

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: P551433

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-93-85-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: P551433
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-50-UNV-93-85-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

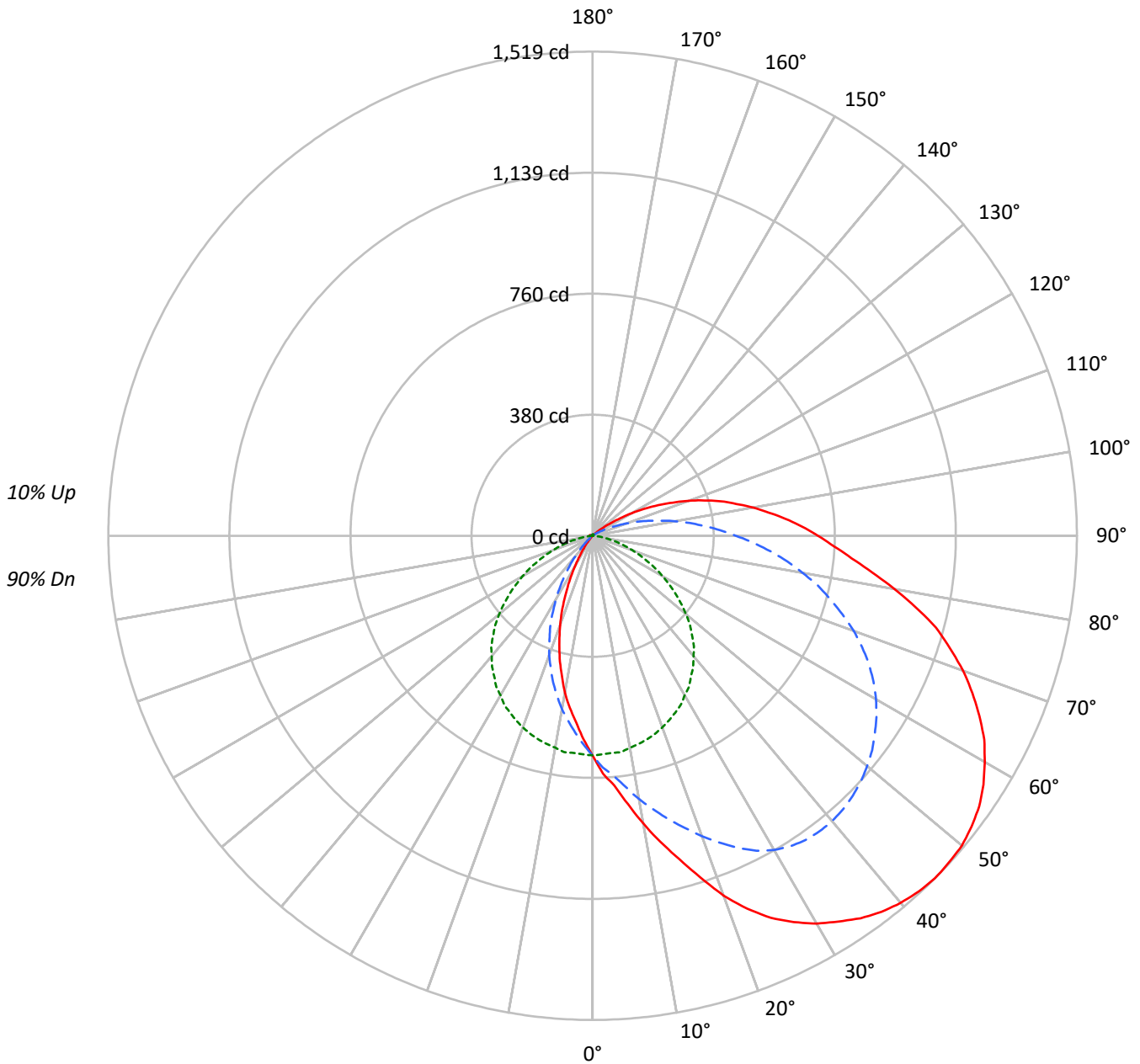
Lumens per Lamp: N/A
Luminaire Lumens: 3406.0 lumens
Efficiency: N/A
Efficacy: 78.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

TEST NUMBER: P551433

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-93-85-ED1D-90

Luminous Intensity Polar Plot





TEST NUMBER: P551433

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-93-85-ED1D-90

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°	7416	7416	7416
5°	8141	7307	6096
10°	9212	7218	5025
15°	10323	7126	3916
20°	11644	7010	2883
25°	12738	6875	1893
30°	13552	6695	1067
35°	14257	6501	470
40°	14881	6262	113
45°	15417	5962	0
50°	15868	5565	0
55°	16210	5059	0
60°	16382	4474	0
65°	16450	3808	0
70°	16395	3104	0
75°	16187	2289	13
80°	15531	1400	71
85°	15011	671	97



