

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: P551277

Luminaire Tested: **FCC-X-2-LD4-2HI-35-UNV-81-87-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: P551277
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-81-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

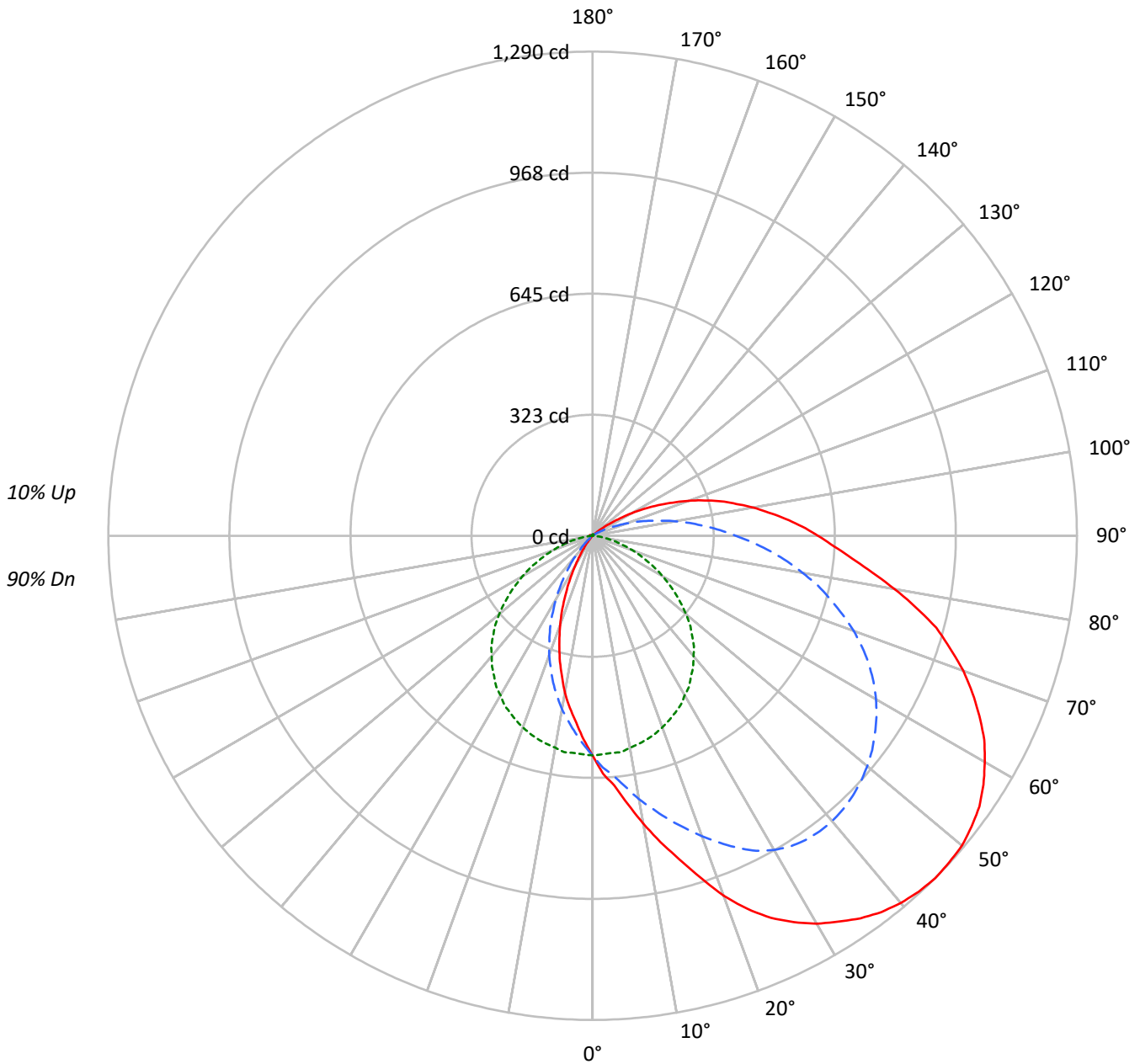
Lumens per Lamp: N/A
Luminaire Lumens: 2892.9 lumens
Efficiency: N/A
Efficacy: 66.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

