

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: P551225

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-82-85-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: P551225
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-82-85-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

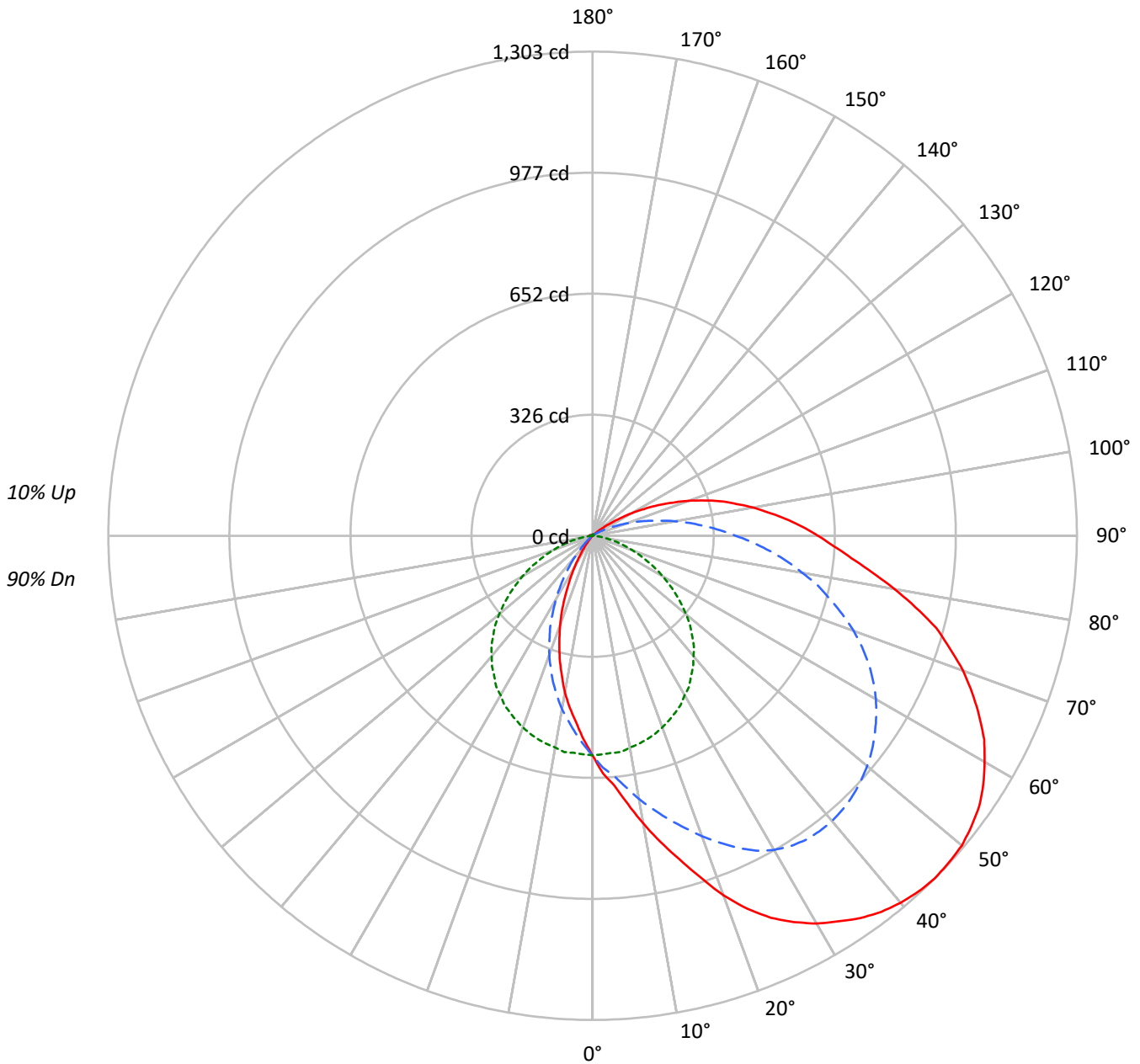
Lumens per Lamp: N/A
Luminaire Lumens: 2921.1 lumens
Efficiency: N/A
Efficacy: 67.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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				20				
RC	80				70				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	93	93	93	90
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	70	70	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	56	56	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	46	46	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	38	38	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	33	33	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	28	28	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	25	25	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	22	22	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	20	20	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	18	18	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	6359	6359	6359
5°	6982	6266	5228
10°	7900	6190	4309
15°	8853	6112	3358
20°	9986	6012	2473
25°	10925	5896	1624
30°	11622	5742	914
35°	12226	5575	403
40°	12762	5369	97
45°	13222	5112	0
50°	13608	4772	0
55°	13902	4339	0
60°	14049	3837	0
65°	14107	3266	0
70°	14060	2664	0
75°	13881	1962	12
80°	13320	1201	61
85°	12874	575	83



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.6	1.9
10°-20°	169.5	5.8
20°-30°	274.4	9.4
30°-40°	352.5	12.1
40°-50°	399.0	13.7
50°-60°	413.4	14.2
60°-70°	389.9	13.3
70°-80°	326.8	11.2
80°-90°	236.9	8.1
90°-100°	155.7	5.3
100°-110°	89.9	3.1
110°-120°	39.7	1.4
120°-130°	10.8	0.4
130°-140°	2.5	0.1
140°-150°	1.6	0.1
150°-160°	1.1	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	500.5	17.1
0°-40°	853.0	29.2
0°-60°	1665.5	57.0
0°-90°	2619.0	89.7
90°-120°	285.3	9.8
90°-150°	300.1	10.3
90°-180°	302.0	10.3
0°-180°	2921.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	591	591	591	591	591	
