

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: P551440

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-93-88-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: P551440
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-93-88-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

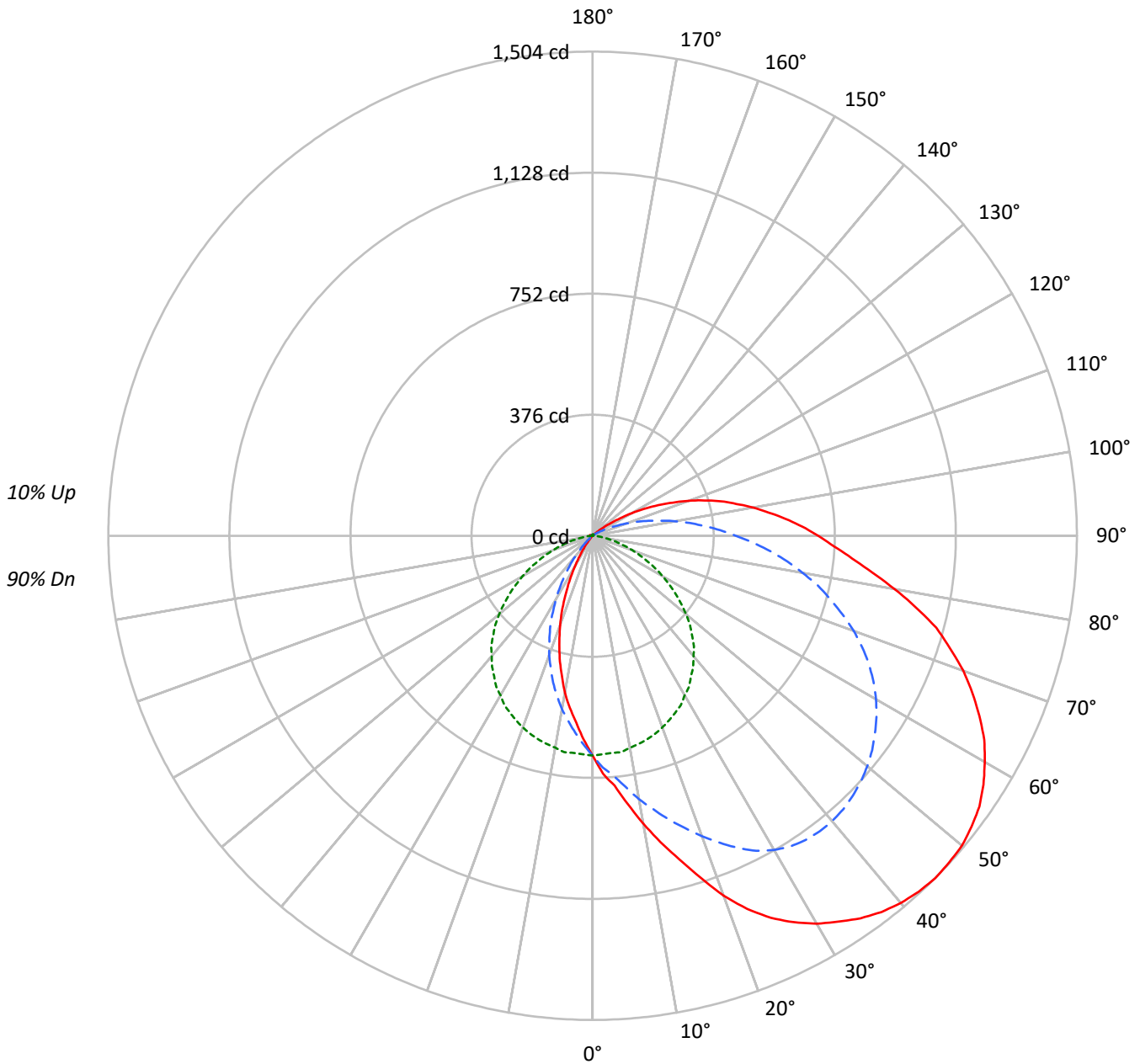
Lumens per Lamp: N/A
Luminaire Lumens: 3373.0 lumens
Efficiency: N/A
Efficacy: 77.9 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 43.3
Input Voltage (V): NR
Input Current (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: P551440