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.0	1.9
10°-20°	197.6	5.8
20°-30°	320.0	9.4
30°-40°	411.1	12.1
40°-50°	465.3	13.7
50°-60°	482.1	14.2
60°-70°	454.6	13.3
70°-80°	381.0	11.2
80°-90°	276.2	8.1
90°-100°	181.5	5.3
100°-110°	104.8	3.1
110°-120°	46.2	1.4
120°-130°	12.5	0.4
130°-140°	2.9	0.1
140°-150°	1.9	0.1
150°-160°	1.3	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	583.6	17.1
0°-40°	994.6	29.2
0°-60°	1942.0	57.0
0°-90°	3053.8	89.7
90°-120°	332.6	9.8
90°-150°	349.8	10.3
90°-180°	352.0	10.3
0°-180°	3406.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	689	689	689	689	689	
5°	786	755	684	620	589	79
15°	1050	921	661	477	398	303
25°	1323	1081	613	314	197	611
35°	1465	1165	538	153	48	919
45°	1519	1154	441	35	0	1173
55°	1481	1081	318	0	0	1322
65°	1338	957	190	0	0	1324
75°	1116	772	81	1	1	1170
85°	816	560	13	4	5	697
90°	707	449	4	5	6	388
95°	607	351	2	6	8	476
105°	418	181	2	4	7	441
115°	227	60	3	3	4	228
125°	68	8	4	3	4	68
135°	4	3	4	4	3	6
145°	1	3	4	3	3	1
155°	2	4	4	3	1	1
165°	2	3	4	3	0	1
175°	2	3	4	3	1	0
180°	3	3	3	3	3	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0	689.0
2.5°	746.9	746.0	743.4	739.0	732.8	722.3	713.5	705.6	695.1	686.3	669.6
5°	786.4	782.0	778.5	774.1	760.0	750.4	734.6	717.0	700.4	683.7	650.3
7.5°	849.6	842.5	837.3	825.0	805.7	783.7	759.2	742.5	731.1	684.6	627.5
10°	917.1	911.0	900.5	878.5	854.8	823.2	788.1	748.6	713.5	674.9	607.3
12.5°	983.8	975.1	960.1	932.1	898.7	859.2	810.9	764.4	714.4	668.8	583.6
15°	1050.5	1040.9	1025.1	990.9	947.0	895.2	836.4	777.6	718.8	660.9	559.1
17.5°	1123.4	1110.2	1086.5	1047.9	992.6	928.5	859.2	788.1	717.0	651.2	532.7
20°	1201.5	1183.1	1157.6	1105.8	1040.9	965.4	882.0	798.7	716.2	639.8	502.9
22.5°	1266.4	1248.0	1219.9	1166.4	1088.3	996.1	901.3	805.7	712.6	626.6	474.8
25°	1322.6	1307.7	1277.0	1215.5	1133.0	1028.6	919.8	810.9	707.4	612.6	445.0
27.5°	1366.5	1352.5	1318.2	1255.0	1170.8	1057.6	933.8	813.6	700.4	598.6	414.2
30°	1405.1	1391.1	1349.8	1284.9	1196.2	1080.4	947.9	814.5	691.6	577.5	380.9
32.5°	1435.0	1421.8	1379.7	1310.3	1213.8	1096.2	955.8	813.6	680.2	562.6	344.9
