

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: P551361

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-82-94-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: P551361
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-82-94-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

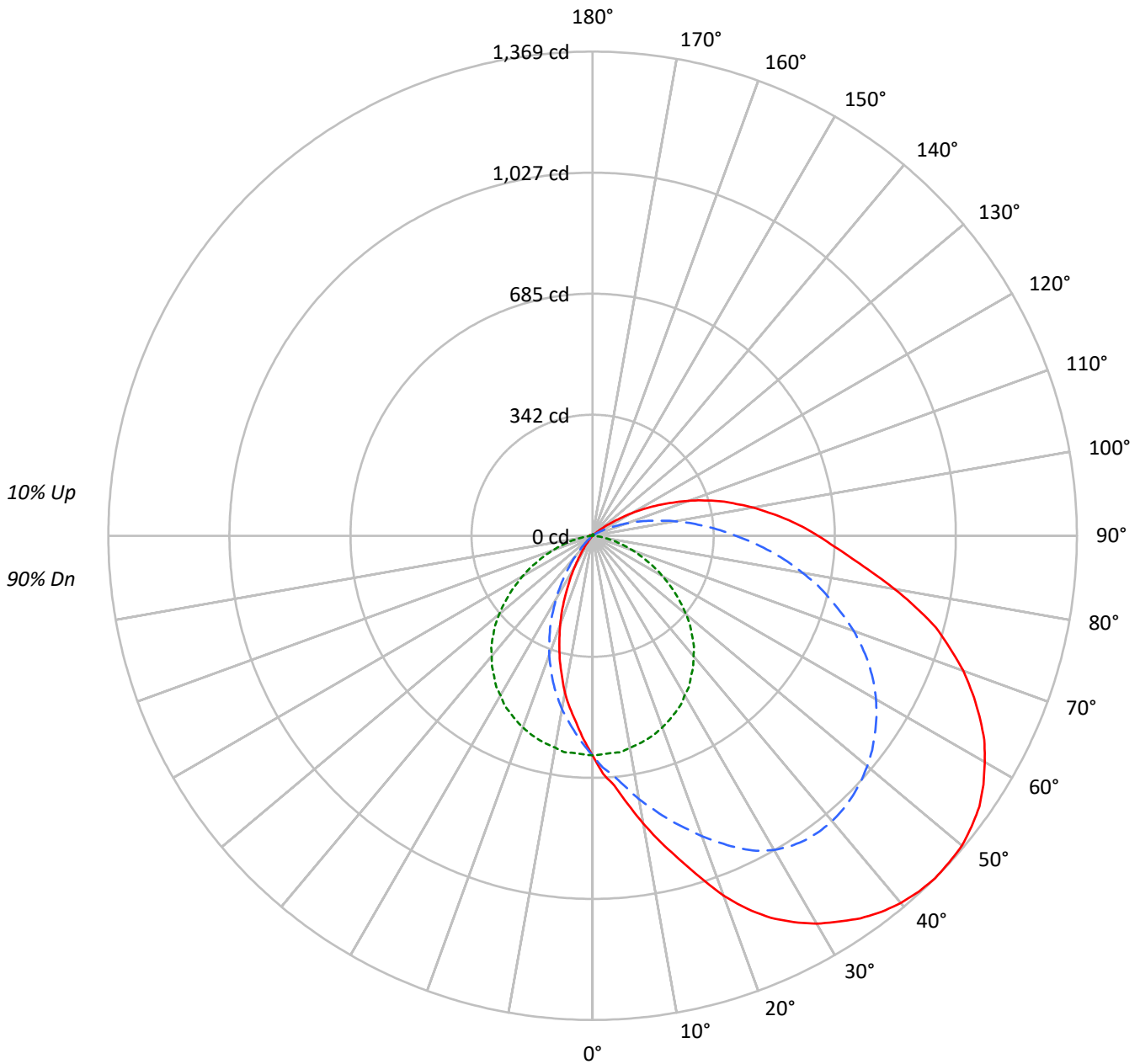
Lumens per Lamp: N/A
Luminaire Lumens: 3070.1 lumens
Efficiency: N/A
Efficacy: 70.9 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 43.3
Input Voltage (V): NR
Input Current (Ain): 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°	6684	6684	6684
5°	7338	6586	5495
10°	8304	6505	4529
15°	9305	6423	3529
20°	10495	6318	2599
25°	11481	6197	1707
30°	12215	6034	962
35°	12850	5859	423
40°	13413	5644	102
45°	13896	5373	0
50°	14302	5015	0
55°	14611	4561	0
60°	14766	4031	0
65°	14828	3433	0
70°	14778	2799	0
75°	14589	2065	12
80°	13998	1262	65
85°	13531	605	86



