

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: P551246

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-93-87-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: P551246
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-93-87-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

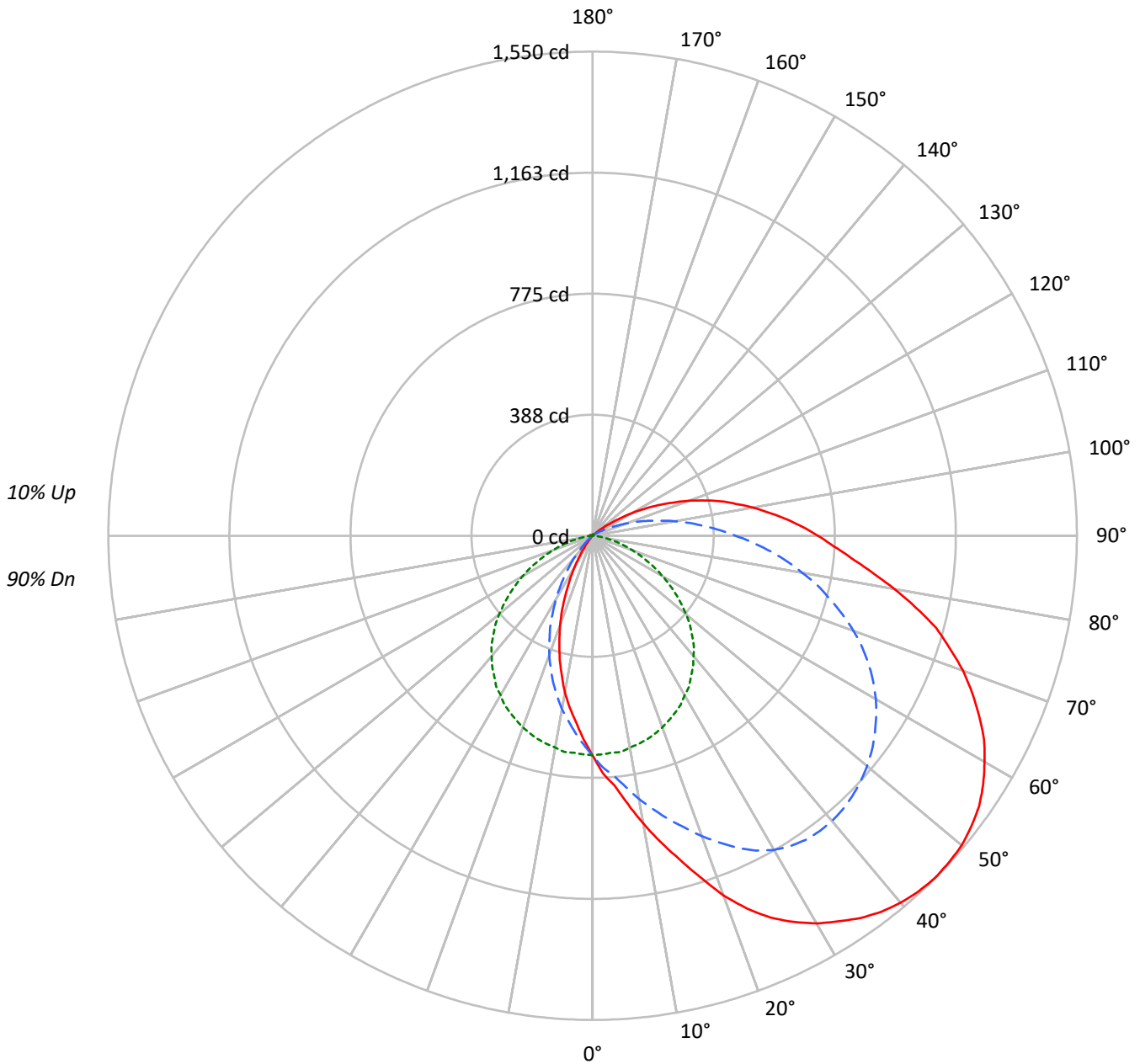
Lumens per Lamp: N/A
Luminaire Lumens: 3474.1 lumens
Efficiency: N/A
Efficacy: 80.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551246