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-93-88-ED1D

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20
RC	80				70				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	93	93	93	90
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	76	73	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	7344	7344	7344
5°	8062	7237	6037
10°	9123	7148	4976
15°	10224	7057	3878
20°	11531	6942	2855
25°	12615	6809	1875
30°	13421	6630	1056
35°	14118	6438	465
40°	14737	6201	112
45°	15268	5904	0
50°	15713	5511	0
55°	16052	5010	0
60°	16224	4429	0
65°	16290	3770	0
70°	16236	3074	0
75°	16030	2269	13
80°	15380	1386	69
85°	14866	661	96



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.4	1.9
10°-20°	195.7	5.8
20°-30°	316.9	9.4
30°-40°	407.1	12.1
40°-50°	460.8	13.7
50°-60°	477.4	14.2
60°-70°	450.2	13.3
70°-80°	377.3	11.2
80°-90°	273.5	8.1
90°-100°	179.8	5.3
100°-110°	103.8	3.1
110°-120°	45.8	1.4
120°-130°	12.4	0.4
130°-140°	2.8	0.1
140°-150°	1.9	0.1
150°-160°	1.3	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	577.9	17.1
0°-40°	985.0	29.2
0°-60°	1923.2	57.0
0°-90°	3024.2	89.7
90°-120°	329.4	9.8
90°-150°	346.5	10.3
90°-180°	349.0	10.3
0°-180°	3373.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	682	682	682	682	682	
5°	779	748	677	614	583	79
15°	1040	912	654	473	395	300
25°	1310	1070	607	311	195	605
35°	1451	1154	533	151	48	910
45°	1504	1142	436	35	0	1162
55°	1466	1070	315	0	0	1309
65°	1325	947	188	0	0	1311
75°	1105	764	80	1	1	1159
85°	808	554	13	4	5	690
90°	700	445	4	5	6	384
95°	601	347	2	6	8	472
105°	414	179	2	4	7	437
115°	225	60	3	3	4	225
125°	67	8	4	3	4	67
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	0
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°	682.3	682.3	682.3	682.3	682.3	682.3	682.3	682.3	682.3	682.3	682.3
2.5°	739.6	738.8	736.2	731.8	725.7	715.3	706.6	698.8	688.4	679.7	663.2
5°	778.8	774.4	770.9	766.6	752.7	743.1	727.5	710.1	693.6	677.1	644.0
7.5°	841.3	834.4	829.2	817.0	797.9	776.1	751.8	735.3	724.0	677.9	621.4
10°	908.3	902.2	891.7	870.0	846.5	815.3	780.5	741.4	706.6	668.4	601.4
12.5°	974.3	965.6	950.8	923.0	890.0	850.9	803.1	757.0	707.5	662.3	578.0
15°	1040.4	1030.8	1015.2	981.3	937.8	886.5	828.3	770.1	711.8	654.5	553.6
17.5°	1112.5	1099.5	1076.0	1037.8	983.0	919.6	850.9	780.5	710.1	644.9	527.6
20°	1189.9	1171.6	1146.4	1095.1	1030.8	956.1	873.5	790.9	709.2	633.6	498.0
22.5°	1254.2	1235.9	1208.1	1155.1	1077.7	986.5	892.6	797.9	705.7	620.6	470.2
