

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: P551376

Luminaire Tested: **FCC-X-2-LD4-2HI-40-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: P551376
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-93-88-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS 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

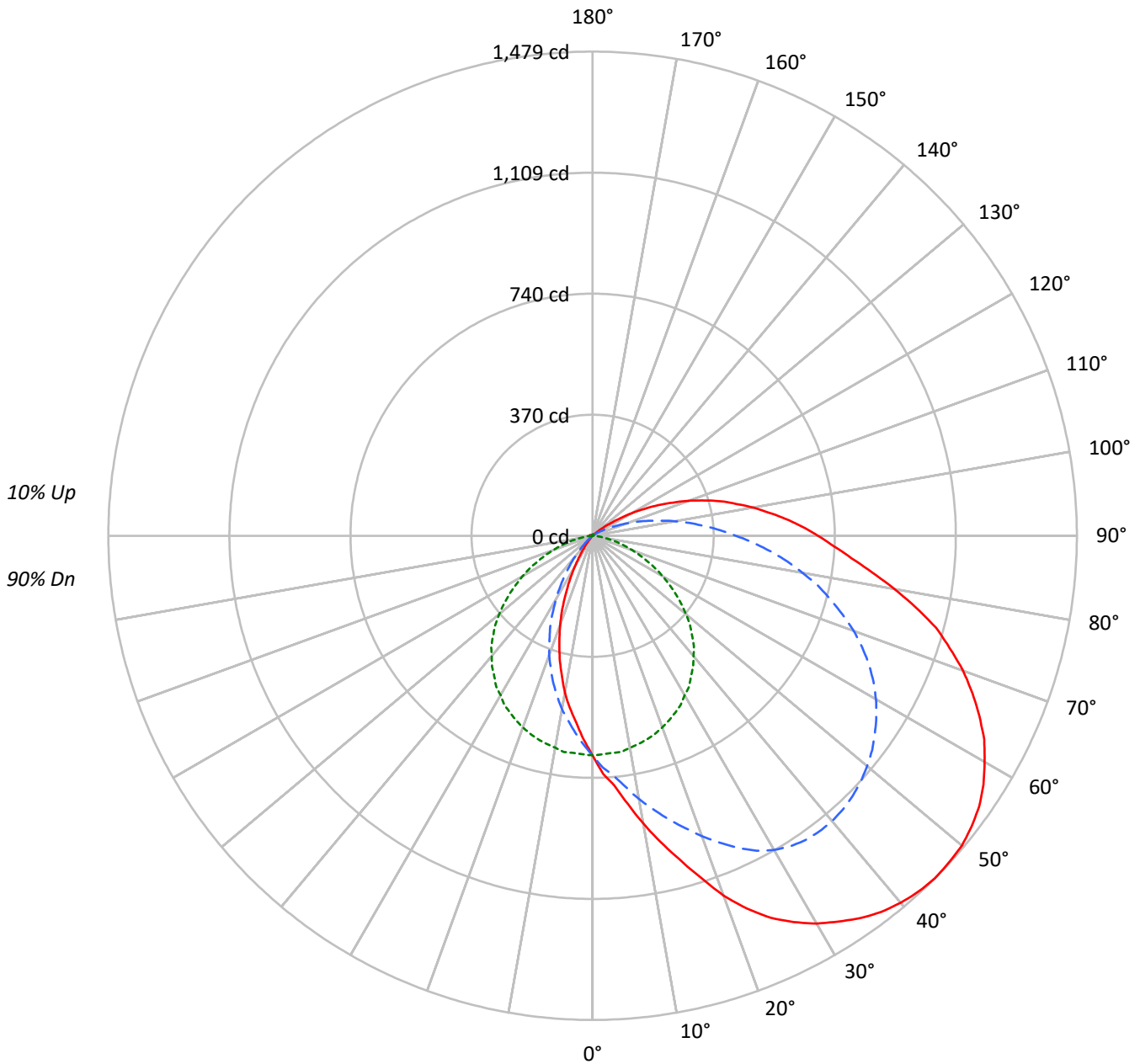
Lumens per Lamp: N/A
Luminaire Lumens: 3316.1 lumens
Efficiency: N/A
Efficacy: 76.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551376

