

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: P551239

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-93-84-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: P551239
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-30-UNV-93-84-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

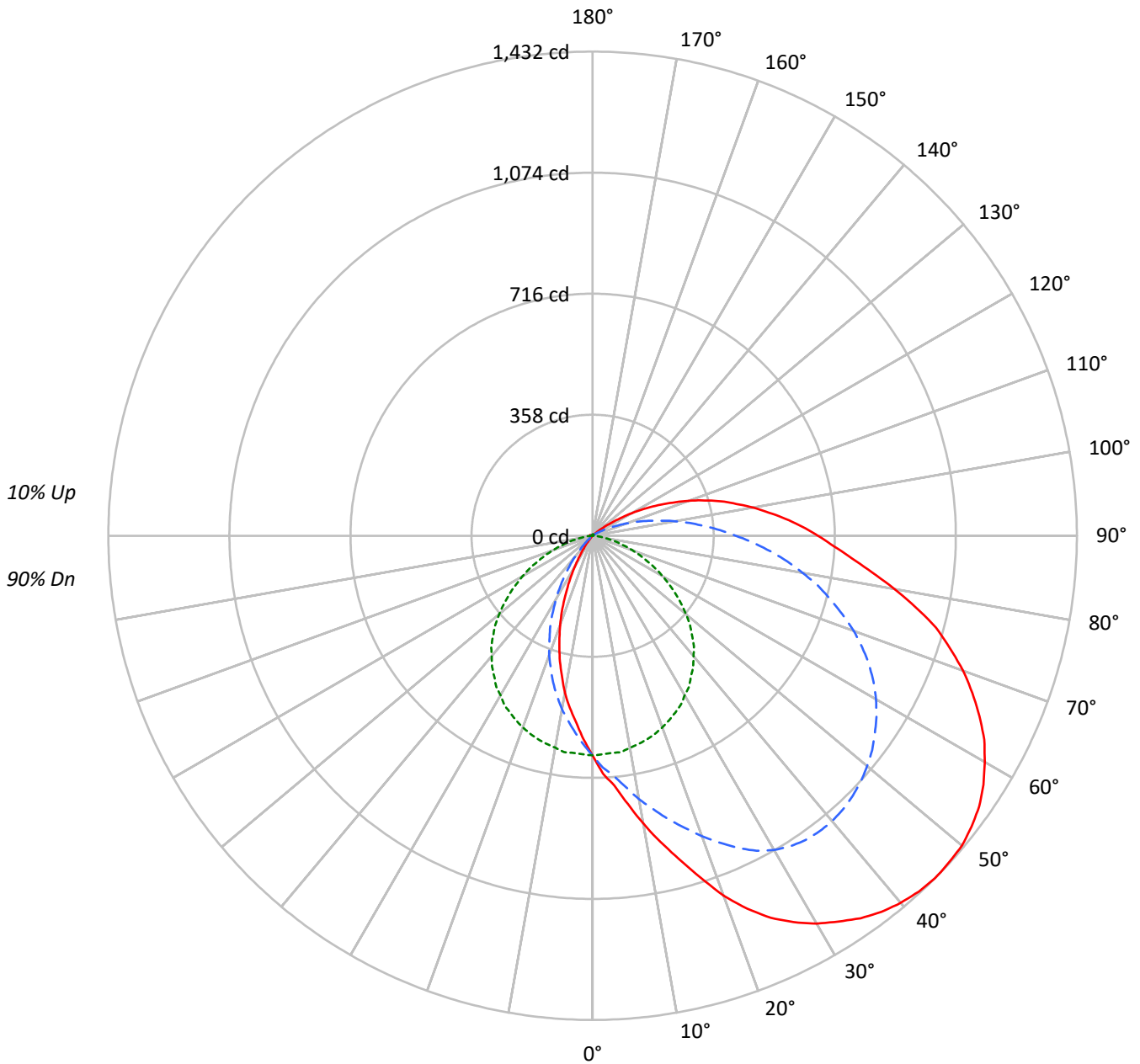
Lumens per Lamp: N/A
Luminaire Lumens: 3211.0 lumens
Efficiency: N/A
Efficacy: 74.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551239