5°	674	648	586	532	505	68
15°	901	790	567	410	342	260
25°	1134	927	525	270	169	524
35°	1256	999	461	131	41	788
45°	1303	989	378	30	0	1006
55°	1270	927	272	0	0	1134
65°	1148	820	163	0	0	1136
75°	957	662	69	1	1	1003
85°	700	480	11	3	4	598
90°	607	385	3	4	5	333
95°	521	301	2	5	7	409
105°	358	155	2	4	6	378
115°	195	52	2	2	4	195
125°	58	7	3	2	3	58
135°	3	2	4	3	2	5
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	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	590.8	590.8	590.8	590.8	590.8	590.8	590.8	590.8	590.8	590.8	590.8
2.5°	640.5	639.8	637.5	633.8	628.5	619.4	611.9	605.1	596.1	588.6	574.3
5°	674.4	670.6	667.6	663.9	651.8	643.5	630.0	614.9	600.6	586.3	557.7
7.5°	728.6	722.6	718.0	707.5	691.0	672.1	651.1	636.8	627.0	587.1	538.2
10°	786.5	781.3	772.2	753.4	733.1	706.0	675.9	642.0	611.9	578.8	520.8
12.5°	843.7	836.2	823.4	799.3	770.7	736.9	695.5	655.6	612.7	573.5	500.5
15°	900.9	892.7	879.1	849.8	812.1	767.7	717.3	666.9	616.4	566.8	479.5
17.5°	963.4	952.1	931.8	898.7	851.3	796.3	736.9	675.9	614.9	558.5	456.9
20°	1030.4	1014.6	992.8	948.4	892.7	827.9	756.4	684.9	614.2	548.7	431.3
22.5°	1086.1	1070.3	1046.2	1000.3	933.3	854.3	773.0	691.0	611.2	537.4	407.2
25°	1134.3	1121.5	1095.1	1042.5	971.7	882.1	788.8	695.5	606.7	525.4	381.6
27.5°	1171.9	1159.9	1130.5	1076.3	1004.1	907.0	800.8	697.7	600.6	513.3	355.3
30°	1205.0	1193.0	1157.6	1101.9	1025.9	926.5	812.9	698.5	593.1	495.3	326.7
32.5°	1230.6	1219.3	1183.2	1123.7	1040.9	940.1	819.7	697.7	583.3	482.5	295.8
35°	1256.2	1244.9	1202.8	1139.5	1052.2	946.1	824.9	694.0	571.3	461.4	266.4
37.5°	1275.8	1263.0	1220.1	1150.1	1057.5	947.6	824.2	688.7	558.5	444.1	237.1
40°	1289.3	1275.8	1229.9	1156.1	1059.0	945.4	818.2	679.7	543.4	422.2	206.2
42.5°	1298.4	1283.3	1234.4	1165.1	1056.0	939.3	809.1	668.4	526.9	403.4	176.9
45°	1302.9	1287.1	1235.1	1157.6	1050.7	928.0	795.6	654.1	508.8	377.8	147.5
47.5°	1300.6	1283.3	1231.4	1149.3	1040.9	916.0	780.5	636.8	487.0	355.3	119.7
50°	1296.9	1278.8	1223.1	1138.8	1027.4	900.9	764.0	615.7	464.4	327.4	94.8
52.5°	1284.8	1266.7	1214.1	1123.7	1011.6	883.6	741.4	593.9	440.3	300.3	72.3
55°	1269.8	1253.2	1198.3	1110.2	991.3	862.6	720.3	570.5	417.0	272.5	51.9
