

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: P551244

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-93-86-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: P551244
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-93-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

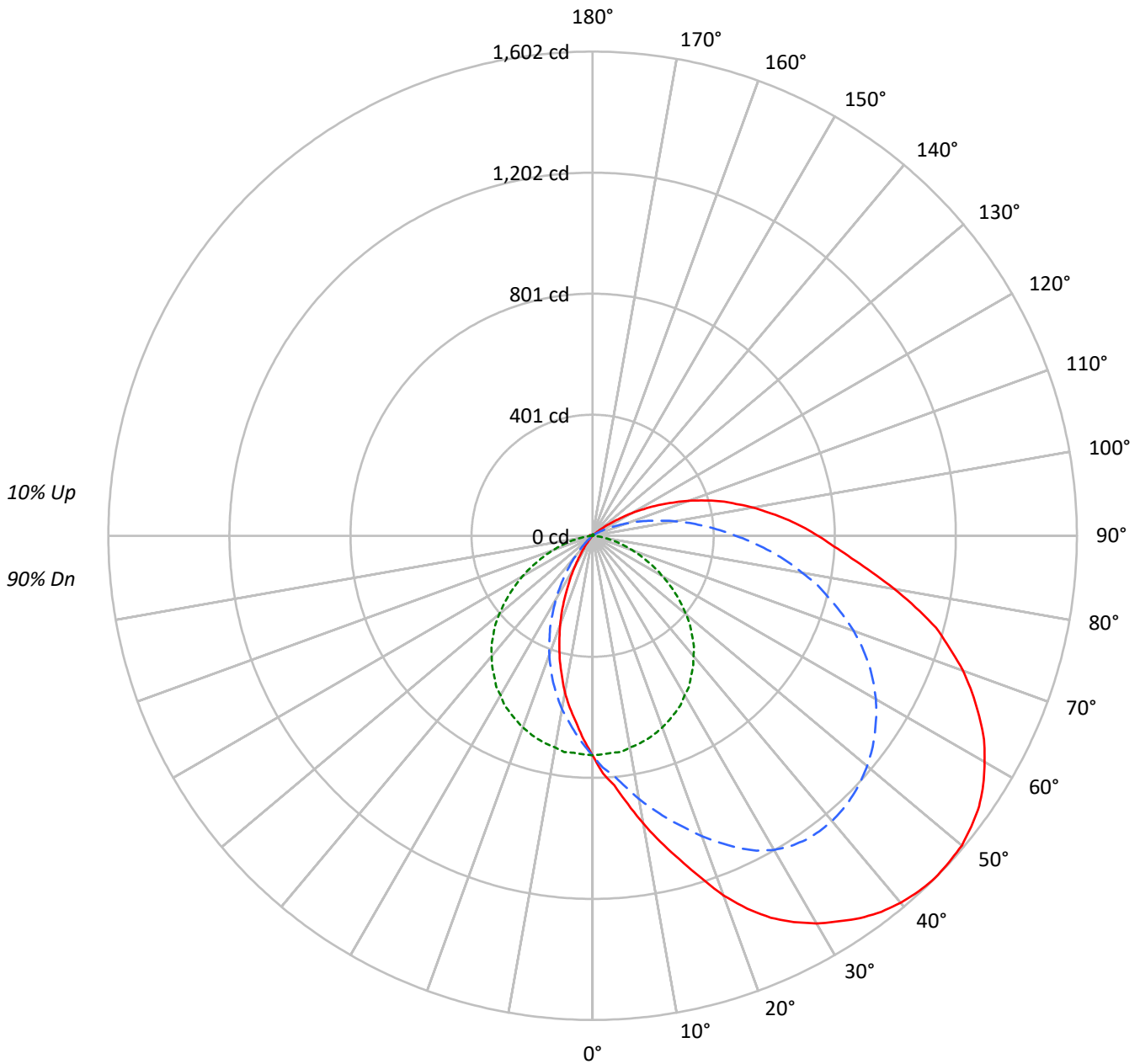
Lumens per Lamp: N/A
Luminaire Lumens: 3591.1 lumens
Efficiency: N/A
Efficacy: 82.9 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551244

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-93-86-ED1D

Luminous Intensity Polar Plot





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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°	7819	7819	7819
5°	8583	7704	6428
10°	9713	7610	5297
15°	10884	7513	4128
20°	12277	7391	3040
25°	13431	7249	1997
30°	14288	7059	1125
35°	15031	6853	495
40°	15690	6602	119
45°	16255	6285	0
50°	16729	5866	0
55°	17090	5334	0
60°	17273	4716	0
65°	17344	4015	0
70°	17286	3273	0
75°	17066	2413	13
80°	16374	1476	74
85°	15826	707	103



