

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: P551393

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-80-94-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: P551393
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-50-UNV-80-94-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

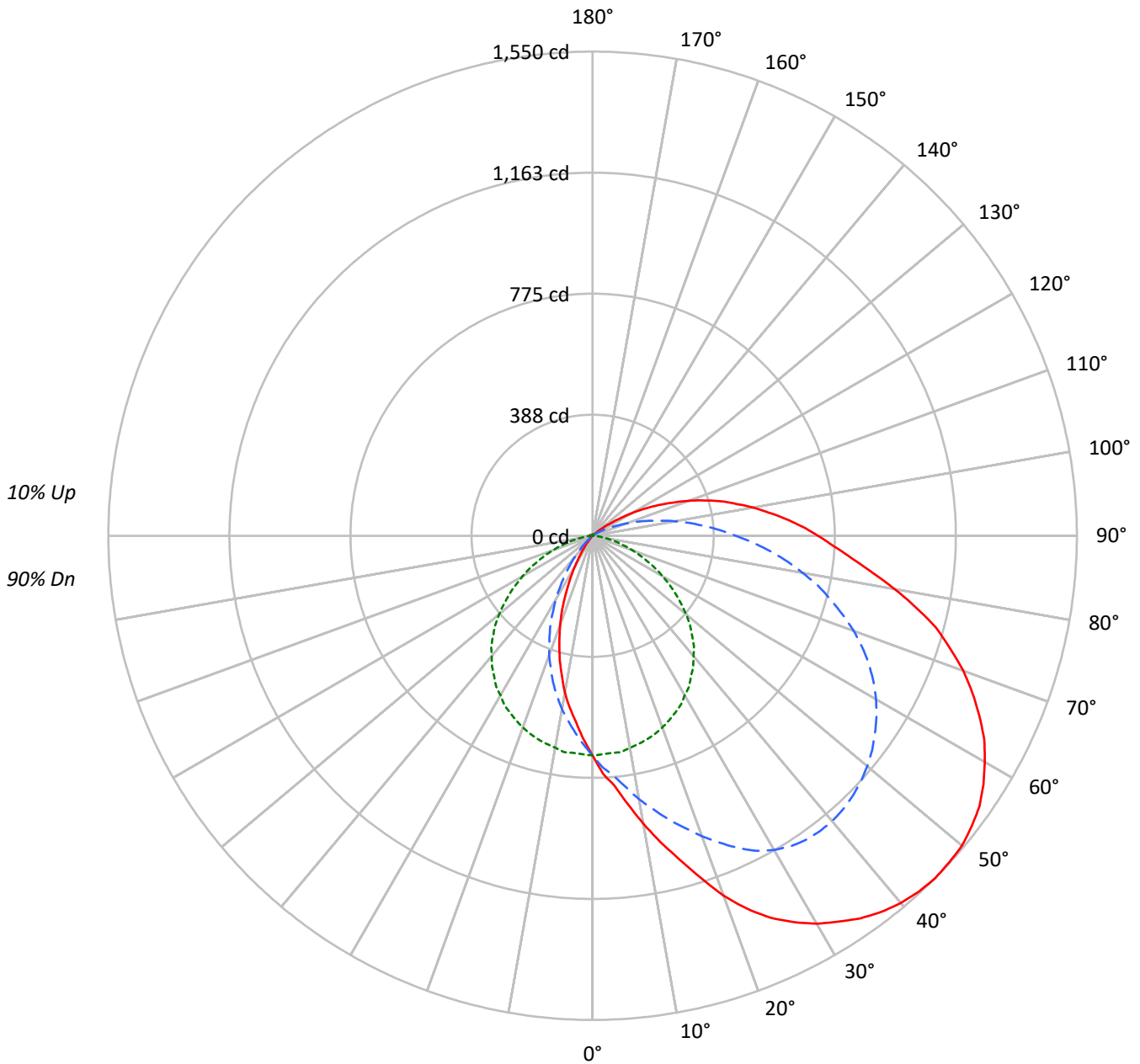
Lumens per Lamp: N/A
Luminaire Lumens: 3476.1 lumens
Efficiency: N/A
Efficacy: 80.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

