

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: P551317

Luminaire Tested: **FCC-X-2-LD4-2HI-35-UNV-93-97-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: P551317
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-93-97-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K,
AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

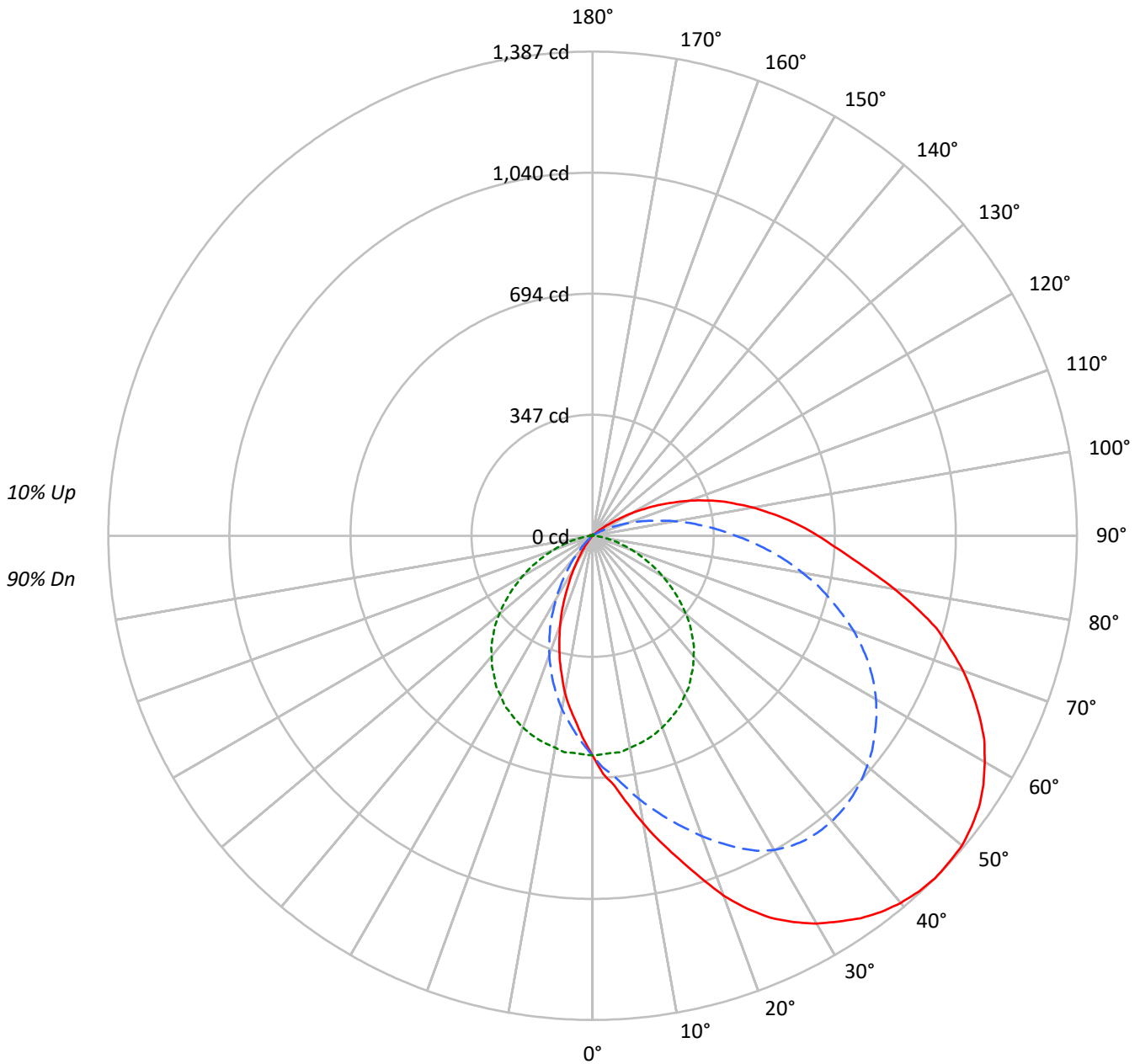
Lumens per Lamp: N/A
Luminaire Lumens: 3110.0 lumens
Efficiency: N/A
Efficacy: 71.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	6772	6772	6772
5°	7433	6673	5566
10°	8411	6591	4588
15°	9426	6506	3575
20°	10632	6401	2633
25°	11632	6278	1729
30°	12374	6113	974
35°	13018	5935	429
40°	13589	5718	103
45°	14078	5444	0
50°	14489	5081	0
55°	14801	4619	0
60°	14959	4084	0
65°	15021	3477	0
70°	14970	2835	0
75°	14779	2090	12
80°	14181	1280	65
85°	13707	610	88



