

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: P551310

Luminaire Tested: **FCC-X-2-LD4-2HI-35-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: P551310
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-93-87-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

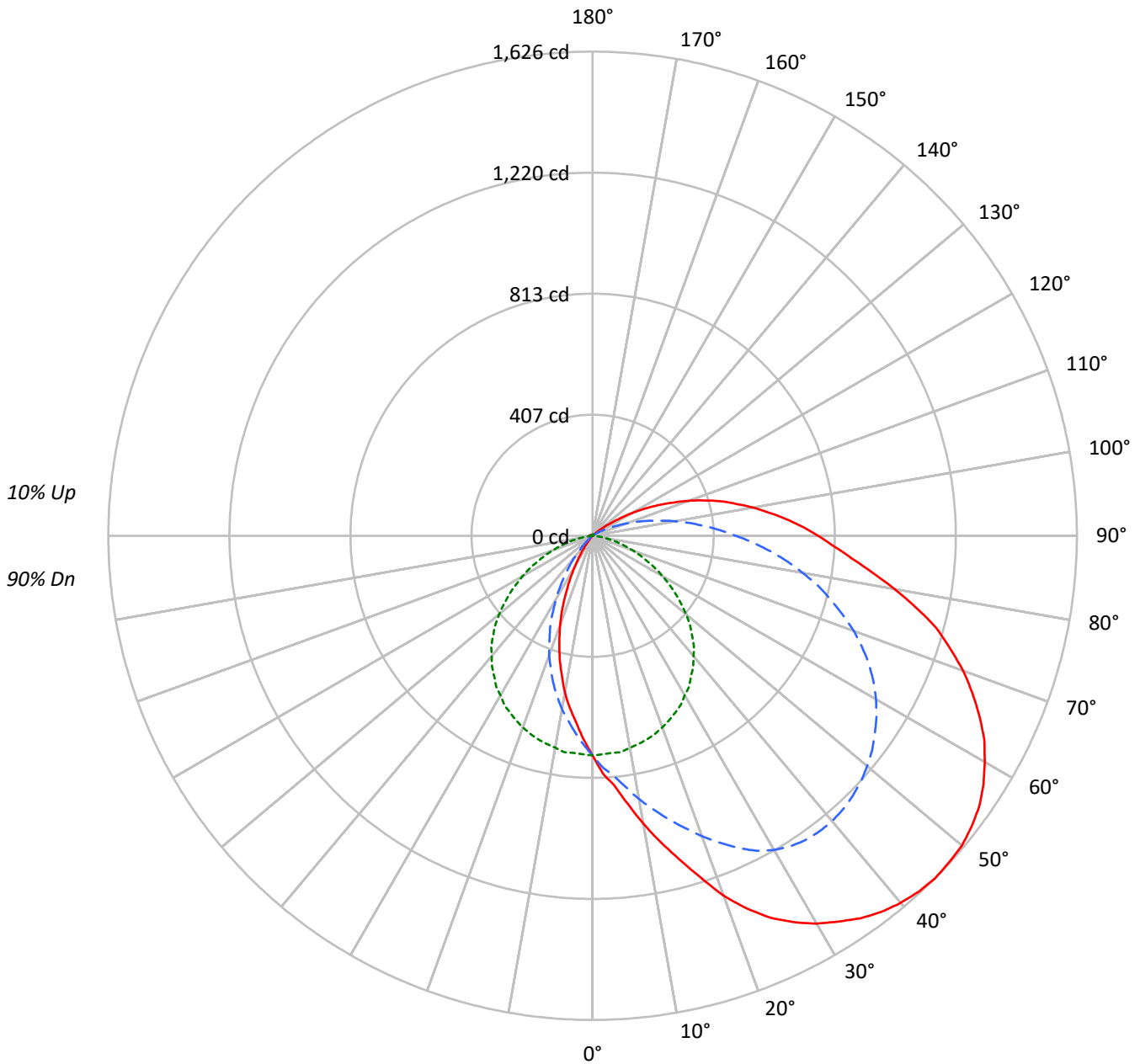
Lumens per Lamp: N/A
Luminaire Lumens: 3646.0 lumens
Efficiency: N/A
Efficacy: 84.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551310