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.6	1.9
10°-20°	208.3	5.8
20°-30°	337.4	9.4
30°-40°	433.4	12.1
40°-50°	490.6	13.7
50°-60°	508.2	14.2
60°-70°	479.3	13.3
70°-80°	401.7	11.2
80°-90°	291.2	8.1
90°-100°	191.4	5.3
100°-110°	110.5	3.1
110°-120°	48.8	1.4
120°-130°	13.2	0.4
130°-140°	3.0	0.1
140°-150°	2.0	0.1
150°-160°	1.4	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	615.3	17.1
0°-40°	1048.6	29.2
0°-60°	2047.5	57.0
0°-90°	3219.6	89.7
90°-120°	350.7	9.8
90°-150°	368.9	10.3
90°-180°	371.0	10.3
0°-180°	3591.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	726	726	726	726	726	
5°	829	796	721	654	621	84
15°	1108	971	697	503	420	319
25°	1394	1140	646	331	207	644
35°	1544	1228	567	161	51	969
45°	1602	1216	464	37	0	1237
55°	1561	1140	335	0	0	1394
65°	1411	1009	200	0	0	1396
75°	1176	814	85	1	1	1234
85°	860	590	14	4	6	735
90°	746	473	4	6	6	409
95°	640	370	2	6	8	502
105°	440	191	2	5	7	465
115°	240	63	3	3	5	240
125°	71	9	4	3	4	71
135°	4	3	5	4	3	7
145°	1	3	4	3	3	1
155°	2	4	4	3	1	1
165°	2	3	4	3	0	1
175°	2	3	5	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°	726.4	726.4	726.4	726.4	726.4	726.4	726.4	726.4	726.4	726.4	726.4
2.5°	787.4	786.5	783.7	779.1	772.6	761.5	752.3	744.0	732.9	723.6	706.0
5°	829.1	824.5	820.8	816.1	801.3	791.1	774.5	756.0	738.4	720.8	685.7
7.5°	895.7	888.3	882.8	869.8	849.4	826.3	800.4	782.8	770.8	721.7	661.6
10°	967.0	960.5	949.4	926.2	901.3	867.9	830.9	789.3	752.3	711.6	640.3
12.5°	1037.3	1028.0	1012.3	982.7	947.5	905.9	855.0	806.0	753.2	705.1	615.3
15°	1107.6	1097.4	1080.8	1044.7	998.4	943.8	881.8	819.8	757.8	696.8	589.4
17.5°	1184.4	1170.5	1145.5	1104.8	1046.5	979.0	905.9	830.9	756.0	686.6	561.7
20°	1266.8	1247.3	1220.5	1165.9	1097.4	1017.8	929.9	842.0	755.1	674.6	530.2
22.5°	1335.2	1315.8	1286.2	1229.7	1147.4	1050.2	950.3	849.4	751.4	660.7	500.6
25°	1394.5	1378.7	1346.3	1281.6	1194.6	1084.5	969.7	855.0	745.8	645.9	469.1
27.5°	1440.7	1425.9	1389.8	1323.2	1234.4	1115.0	984.5	857.8	738.4	631.1	436.7
30°	1481.4	1466.6	1423.1	1354.7	1261.2	1139.1	999.3	858.7	729.1	608.9	401.6
32.5°	1512.9	1499.0	1454.6	1381.5	1279.7	1155.7	1007.7	857.8	717.1	593.1	363.6
35°	1544.4	1530.5	1478.7	1400.9	1293.6	1163.1	1014.1	853.1	702.3	567.2	327.6
37.5°	1568.4	1552.7	1499.9	1413.9	1300.1	1165.0	1013.2	846.7	686.6	545.9	291.5
40°	1585.1	1568.4	1512.0	1421.3	1301.9	1162.2	1005.8	835.6	668.1	519.1	253.5
42.5°	1596.2	1577.7	1517.5	1432.4	1298.2	1154.8	994.7	821.7	647.7	496.0	217.4