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.3	1.9
10°-20°	180.4	5.8
20°-30°	292.2	9.4
30°-40°	375.3	12.1
40°-50°	424.9	13.7
50°-60°	440.2	14.2
60°-70°	415.1	13.3
70°-80°	347.9	11.2
80°-90°	252.2	8.1
90°-100°	165.7	5.3
100°-110°	95.7	3.1
110°-120°	42.2	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°	532.9	17.1
0°-40°	908.2	29.2
0°-60°	1773.2	57.0
0°-90°	2788.4	89.7
90°-120°	303.7	9.8
90°-150°	319.4	10.3
90°-180°	322.0	10.4
0°-180°	3110.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	629	629	629	629	629	
5°	718	690	624	567	538	72
15°	959	841	603	436	364	277
25°	1208	987	559	287	180	558
35°	1338	1064	491	139	44	839
45°	1387	1053	402	32	0	1071
55°	1352	987	290	0	0	1207
65°	1222	874	173	0	0	1209
75°	1018	705	74	1	1	1068
85°	745	511	12	3	5	636
90°	646	410	3	5	6	354
95°	555	320	2	6	7	435
105°	382	166	2	4	6	403
115°	208	55	2	2	4	208
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°	629.1	629.1	629.1	629.1	629.1	629.1	629.1	629.1	629.1	629.1	629.1
2.5°	682.0	681.2	678.8	674.8	669.1	659.5	651.5	644.3	634.7	626.7	611.4
5°	718.0	714.0	710.8	706.8	694.0	685.2	670.7	654.7	639.5	624.3	593.8
7.5°	775.7	769.3	764.5	753.3	735.7	715.6	693.2	678.0	667.5	625.1	573.0
10°	837.4	831.8	822.2	802.2	780.5	751.7	719.6	683.6	651.5	616.3	554.6
12.5°	898.3	890.3	876.7	851.1	820.6	784.5	740.5	698.0	652.3	610.6	532.9
15°	959.2	950.4	936.0	904.8	864.7	817.4	763.7	710.0	656.3	603.4	510.5
17.5°	1025.8	1013.7	992.1	956.8	906.4	847.9	784.5	719.6	654.7	594.6	486.4
20°	1097.1	1080.3	1057.0	1009.7	950.4	881.5	805.4	729.3	653.9	584.2	459.2
22.5°	1156.4	1139.6	1113.9	1065.0	993.7	909.6	823.0	735.7	650.7	572.2	433.5
25°	1207.7	1194.0	1166.0	1109.9	1034.6	939.2	839.8	740.5	645.9	559.4	406.3
27.5°	1247.7	1234.9	1203.7	1146.0	1069.0	965.7	852.7	742.9	639.5	546.5	378.2
30°	1283.0	1270.2	1232.5	1173.2	1092.3	986.5	865.5	743.7	631.5	527.3	347.8
32.5°	1310.2	1298.2	1259.8	1196.5	1108.3	1000.9	872.7	742.9	621.1	513.7	314.9
35°	1337.5	1325.5	1280.6	1213.3	1120.3	1007.3	878.3	738.9	608.2	491.2	283.7
37.5°	1358.3	1344.7	1299.0	1224.5	1125.9	1008.9	877.5	733.3	594.6	472.8	252.4
40°	1372.8	1358.3	1309.4	1230.9	1127.5	1006.5	871.1	723.6	578.6	449.6	219.6
42.5°	1382.4	1366.3	1314.3	1240.5	1124.3	1000.1	861.5	711.6	561.0	429.5	188.3
45°	1387.2	1370.3	1315.1	1232.5	1118.7	988.1	847.1	696.4	541.7	402.3	157.1
47.5°	1384.8	1366.3	1311.0	1223.7	1108.3	975.3	831.0	678.0	518.5	378.2	127.4
50°	1380.8	1361.5	1302.2	1212.5	1093.9	959.2	813.4	655.5	494.4	348.6	101.0
52.5°	1367.9	1348.7	1292.6	1196.5	1077.0	940.8	789.4	632.3	468.8	319.7	76.9
55°	1351.9	1334.3	1275.8	1182.0	1055.4	918.4	766.9	607.4	444.0	290.1	55.3