CATALOG NUMBER: FCC-X-2-LD4-2HI-35-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°	7938	7938	7938
5°	8714	7823	6526
10°	9862	7727	5379
15°	11052	7628	4191
20°	12465	7504	3087
25°	13636	7360	2026
30°	14507	7166	1142
35°	15261	6958	503
40°	15930	6703	121
45°	16504	6381	0
50°	16985	5957	0
55°	17352	5416	0
60°	17537	4789	0
65°	17609	4075	0
70°	17550	3324	0
75°	17327	2450	13
80°	16625	1498	76
85°	16069	717	103



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.6	1.9
10°-20°	211.5	5.8
20°-30°	342.5	9.4
30°-40°	440.0	12.1
40°-50°	498.1	13.7
50°-60°	516.0	14.2
60°-70°	486.7	13.3
70°-80°	407.8	11.2
80°-90°	295.6	8.1
90°-100°	194.3	5.3
100°-110°	112.2	3.1
110°-120°	49.5	1.4
120°-130°	13.4	0.4
130°-140°	3.1	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°	624.7	17.1
0°-40°	1064.7	29.2
0°-60°	2078.8	57.0
0°-90°	3269.0	89.7
90°-120°	356.0	9.8
90°-150°	374.5	10.3
90°-180°	377.0	10.3
0°-180°	3646.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	738	738	738	738	738	
5°	842	808	732	664	630	85
15°	1125	986	707	511	426	324
25°	1416	1157	656	336	210	654
35°	1568	1247	576	164	52	983
45°	1626	1235	472	38	0	1256
55°	1585	1157	340	0	0	1415
65°	1433	1024	203	0	0	1417
75°	1194	826	86	1	1	1252
85°	874	599	14	4	6	746
90°	757	481	4	6	7	415
95°	650	375	2	7	8	510
105°	447	194	2	5	8	472
115°	243	64	3	3	5	244
125°	72	9	4	3	4	72
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°	737.5	737.5	737.5	737.5	737.5	737.5	737.5	737.5	737.5	737.5	737.5
2.5°	799.5	798.6	795.7	791.0	784.5	773.2	763.8	755.3	744.1	734.7	716.8
5°	841.8	837.1	833.3	828.6	813.6	803.3	786.4	767.6	749.7	731.9	696.2
7.5°	909.4	901.9	896.3	883.1	862.5	839.0	812.7	794.8	782.6	732.8	671.7
10°	981.8	975.2	963.9	940.4	915.1	881.2	843.7	801.4	763.8	722.5	650.1
12.5°	1053.2	1043.8	1027.8	997.7	962.0	919.8	868.1	818.3	764.7	715.9	624.8
15°	1124.6	1114.2	1097.3	1060.7	1013.7	958.3	895.3	832.4	769.4	707.4	598.5
17.5°	1202.5	1188.5	1163.1	1121.7	1062.6	994.0	919.8	843.7	767.6	697.1	570.3
20°	1286.2	1266.4	1239.2	1183.8	1114.2	1033.4	944.2	854.9	766.6	684.9	538.3
22.5°	1355.7	1336.0	1305.9	1248.6	1165.0	1066.3	964.9	862.5	762.9	670.8	508.3
25°	1415.8	1399.8	1367.0	1301.2	1212.9	1101.1	984.6	868.1	757.2	655.8	476.3
27.5°	1462.8	1447.8	1411.1	1343.5	1253.3	1132.1	999.6	870.9	749.7	640.7	443.4
30°	1504.1	1489.1	1444.9	1375.4	1280.5	1156.5	1014.6	871.8	740.3	618.2	407.7
32.5°	1536.1	1522.0	1476.9	1402.7	1299.3	1173.4	1023.1	870.9	728.1	602.2	369.2
35°	1568.0	1553.9	1501.3	1422.4	1313.4	1180.9	1029.7	866.2	713.1	575.9	332.6