45°	1601.7	1582.3	1518.4	1423.1	1291.7	1140.9	978.1	804.1	625.5	464.5	181.4
47.5°	1598.9	1577.7	1513.8	1413.0	1279.7	1126.1	959.6	782.8	598.7	436.7	147.1
50°	1594.3	1572.1	1503.6	1400.0	1263.1	1107.6	939.2	756.9	570.9	402.5	116.6
52.5°	1579.5	1557.3	1492.5	1381.5	1243.6	1086.3	911.4	730.1	541.3	369.2	88.8
55°	1561.0	1540.7	1473.1	1364.8	1218.6	1060.4	885.5	701.4	512.6	335.0	63.8
57.5°	1532.3	1513.8	1449.0	1338.0	1193.7	1031.7	856.8	669.9	476.5	300.7	44.4
60°	1497.2	1478.7	1415.7	1307.5	1165.0	999.3	825.4	637.5	444.2	266.5	27.8
62.5°	1460.1	1442.6	1376.9	1269.5	1128.9	965.1	791.1	605.2	409.9	235.0	16.7
65°	1411.1	1394.5	1335.2	1224.2	1089.1	928.1	753.2	566.3	374.8	199.9	9.3
67.5°	1359.3	1344.5	1284.3	1182.6	1042.8	887.4	714.3	528.4	337.7	169.3	4.6
70°	1303.8	1285.3	1229.7	1126.1	995.6	841.1	671.8	489.5	302.6	139.7	0.0
72.5°	1239.0	1225.1	1171.5	1073.4	941.0	792.1	628.3	446.9	263.7	111.0	0.9
75°	1176.1	1158.5	1109.5	1016.9	887.4	740.3	580.2	407.1	225.8	85.1	0.9
77.5°	1094.6	1089.1	1042.8	953.1	836.5	690.3	527.4	359.0	189.7	61.1	0.9
80°	1013.2	1007.7	971.6	889.2	777.3	631.1	478.4	313.7	154.5	40.7	0.9
82.5°	932.7	925.3	891.1	822.6	717.1	581.1	427.5	268.3	122.1	25.0	0.9
85°	860.5	851.3	814.3	751.4	655.1	524.7	374.8	223.9	90.7	13.9	1.9
87.5°	798.5	792.1	751.4	686.6	592.2	471.9	328.5	181.4	63.8	6.5	2.8
90°	745.8	731.9	695.8	627.4	533.0	413.6	279.4	145.3	42.6	3.7	3.7
92.5°	694.0	682.0	642.2	571.8	480.2	363.6	232.3	111.0	26.8	1.9	4.6
95°	640.3	627.4	588.5	523.7	426.6	312.8	190.6	81.4	14.8	1.9	4.6
97.5°	587.6	575.5	534.8	470.1	378.5	268.3	150.8	57.4	7.4	1.9	3.7
100°	538.5	524.7	487.6	422.9	330.3	223.9	116.6	37.0	4.6	1.9	3.7
102.5°	486.7	475.6	437.7	374.8	280.4	182.3	87.0	23.1	1.9	1.9	2.8
105°	440.5	426.6	389.6	324.8	238.7	143.4	61.1	13.9	1.9	1.9	2.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	286.8	275.7	243.4	188.8	121.2	56.4	16.7	2.8	2.8	2.8	2.8
115°	239.7	223.0	194.3	146.2	89.8	37.0	8.3	2.8	2.8	2.8	2.8
117.5°	191.5	177.7	157.3	111.0	59.2	24.1	4.6	2.8	2.8	2.8	2.8
120°	149.9	136.9	113.8	76.8	39.8	13.9	1.9	2.8	2.8	2.8	2.8
122.5°	107.3	97.2	76.8	50.0	24.1	6.5	2.8	2.8	3.7	3.7	2.8
125°	71.2	65.7	50.9	30.5	14.8	2.8	2.8	2.8	3.7	3.7	2.8
127.5°	46.3	41.6	29.6	17.6	6.5	2.8	2.8	3.7	3.7	3.7	2.8
130°	25.9	23.1	17.6	10.2	2.8	2.8	2.8	3.7	3.7	3.7	2.8
132.5°	14.8	13.9	9.3	1.9	2.8	2.8	2.8	3.7	3.7	3.7	3.7
135°	3.7	1.9	1.9	1.9	2.8	2.8	3.7	3.7	4.6	4.6	3.7