25°	1309.8	1295.0	1264.6	1203.8	1122.1	1018.6	910.9	803.1	700.5	606.7	440.7
27.5°	1353.3	1339.3	1305.5	1242.9	1159.4	1047.3	924.8	805.7	693.6	592.8	410.2
30°	1391.5	1377.6	1336.7	1272.4	1184.6	1069.9	938.7	806.6	684.9	571.9	377.2
32.5°	1421.0	1408.0	1366.3	1297.6	1202.0	1085.6	946.5	805.7	673.6	557.1	341.6
35°	1450.6	1437.6	1388.9	1315.9	1215.1	1092.5	952.6	801.3	659.7	532.8	307.7
37.5°	1473.2	1458.4	1408.9	1328.0	1221.1	1094.3	951.7	795.3	644.9	512.8	273.8
40°	1488.8	1473.2	1420.2	1335.0	1222.9	1091.6	944.8	784.8	627.5	487.6	238.1
42.5°	1499.3	1481.9	1425.4	1345.4	1219.4	1084.7	934.3	771.8	608.4	465.9	204.2
45°	1504.5	1486.2	1426.3	1336.7	1213.3	1071.7	918.7	755.3	587.5	436.3	170.4
47.5°	1501.9	1481.9	1421.9	1327.2	1202.0	1057.7	901.3	735.3	562.3	410.2	138.2
50°	1497.5	1476.7	1412.4	1315.0	1186.4	1040.4	882.2	711.0	536.3	378.1	109.5
52.5°	1483.6	1462.8	1401.9	1297.6	1168.1	1020.4	856.1	685.8	508.4	346.8	83.4
55°	1466.2	1447.1	1383.7	1282.0	1144.7	996.0	831.8	658.8	481.5	314.6	60.0
57.5°	1439.3	1421.9	1361.1	1256.8	1121.2	969.1	804.8	629.3	447.6	282.5	41.7
60°	1406.3	1388.9	1329.8	1228.1	1094.3	938.7	775.3	598.8	417.2	250.3	26.1
62.5°	1371.5	1355.0	1293.3	1192.5	1060.4	906.5	743.1	568.4	385.0	220.8	15.6
65°	1325.4	1309.8	1254.2	1149.9	1023.0	871.7	707.5	531.9	352.0	187.7	8.7
67.5°	1276.8	1262.9	1206.4	1110.8	979.5	833.5	671.0	496.3	317.2	159.1	4.3
70°	1224.6	1207.2	1155.1	1057.7	935.2	790.1	631.0	459.8	284.2	131.2	0.0
72.5°	1163.8	1150.7	1100.3	1008.2	883.9	744.0	590.1	419.8	247.7	104.3	0.9
75°	1104.7	1088.2	1042.1	955.2	833.5	695.3	545.0	382.4	212.1	80.0	0.9
77.5°	1028.2	1023.0	979.5	895.2	785.7	648.4	495.4	337.2	178.2	57.4	0.9
80°	951.7	946.5	912.6	835.2	730.1	592.8	449.3	294.6	145.1	38.2	0.9
82.5°	876.1	869.1	837.0	772.7	673.6	545.8	401.5	252.1	114.7	23.5	0.9
85°	808.3	799.6	764.8	705.7	615.4	492.8	352.0	210.3	85.2	13.0	1.7
87.5°	750.1	744.0	705.7	644.9	556.3	443.3	308.5	170.4	60.0	6.1	2.6
90°	700.5	687.5	653.6	589.3	500.6	388.5	262.5	136.5	40.0	3.5	3.5
92.5°	651.9	640.6	603.2	537.1	451.1	341.6	218.2	104.3	25.2	1.7	4.3
95°	601.4	589.3	552.8	491.9	400.7	293.8	179.0	76.5	13.9	1.7	4.3
97.5°	551.9	540.6	502.4	441.5	355.5	252.1	141.7	53.9	7.0	1.7	3.5
100°	505.8	492.8	458.0	397.2	310.3	210.3	109.5	34.8	4.3	1.7	3.5
102.5°	457.2	446.7	411.1	352.0	263.4	171.2	81.7	21.7	1.7	1.7	2.6
105°	413.7	400.7	365.9	305.1	224.2	134.7	57.4	13.0	1.7	1.7	2.6



