

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: P551360

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-82-88-ED1D**

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: P551360
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-82-88-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

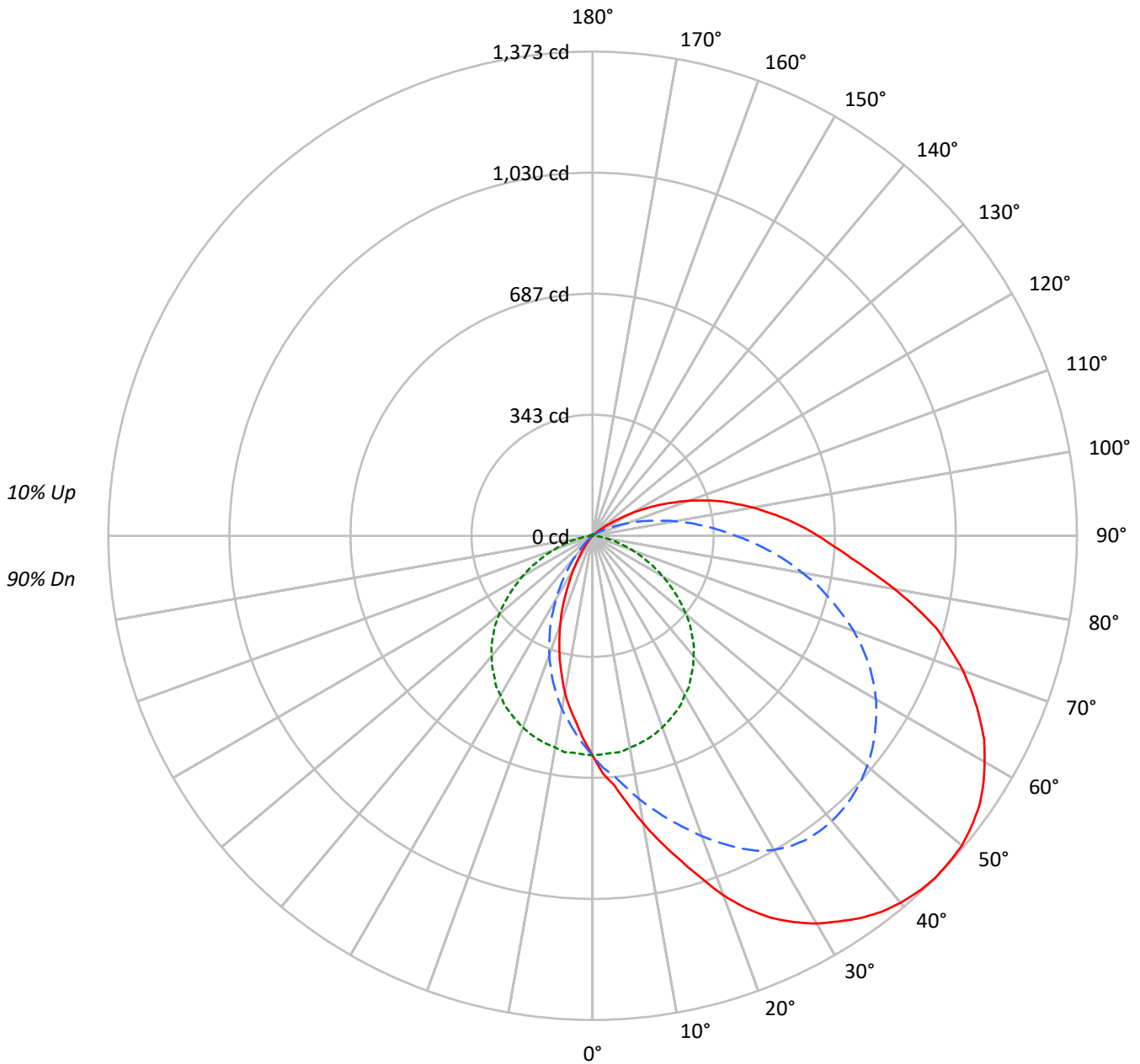
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3078.1 lumens
Efficiency: N/A
Efficacy: 71.1 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-40-UNV-82-88-ED1D

Luminous Intensity Polar Plot





TEST NUMBER: P551360

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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°	6702	6702	6702
5°	7356	6603	5509
10°	8325	6522	4541
15°	9330	6439	3539
20°	10523	6335	2606
25°	11511	6213	1711
30°	12247	6050	964
35°	12883	5875	424
40°	13448	5658	102
45°	13933	5388	0
50°	14340	5028	0
55°	14649	4572	0
60°	14805	4042	0
65°	14866	3441	0
70°	14816	2806	0
75°	14628	2070	12
80°	14036	1266	65
85°	13566	605	88