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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°	7568	7568	7568
5°	8308	7457	6222
10°	9402	7366	5128
15°	10536	7272	3996
20°	11883	7154	2942
25°	13000	7016	1932
30°	13831	6833	1089
35°	14550	6635	480
40°	15187	6390	115
45°	15734	6084	0
50°	16194	5678	0
55°	16543	5162	0
60°	16719	4566	0
65°	16788	3887	0
70°	16732	3167	0
75°	16519	2337	13
80°	15850	1429	73
85°	15320	681	99



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.3	1.9
10°-20°	201.7	5.8
20°-30°	326.6	9.4
30°-40°	419.5	12.1
40°-50°	474.9	13.7
50°-60°	492.0	14.2
60°-70°	464.0	13.3
70°-80°	388.8	11.2
80°-90°	281.9	8.1
90°-100°	185.3	5.3
100°-110°	107.0	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°	595.6	17.1
0°-40°	1015.1	29.2
0°-60°	1981.9	57.0
0°-90°	3116.6	89.7
90°-120°	339.5	9.8
90°-150°	357.1	10.3
90°-180°	360.0	10.4
0°-180°	3476.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	703	703	703	703	703	
5°	802	771	698	633	601	81
15°	1072	940	674	487	407	309
25°	1350	1103	625	321	201	624
35°	1495	1189	549	156	49	938
45°	1550	1177	450	36	0	1197
55°	1511	1103	324	0	0	1349
65°	1366	976	194	0	0	1351
75°	1138	788	82	1	1	1194
85°	833	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°	703.1	703.1	703.1	703.1	703.1	703.1	703.1	703.1	703.1	703.1	703.1
2.5°	762.2	761.3	758.6	754.2	747.9	737.1	728.2	720.1	709.4	700.4	683.4
5°	802.5	798.1	794.5	790.0	775.7	765.8	749.7	731.8	714.8	697.7	663.7
7.5°	867.0	859.9	854.5	841.9	822.2	799.8	774.8	757.7	746.1	698.6	640.4
10°	936.0	929.7	919.0	896.6	872.4	840.2	804.3	764.0	728.2	688.8	619.8
12.5°	1004.1	995.1	979.9	951.2	917.2	876.9	827.6	780.1	729.1	682.5	595.6
15°	1072.1	1062.3	1046.2	1011.2	966.4	913.6	853.6	793.6	733.6	674.4	570.6
17.5°	1146.5	1133.0	1108.9	1069.4	1013.0	947.6	876.9	804.3	731.8	664.6	543.7
20°	1226.2	1207.4	1181.4	1128.6	1062.3	985.3	900.2	815.1	730.9	653.0	513.2
22.5°	1292.5	1273.7	1245.0	1190.4	1110.6	1016.6	919.9	822.2	727.3	639.5	484.6
25°	1349.8	1334.6	1303.2	1240.5	1156.3	1049.7	938.7	827.6	721.9	625.2	454.1
27.5°	1394.6	1380.2	1345.3	1280.8	1194.8	1079.3	953.0	830.3	714.8	610.9	422.8
30°	1434.0	1419.7	1377.6	1311.3	1220.8	1102.6	967.3	831.2	705.8	589.4	388.7
32.5°	1464.4	1451.0	1408.0	1337.3	1238.7	1118.7	975.4	830.3	694.2	574.1	352.0
35°	1494.9	1481.5	1431.3	1356.1	1252.2	1125.9	981.7	825.8	679.8	549.1	317.1
37.5°	1518.2	1503.0	1451.9	1368.6	1258.4	1127.7	980.8	819.6	664.6	528.5	282.1
40°	1534.3	1518.2	1463.5	1375.8	1260.2	1125.0	973.6	808.8	646.7	502.5	245.4
42.5°	1545.1	1527.1	1468.9	1386.5	1256.6	1117.8	962.9	795.4	627.0	480.1	210.5
45°	1550.4	1531.6	1469.8	1377.6	1250.4	1104.4	946.7	778.3	605.5	449.6	175.6
47.5°	1547.7	1527.1	1465.3	1367.7	1238.7	1090.0	928.8	757.7	579.5	422.8	142.4
50°	1543.3	1521.8	1455.5	1355.2	1222.6	1072.1	909.1	732.7	552.6	389.6	112.9