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-93-84-ED1D-90

Luminous Intensity Polar Plot





TEST NUMBER: P551239

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-93-84-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°	6991	6991	6991
5°	7674	6889	5748
10°	8684	6805	4737
15°	9733	6717	3691
20°	10977	6609	2718
25°	12009	6481	1785
30°	12777	6311	1006
35°	13440	6128	443
40°	14029	5903	107
45°	14534	5621	0
50°	14959	5245	0
55°	15282	4769	0
60°	15444	4217	0
65°	15508	3589	0
70°	15456	2926	0
75°	15260	2158	12
80°	14642	1320	66
85°	14153	631	92



TEST NUMBER: P551239

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-93-84-ED1D-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.2	1.9
10°-20°	186.3	5.8
20°-30°	301.7	9.4
30°-40°	387.5	12.1
40°-50°	438.7	13.7
50°-60°	454.5	14.2
60°-70°	428.6	13.3
70°-80°	359.2	11.2
80°-90°	260.4	8.1
90°-100°	171.1	5.3
100°-110°	98.8	3.1
110°-120°	43.6	1.4
120°-130°	11.8	0.4
130°-140°	2.7	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°	550.2	17.1
0°-40°	937.7	29.2
0°-60°	1830.8	57.0
0°-90°	2878.9	89.7
90°-120°	313.6	9.8
90°-150°	329.9	10.3
90°-180°	332.0	10.3
0°-180°	3211.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	650	650	650	650	650	
5°	741	712	644	585	555	75
15°	990	868	623	450	376	286
25°	1247	1019	578	296	185	576
35°	1381	1098	507	144	46	866
45°	1432	1088	415	33	0	1106
55°	1396	1019	300	0	0	1246
65°	1262	902	179	0	0	1248
75°	1052	728	76	1	1	1103
85°	770	527	12	3	5	657
90°	667	423	3	5	6	366
95°	573	331	2	6	7	449
105°	394	171	2	4	7	416
115°	214	57	2	2	4	215
125°	64	8	3	2	3	64
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	