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-93-87-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°	7564	7564	7564
5°	8303	7453	6219
10°	9397	7362	5125
15°	10530	7268	3994
20°	11876	7150	2941
25°	12992	7012	1931
30°	13823	6828	1088
35°	14541	6630	479
40°	15178	6387	115
45°	15725	6081	0
50°	16185	5675	0
55°	16533	5161	0
60°	16710	4562	0
65°	16778	3885	0
70°	16723	3167	0
75°	16510	2337	13
80°	15841	1429	73
85°	15311	681	99



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.3	1.9
10°-20°	201.5	5.8
20°-30°	326.4	9.4
30°-40°	419.3	12.1
40°-50°	474.6	13.7
50°-60°	491.7	14.2
60°-70°	463.7	13.3
70°-80°	388.6	11.2
80°-90°	281.7	8.1
90°-100°	185.2	5.3
100°-110°	106.9	3.1
110°-120°	47.2	1.4
120°-130°	12.8	0.4
130°-140°	2.9	0.1
140°-150°	1.9	0.1
150°-160°	1.4	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	595.2	17.1
0°-40°	1014.5	29.2
0°-60°	1980.8	57.0
0°-90°	3114.8	89.7
90°-120°	339.3	9.8
90°-150°	356.9	10.3
90°-180°	359.0	10.3
0°-180°	3474.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	703	703	703	703	703	
5°	802	770	697	633	601	81
15°	1072	940	674	487	406	309
25°	1349	1102	625	320	200	623
35°	1494	1188	549	156	49	937
45°	1550	1177	449	36	0	1196
55°	1510	1102	324	0	0	1349
65°	1365	976	193	0	0	1351
75°	1138	787	82	1	1	1193
85°	832	571	13	4	5	711
90°	722	458	4	5	6	396
95°	620	358	2	6	8	486
105°	426	185	2	4	7	450
115°	232	61	3	3	4	232
125°	69	8	4	3	4	69
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	1
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°	702.7	702.7	702.7	702.7	702.7	702.7	702.7	702.7	702.7	702.7	702.7
2.5°	761.8	760.9	758.2	753.7	747.5	736.7	727.8	719.7	709.0	700.0	683.0
5°	802.1	797.6	794.0	789.5	775.2	765.4	749.3	731.4	714.3	697.3	663.3
7.5°	866.5	859.4	854.0	841.5	821.8	799.4	774.3	757.3	745.7	698.2	640.0
10°	935.5	929.2	918.4	896.1	871.9	839.7	803.9	763.6	727.8	688.4	619.5
12.5°	1003.5	994.5	979.3	950.7	916.7	876.4	827.1	779.7	728.7	682.1	595.3
15°	1071.5	1061.7	1045.6	1010.6	965.9	913.1	853.1	793.1	733.1	674.1	570.2
17.5°	1145.8	1132.4	1108.2	1068.8	1012.4	947.1	876.4	803.9	731.4	664.2	543.4
20°	1225.5	1206.7	1180.7	1127.9	1061.7	984.7	899.6	814.6	730.5	652.6	512.9
22.5°	1291.7	1272.9	1244.3	1189.7	1110.0	1016.0	919.3	821.8	726.9	639.1	484.3
25°	1349.0	1333.8	1302.5	1239.8	1155.7	1049.1	938.1	827.1	721.5	624.8	453.9