35°	1464.8	1451.6	1402.5	1328.8	1226.9	1103.2	961.9	809.2	666.1	538.0	310.7
37.5°	1487.6	1472.7	1422.7	1341.0	1233.1	1105.0	961.0	803.0	651.2	517.8	276.5
40°	1503.4	1487.6	1434.1	1348.1	1234.8	1102.3	954.0	792.5	633.7	492.4	240.5
42.5°	1513.9	1496.4	1439.3	1358.6	1231.3	1095.3	943.5	779.3	614.4	470.4	206.2
45°	1519.2	1500.8	1440.2	1349.8	1225.2	1082.1	927.7	762.7	593.3	440.6	172.0
47.5°	1516.6	1496.4	1435.8	1340.2	1213.8	1068.1	910.1	742.5	567.8	414.2	139.5
50°	1512.2	1491.1	1426.2	1327.9	1198.0	1050.5	890.8	717.9	541.5	381.8	110.6
52.5°	1498.1	1477.1	1415.6	1310.3	1179.6	1030.4	864.5	692.5	513.4	350.2	84.3
55°	1480.6	1461.3	1397.2	1294.5	1155.9	1005.8	839.9	665.3	486.2	317.7	60.6
57.5°	1453.4	1435.8	1374.4	1269.1	1132.2	978.6	812.7	635.4	452.0	285.2	42.1
60°	1420.0	1402.5	1342.8	1240.1	1105.0	947.9	782.9	604.7	421.3	252.8	26.3
62.5°	1384.9	1368.2	1305.9	1204.1	1070.7	915.4	750.4	574.0	388.8	222.9	15.8
65°	1338.4	1322.6	1266.4	1161.1	1033.0	880.3	714.4	537.1	355.4	189.6	8.8
67.5°	1289.3	1275.2	1218.2	1121.6	989.1	841.7	677.5	501.1	320.3	160.6	4.4
70°	1236.6	1219.1	1166.4	1068.1	944.3	797.8	637.2	464.3	287.0	132.5	0.0
72.5°	1175.2	1162.0	1111.1	1018.1	892.6	751.3	595.9	423.9	250.1	105.3	0.9
75°	1115.5	1098.8	1052.3	964.5	841.7	702.1	550.3	386.2	214.1	80.7	0.9
77.5°	1038.3	1033.0	989.1	904.0	793.4	654.7	500.3	340.5	179.9	57.9	0.9
80°	961.0	955.8	921.5	843.4	737.2	598.6	453.7	297.5	146.6	38.6	0.9
82.5°	884.7	877.6	845.2	780.2	680.2	551.2	405.5	254.5	115.8	23.7	0.9
85°	816.2	807.4	772.3	712.6	621.4	497.6	355.4	212.4	86.0	13.2	1.8
87.5°	757.4	751.3	712.6	651.2	561.7	447.6	311.6	172.0	60.6	6.1	2.6
90°	707.4	694.2	660.0	595.0	505.5	392.3	265.0	137.8	40.4	3.5	3.5
92.5°	658.2	646.8	609.1	542.4	455.5	344.9	220.3	105.3	25.5	1.8	4.4
95°	607.3	595.0	558.2	496.7	404.6	296.6	180.8	77.2	14.0	1.8	4.4
97.5°	557.3	545.9	507.3	445.8	359.0	254.5	143.1	54.4	7.0	1.8	3.5
100°	510.8	497.6	462.5	401.1	313.3	212.4	110.6	35.1	4.4	1.8	3.5
102.5°	461.6	451.1	415.1	355.4	265.9	172.9	82.5	21.9	1.8	1.8	2.6
105°	417.8	404.6	369.5	308.1	226.4	136.0	57.9	13.2	1.8	1.8	2.6