137.5°	0.9	0.9	1.9	1.9	2.8	2.8	3.7	4.6	4.6	4.6	3.7
140°	0.9	0.9	1.9	2.8	2.8	2.8	3.7	4.6	4.6	4.6	3.7
142.5°	0.9	1.9	1.9	2.8	2.8	3.7	3.7	4.6	4.6	3.7	3.7
145°	0.9	1.9	1.9	2.8	2.8	3.7	3.7	4.6	3.7	3.7	3.7
147.5°	1.9	1.9	1.9	2.8	2.8	3.7	3.7	4.6	4.6	3.7	3.7
150°	0.9	1.9	1.9	2.8	3.7	3.7	3.7	4.6	3.7	3.7	3.7
152.5°	0.9	1.9	1.9	2.8	3.7	3.7	3.7	4.6	3.7	3.7	3.7
155°	1.9	1.9	1.9	2.8	3.7	3.7	3.7	4.6	3.7	3.7	4.6
157.5°	1.9	1.9	1.9	2.8	3.7	3.7	3.7	4.6	3.7	3.7	4.6
160°	1.9	1.9	1.9	2.8	2.8	3.7	3.7	3.7	3.7	3.7	3.7
162.5°	1.9	1.9	1.9	2.8	2.8	3.7	3.7	3.7	3.7	3.7	3.7
165°	1.9	1.9	1.9	1.9	2.8	2.8	3.7	3.7	3.7	3.7	3.7
167.5°	1.9	1.9	1.9	2.8	2.8	2.8	3.7	3.7	3.7	3.7	3.7
170°	1.9	1.9	1.9	2.8	2.8	2.8	3.7	4.6	4.6	4.6	4.6
172.5°	1.9	1.9	1.9	2.8	2.8	3.7	3.7	4.6	4.6	4.6	4.6
175°	1.9	1.9	1.9	2.8	2.8	3.7	3.7	4.6	4.6	4.6	4.6
177.5°	0.9	1.9	1.9	2.8	2.8	3.7	3.7	4.6	4.6	4.6	3.7
180°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	726.4	726.4	726.4
2.5°	691.2	678.3	674.6
5°	654.2	632.9	620.9
7.5°	617.2	588.5	574.6
10°	582.9	542.2	527.4
12.5°	542.2	495.0	471.9
15°	503.4	442.3	420.1
17.5°	459.9	391.4	365.5
20°	419.2	340.5	313.7
22.5°	372.9	290.5	260.9
25°	331.3	240.6	207.3
27.5°	285.0	189.7	161.0
30°	241.5	145.3	116.6
32.5°	199.9	106.4	80.5
35°	161.0	72.2	50.9
37.5°	124.0	44.4	25.9
40°	89.8	23.1	12.0
42.5°	60.1	11.1	6.5
45°	37.0	5.6	0.0
47.5°	21.3	0.0	0.0
50°	11.1	0.0	0.0
52.5°	4.6	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	1.9	2.8
80°	1.9	3.7	4.6
82.5°	3.7	4.6	4.6
85°	3.7	4.6	5.6
87.5°	4.6	5.6	6.5
90°	5.6	6.5	6.5
92.5°	5.6	7.4	7.4
95°	6.5	7.4	8.3
97.5°	7.4	8.3	8.3
100°	6.5	8.3	9.3
102.5°	5.6	8.3	8.3
105°	4.6	6.5	7.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.7	4.6	4.6
115°	2.8	3.7	4.6
117.5°	2.8	3.7	3.7
120°	2.8	2.8	3.7
122.5°	2.8	2.8	3.7
125°	2.8	2.8	3.7
127.5°	3.7	2.8	2.8
130°	2.8	2.8	2.8
132.5°	3.7	2.8	2.8
135°	3.7	2.8	2.8
137.5°	3.7	2.8	2.8
140°	3.7	2.8	2.8
142.5°	3.7	2.8	2.8
145°	2.8	2.8	2.8
147.5°	2.8	2.8	2.8
150°	2.8	2.8	1.9
152.5°	2.8	1.9	1.9
155°	2.8	1.9	0.9
157.5°	3.7	1.9	0.9
160°	2.8	1.9	0.9
162.5°	2.8	1.9	0.9
165°	2.8	1.9	0.0
167.5°	2.8	1.9	0.9
170°	2.8	1.9	0.9
172.5°	2.8	1.9	0.9
175°	2.8	0.9	0.9
177.5°	2.8	0.9	0.9
180°	2.8	2.8	2.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	388.6	377.5	340.5	279.4	195.2	109.2	40.7	7.4	1.9	2.8	2.8
110°	338.7	329.4	291.5	232.3	157.3	81.4	26.8	4.6	2.8	2.8	2.8





107.5°	3.7	5.6	6.5
110°	3.7	4.6	5.6



(END OF REPORT)