57.5°	1246.4	1231.4	1178.7	1088.4	970.9	839.2	697.0	544.9	387.6	244.6	36.1
60°	1217.8	1202.8	1151.6	1063.5	947.6	812.9	671.4	518.6	361.3	216.8	22.6
62.5°	1187.7	1173.4	1120.0	1032.7	918.3	785.0	643.5	492.2	333.4	191.2	13.5
65°	1147.8	1134.3	1086.1	995.8	885.9	754.9	612.7	460.6	304.8	162.6	7.5
67.5°	1105.7	1093.6	1044.7	961.9	848.3	721.8	581.1	429.8	274.7	137.7	3.8
70°	1060.5	1045.5	1000.3	916.0	809.9	684.2	546.4	398.2	246.1	113.7	0.0
72.5°	1007.8	996.5	952.9	873.1	765.5	644.3	511.1	363.5	214.5	90.3	0.8
75°	956.6	942.3	902.5	827.2	721.8	602.1	471.9	331.2	183.7	69.2	0.8
77.5°	890.4	885.9	848.3	775.3	680.4	561.5	429.0	292.0	154.3	49.7	0.8
80°	824.2	819.7	790.3	723.3	632.2	513.3	389.1	255.2	125.7	33.1	0.8
82.5°	758.7	752.7	724.8	669.1	583.3	472.7	347.7	218.3	99.4	20.3	0.8
85°	700.0	692.5	662.4	611.2	532.9	426.8	304.8	182.1	73.8	11.3	1.5
87.5°	649.6	644.3	611.2	558.5	481.7	383.9	267.2	147.5	51.9	5.3	2.3
90°	606.7	595.4	566.0	510.3	433.5	336.4	227.3	118.2	34.6	3.0	3.0
92.5°	564.5	554.7	522.4	465.2	390.6	295.8	188.9	90.3	21.8	1.5	3.8
95°	520.8	510.3	478.7	426.0	347.0	254.4	155.1	66.2	12.0	1.5	3.8
97.5°	477.9	468.2	435.0	382.4	307.8	218.3	122.7	46.7	6.0	1.5	3.0
100°	438.1	426.8	396.7	344.0	268.7	182.1	94.8	30.1	3.8	1.5	3.0
102.5°	395.9	386.9	356.0	304.8	228.1	148.3	70.8	18.8	1.5	1.5	2.3
105°	358.3	347.0	316.9	264.2	194.2	116.7	49.7	11.3	1.5	1.5	2.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	233.3	224.3	198.0	153.5	98.6	45.9	13.5	2.3	2.3	2.3	2.3
115°	194.9	181.4	158.1	118.9	73.0	30.1	6.8	2.3	2.3	2.3	2.3
117.5°	155.8	144.5	128.0	90.3	48.2	19.6	3.8	2.3	2.3	2.3	2.3
120°	121.9	111.4	92.6	62.5	32.4	11.3	1.5	2.3	2.3	2.3	2.3
122.5°	87.3	79.0	62.5	40.6	19.6	5.3	2.3	2.3	3.0	3.0	2.3
125°	58.0	53.4	41.4	24.8	12.0	2.3	2.3	2.3	3.0	3.0	2.3
127.5°	37.6	33.9	24.1	14.3	5.3	2.3	2.3	3.0	3.0	3.0	2.3
130°	21.1	18.8	14.3	8.3	2.3	2.3	2.3	3.0	3.0	3.0	2.3
132.5°	12.0	11.3	7.5	1.5	2.3	2.3	2.3	3.0	3.0	3.0	3.0
135°	3.0	1.5	1.5	1.5	2.3	2.3	3.0	3.0	3.8	3.8	3.0
137.5°	0.8	0.8	1.5	1.5	2.3	2.3	3.0	3.8	3.8	3.8	3.0
140°	0.8	0.8	1.5	2.3	2.3	2.3	3.0	3.8	3.8	3.8	3.0
142.5°	0.8	1.5	1.5	2.3	2.3	3.0	3.0	3.8	3.8	3.0	3.0
145°	0.8	1.5	1.5	2.3	2.3	3.0	3.0	3.8	3.0	3.0	3.0