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.5	1.9
10°-20°	178.1	5.8
20°-30°	288.4	9.4
30°-40°	370.5	12.1
40°-50°	419.4	13.7
50°-60°	434.5	14.2
60°-70°	409.8	13.3
70°-80°	343.4	11.2
80°-90°	248.9	8.1
90°-100°	163.6	5.3
100°-110°	94.5	3.1
110°-120°	41.7	1.4
120°-130°	11.3	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°	526.0	17.1
0°-40°	896.5	29.2
0°-60°	1750.4	57.0
0°-90°	2752.5	89.7
90°-120°	299.8	9.8
90°-150°	315.4	10.3
90°-180°	318.0	10.4
0°-180°	3070.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	621	621	621	621	621	
5°	709	681	616	559	531	71
15°	947	830	596	430	359	273
25°	1192	974	552	283	177	551
35°	1320	1050	485	138	44	828
45°	1369	1040	397	32	0	1057
55°	1334	974	286	0	0	1192
65°	1206	862	171	0	0	1194
75°	1005	696	73	1	1	1055
85°	736	504	12	3	5	628
90°	638	405	3	5	6	350
95°	547	316	2	6	7	429
105°	376	163	2	4	6	397
115°	205	54	2	2	4	205
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°	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0	621.0
2.5°	673.2	672.4	670.0	666.1	660.5	651.0	643.1	636.0	626.5	618.6	603.6
5°	708.8	704.8	701.7	697.7	685.1	676.4	662.1	646.3	631.3	616.2	586.2
7.5°	765.8	759.4	754.7	743.6	726.2	706.4	684.3	669.2	659.0	617.0	565.6
10°	826.7	821.1	811.6	791.9	770.5	742.0	710.4	674.8	643.1	608.3	547.4
12.5°	886.8	878.9	865.4	840.1	810.1	774.5	730.9	689.0	643.9	602.8	526.1
15°	946.9	938.2	924.0	893.1	853.6	806.9	753.9	700.9	647.9	595.7	503.9
17.5°	1012.6	1000.7	979.3	944.5	894.7	836.9	774.5	710.4	646.3	587.0	480.2
20°	1083.0	1066.4	1043.4	996.7	938.2	870.2	795.0	719.9	645.5	576.7	453.3
22.5°	1141.5	1124.9	1099.6	1051.3	980.9	897.9	812.4	726.2	642.3	564.8	428.0
25°	1192.1	1178.7	1151.0	1095.6	1021.3	927.1	829.0	730.9	637.6	552.2	401.1
27.5°	1231.7	1219.0	1188.2	1131.2	1055.3	953.2	841.7	733.3	631.3	539.5	373.4
30°	1266.5	1253.8	1216.7	1158.1	1078.2	973.8	854.4	734.1	623.4	520.5	343.3
32.5°	1293.4	1281.5	1243.6	1181.1	1094.0	988.0	861.5	733.3	613.1	507.1	310.9
35°	1320.3	1308.4	1264.1	1197.7	1105.9	994.4	867.0	729.4	600.4	484.9	280.0
37.5°	1340.9	1327.4	1282.3	1208.7	1111.4	996.0	866.2	723.8	587.0	466.7	249.2
40°	1355.1	1340.9	1292.6	1215.1	1113.0	993.6	859.9	714.3	571.2	443.8	216.8
42.5°	1364.6	1348.8	1297.3	1224.6	1109.9	987.3	850.4	702.5	553.7	424.0	185.9
45°	1369.3	1352.7	1298.1	1216.7	1104.3	975.4	836.2	687.4	534.8	397.1	155.0
47.5°	1367.0	1348.8	1294.2	1208.0	1094.0	962.7	820.3	669.2	511.8	373.4	125.8
50°	1363.0	1344.0	1285.5	1196.9	1079.8	946.9	802.9	647.1	488.1	344.1	99.7
52.5°	1350.4	1331.4	1276.0	1181.1	1063.2	928.7	779.2	624.2	462.8	315.6	75.9
55°	1334.5	1317.1	1259.4	1166.8	1041.8	906.6	757.1	599.6	438.3	286.4	54.6
57.5°	1310.0	1294.2	1238.8	1143.9	1020.5	882.0	732.5	572.7	407.4	257.1	38.0
60°	1279.9	1264.1	1210.3	1117.8	996.0	854.4	705.6	545.0	379.7	227.8	23.7