37.5°	1592.4	1576.5	1522.9	1435.5	1320.0	1182.8	1028.7	859.6	697.1	554.3	295.9
40°	1609.3	1592.4	1535.1	1443.1	1321.9	1180.0	1021.2	848.4	678.3	527.1	257.4
42.5°	1620.6	1601.8	1540.8	1454.3	1318.1	1172.5	1009.9	834.3	657.6	503.6	220.8
45°	1626.3	1606.5	1541.7	1444.9	1311.5	1158.4	993.0	816.4	635.1	471.6	184.1
47.5°	1623.4	1601.8	1537.0	1434.6	1299.3	1143.4	974.2	794.8	607.8	443.4	149.4
50°	1618.7	1596.2	1526.7	1421.4	1282.4	1124.6	953.6	768.5	579.7	408.7	118.4
52.5°	1603.7	1581.2	1515.4	1402.7	1262.7	1103.0	925.4	741.3	549.6	374.9	90.2
55°	1584.9	1564.2	1495.7	1385.7	1237.3	1076.7	899.1	712.1	520.5	340.1	64.8
57.5°	1555.8	1537.0	1471.2	1358.5	1211.9	1047.5	870.0	680.2	483.8	305.3	45.1
60°	1520.1	1501.3	1437.4	1327.5	1182.8	1014.6	838.0	647.3	451.0	270.6	28.2
62.5°	1482.5	1464.7	1398.0	1289.0	1146.2	979.9	803.3	614.4	416.2	238.6	16.9
65°	1432.7	1415.8	1355.7	1242.9	1105.8	942.3	764.7	575.0	380.5	202.9	9.4
67.5°	1380.1	1365.1	1304.0	1200.7	1058.8	901.0	725.3	536.4	342.9	171.9	4.7
70°	1323.7	1304.9	1248.6	1143.4	1010.9	854.0	682.1	497.0	307.2	141.9	0.0
72.5°	1258.0	1243.9	1189.4	1089.8	955.5	804.2	637.9	453.8	267.8	112.7	0.9
75°	1194.1	1176.2	1126.4	1032.5	901.0	751.6	589.1	413.4	229.2	86.4	0.9
77.5°	1111.4	1105.8	1058.8	967.7	849.3	700.9	535.5	364.5	192.6	62.0	0.9
80°	1028.7	1023.1	986.5	902.8	789.2	640.7	485.7	318.5	156.9	41.3	0.9
82.5°	947.0	939.5	904.7	835.2	728.1	590.0	434.0	272.5	124.0	25.4	0.9
85°	873.7	864.3	826.7	762.9	665.2	532.7	380.5	227.4	92.1	14.1	1.9
87.5°	810.8	804.2	762.9	697.1	601.3	479.1	333.5	184.1	64.8	6.6	2.8
90°	757.2	743.1	706.5	637.0	541.1	420.0	283.7	147.5	43.2	3.8	3.8
92.5°	704.6	692.4	652.0	580.6	487.6	369.2	235.8	112.7	27.2	1.9	4.7
95°	650.1	637.0	597.5	531.8	433.1	317.5	193.5	82.7	15.0	1.9	4.7
97.5°	596.6	584.4	543.0	477.3	384.3	272.5	153.1	58.2	7.5	1.9	3.8
100°	546.8	532.7	495.1	429.3	335.4	227.4	118.4	37.6	4.7	1.9	3.8
102.5°	494.2	482.9	444.4	380.5	284.7	185.1	88.3	23.5	1.9	1.9	2.8
105°	447.2	433.1	395.5	329.8	242.4	145.6	62.0	14.1	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°	291.2	280.0	247.1	191.7	123.1	57.3	16.9	2.8	2.8	2.8	2.8
115°	243.3	226.4	197.3	148.4	91.1	37.6	8.5	2.8	2.8	2.8	2.8
117.5°	194.5	180.4	159.7	112.7	60.1	24.4	4.7	2.8	2.8	2.8	2.8
120°	152.2	139.0	115.6	78.0	40.4	14.1	1.9	2.8	2.8	2.8	2.8
122.5°	109.0	98.6	78.0	50.7	24.4	6.6	2.8	2.8	3.8	3.8	2.8
125°	72.3	66.7	51.7	31.0	15.0	2.8	2.8	2.8	3.8	3.8	2.8
127.5°	47.0	42.3	30.1	17.9	6.6	2.8	2.8	3.8	3.8	3.8	2.8