57.5°	1327.1	1311.0	1255.0	1158.8	1033.8	893.5	742.1	580.2	412.7	260.4	38.5
60°	1296.6	1280.6	1226.1	1132.3	1008.9	865.5	714.8	552.1	384.7	230.8	24.0
62.5°	1264.6	1249.3	1192.4	1099.5	977.7	835.8	685.2	524.1	355.0	203.5	14.4
65°	1222.1	1207.7	1156.4	1060.2	943.2	803.8	652.3	490.4	324.6	173.1	8.0
67.5°	1177.2	1164.4	1112.3	1024.2	903.1	768.5	618.7	457.6	292.5	146.7	4.0
70°	1129.1	1113.1	1065.0	975.3	862.3	728.4	581.8	423.9	262.0	121.0	0.0
72.5°	1073.0	1061.0	1014.5	929.6	815.0	686.0	544.1	387.1	228.4	96.2	0.8
75°	1018.5	1003.3	960.8	880.7	768.5	641.1	502.5	352.6	195.5	73.7	0.8
77.5°	948.0	943.2	903.1	825.4	724.4	597.8	456.8	310.9	164.3	52.9	0.8
80°	877.5	872.7	841.4	770.1	673.2	546.5	414.3	271.7	133.8	35.3	0.8
82.5°	807.8	801.4	771.7	712.4	621.1	503.3	370.2	232.4	105.8	21.6	0.8
85°	745.3	737.3	705.2	650.7	567.4	454.4	324.6	193.9	78.5	12.0	1.6
87.5°	691.6	686.0	650.7	594.6	512.9	408.7	284.5	157.1	55.3	5.6	2.4
90°	645.9	633.9	602.6	543.3	461.6	358.2	242.0	125.8	36.9	3.2	3.2
92.5°	601.0	590.6	556.2	495.2	415.9	314.9	201.1	96.2	23.2	1.6	4.0
95°	554.6	543.3	509.7	453.6	369.4	270.9	165.1	70.5	12.8	1.6	4.0
97.5°	508.9	498.5	463.2	407.1	327.8	232.4	130.6	49.7	6.4	1.6	3.2
100°	466.4	454.4	422.3	366.2	286.1	193.9	101.0	32.1	4.0	1.6	3.2
102.5°	421.5	411.9	379.0	324.6	242.8	157.9	75.3	20.0	1.6	1.6	2.4
105°	381.5	369.4	337.4	281.3	206.8	124.2	52.9	12.0	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°	248.4	238.8	210.8	163.5	105.0	48.9	14.4	2.4	2.4	2.4	2.4
115°	207.6	193.1	168.3	126.6	77.7	32.1	7.2	2.4	2.4	2.4	2.4
117.5°	165.9	153.9	136.2	96.2	51.3	20.8	4.0	2.4	2.4	2.4	2.4
120°	129.8	118.6	98.6	66.5	34.5	12.0	1.6	2.4	2.4	2.4	2.4
122.5°	93.0	84.1	66.5	43.3	20.8	5.6	2.4	2.4	3.2	3.2	2.4
125°	61.7	56.9	44.1	26.4	12.8	2.4	2.4	2.4	3.2	3.2	2.4
127.5°	40.1	36.1	25.6	15.2	5.6	2.4	2.4	3.2	3.2	3.2	2.4
130°	22.4	20.0	15.2	8.8	2.4	2.4	2.4	3.2	3.2	3.2	2.4
132.5°	12.8	12.0	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



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	629.1	629.1	629.1
2.5°	598.6	587.4	584.2
5°	566.6	548.1	537.7
7.5°	534.5	509.7	497.7
10°	504.9	469.6	456.8
12.5°	469.6	428.7	408.7
15°	435.9	383.1	363.8
17.5°	398.3	339.0	316.5
20°	363.0	294.9	271.7
22.5°	323.0	251.6	226.0
25°	286.9	208.4	179.5
27.5°	246.8	164.3	139.4
30°	209.2	125.8	101.0
32.5°	173.1	92.2	69.7
35°	139.4	62.5	44.1
37.5°	107.4	38.5	22.4
40°	77.7	20.0	10.4
42.5°	52.1	9.6	5.6
45°	32.1	4.8	0.0
47.5°	18.4	0.0	0.0
50°	9.6	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°	336.6	327.0	294.9	242.0	169.1	94.6	35.3	6.4	1.6	2.4	2.4
110°	293.3	285.3	252.4	201.1	136.2	70.5	23.2	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)