27.5°	1393.8	1379.5	1344.5	1280.1	1194.2	1078.7	952.5	829.8	714.3	610.5	422.5
30°	1433.2	1418.8	1376.8	1310.5	1220.1	1102.0	966.8	830.7	705.4	589.0	388.5
32.5°	1463.6	1450.2	1407.2	1336.5	1238.0	1118.1	974.8	829.8	693.8	573.8	351.8
35°	1494.0	1480.6	1430.5	1355.3	1251.4	1125.2	981.1	825.3	679.4	548.7	316.9
37.5°	1517.3	1502.1	1451.1	1367.8	1257.7	1127.0	980.2	819.1	664.2	528.1	282.0
40°	1533.4	1517.3	1462.7	1375.0	1259.5	1124.3	973.0	808.3	646.3	502.2	245.3
42.5°	1544.2	1526.3	1468.1	1385.7	1255.9	1117.2	962.3	794.9	626.6	479.8	210.4
45°	1549.5	1530.7	1469.0	1376.8	1249.7	1103.7	946.2	777.9	605.1	449.4	175.5
47.5°	1546.9	1526.3	1464.5	1366.9	1238.0	1089.4	928.3	757.3	579.2	422.5	142.3
50°	1542.4	1520.9	1454.6	1354.4	1221.9	1071.5	908.6	732.2	552.3	389.4	112.8
52.5°	1528.1	1506.6	1443.9	1336.5	1203.1	1050.9	881.7	706.3	523.7	357.2	85.9
55°	1510.1	1490.5	1425.1	1320.4	1178.9	1025.9	856.7	678.5	495.9	324.1	61.8
57.5°	1482.4	1464.5	1401.8	1294.4	1154.8	998.1	828.9	648.1	461.0	290.9	43.0
60°	1448.4	1430.5	1369.6	1264.9	1127.0	966.8	798.5	616.8	429.7	257.8	26.9
62.5°	1412.6	1395.6	1332.0	1228.2	1092.1	933.7	765.4	585.4	396.6	227.4	16.1
65°	1365.1	1349.0	1291.7	1184.3	1053.6	897.9	728.7	547.8	362.5	193.4	9.0
67.5°	1315.0	1300.7	1242.5	1144.0	1008.9	858.5	691.1	511.1	326.7	163.8	4.5
70°	1261.3	1243.4	1189.7	1089.4	963.2	813.7	649.9	473.5	292.7	135.2	0.0
72.5°	1198.6	1185.2	1133.3	1038.4	910.4	766.3	607.8	432.4	255.1	107.4	0.9
75°	1137.8	1120.8	1073.3	983.8	858.5	716.1	561.3	393.9	218.4	82.4	0.9
77.5°	1059.0	1053.6	1008.9	922.0	809.2	667.8	510.2	347.3	183.5	59.1	0.9
80°	980.2	974.8	939.9	860.3	751.9	610.5	462.8	303.5	149.5	39.4	0.9
82.5°	902.3	895.2	862.0	795.8	693.8	562.2	413.6	259.6	118.2	24.2	0.9
85°	832.5	823.6	787.7	726.9	633.8	507.6	362.5	216.6	87.7	13.4	1.8
87.5°	772.5	766.3	726.9	664.2	572.9	456.5	317.8	175.5	61.8	6.3	2.7
90°	721.5	708.1	673.2	606.9	515.6	400.1	270.3	140.5	41.2	3.6	3.6
92.5°	671.4	659.7	621.2	553.2	464.6	351.8	224.7	107.4	26.0	1.8	4.5
95°	619.5	606.9	569.3	506.7	412.7	302.6	184.4	78.8	14.3	1.8	4.5
97.5°	568.4	556.8	517.4	454.7	366.1	259.6	145.9	55.5	7.2	1.8	3.6
100°	521.0	507.6	471.8	409.1	319.6	216.6	112.8	35.8	4.5	1.8	3.6
102.5°	470.9	460.1	423.4	362.5	271.2	176.3	84.1	22.4	1.8	1.8	2.7
105°	426.1	412.7	376.9	314.2	231.0	138.8	59.1	13.4	1.8	1.8	2.7