147.5°	1.5	1.5	1.5	2.3	2.3	3.0	3.0	3.8	3.8	3.0	3.0
150°	0.8	1.5	1.5	2.3	3.0	3.0	3.0	3.8	3.0	3.0	3.0
152.5°	0.8	1.5	1.5	2.3	3.0	3.0	3.0	3.8	3.0	3.0	3.0
155°	1.5	1.5	1.5	2.3	3.0	3.0	3.0	3.8	3.0	3.0	3.8
157.5°	1.5	1.5	1.5	2.3	3.0	3.0	3.0	3.8	3.0	3.0	3.8
160°	1.5	1.5	1.5	2.3	2.3	3.0	3.0	3.0	3.0	3.0	3.0
162.5°	1.5	1.5	1.5	2.3	2.3	3.0	3.0	3.0	3.0	3.0	3.0
165°	1.5	1.5	1.5	1.5	2.3	2.3	3.0	3.0	3.0	3.0	3.0
167.5°	1.5	1.5	1.5	2.3	2.3	2.3	3.0	3.0	3.0	3.0	3.0
170°	1.5	1.5	1.5	2.3	2.3	2.3	3.0	3.8	3.8	3.8	3.8
172.5°	1.5	1.5	1.5	2.3	2.3	3.0	3.0	3.8	3.8	3.8	3.8
175°	1.5	1.5	1.5	2.3	2.3	3.0	3.0	3.8	3.8	3.8	3.8
177.5°	0.8	1.5	1.5	2.3	2.3	3.0	3.0	3.8	3.8	3.8	3.0
180°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	590.8	590.8	590.8
2.5°	562.2	551.7	548.7
5°	532.1	514.8	505.0
7.5°	502.0	478.7	467.4
10°	474.2	441.1	429.0
12.5°	441.1	402.7	383.9
15°	409.5	359.8	341.7
17.5°	374.1	318.4	297.3
20°	341.0	277.0	255.2
22.5°	303.3	236.3	212.3
25°	269.5	195.7	168.6
27.5°	231.8	154.3	131.0
30°	196.4	118.2	94.8
32.5°	162.6	86.6	65.5
35°	131.0	58.7	41.4
37.5°	100.9	36.1	21.1
40°	73.0	18.8	9.8
42.5°	48.9	9.0	5.3
45°	30.1	4.5	0.0
47.5°	17.3	0.0	0.0
50°	9.0	0.0	0.0
52.5°	3.8	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	1.5	2.3
80°	1.5	3.0	3.8
82.5°	3.0	3.8	3.8
85°	3.0	3.8	4.5
87.5°	3.8	4.5	5.3
90°	4.5	5.3	5.3
92.5°	4.5	6.0	6.0
95°	5.3	6.0	6.8
97.5°	6.0	6.8	6.8
100°	5.3	6.8	7.5
102.5°	4.5	6.8	6.8
105°	3.8	5.3	6.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.0	3.8	3.8
115°	2.3	3.0	3.8
117.5°	2.3	3.0	3.0
120°	2.3	2.3	3.0
122.5°	2.3	2.3	3.0
125°	2.3	2.3	3.0
127.5°	3.0	2.3	2.3
130°	2.3	2.3	2.3
132.5°	3.0	2.3	2.3
135°	3.0	2.3	2.3
137.5°	3.0	2.3	2.3
140°	3.0	2.3	2.3
142.5°	3.0	2.3	2.3
145°	2.3	2.3	2.3
147.5°	2.3	2.3	2.3
150°	2.3	2.3	1.5
152.5°	2.3	1.5	1.5
155°	2.3	1.5	0.8
157.5°	3.0	1.5	0.8
160°	2.3	1.5	0.8
162.5°	2.3	1.5	0.8
165°	2.3	1.5	0.0
167.5°	2.3	1.5	0.8
170°	2.3	1.5	0.8
172.5°	2.3	1.5	0.8
175°	2.3	0.8	0.8
177.5°	2.3	0.8	0.8
180°	2.3	2.3	2.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	316.1	307.1	277.0	227.3	158.8	88.8	33.1	6.0	1.5	2.3	2.3
110°	275.5	268.0	237.1	188.9	128.0	66.2	21.8	3.8	2.3	2.3	2.3





107.5°	3.0	4.5	5.3
110°	3.0	3.8	4.5



(END OF REPORT)