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	269.4	259.0	228.6	177.3	113.9	53.0	15.6	2.6	2.6	2.6	2.6
115°	225.1	209.5	182.5	137.3	84.3	34.8	7.8	2.6	2.6	2.6	2.6
117.5°	179.9	166.9	147.8	104.3	55.6	22.6	4.3	2.6	2.6	2.6	2.6
120°	140.8	128.6	106.9	72.1	37.4	13.0	1.7	2.6	2.6	2.6	2.6
122.5°	100.8	91.3	72.1	46.9	22.6	6.1	2.6	2.6	3.5	3.5	2.6
125°	66.9	61.7	47.8	28.7	13.9	2.6	2.6	2.6	3.5	3.5	2.6
127.5°	43.5	39.1	27.8	16.5	6.1	2.6	2.6	3.5	3.5	3.5	2.6
130°	24.3	21.7	16.5	9.6	2.6	2.6	2.6	3.5	3.5	3.5	2.6
132.5°	13.9	13.0	8.7	1.7	2.6	2.6	2.6	3.5	3.5	3.5	3.5
135°	3.5	1.7	1.7	1.7	2.6	2.6	3.5	3.5	4.3	4.3	3.5
137.5°	0.9	0.9	1.7	1.7	2.6	2.6	3.5	4.3	4.3	4.3	3.5
140°	0.9	0.9	1.7	2.6	2.6	2.6	3.5	4.3	4.3	4.3	3.5
142.5°	0.9	1.7	1.7	2.6	2.6	3.5	3.5	4.3	4.3	3.5	3.5
145°	0.9	1.7	1.7	2.6	2.6	3.5	3.5	4.3	3.5	3.5	3.5
147.5°	1.7	1.7	1.7	2.6	2.6	3.5	3.5	4.3	4.3	3.5	3.5
150°	0.9	1.7	1.7	2.6	3.5	3.5	3.5	4.3	3.5	3.5	3.5
152.5°	0.9	1.7	1.7	2.6	3.5	3.5	3.5	4.3	3.5	3.5	3.5
155°	1.7	1.7	1.7	2.6	3.5	3.5	3.5	4.3	3.5	3.5	4.3
157.5°	1.7	1.7	1.7	2.6	3.5	3.5	3.5	4.3	3.5	3.5	4.3
160°	1.7	1.7	1.7	2.6	2.6	3.5	3.5	3.5	3.5	3.5	3.5
162.5°	1.7	1.7	1.7	2.6	2.6	3.5	3.5	3.5	3.5	3.5	3.5
165°	1.7	1.7	1.7	1.7	2.6	2.6	3.5	3.5	3.5	3.5	3.5
167.5°	1.7	1.7	1.7	2.6	2.6	2.6	3.5	3.5	3.5	3.5	3.5
170°	1.7	1.7	1.7	2.6	2.6	2.6	3.5	4.3	4.3	4.3	4.3
172.5°	1.7	1.7	1.7	2.6	2.6	3.5	3.5	4.3	4.3	4.3	4.3
175°	1.7	1.7	1.7	2.6	2.6	3.5	3.5	4.3	4.3	4.3	4.3
177.5°	0.9	1.7	1.7	2.6	2.6	3.5	3.5	4.3	4.3	4.3	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°	682.3	682.3	682.3
2.5°	649.2	637.1	633.6
5°	614.5	594.5	583.2
7.5°	579.7	552.8	539.7
10°	547.6	509.3	495.4
12.5°	509.3	465.0	443.3
15°	472.8	415.5	394.6
17.5°	432.0	367.6	343.3
20°	393.7	319.8	294.6
22.5°	350.3	272.9	245.1
25°	311.2	226.0	194.7
27.5°	267.7	178.2	151.2
30°	226.8	136.5	109.5
32.5°	187.7	100.0	75.6
35°	151.2	67.8	47.8
37.5°	116.5	41.7	24.3
40°	84.3	21.7	11.3
42.5°	56.5	10.4	6.1
45°	34.8	5.2	0.0
47.5°	20.0	0.0	0.0
50°	10.4	0.0	0.0
52.5°	4.3	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	1.7	2.6
80°	1.7	3.5	4.3
82.5°	3.5	4.3	4.3
85°	3.5	4.3	5.2
87.5°	4.3	5.2	6.1
90°	5.2	6.1	6.1
92.5°	5.2	7.0	7.0
95°	6.1	7.0	7.8
97.5°	7.0	7.8	7.8
100°	6.1	7.8	8.7
102.5°	5.2	7.8	7.8
105°	4.3	6.1	7.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.5	4.3	4.3
115°	2.6	3.5	4.3
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	1.7
152.5°	2.6	1.7	1.7
155°	2.6	1.7	0.9
157.5°	3.5	1.7	0.9
160°	2.6	1.7	0.9
162.5°	2.6	1.7	0.9
165°	2.6	1.7	0.0
167.5°	2.6	1.7	0.9
170°	2.6	1.7	0.9
172.5°	2.6	1.7	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°	365.0	354.6	319.8	262.5	183.4	102.6	38.2	7.0	1.7	2.6	2.6
110°	318.1	309.4	273.8	218.2	147.8	76.5	25.2	4.3	2.6	2.6	2.6





107.5°	3.5	5.2	6.1
110°	3.5	4.3	5.2



(END OF REPORT)