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	277.5	266.8	235.4	182.6	117.3	54.6	16.1	2.7	2.7	2.7	2.7
115°	231.8	215.7	188.0	141.4	86.8	35.8	8.1	2.7	2.7	2.7	2.7
117.5°	185.3	171.9	152.2	107.4	57.3	23.3	4.5	2.7	2.7	2.7	2.7
120°	145.0	132.5	110.1	74.3	38.5	13.4	1.8	2.7	2.7	2.7	2.7
122.5°	103.8	94.0	74.3	48.3	23.3	6.3	2.7	2.7	3.6	3.6	2.7
125°	68.9	63.6	49.2	29.5	14.3	2.7	2.7	2.7	3.6	3.6	2.7
127.5°	44.8	40.3	28.6	17.0	6.3	2.7	2.7	3.6	3.6	3.6	2.7
130°	25.1	22.4	17.0	9.8	2.7	2.7	2.7	3.6	3.6	3.6	2.7
132.5°	14.3	13.4	9.0	1.8	2.7	2.7	2.7	3.6	3.6	3.6	3.6
135°	3.6	1.8	1.8	1.8	2.7	2.7	3.6	3.6	4.5	4.5	3.6
137.5°	0.9	0.9	1.8	1.8	2.7	2.7	3.6	4.5	4.5	4.5	3.6
140°	0.9	0.9	1.8	2.7	2.7	2.7	3.6	4.5	4.5	4.5	3.6
142.5°	0.9	1.8	1.8	2.7	2.7	3.6	3.6	4.5	4.5	3.6	3.6
145°	0.9	1.8	1.8	2.7	2.7	3.6	3.6	4.5	3.6	3.6	3.6
147.5°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	4.5	4.5	3.6	3.6
150°	0.9	1.8	1.8	2.7	3.6	3.6	3.6	4.5	3.6	3.6	3.6
152.5°	0.9	1.8	1.8	2.7	3.6	3.6	3.6	4.5	3.6	3.6	3.6
155°	1.8	1.8	1.8	2.7	3.6	3.6	3.6	4.5	3.6	3.6	4.5
157.5°	1.8	1.8	1.8	2.7	3.6	3.6	3.6	4.5	3.6	3.6	4.5
160°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	3.6	3.6	3.6	3.6
162.5°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	3.6	3.6	3.6	3.6
165°	1.8	1.8	1.8	1.8	2.7	2.7	3.6	3.6	3.6	3.6	3.6
167.5°	1.8	1.8	1.8	2.7	2.7	2.7	3.6	3.6	3.6	3.6	3.6
170°	1.8	1.8	1.8	2.7	2.7	2.7	3.6	4.5	4.5	4.5	4.5
172.5°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	4.5	4.5	4.5	4.5
175°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	4.5	4.5	4.5	4.5
177.5°	0.9	1.8	1.8	2.7	2.7	3.6	3.6	4.5	4.5	4.5	3.6
180°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	702.7	702.7	702.7
2.5°	668.7	656.2	652.6
5°	632.9	612.3	600.7
7.5°	597.1	569.3	555.9
10°	564.0	524.6	510.2
12.5°	524.6	478.9	456.5
15°	487.0	427.9	406.4
17.5°	444.9	378.7	353.6
20°	405.5	329.4	303.5
22.5°	360.8	281.1	252.4
25°	320.5	232.7	200.5
27.5°	275.7	183.5	155.8
30°	233.6	140.5	112.8
32.5°	193.4	102.9	77.9
35°	155.8	69.8	49.2
37.5°	120.0	43.0	25.1
40°	86.8	22.4	11.6
42.5°	58.2	10.7	6.3
45°	35.8	5.4	0.0
47.5°	20.6	0.0	0.0
50°	10.7	0.0	0.0
52.5°	4.5	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	1.8	2.7
80°	1.8	3.6	4.5
82.5°	3.6	4.5	4.5
85°	3.6	4.5	5.4
87.5°	4.5	5.4	6.3
90°	5.4	6.3	6.3
92.5°	5.4	7.2	7.2
95°	6.3	7.2	8.1
97.5°	7.2	8.1	8.1
100°	6.3	8.1	9.0
102.5°	5.4	8.1	8.1
105°	4.5	6.3	7.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.6	4.5	4.5
115°	2.7	3.6	4.5
117.5°	2.7	3.6	3.6
120°	2.7	2.7	3.6
122.5°	2.7	2.7	3.6
125°	2.7	2.7	3.6
127.5°	3.6	2.7	2.7
130°	2.7	2.7	2.7
132.5°	3.6	2.7	2.7
135°	3.6	2.7	2.7
137.5°	3.6	2.7	2.7
140°	3.6	2.7	2.7
142.5°	3.6	2.7	2.7
145°	2.7	2.7	2.7
147.5°	2.7	2.7	2.7
150°	2.7	2.7	1.8
152.5°	2.7	1.8	1.8
155°	2.7	1.8	0.9
157.5°	3.6	1.8	0.9
160°	2.7	1.8	0.9
162.5°	2.7	1.8	0.9
165°	2.7	1.8	0.0
167.5°	2.7	1.8	0.9
170°	2.7	1.8	0.9
172.5°	2.7	1.8	0.9
175°	2.7	0.9	0.9
177.5°	2.7	0.9	0.9
180°	2.7	2.7	2.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	376.0	365.2	329.4	270.3	188.9	105.6	39.4	7.2	1.8	2.7	2.7
110°	327.6	318.7	282.0	224.7	152.2	78.8	26.0	4.5	2.7	2.7	2.7





107.5°	3.6	5.4	6.3
110°	3.6	4.5	5.4



(END OF REPORT)