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	272.1	261.5	230.8	179.0	115.0	53.5	15.8	2.6	2.6	2.6	2.6
115°	227.3	211.5	184.3	138.7	85.1	35.1	7.9	2.6	2.6	2.6	2.6
117.5°	181.7	168.5	149.2	105.3	56.2	22.8	4.4	2.6	2.6	2.6	2.6
120°	142.2	129.9	108.0	72.8	37.7	13.2	1.8	2.6	2.6	2.6	2.6
122.5°	101.8	92.2	72.8	47.4	22.8	6.1	2.6	2.6	3.5	3.5	2.6
125°	67.6	62.3	48.3	29.0	14.0	2.6	2.6	2.6	3.5	3.5	2.6
127.5°	43.9	39.5	28.1	16.7	6.1	2.6	2.6	3.5	3.5	3.5	2.6
130°	24.6	21.9	16.7	9.7	2.6	2.6	2.6	3.5	3.5	3.5	2.6
132.5°	14.0	13.2	8.8	1.8	2.6	2.6	2.6	3.5	3.5	3.5	3.5
135°	3.5	1.8	1.8	1.8	2.6	2.6	3.5	3.5	4.4	4.4	3.5
137.5°	0.9	0.9	1.8	1.8	2.6	2.6	3.5	4.4	4.4	4.4	3.5
140°	0.9	0.9	1.8	2.6	2.6	2.6	3.5	4.4	4.4	4.4	3.5
142.5°	0.9	1.8	1.8	2.6	2.6	3.5	3.5	4.4	4.4	3.5	3.5
145°	0.9	1.8	1.8	2.6	2.6	3.5	3.5	4.4	3.5	3.5	3.5
147.5°	1.8	1.8	1.8	2.6	2.6	3.5	3.5	4.4	4.4	3.5	3.5
150°	0.9	1.8	1.8	2.6	3.5	3.5	3.5	4.4	3.5	3.5	3.5
152.5°	0.9	1.8	1.8	2.6	3.5	3.5	3.5	4.4	3.5	3.5	3.5
155°	1.8	1.8	1.8	2.6	3.5	3.5	3.5	4.4	3.5	3.5	4.4
157.5°	1.8	1.8	1.8	2.6	3.5	3.5	3.5	4.4	3.5	3.5	4.4
160°	1.8	1.8	1.8	2.6	2.6	3.5	3.5	3.5	3.5	3.5	3.5
162.5°	1.8	1.8	1.8	2.6	2.6	3.5	3.5	3.5	3.5	3.5	3.5
165°	1.8	1.8	1.8	1.8	2.6	2.6	3.5	3.5	3.5	3.5	3.5
167.5°	1.8	1.8	1.8	2.6	2.6	2.6	3.5	3.5	3.5	3.5	3.5
170°	1.8	1.8	1.8	2.6	2.6	2.6	3.5	4.4	4.4	4.4	4.4
172.5°	1.8	1.8	1.8	2.6	2.6	3.5	3.5	4.4	4.4	4.4	4.4
175°	1.8	1.8	1.8	2.6	2.6	3.5	3.5	4.4	4.4	4.4	4.4
177.5°	0.9	1.8	1.8	2.6	2.6	3.5	3.5	4.4	4.4	4.4	3.5
180°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	689.0	689.0	689.0
2.5°	655.6	643.3	639.8
5°	620.5	600.3	588.9
7.5°	585.4	558.2	545.0
10°	552.9	514.3	500.3
12.5°	514.3	469.5	447.6
15°	477.4	419.5	398.5
17.5°	436.2	371.2	346.7
20°	397.6	323.0	297.5
22.5°	353.7	275.6	247.5
25°	314.2	228.2	196.6
27.5°	270.3	179.9	152.7
30°	229.1	137.8	110.6
32.5°	189.6	100.9	76.4
35°	152.7	68.5	48.3
37.5°	117.6	42.1	24.6
40°	85.1	21.9	11.4
42.5°	57.0	10.5	6.1
45°	35.1	5.3	0.0
47.5°	20.2	0.0	0.0
50°	10.5	0.0	0.0
52.5°	4.4	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°	0.9	0.9	0.9
77.5°	0.9	1.8	2.6
80°	1.8	3.5	4.4
82.5°	3.5	4.4	4.4
85°	3.5	4.4	5.3
87.5°	4.4	5.3	6.1
90°	5.3	6.1	6.1
92.5°	5.3	7.0	7.0
95°	6.1	7.0	7.9
97.5°	7.0	7.9	7.9
100°	6.1	7.9	8.8
102.5°	5.3	7.9	7.9
105°	4.4	6.1	7.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.5	4.4	4.4
115°	2.6	3.5	4.4
117.5°	2.6	3.5	3.5
120°	2.6	2.6	3.5
122.5°	2.6	2.6	3.5
125°	2.6	2.6	3.5
127.5°	3.5	2.6	2.6
130°	2.6	2.6	2.6
132.5°	3.5	2.6	2.6
135°	3.5	2.6	2.6
137.5°	3.5	2.6	2.6
140°	3.5	2.6	2.6
142.5°	3.5	2.6	2.6
145°	2.6	2.6	2.6
147.5°	2.6	2.6	2.6
150°	2.6	2.6	1.8
152.5°	2.6	1.8	1.8
155°	2.6	1.8	0.9
157.5°	3.5	1.8	0.9
160°	2.6	1.8	0.9
162.5°	2.6	1.8	0.9
165°	2.6	1.8	0.0
167.5°	2.6	1.8	0.9
170°	2.6	1.8	0.9
172.5°	2.6	1.8	0.9
175°	2.6	0.9	0.9
177.5°	2.6	0.9	0.9
180°	2.6	2.6	2.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







107.5°	368.6	358.1	323.0	265.0	185.2	103.6	38.6	7.0	1.8	2.6	2.6
110°	321.2	312.4	276.5	220.3	149.2	77.2	25.5	4.4	2.6	2.6	2.6





107.5°	3.5	5.3	6.1
110°	3.5	4.4	5.3



(END OF REPORT)