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.6	1.9
10°-20°	178.6	5.8
20°-30°	289.2	9.4
30°-40°	371.5	12.1
40°-50°	420.5	13.7
50°-60°	435.6	14.2
60°-70°	410.9	13.3
70°-80°	344.3	11.2
80°-90°	249.6	8.1
90°-100°	164.0	5.3
100°-110°	94.7	3.1
110°-120°	41.8	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°	527.4	17.1
0°-40°	898.8	29.2
0°-60°	1755.0	57.0
0°-90°	2759.7	89.7
90°-120°	300.6	9.8
90°-150°	316.2	10.3
90°-180°	318.0	10.3
0°-180°	3078.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	623	623	623	623	623	
5°	711	682	618	561	532	72
15°	949	832	597	432	360	274
25°	1195	977	554	284	178	552
35°	1324	1053	486	138	44	830
45°	1373	1043	398	32	0	1060
55°	1338	977	287	0	0	1195
65°	1210	864	171	0	0	1197
75°	1008	698	73	1	1	1057
85°	738	506	12	3	5	630
90°	639	406	3	5	6	351
95°	549	317	2	6	7	431
105°	378	164	2	4	6	398
115°	205	54	2	2	4	206
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°	622.6	622.6	622.6	622.6	622.6	622.6	622.6	622.6	622.6	622.6	622.6
2.5°	675.0	674.2	671.8	667.8	662.3	652.7	644.8	637.7	628.2	620.2	605.2
5°	710.6	706.7	703.5	699.5	686.8	678.1	663.8	648.0	632.9	617.8	587.7
7.5°	767.7	761.4	756.6	745.5	728.1	708.3	686.1	671.0	660.7	618.6	567.1
10°	828.8	823.3	813.7	793.9	772.5	744.0	712.2	676.5	644.8	609.9	548.8
12.5°	889.1	881.2	867.7	842.3	812.2	776.5	732.9	690.8	645.6	604.4	527.4
15°	949.4	940.6	926.4	895.4	855.8	809.0	755.9	702.7	649.6	597.2	505.2
17.5°	1015.2	1003.3	981.9	947.0	897.0	839.1	776.5	712.2	648.0	588.5	481.4
20°	1085.8	1069.1	1046.1	999.3	940.6	872.4	797.1	721.7	647.2	578.2	454.5
22.5°	1144.5	1127.8	1102.4	1054.1	983.5	900.2	814.5	728.1	644.0	566.3	429.1
25°	1195.2	1181.8	1154.0	1098.5	1023.9	929.5	831.2	732.9	639.3	553.6	402.1
27.5°	1234.9	1222.2	1191.3	1134.2	1058.0	955.7	843.9	735.2	632.9	540.9	374.4
30°	1269.8	1257.1	1219.8	1161.1	1081.0	976.3	856.6	736.0	625.0	521.9	344.2
32.5°	1296.8	1284.9	1246.8	1184.1	1096.9	990.6	863.7	735.2	614.7	508.4	311.7
35°	1323.7	1311.8	1267.4	1200.8	1108.8	997.0	869.3	731.3	602.0	486.2	280.8
37.5°	1344.4	1330.9	1285.7	1211.9	1114.3	998.5	868.5	725.7	588.5	467.9	249.8
40°	1358.6	1344.4	1296.0	1218.2	1115.9	996.2	862.1	716.2	572.6	444.9	217.3
42.5°	1368.1	1352.3	1300.7	1227.8	1112.8	989.8	852.6	704.3	555.2	425.1	186.4
45°	1372.9	1356.2	1301.5	1219.8	1107.2	977.9	838.3	689.2	536.2	398.2	155.5
47.5°	1370.5	1352.3	1297.6	1211.1	1096.9	965.2	822.5	671.0	513.2	374.4	126.1
50°	1366.6	1347.5	1288.8	1200.0	1082.6	949.4	805.0	648.8	489.4	345.0	99.9
52.5°	1353.9	1334.8	1279.3	1184.1	1066.0	931.1	781.2	625.8	464.0	316.5	76.1
55°	1338.0	1320.6	1262.7	1169.9	1044.5	908.9	759.0	601.2	439.4	287.1	54.7
57.5°	1313.4	1297.6	1242.0	1146.9	1023.1	884.3	734.4	574.2	408.5	257.8	38.1