TEST NUMBER: P551277

CATALOG NUMBER: FCC-X-2-LD4-2HI-35-UNV-81-87-ED1D-90

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°	6299	6299	6299
5°	6914	6207	5178
10°	7825	6131	4268
15°	8769	6052	3325
20°	9890	5954	2449
25°	10820	5839	1608
30°	11511	5686	906
35°	12110	5522	399
40°	12640	5318	96
45°	13095	5063	0
50°	13477	4727	0
55°	13769	4298	0
60°	13916	3799	0
65°	13972	3234	0
70°	13926	2638	0
75°	13749	1945	10
80°	13192	1190	60
85°	12751	570	83



TEST NUMBER: P551277

CATALOG NUMBER: FCC-X-2-LD4-2HI-35-UNV-81-87-ED1D-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.1	1.9
10°-20°	167.8	5.8
20°-30°	271.8	9.4
30°-40°	349.1	12.1
40°-50°	395.2	13.7
50°-60°	409.5	14.2
60°-70°	386.2	13.3
70°-80°	323.6	11.2
80°-90°	234.6	8.1
90°-100°	154.2	5.3
100°-110°	89.0	3.1
110°-120°	39.3	1.4
120°-130°	10.6	0.4
130°-140°	2.4	0.1
140°-150°	1.6	0.1
150°-160°	1.1	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	495.7	17.1
0°-40°	844.8	29.2
0°-60°	1649.5	57.0
0°-90°	2593.8	89.7
90°-120°	282.5	9.8
90°-150°	297.1	10.3
90°-180°	299.0	10.3
0°-180°	2892.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	585	585	585	585	585	
5°	668	642	581	527	500	67
15°	892	782	561	406	338	257
25°	1123	918	520	267	167	519
35°	1244	990	457	130	41	780
45°	1290	980	374	30	0	996
55°	1258	918	270	0	0	1123
65°	1137	813	161	0	0	1125
75°	948	656	69	1	1	994
85°	693	475	11	3	4	592
90°	601	381	3	4	5	329
95°	516	298	2	5	7	405
105°	355	154	2	4	6	374
115°	193	51	2	2	4	193
125°	57	7	3	2	3	57
135°	3	2	4	3	2	5
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°	585.2	585.2	585.2	585.2	585.2	585.2	585.2	585.2	585.2	585.2	585.2
2.5°	634.4	633.6	631.4	627.7	622.5	613.5	606.1	599.3	590.4	582.9	568.8
5°	667.9	664.2	661.2	657.5	645.6	637.4	623.9	609.0	594.9	580.7	552.4
7.5°	721.6	715.6	711.2	700.7	684.3	665.7	644.8	630.7	621.0	581.5	533.0
10°	779.0	773.8	764.8	746.2	726.1	699.2	669.4	635.9	606.1	573.3	515.9
12.5°	835.7	828.2	815.5	791.7	763.3	729.8	688.8	649.3	606.8	568.0	495.7
15°	892.3	884.1	870.7	841.6	804.3	760.4	710.4	660.5	610.5	561.3	474.9
17.5°	954.2	943.0	922.9	890.1	843.1	788.7	729.8	669.4	609.0	553.1	452.5
20°	1020.5	1004.9	983.3	939.3	884.1	820.0	749.2	678.4	608.3	543.4	427.1
22.5°	1075.7	1060.0	1036.2	990.7	924.4	846.1	765.6	684.3	605.3	532.3	403.3
25°	1123.4	1110.7	1084.6	1032.5	962.4	873.7	781.2	688.8	600.8	520.3	377.9