TEST NUMBER: P551239

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-93-84-ED1D-90

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	649.5	649.5	649.5	649.5	649.5	649.5	649.5	649.5	649.5	649.5	649.5
2.5°	704.1	703.3	700.8	696.7	690.9	680.9	672.7	665.2	655.3	647.0	631.3
5°	741.3	737.2	733.9	729.8	716.5	707.4	692.5	676.0	660.3	644.5	613.1
7.5°	800.9	794.3	789.3	777.8	759.6	738.9	715.7	700.0	689.2	645.4	591.6
10°	864.6	858.8	848.9	828.2	805.9	776.1	743.0	705.8	672.7	636.3	572.6
12.5°	927.5	919.2	905.2	878.7	847.3	810.0	764.5	720.7	673.5	630.5	550.2
15°	990.4	981.3	966.4	934.1	892.8	843.9	788.5	733.1	677.6	623.0	527.1
17.5°	1059.1	1046.7	1024.3	987.9	935.8	875.4	810.0	743.0	676.0	613.9	502.2
20°	1132.7	1115.3	1091.3	1042.5	981.3	910.1	831.5	752.9	675.2	603.2	474.1
22.5°	1193.9	1176.6	1150.1	1099.6	1026.0	939.1	849.7	759.6	671.8	590.8	447.6
25°	1246.9	1232.8	1203.9	1145.9	1068.2	969.7	867.1	764.5	666.9	577.5	419.5
27.5°	1288.3	1275.0	1242.8	1183.2	1103.8	997.0	880.4	767.0	660.3	564.3	390.5
30°	1324.7	1311.4	1272.5	1211.3	1127.7	1018.5	893.6	767.8	652.0	544.4	359.1
32.5°	1352.8	1340.4	1300.7	1235.3	1144.3	1033.4	901.0	767.0	641.2	530.4	325.2
35°	1380.9	1368.5	1322.2	1252.7	1156.7	1040.0	906.8	762.9	628.0	507.2	292.9
37.5°	1402.4	1388.4	1341.2	1264.3	1162.5	1041.7	906.0	757.1	613.9	488.2	260.6
40°	1417.3	1402.4	1352.0	1270.9	1164.2	1039.2	899.4	747.1	597.4	464.2	226.7
42.5°	1427.3	1410.7	1356.9	1280.8	1160.8	1032.6	889.5	734.7	579.2	443.5	194.4
45°	1432.2	1414.9	1357.8	1272.5	1155.0	1020.2	874.6	719.0	559.3	415.4	162.2
47.5°	1429.7	1410.7	1353.6	1263.4	1144.3	1006.9	858.0	700.0	535.3	390.5	131.6
50°	1425.6	1405.8	1344.5	1251.9	1129.4	990.4	839.8	676.8	510.5	359.9	104.3
52.5°	1412.4	1392.5	1334.6	1235.3	1112.0	971.4	815.0	652.8	484.0	330.1	79.4
55°	1395.8	1377.6	1317.2	1220.4	1089.7	948.2	791.8	627.2	458.4	299.5	57.1
57.5°	1370.2	1353.6	1295.7	1196.4	1067.3	922.5	766.2	599.0	426.1	268.9	39.7
60°	1338.7	1322.2	1265.9	1169.1	1041.7	893.6	738.0	570.1	397.2	238.3	24.8
62.5°	1305.6	1289.9	1231.2	1135.2	1009.4	863.0	707.4	541.1	366.5	210.2	14.9
65°	1261.8	1246.9	1193.9	1094.6	973.8	829.9	673.5	506.4	335.1	178.7	8.3
67.5°	1215.4	1202.2	1148.4	1057.4	932.5	793.5	638.8	472.4	302.0	151.4	4.1
70°	1165.8	1149.3	1099.6	1006.9	890.3	752.1	600.7	437.7	270.6	124.9	0.0
72.5°	1107.9	1095.5	1047.5	959.8	841.5	708.3	561.8	399.6	235.8	99.3	0.8
75°	1051.6	1035.9	992.1	909.3	793.5	661.9	518.8	364.1	201.9	76.1	0.8
77.5°	978.8	973.8	932.5	852.2	748.0	617.2	471.6	321.0	169.6	54.6	0.8
80°	906.0	901.0	868.8	795.1	695.0	564.3	427.8	280.5	138.2	36.4	0.8
82.5°	834.0	827.4	796.8	735.6	641.2	519.6	382.3	239.9	109.2	22.3	0.8
85°	769.5	761.2	728.1	671.8	585.8	469.1	335.1	200.2	81.1	12.4	1.7
87.5°	714.0	708.3	671.8	613.9	529.5	422.0	293.7	162.2	57.1	5.8	2.5
90°	666.9	654.5	622.2	561.0	476.6	369.8	249.9	129.9	38.1	3.3	3.3
92.5°	620.5	609.8	574.2	511.3	429.4	325.2	207.7	99.3	24.0	1.7	4.1
95°	572.6	561.0	526.2	468.3	381.4	279.7	170.4	72.8	13.2	1.7	4.1
97.5°	525.4	514.6	478.2	420.3	338.4	239.9	134.9	51.3	6.6	1.7	3.3
100°	481.5	469.1	436.0	378.1	295.4	200.2	104.3	33.1	4.1	1.7	3.3
102.5°	435.2	425.3	391.4	335.1	250.7	163.0	77.8	20.7	1.7	1.7	2.5
105°	393.8	381.4	348.3	290.4	213.5	128.2	54.6	12.4	1.7	1.7	2.5