60°	1283.3	1267.4	1213.5	1120.7	998.5	856.6	707.5	546.5	380.7	228.4	23.8
62.5°	1251.6	1236.5	1180.2	1088.2	967.6	827.2	678.1	518.7	351.4	201.5	14.3
65°	1209.5	1195.2	1144.5	1049.3	933.5	795.5	645.6	485.4	321.2	171.3	7.9
67.5°	1165.1	1152.4	1100.9	1013.6	893.9	760.6	612.3	452.9	289.5	145.1	4.0
70°	1117.5	1101.7	1054.1	965.2	853.4	721.0	575.8	419.6	259.4	119.8	0.0
72.5°	1062.0	1050.1	1004.1	920.0	806.6	678.9	538.5	383.1	226.0	95.2	0.8
75°	1008.1	993.0	951.0	871.6	760.6	634.5	497.3	349.0	193.5	73.0	0.8
77.5°	938.3	933.5	893.9	816.9	717.0	591.7	452.1	307.7	162.6	52.3	0.8
80°	868.5	863.7	832.8	762.2	666.2	540.9	410.0	268.9	132.5	34.9	0.8
82.5°	799.5	793.1	763.8	705.1	614.7	498.1	366.4	230.0	104.7	21.4	0.8
85°	737.6	729.7	698.0	644.0	561.5	449.7	321.2	191.9	77.7	11.9	1.6
87.5°	684.5	678.9	644.0	588.5	507.6	404.5	281.6	155.5	54.7	5.6	2.4
90°	639.3	627.4	596.4	537.7	456.8	354.5	239.5	124.5	36.5	3.2	3.2
92.5°	594.8	584.5	550.4	490.2	411.6	311.7	199.1	95.2	23.0	1.6	4.0
95°	548.8	537.7	504.4	448.9	365.6	268.1	163.4	69.8	12.7	1.6	4.0
97.5°	503.6	493.3	458.4	402.9	324.4	230.0	129.3	49.2	6.3	1.6	3.2
100°	461.6	449.7	418.0	362.5	283.1	191.9	99.9	31.7	4.0	1.6	3.2
102.5°	417.2	407.7	375.1	321.2	240.3	156.2	74.6	19.8	1.6	1.6	2.4
105°	377.5	365.6	333.9	278.4	204.6	122.9	52.3	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°	245.9	236.4	208.6	161.8	103.9	48.4	14.3	2.4	2.4	2.4	2.4
115°	205.4	191.1	166.6	125.3	76.9	31.7	7.1	2.4	2.4	2.4	2.4
117.5°	164.2	152.3	134.8	95.2	50.8	20.6	4.0	2.4	2.4	2.4	2.4
120°	128.5	117.4	97.6	65.8	34.1	11.9	1.6	2.4	2.4	2.4	2.4
122.5°	92.0	83.3	65.8	42.8	20.6	5.6	2.4	2.4	3.2	3.2	2.4
125°	61.1	56.3	43.6	26.2	12.7	2.4	2.4	2.4	3.2	3.2	2.4
127.5°	39.7	35.7	25.4	15.1	5.6	2.4	2.4	3.2	3.2	3.2	2.4
130°	22.2	19.8	15.1	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°	622.6	622.6	622.6
2.5°	592.5	581.4	578.2
5°	560.7	542.5	532.2
7.5°	529.0	504.4	492.5
10°	499.7	464.8	452.1
12.5°	464.8	424.3	404.5
15°	431.5	379.1	360.1
17.5°	394.2	335.5	313.3
20°	359.3	291.9	268.9
22.5°	319.6	249.0	223.7
25°	283.9	206.2	177.7
27.5°	244.3	162.6	138.0
30°	207.0	124.5	99.9
32.5°	171.3	91.2	69.0
35°	138.0	61.9	43.6
37.5°	106.3	38.1	22.2
40°	76.9	19.8	10.3
42.5°	51.6	9.5	5.6
45°	31.7	4.8	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	4.8
87.5°	4.0	4.8	5.6
90°	4.8	5.6	5.6
92.5°	4.8	6.3	6.3
95°	5.6	6.3	7.1
97.5°	6.3	7.1	7.1
100°	5.6	7.1	7.9
102.5°	4.8	7.1	7.1
105°	4.0	5.6	6.3



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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°	333.1	323.6	291.9	239.5	167.4	93.6	34.9	6.3	1.6	2.4	2.4
110°	290.3	282.4	249.8	199.1	134.8	69.8	23.0	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)