62.5°	1248.3	1233.3	1177.1	1085.3	965.1	825.1	676.4	517.4	350.4	200.9	14.2
65°	1206.4	1192.1	1141.5	1046.6	931.1	793.4	643.9	484.1	320.4	170.9	7.9
67.5°	1162.1	1149.4	1098.0	1011.0	891.5	758.6	610.7	451.7	288.7	144.8	4.0
70°	1114.6	1098.8	1051.3	962.7	851.2	719.1	574.3	418.5	258.7	119.5	0.0
72.5°	1059.2	1047.4	1001.5	917.6	804.5	677.2	537.1	382.1	225.5	94.9	0.8
75°	1005.4	990.4	948.5	869.4	758.6	632.9	496.0	348.1	193.0	72.8	0.8
77.5°	935.8	931.1	891.5	814.8	715.1	590.1	450.9	306.9	162.2	52.2	0.8
80°	866.2	861.5	830.6	760.2	664.5	539.5	409.0	268.2	132.1	34.8	0.8
82.5°	797.4	791.1	761.8	703.3	613.1	496.8	365.5	229.4	104.4	21.4	0.8
85°	735.7	727.8	696.1	642.3	560.1	448.5	320.4	191.4	77.5	11.9	1.6
87.5°	682.7	677.2	642.3	587.0	506.3	403.4	280.8	155.0	54.6	5.5	2.4
90°	637.6	625.7	594.9	536.3	455.7	353.6	238.9	124.2	36.4	3.2	3.2
92.5°	593.3	583.0	549.0	488.9	410.6	310.9	198.6	94.9	22.9	1.6	4.0
95°	547.4	536.3	503.1	447.7	364.7	267.4	163.0	69.6	12.7	1.6	4.0
97.5°	502.3	492.0	457.2	401.9	323.5	229.4	128.9	49.0	6.3	1.6	3.2
100°	460.4	448.5	416.9	361.5	282.4	191.4	99.7	31.6	4.0	1.6	3.2
102.5°	416.1	406.6	374.2	320.4	239.7	155.8	74.4	19.8	1.6	1.6	2.4
105°	376.5	364.7	333.0	277.7	204.1	122.6	52.2	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°	245.2	235.7	208.1	161.4	103.6	48.3	14.2	2.4	2.4	2.4	2.4
115°	204.9	190.6	166.1	125.0	76.7	31.6	7.1	2.4	2.4	2.4	2.4
117.5°	163.8	151.9	134.5	94.9	50.6	20.6	4.0	2.4	2.4	2.4	2.4
120°	128.2	117.1	97.3	65.7	34.0	11.9	1.6	2.4	2.4	2.4	2.4
122.5°	91.8	83.1	65.7	42.7	20.6	5.5	2.4	2.4	3.2	3.2	2.4
125°	60.9	56.2	43.5	26.1	12.7	2.4	2.4	2.4	3.2	3.2	2.4
127.5°	39.6	35.6	25.3	15.0	5.5	2.4	2.4	3.2	3.2	3.2	2.4
130°	22.1	19.8	15.0	8.7	2.4	2.4	2.4	3.2	3.2	3.2	2.4
132.5°	12.7	11.9	7.9	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°	621.0	621.0	621.0
2.5°	590.9	579.9	576.7
5°	559.3	541.1	530.8
7.5°	527.6	503.1	491.3
10°	498.4	463.6	450.9
12.5°	463.6	423.2	403.4
15°	430.3	378.1	359.1
17.5°	393.2	334.6	312.5
20°	358.4	291.1	268.2
22.5°	318.8	248.4	223.1
25°	283.2	205.7	177.2
27.5°	243.6	162.2	137.6
30°	206.5	124.2	99.7
32.5°	170.9	91.0	68.8
35°	137.6	61.7	43.5
37.5°	106.0	38.0	22.1
40°	76.7	19.8	10.3
42.5°	51.4	9.5	5.5
45°	31.6	4.7	0.0
47.5°	18.2	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	4.7
87.5°	4.0	4.7	5.5
90°	4.7	5.5	5.5
92.5°	4.7	6.3	6.3
95°	5.5	6.3	7.1
97.5°	6.3	7.1	7.1
100°	5.5	7.1	7.9
102.5°	4.7	7.1	7.1
105°	4.0	5.5	6.3



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CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-82-94-ED1D-90

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°	332.2	322.8	291.1	238.9	166.9	93.3	34.8	6.3	1.6	2.4	2.4
110°	289.5	281.6	249.2	198.6	134.5	69.6	22.9	4.0	2.4	2.4	2.4





107.5°	3.2	4.7	5.5
110°	3.2	4.0	4.7



(END OF REPORT)