TEST NUMBER: P551239

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-93-84-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	256.5	246.6	217.6	168.8	108.4	50.5	14.9	2.5	2.5	2.5	2.5
115°	214.3	199.4	173.8	130.7	80.3	33.1	7.4	2.5	2.5	2.5	2.5
117.5°	171.3	158.9	140.7	99.3	53.0	21.5	4.1	2.5	2.5	2.5	2.5
120°	134.0	122.5	101.8	68.7	35.6	12.4	1.7	2.5	2.5	2.5	2.5
122.5°	96.0	86.9	68.7	44.7	21.5	5.8	2.5	2.5	3.3	3.3	2.5
125°	63.7	58.7	45.5	27.3	13.2	2.5	2.5	2.5	3.3	3.3	2.5
127.5°	41.4	37.2	26.5	15.7	5.8	2.5	2.5	3.3	3.3	3.3	2.5
130°	23.2	20.7	15.7	9.1	2.5	2.5	2.5	3.3	3.3	3.3	2.5
132.5°	13.2	12.4	8.3	1.7	2.5	2.5	2.5	3.3	3.3	3.3	3.3
135°	3.3	1.7	1.7	1.7	2.5	2.5	3.3	3.3	4.1	4.1	3.3
137.5°	0.8	0.8	1.7	1.7	2.5	2.5	3.3	4.1	4.1	4.1	3.3
140°	0.8	0.8	1.7	2.5	2.5	2.5	3.3	4.1	4.1	4.1	3.3
142.5°	0.8	1.7	1.7	2.5	2.5	3.3	3.3	4.1	4.1	3.3	3.3
145°	0.8	1.7	1.7	2.5	2.5	3.3	3.3	4.1	3.3	3.3	3.3
147.5°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	4.1	4.1	3.3	3.3
150°	0.8	1.7	1.7	2.5	3.3	3.3	3.3	4.1	3.3	3.3	3.3
152.5°	0.8	1.7	1.7	2.5	3.3	3.3	3.3	4.1	3.3	3.3	3.3
155°	1.7	1.7	1.7	2.5	3.3	3.3	3.3	4.1	3.3	3.3	4.1
157.5°	1.7	1.7	1.7	2.5	3.3	3.3	3.3	4.1	3.3	3.3	4.1
160°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	3.3	3.3	3.3	3.3
162.5°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	3.3	3.3	3.3	3.3
165°	1.7	1.7	1.7	1.7	2.5	2.5	3.3	3.3	3.3	3.3	3.3
167.5°	1.7	1.7	1.7	2.5	2.5	2.5	3.3	3.3	3.3	3.3	3.3
170°	1.7	1.7	1.7	2.5	2.5	2.5	3.3	4.1	4.1	4.1	4.1
172.5°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	4.1	4.1	4.1	4.1
175°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	4.1	4.1	4.1	4.1
177.5°	0.8	1.7	1.7	2.5	2.5	3.3	3.3	4.1	4.1	4.1	3.3
180°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5



TEST NUMBER: P551239

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-93-84-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	649.5	649.5	649.5
2.5°	618.1	606.5	603.2
5°	585.0	565.9	555.2
7.5°	551.9	526.2	513.8
10°	521.3	484.9	471.6
12.5°	484.9	442.7	422.0
15°	450.1	395.5	375.6
17.5°	411.2	350.0	326.8
20°	374.8	304.5	280.5
22.5°	333.4	259.8	233.3
25°	296.2	215.1	185.3
27.5°	254.8	169.6	144.0
30°	216.0	129.9	104.3
32.5°	178.7	95.2	72.0
35°	144.0	64.5	45.5
37.5°	110.9	39.7	23.2
40°	80.3	20.7	10.8
42.5°	53.8	9.9	5.8
45°	33.1	5.0	0.0
47.5°	19.0	0.0	0.0
50°	9.9	0.0	0.0
52.5°	4.1	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	1.7	2.5
80°	1.7	3.3	4.1
82.5°	3.3	4.1	4.1
85°	3.3	4.1	5.0
87.5°	4.1	5.0	5.8
90°	5.0	5.8	5.8
92.5°	5.0	6.6	6.6
95°	5.8	6.6	7.4
97.5°	6.6	7.4	7.4
100°	5.8	7.4	8.3
102.5°	5.0	7.4	7.4
105°	4.1	5.8	6.6



TEST NUMBER: P551239

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-93-84-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.3	4.1	4.1
115°	2.5	3.3	4.1
117.5°	2.5	3.3	3.3
120°	2.5	2.5	3.3
122.5°	2.5	2.5	3.3
125°	2.5	2.5	3.3
127.5°	3.3	2.5	2.5
130°	2.5	2.5	2.5
132.5°	3.3	2.5	2.5
135°	3.3	2.5	2.5
137.5°	3.3	2.5	2.5
140°	3.3	2.5	2.5
142.5°	3.3	2.5	2.5
145°	2.5	2.5	2.5
147.5°	2.5	2.5	2.5
150°	2.5	2.5	1.7
152.5°	2.5	1.7	1.7
155°	2.5	1.7	0.8
157.5°	3.3	1.7	0.8
160°	2.5	1.7	0.8
162.5°	2.5	1.7	0.8
165°	2.5	1.7	0.0
167.5°	2.5	1.7	0.8
170°	2.5	1.7	0.8
172.5°	2.5	1.7	0.8
175°	2.5	0.8	0.8
177.5°	2.5	0.8	0.8
180°	2.5	2.5	2.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	347.5	337.6	304.5	249.9	174.6	97.6	36.4	6.6	1.7	2.5	2.5
110°	302.8	294.6	260.6	207.7	140.7	72.8	24.0	4.1	2.5	2.5	2.5





107.5°	3.3	5.0	5.8
110°	3.3	4.1	5.0



(END OF REPORT)