972.6	891.5	777.9	648.9	508.6	356.9	197.9	74.6	0.8
77.5°	959.6	954.7	914.2	835.5	733.3	605.1	462.4	314.7	166.3	53.5	0.8
80°	888.2	883.4	851.7	779.5	681.4	553.2	419.4	275.0	135.5	35.7	0.8
82.5°	817.7	811.2	781.2	721.1	628.7	509.4	374.8	235.2	107.1	21.9	0.8
85°	754.4	746.3	713.8	658.7	574.3	459.9	328.5	196.3	79.5	12.2	1.6
87.5°	700.0	694.4	658.7	601.9	519.1	413.7	288.0	159.0	56.0	5.7	2.4
90°	653.8	641.6	610.0	550.0	467.2	362.6	245.0	127.4	37.3	3.2	3.2
92.5°	608.4	597.8	562.9	501.3	421.0	318.8	203.6	97.3	23.5	1.6	4.1
95°	561.3	550.0	515.9	459.1	373.9	274.2	167.1	71.4	13.0	1.6	4.1
97.5°	515.1	504.5	468.9	412.1	331.8	235.2	132.2	50.3	6.5	1.6	3.2
100°	472.1	459.9	427.5	370.7	289.6	196.3	102.2	32.4	4.1	1.6	3.2
102.5°	426.7	416.9	383.7	328.5	245.8	159.8	76.2	20.3	1.6	1.6	2.4
105°	386.1	373.9	341.5	284.7	209.3	125.7	53.5	12.2	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°	251.5	241.7	213.3	165.5	106.3	49.5	14.6	2.4	2.4	2.4	2.4
115°	210.1	195.5	170.3	128.2	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	120.1	99.8	67.3	34.9	12.2	1.6	2.4	2.4	2.4	2.4
122.5°	94.1	85.2	67.3	43.8	21.1	5.7	2.4	2.4	3.2	3.2	2.4
125°	62.5	57.6	44.6	26.8	13.0	2.4	2.4	2.4	3.2	3.2	2.4
127.5°	40.6	36.5	26.0	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°	636.8	636.8	636.8
2.5°	605.9	594.6	591.3
5°	573.5	554.8	544.3
7.5°	541.0	515.9	503.7
10°	511.0	475.3	462.4
12.5°	475.3	434.0	413.7
15°	441.3	387.7	368.3
17.5°	403.1	343.1	320.4
20°	367.5	298.5	275.0
22.5°	326.9	254.7	228.7
25°	290.4	210.9	181.7
27.5°	249.8	166.3	141.1
30°	211.7	127.4	102.2
32.5°	175.2	93.3	70.6
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°	340.7	331.0	298.5	245.0	171.2	95.7	35.7	6.5	1.6	2.4	2.4
110°	296.9	288.8	255.5	203.6	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)