27.5°	1160.7	1148.8	1119.7	1066.0	994.4	898.3	793.2	691.0	594.9	508.4	351.9
30°	1193.5	1181.6	1146.5	1091.4	1016.1	917.7	805.1	691.8	587.4	490.5	323.5
32.5°	1218.8	1207.6	1171.9	1113.0	1031.0	931.1	811.8	691.0	577.7	477.8	293.0
35°	1244.2	1233.0	1191.2	1128.6	1042.2	937.0	817.0	687.3	565.8	457.0	263.9
37.5°	1263.6	1250.9	1208.4	1139.1	1047.4	938.5	816.3	682.1	553.1	439.8	234.8
40°	1277.0	1263.6	1218.1	1145.0	1048.9	936.3	810.3	673.1	538.2	418.2	204.3
42.5°	1285.9	1271.0	1222.6	1154.0	1045.9	930.3	801.4	662.0	521.8	399.6	175.2
45°	1290.4	1274.7	1223.3	1146.5	1040.7	919.1	787.9	647.8	503.9	374.2	146.1
47.5°	1288.2	1271.0	1219.6	1138.3	1031.0	907.2	773.0	630.7	482.3	351.9	118.5
50°	1284.4	1266.5	1211.4	1127.9	1017.5	892.3	756.6	609.8	459.9	324.3	93.9
52.5°	1272.5	1254.6	1202.4	1113.0	1001.9	875.2	734.3	588.2	436.1	297.4	71.6
55°	1257.6	1241.2	1186.8	1099.6	981.8	854.3	713.4	565.1	413.0	269.9	51.4
57.5°	1234.5	1219.6	1167.4	1077.9	961.6	831.2	690.3	539.7	383.9	242.3	35.8
60°	1206.2	1191.2	1140.6	1053.3	938.5	805.1	664.9	513.6	357.8	214.7	22.4
62.5°	1176.3	1162.2	1109.2	1022.8	909.5	777.5	637.4	487.5	330.2	189.3	13.4
65°	1136.8	1123.4	1075.7	986.2	877.4	747.7	606.8	456.2	301.9	161.0	7.5
67.5°	1095.1	1083.2	1034.7	952.7	840.1	714.9	575.5	425.7	272.1	136.4	3.7
70°	1050.4	1035.4	990.7	907.2	802.1	677.6	541.2	394.3	243.8	112.6	0.0
72.5°	998.2	987.0	943.7	864.7	758.1	638.1	506.2	360.1	212.5	89.5	0.7
75°	947.5	933.3	893.8	819.3	714.9	596.4	467.4	328.0	181.9	68.6	0.7
77.5°	881.9	877.4	840.1	767.8	673.9	556.1	424.9	289.2	152.8	49.2	0.7
80°	816.3	811.8	782.7	716.4	626.2	508.4	385.4	252.7	124.5	32.8	0.7
82.5°	751.4	745.5	717.9	662.7	577.7	468.1	344.4	216.2	98.4	20.1	0.7
85°	693.3	685.8	656.0	605.3	527.8	422.7	301.9	180.4	73.1	11.2	1.5
87.5°	643.3	638.1	605.3	553.1	477.1	380.2	264.6	146.1	51.4	5.2	2.2
90°	600.8	589.7	560.6	505.4	429.4	333.2	225.1	117.0	34.3	3.0	3.0
92.5°	559.1	549.4	517.3	460.7	386.9	293.0	187.1	89.5	21.6	1.5	3.7
95°	515.9	505.4	474.1	421.9	343.7	252.0	153.6	65.6	11.9	1.5	3.7
97.5°	473.4	463.7	430.9	378.7	304.9	216.2	121.5	46.2	6.0	1.5	3.0
100°	433.9	422.7	392.9	340.7	266.1	180.4	93.9	29.8	3.7	1.5	3.0
102.5°	392.1	383.2	352.6	301.9	225.9	146.9	70.1	18.6	1.5	1.5	2.2
105°	354.8	343.7	313.8	261.7	192.3	115.5	49.2	11.2	1.5	1.5	2.2