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-93-88-ED1D

Luminous Intensity Polar Plot





TEST NUMBER: P551376

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-93-88-ED1D

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°	7219	7219	7219
5°	7926	7114	5935
10°	8969	7027	4892
15°	10051	6937	3812
20°	11336	6825	2808
25°	12402	6693	1843
30°	13194	6517	1039
35°	13880	6329	457
40°	14488	6095	110
45°	15010	5803	0
50°	15448	5417	0
55°	15782	4925	0
60°	15950	4355	0
65°	16015	3708	0
70°	15962	3022	0
75°	15759	2229	13
80°	15120	1364	69
85°	14614	651	94



TEST NUMBER: P551376

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-93-88-ED1D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.2	1.9
10°-20°	192.4	5.8
20°-30°	311.5	9.4
30°-40°	400.2	12.1
40°-50°	453.0	13.7
50°-60°	469.3	14.2
60°-70°	442.6	13.3
70°-80°	370.9	11.2
80°-90°	268.9	8.1
90°-100°	176.7	5.3
100°-110°	102.1	3.1
110°-120°	45.1	1.4
120°-130°	12.2	0.4
130°-140°	2.8	0.1
140°-150°	1.8	0.1
150°-160°	1.3	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	568.2	17.1
0°-40°	968.3	29.2
0°-60°	1890.7	57.0
0°-90°	2973.1	89.7
90°-120°	323.8	9.8
90°-150°	340.7	10.3
90°-180°	343.0	10.3
0°-180°	3316.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	671	671	671	671	671	
5°	766	735	666	604	573	77
15°	1023	897	643	465	388	295
25°	1288	1052	596	306	191	595
35°	1426	1134	524	149	47	894
45°	1479	1123	429	34	0	1142
55°	1442	1052	309	0	0	1287
65°	1303	931	185	0	0	1289
75°	1086	752	79	1	1	1139
85°	795	545	13	3	5	679
90°	689	437	3	5	6	378
95°	591	341	2	6	8	464
105°	407	176	2	4	7	429
115°	221	59	3	3	4	222
125°	66	8	3	3	3	66
135°	3	3	4	3	3	6
145°	1	3	3	3	3	1
155°	2	3	3	3	1	1
165°	2	3	3	3	0	0
175°	2	3	4	3	1	0
180°	3	3	3	3	3	