130°	26.3	23.5	17.9	10.3	2.8	2.8	2.8	3.8	3.8	3.8	2.8
132.5°	15.0	14.1	9.4	1.9	2.8	2.8	2.8	3.8	3.8	3.8	3.8
135°	3.8	1.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	4.7	3.8
137.5°	0.9	0.9	1.9	1.9	2.8	2.8	3.8	4.7	4.7	4.7	3.8
140°	0.9	0.9	1.9	2.8	2.8	2.8	3.8	4.7	4.7	4.7	3.8
142.5°	0.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	4.7	3.8	3.8
145°	0.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	3.8	3.8	3.8
147.5°	1.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	4.7	3.8	3.8
150°	0.9	1.9	1.9	2.8	3.8	3.8	3.8	4.7	3.8	3.8	3.8
152.5°	0.9	1.9	1.9	2.8	3.8	3.8	3.8	4.7	3.8	3.8	3.8
155°	1.9	1.9	1.9	2.8	3.8	3.8	3.8	4.7	3.8	3.8	4.7
157.5°	1.9	1.9	1.9	2.8	3.8	3.8	3.8	4.7	3.8	3.8	4.7
160°	1.9	1.9	1.9	2.8	2.8	3.8	3.8	3.8	3.8	3.8	3.8
162.5°	1.9	1.9	1.9	2.8	2.8	3.8	3.8	3.8	3.8	3.8	3.8
165°	1.9	1.9	1.9	1.9	2.8	2.8	3.8	3.8	3.8	3.8	3.8
167.5°	1.9	1.9	1.9	2.8	2.8	2.8	3.8	3.8	3.8	3.8	3.8
170°	1.9	1.9	1.9	2.8	2.8	2.8	3.8	4.7	4.7	4.7	4.7
172.5°	1.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	4.7	4.7	4.7
175°	1.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	4.7	4.7	4.7
177.5°	0.9	1.9	1.9	2.8	2.8	3.8	3.8	4.7	4.7	4.7	3.8
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°	737.5	737.5	737.5
2.5°	701.8	688.6	684.9
5°	664.2	642.6	630.4
7.5°	626.6	597.5	583.4
10°	591.9	550.5	535.5
12.5°	550.5	502.6	479.1
15°	511.1	449.1	426.5
17.5°	466.9	397.4	371.1
20°	425.6	345.7	318.5
22.5°	378.6	295.0	264.9
25°	336.3	244.3	210.4
27.5°	289.4	192.6	163.5
30°	245.2	147.5	118.4
32.5°	202.9	108.0	81.7
35°	163.5	73.3	51.7
37.5°	125.9	45.1	26.3
40°	91.1	23.5	12.2
42.5°	61.1	11.3	6.6
45°	37.6	5.6	0.0
47.5°	21.6	0.0	0.0
50°	11.3	0.0	0.0
52.5°	4.7	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°	0.9	0.9	0.9
77.5°	0.9	1.9	2.8
80°	1.9	3.8	4.7
82.5°	3.8	4.7	4.7
85°	3.8	4.7	5.6
87.5°	4.7	5.6	6.6
90°	5.6	6.6	6.6
92.5°	5.6	7.5	7.5
95°	6.6	7.5	8.5
97.5°	7.5	8.5	8.5
100°	6.6	8.5	9.4
102.5°	5.6	8.5	8.5
105°	4.7	6.6	7.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.8	4.7	4.7
115°	2.8	3.8	4.7
117.5°	2.8	3.8	3.8
120°	2.8	2.8	3.8
122.5°	2.8	2.8	3.8
125°	2.8	2.8	3.8
127.5°	3.8	2.8	2.8
130°	2.8	2.8	2.8
132.5°	3.8	2.8	2.8
135°	3.8	2.8	2.8
137.5°	3.8	2.8	2.8
140°	3.8	2.8	2.8
142.5°	3.8	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°	3.8	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°	394.6	383.3	345.7	283.7	198.2	110.9	41.3	7.5	1.9	2.8	2.8
110°	343.9	334.5	295.9	235.8	159.7	82.7	27.2	4.7	2.8	2.8	2.8





107.5°	3.8	5.6	6.6
110°	3.8	4.7	5.6



(END OF REPORT)