TEST NUMBER: P551277

CATALOG NUMBER: FCC-X-2-LD4-2HI-35-UNV-81-87-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	231.1	222.1	196.1	152.1	97.7	45.5	13.4	2.2	2.2	2.2	2.2
115°	193.1	179.7	156.5	117.8	72.3	29.8	6.7	2.2	2.2	2.2	2.2
117.5°	154.3	143.1	126.7	89.5	47.7	19.4	3.7	2.2	2.2	2.2	2.2
120°	120.8	110.3	91.7	61.9	32.1	11.2	1.5	2.2	2.2	2.2	2.2
122.5°	86.5	78.3	61.9	40.3	19.4	5.2	2.2	2.2	3.0	3.0	2.2
125°	57.4	52.9	41.0	24.6	11.9	2.2	2.2	2.2	3.0	3.0	2.2
127.5°	37.3	33.5	23.9	14.2	5.2	2.2	2.2	3.0	3.0	3.0	2.2
130°	20.9	18.6	14.2	8.2	2.2	2.2	2.2	3.0	3.0	3.0	2.2
132.5°	11.9	11.2	7.5	1.5	2.2	2.2	2.2	3.0	3.0	3.0	3.0
135°	3.0	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.7	3.0
137.5°	0.7	0.7	1.5	1.5	2.2	2.2	3.0	3.7	3.7	3.7	3.0
140°	0.7	0.7	1.5	2.2	2.2	2.2	3.0	3.7	3.7	3.7	3.0
142.5°	0.7	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.7	3.0	3.0
145°	0.7	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.0	3.0	3.0
147.5°	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.7	3.0	3.0
150°	0.7	1.5	1.5	2.2	3.0	3.0	3.0	3.7	3.0	3.0	3.0
152.5°	0.7	1.5	1.5	2.2	3.0	3.0	3.0	3.7	3.0	3.0	3.0
155°	1.5	1.5	1.5	2.2	3.0	3.0	3.0	3.7	3.0	3.0	3.7
157.5°	1.5	1.5	1.5	2.2	3.0	3.0	3.0	3.7	3.0	3.0	3.7
160°	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.0	3.0	3.0	3.0
162.5°	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.0	3.0	3.0	3.0
165°	1.5	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.0	3.0	3.0
167.5°	1.5	1.5	1.5	2.2	2.2	2.2	3.0	3.0	3.0	3.0	3.0
170°	1.5	1.5	1.5	2.2	2.2	2.2	3.0	3.7	3.7	3.7	3.7
172.5°	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.7	3.7	3.7
175°	1.5	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.7	3.7	3.7
177.5°	0.7	1.5	1.5	2.2	2.2	3.0	3.0	3.7	3.7	3.7	3.0
180°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2



TEST NUMBER: P551277

CATALOG NUMBER: FCC-X-2-LD4-2HI-35-UNV-81-87-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	585.2	585.2	585.2
2.5°	556.9	546.4	543.4
5°	527.0	509.9	500.2
7.5°	497.2	474.1	462.9
10°	469.6	436.8	424.9
12.5°	436.8	398.8	380.2
15°	405.5	356.3	338.4
17.5°	370.5	315.3	294.5
20°	337.7	274.3	252.7
22.5°	300.4	234.1	210.2
25°	266.9	193.8	167.0
27.5°	229.6	152.8	129.7
30°	194.6	117.0	93.9
32.5°	161.0	85.7	64.9
35°	129.7	58.1	41.0
37.5°	99.9	35.8	20.9
40°	72.3	18.6	9.7
42.5°	48.5	8.9	5.2
45°	29.8	4.5	0.0
47.5°	17.1	0.0	0.0
50°	8.9	0.0	0.0
52.5°	3.7	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°	0.7	0.7	0.7
77.5°	0.7	1.5	2.2
80°	1.5	3.0	3.7
82.5°	3.0	3.7	3.7
85°	3.0	3.7	4.5
87.5°	3.7	4.5	5.2
90°	4.5	5.2	5.2
92.5°	4.5	6.0	6.0
95°	5.2	6.0	6.7
97.5°	6.0	6.7	6.7
100°	5.2	6.7	7.5
102.5°	4.5	6.7	6.7
105°	3.7	5.2	6.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.0	3.7	3.7
115°	2.2	3.0	3.7
117.5°	2.2	3.0	3.0
120°	2.2	2.2	3.0
122.5°	2.2	2.2	3.0
125°	2.2	2.2	3.0
127.5°	3.0	2.2	2.2
130°	2.2	2.2	2.2
132.5°	3.0	2.2	2.2
135°	3.0	2.2	2.2
137.5°	3.0	2.2	2.2
140°	3.0	2.2	2.2
142.5°	3.0	2.2	2.2
145°	2.2	2.2	2.2
147.5°	2.2	2.2	2.2
150°	2.2	2.2	1.5
152.5°	2.2	1.5	1.5
155°	2.2	1.5	0.7
157.5°	3.0	1.5	0.7
160°	2.2	1.5	0.7
162.5°	2.2	1.5	0.7
165°	2.2	1.5	0.0
167.5°	2.2	1.5	0.7
170°	2.2	1.5	0.7
172.5°	2.2	1.5	0.7
175°	2.2	0.7	0.7
177.5°	2.2	0.7	0.7
180°	2.2	2.2	2.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	313.1	304.1	274.3	225.1	157.3	88.0	32.8	6.0	1.5	2.2	2.2
110°	272.8	265.4	234.8	187.1	126.7	65.6	21.6	3.7	2.2	2.2	2.2





107.5°	3.0	4.5	5.2
110°	3.0	3.7	4.5



(END OF REPORT)