TEST NUMBER: P551376

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-93-88-ED1D

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	670.7	670.7	670.7	670.7	670.7	670.7	670.7	670.7	670.7	670.7	670.7
2.5°	727.1	726.3	723.7	719.5	713.5	703.2	694.7	687.0	676.7	668.2	651.9
5°	765.6	761.3	757.9	753.6	740.0	730.6	715.2	698.1	681.9	665.6	633.2
7.5°	827.1	820.3	815.2	803.2	784.4	763.0	739.1	722.9	711.8	666.5	610.9
10°	892.9	886.9	876.7	855.3	832.2	801.5	767.3	728.9	694.7	657.1	591.3
12.5°	957.8	949.3	934.8	907.4	875.0	836.5	789.5	744.2	695.5	651.1	568.2
15°	1022.8	1013.4	998.0	964.7	922.0	871.5	814.3	757.0	699.8	643.4	544.3
17.5°	1093.7	1080.9	1057.8	1020.2	966.4	904.0	836.5	767.3	698.1	634.0	518.7
20°	1169.7	1151.8	1127.0	1076.6	1013.4	939.9	858.7	777.6	697.2	622.9	489.6
22.5°	1233.0	1215.0	1187.7	1135.6	1059.5	969.8	877.5	784.4	693.8	610.1	462.3
25°	1287.7	1273.1	1243.2	1183.4	1103.1	1001.4	895.5	789.5	688.7	596.4	433.2
27.5°	1330.4	1316.7	1283.4	1221.9	1139.8	1029.6	909.1	792.1	681.9	582.7	403.3
30°	1368.0	1354.3	1314.2	1250.9	1164.6	1051.8	922.8	792.9	673.3	562.2	370.8
32.5°	1397.0	1384.2	1343.2	1275.7	1181.7	1067.2	930.5	792.1	662.2	547.7	335.8
35°	1426.1	1413.3	1365.4	1293.6	1194.5	1074.0	936.5	787.8	648.5	523.8	302.5
37.5°	1448.3	1433.8	1385.1	1305.6	1200.5	1075.8	935.6	781.8	634.0	504.1	269.2
40°	1463.7	1448.3	1396.2	1312.4	1202.2	1073.2	928.8	771.6	616.9	479.3	234.1
42.5°	1473.9	1456.8	1401.3	1322.7	1198.8	1066.4	918.5	758.8	598.1	458.0	200.8
45°	1479.1	1461.1	1402.2	1314.2	1192.8	1053.5	903.2	742.5	577.6	428.9	167.5
47.5°	1476.5	1456.8	1397.9	1304.8	1181.7	1039.9	886.1	722.9	552.8	403.3	135.9
50°	1472.2	1451.7	1388.5	1292.8	1166.3	1022.8	867.3	698.9	527.2	371.7	107.7
52.5°	1458.6	1438.0	1378.2	1275.7	1148.4	1003.1	841.6	674.2	499.9	340.9	82.0
55°	1441.5	1422.7	1360.3	1260.3	1125.3	979.2	817.7	647.7	473.4	309.3	59.0
57.5°	1415.0	1397.9	1338.1	1235.5	1102.2	952.7	791.2	618.6	440.0	277.7	41.0
60°	1382.5	1365.4	1307.3	1207.3	1075.8	922.8	762.2	588.7	410.1	246.1	25.6
62.5°	1348.3	1332.1	1271.4	1172.3	1042.4	891.2	730.6	558.8	378.5	217.0	15.4
65°	1303.0	1287.7	1233.0	1130.4	1005.7	857.0	695.5	522.9	346.1	184.6	8.5
67.5°	1255.2	1241.5	1186.0	1092.0	963.0	819.4	659.6	487.9	311.9	156.4	4.3
70°	1203.9	1186.8	1135.6	1039.9	919.4	776.7	620.3	452.0	279.4	129.0	0.0
72.5°	1144.1	1131.3	1081.7	991.2	869.0	731.4	580.2	412.7	243.5	102.5	0.9
75°	1086.0	1069.8	1024.5	939.0	819.4	683.6	535.7	376.0	208.5	78.6	0.9
77.5°	1010.8	1005.7	963.0	880.1	772.4	637.4	487.0	331.5	175.2	56.4	0.9
80°	935.6	930.5	897.2	821.1	717.7	582.7	441.8	289.7	142.7	37.6	0.9
82.5°	861.3	854.5	822.8	759.6	662.2	536.6	394.8	247.8	112.8	23.1	0.9
85°	794.6	786.1	751.9	693.8	605.0	484.5	346.1	206.8	83.7	12.8	1.7
87.5°	737.4	731.4	693.8	634.0	546.9	435.8	303.3	167.5	59.0	6.0	2.6
90°	688.7	675.9	642.6	579.3	492.2	381.9	258.0	134.1	39.3	3.4	3.4
92.5°	640.8	629.7	593.0	528.1	443.5	335.8	214.5	102.5	24.8	1.7	4.3
95°	591.3	579.3	543.4	483.6	393.9	288.8	176.0	75.2	13.7	1.7	4.3
97.5°	542.6	531.5	493.9	434.1	349.5	247.8	139.3	53.0	6.8	1.7	3.4
100°	497.3	484.5	450.3	390.5	305.0	206.8	107.7	34.2	4.3	1.7	3.4
102.5°	449.4	439.2	404.2	346.1	258.9	168.3	80.3	21.4	1.7	1.7	2.6
105°	406.7	393.9	359.7	299.9	220.4	132.4	56.4	12.8	1.7	1.7	2.6