52.5°	1528.9	1507.4	1444.7	1337.3	1203.8	1051.5	882.2	706.7	524.0	357.4	86.0
55°	1511.0	1491.3	1425.9	1321.1	1179.6	1026.5	857.2	678.9	496.2	324.2	61.8
57.5°	1483.3	1465.3	1402.6	1295.2	1155.4	998.7	829.4	648.5	461.3	291.1	43.0
60°	1449.2	1431.3	1370.4	1265.6	1127.7	967.3	798.9	617.1	429.9	258.0	26.9
62.5°	1413.4	1396.4	1332.8	1228.9	1092.7	934.2	765.8	585.8	396.8	227.5	16.1
65°	1365.9	1349.8	1292.5	1185.0	1054.2	898.4	729.1	548.2	362.8	193.5	9.0
67.5°	1315.8	1301.4	1243.2	1144.7	1009.4	859.0	691.5	511.4	326.9	163.9	4.5
70°	1262.0	1244.1	1190.4	1090.0	963.8	814.2	650.3	473.8	292.9	135.2	0.0
72.5°	1199.3	1185.9	1133.9	1039.0	910.9	766.7	608.2	432.6	255.3	107.5	0.9
75°	1138.4	1121.4	1073.9	984.4	859.0	716.5	561.6	394.1	218.5	82.4	0.9
77.5°	1059.6	1054.2	1009.4	922.6	809.7	668.2	510.5	347.5	183.6	59.1	0.9
80°	980.8	975.4	940.5	860.8	752.4	610.9	463.1	303.6	149.6	39.4	0.9
82.5°	902.8	895.7	862.5	796.3	694.2	562.5	413.8	259.7	118.2	24.2	0.9
85°	833.0	824.0	788.2	727.3	634.1	507.9	362.8	216.8	87.8	13.4	1.8
87.5°	773.0	766.7	727.3	664.6	573.2	456.8	318.0	175.6	61.8	6.3	2.7
90°	721.9	708.5	673.6	607.3	515.9	400.4	270.5	140.6	41.2	3.6	3.6
92.5°	671.8	660.1	621.6	553.5	464.9	352.0	224.8	107.5	26.0	1.8	4.5
95°	619.8	607.3	569.7	507.0	412.9	302.7	184.5	78.8	14.3	1.8	4.5
97.5°	568.8	557.1	517.7	455.0	366.3	259.7	146.0	55.5	7.2	1.8	3.6
100°	521.3	507.9	472.0	409.3	319.8	216.8	112.9	35.8	4.5	1.8	3.6
102.5°	471.1	460.4	423.7	362.8	271.4	176.4	84.2	22.4	1.8	1.8	2.7
105°	426.3	412.9	377.1	314.4	231.1	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°	277.7	266.9	235.6	182.7	117.3	54.6	16.1	2.7	2.7	2.7	2.7
115°	232.0	215.9	188.1	141.5	86.9	35.8	8.1	2.7	2.7	2.7	2.7
117.5°	185.4	172.0	152.3	107.5	57.3	23.3	4.5	2.7	2.7	2.7	2.7
120°	145.1	132.6	110.2	74.3	38.5	13.4	1.8	2.7	2.7	2.7	2.7
122.5°	103.9	94.0	74.3	48.4	23.3	6.3	2.7	2.7	3.6	3.6	2.7
125°	69.0	63.6	49.3	29.6	14.3	2.7	2.7	2.7	3.6	3.6	2.7
127.5°	44.8	40.3	28.7	17.0	6.3	2.7	2.7	3.6	3.6	3.6	2.7
130°	25.1	22.4	17.0	9.9	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



TEST NUMBER: P551393

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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	703.1	703.1	703.1
2.5°	669.1	656.5	653.0
5°	633.2	612.6	601.0
7.5°	597.4	569.7	556.2
10°	564.3	524.9	510.5
12.5°	524.9	479.2	456.8
15°	487.3	428.1	406.6
17.5°	445.2	378.9	353.8
20°	405.7	329.6	303.6
22.5°	361.0	281.2	252.6
25°	320.7	232.9	200.6
27.5°	275.9	183.6	155.8
30°	233.8	140.6	112.9
32.5°	193.5	103.0	77.9
35°	155.8	69.9	49.3
37.5°	120.0	43.0	25.1
40°	86.9	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°	376.2	365.4	329.6	270.5	189.0	105.7	39.4	7.2	1.8	2.7	2.7
110°	327.8	318.9	282.1	224.8	152.3	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)