TEST NUMBER: P551376

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-93-88-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	264.9	254.6	224.7	174.3	111.9	52.1	15.4	2.6	2.6	2.6	2.6
115°	221.3	205.9	179.4	135.0	82.9	34.2	7.7	2.6	2.6	2.6	2.6
117.5°	176.9	164.1	145.3	102.5	54.7	22.2	4.3	2.6	2.6	2.6	2.6
120°	138.4	126.5	105.1	70.9	36.7	12.8	1.7	2.6	2.6	2.6	2.6
122.5°	99.1	89.7	70.9	46.1	22.2	6.0	2.6	2.6	3.4	3.4	2.6
125°	65.8	60.7	47.0	28.2	13.7	2.6	2.6	2.6	3.4	3.4	2.6
127.5°	42.7	38.5	27.3	16.2	6.0	2.6	2.6	3.4	3.4	3.4	2.6
130°	23.9	21.4	16.2	9.4	2.6	2.6	2.6	3.4	3.4	3.4	2.6
132.5°	13.7	12.8	8.5	1.7	2.6	2.6	2.6	3.4	3.4	3.4	3.4
135°	3.4	1.7	1.7	1.7	2.6	2.6	3.4	3.4	4.3	4.3	3.4
137.5°	0.9	0.9	1.7	1.7	2.6	2.6	3.4	4.3	4.3	4.3	3.4
140°	0.9	0.9	1.7	2.6	2.6	2.6	3.4	4.3	4.3	4.3	3.4
142.5°	0.9	1.7	1.7	2.6	2.6	3.4	3.4	4.3	4.3	3.4	3.4
145°	0.9	1.7	1.7	2.6	2.6	3.4	3.4	4.3	3.4	3.4	3.4
147.5°	1.7	1.7	1.7	2.6	2.6	3.4	3.4	4.3	4.3	3.4	3.4
150°	0.9	1.7	1.7	2.6	3.4	3.4	3.4	4.3	3.4	3.4	3.4
152.5°	0.9	1.7	1.7	2.6	3.4	3.4	3.4	4.3	3.4	3.4	3.4
155°	1.7	1.7	1.7	2.6	3.4	3.4	3.4	4.3	3.4	3.4	4.3
157.5°	1.7	1.7	1.7	2.6	3.4	3.4	3.4	4.3	3.4	3.4	4.3
160°	1.7	1.7	1.7	2.6	2.6	3.4	3.4	3.4	3.4	3.4	3.4
162.5°	1.7	1.7	1.7	2.6	2.6	3.4	3.4	3.4	3.4	3.4	3.4
165°	1.7	1.7	1.7	1.7	2.6	2.6	3.4	3.4	3.4	3.4	3.4
167.5°	1.7	1.7	1.7	2.6	2.6	2.6	3.4	3.4	3.4	3.4	3.4
170°	1.7	1.7	1.7	2.6	2.6	2.6	3.4	4.3	4.3	4.3	4.3
172.5°	1.7	1.7	1.7	2.6	2.6	3.4	3.4	4.3	4.3	4.3	4.3
175°	1.7	1.7	1.7	2.6	2.6	3.4	3.4	4.3	4.3	4.3	4.3
177.5°	0.9	1.7	1.7	2.6	2.6	3.4	3.4	4.3	4.3	4.3	3.4
180°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6



TEST NUMBER: P551376

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-93-88-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	670.7	670.7	670.7
2.5°	638.3	626.3	622.9
5°	604.1	584.4	573.3
7.5°	569.9	543.4	530.6
10°	538.3	500.7	487.0
12.5°	500.7	457.1	435.8
15°	464.8	408.4	387.9
17.5°	424.7	361.4	337.5
20°	387.1	314.4	289.7
22.5°	344.3	268.3	241.0
25°	305.9	222.2	191.4
27.5°	263.2	175.2	148.7
30°	223.0	134.1	107.7
32.5°	184.6	98.3	74.3
35°	148.7	66.6	47.0
37.5°	114.5	41.0	23.9
40°	82.9	21.4	11.1
42.5°	55.5	10.3	6.0
45°	34.2	5.1	0.0
47.5°	19.7	0.0	0.0
50°	10.3	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	3.4	4.3
82.5°	3.4	4.3	4.3
85°	3.4	4.3	5.1
87.5°	4.3	5.1	6.0
90°	5.1	6.0	6.0
92.5°	5.1	6.8	6.8
95°	6.0	6.8	7.7
97.5°	6.8	7.7	7.7
100°	6.0	7.7	8.5
102.5°	5.1	7.7	7.7
105°	4.3	6.0	6.8



TEST NUMBER: P551376

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-93-88-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.4	4.3	4.3
115°	2.6	3.4	4.3
117.5°	2.6	3.4	3.4
120°	2.6	2.6	3.4
122.5°	2.6	2.6	3.4
125°	2.6	2.6	3.4
127.5°	3.4	2.6	2.6
130°	2.6	2.6	2.6
132.5°	3.4	2.6	2.6
135°	3.4	2.6	2.6
137.5°	3.4	2.6	2.6
140°	3.4	2.6	2.6
142.5°	3.4	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°	3.4	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°	358.9	348.6	314.4	258.0	180.3	100.8	37.6	6.8	1.7	2.6	2.6
110°	312.7	304.2	269.2	214.5	145.3	75.2	24.8	4.3	2.6	2.6	2.6





107.5°	3.4	5.1	6.0
110°	3.4	4.3	5.1



(END OF REPORT)