

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: P551203

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-80-96-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: P551203  
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-80-96-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

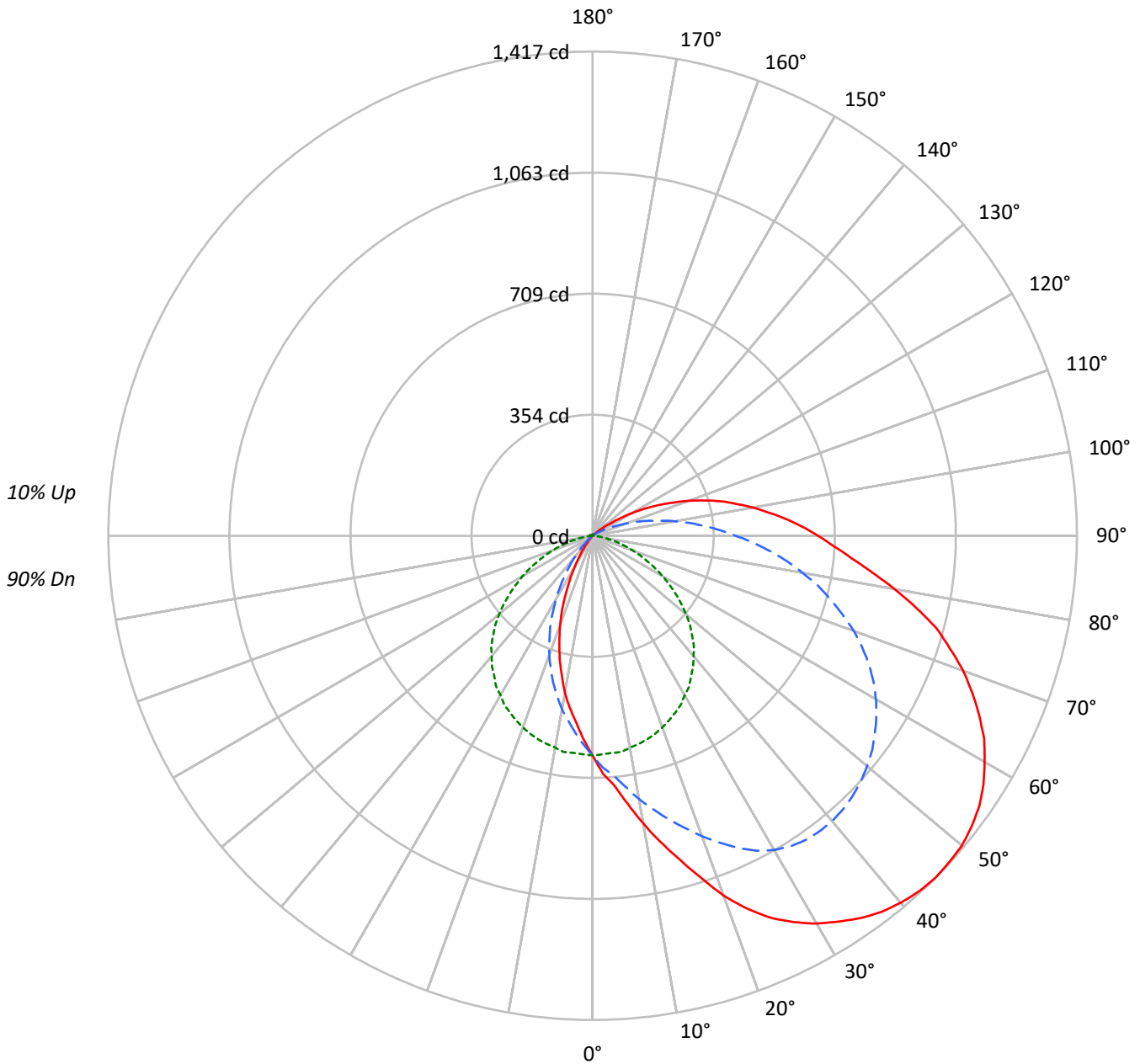
Lumens per Lamp: N/A  
Luminaire Lumens: 3177.1 lumens  
Efficiency: N/A  
Efficacy: 73.4 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 43.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: P551203

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-80-96-ED1D-90

### Luminous Intensity Polar Plot





TEST NUMBER: P551203

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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°	6917	6917	6917
5°	7593	6816	5686
10°	8593	6732	4687
15°	9630	6646	3653
20°	10861	6539	2689
25°	11882	6413	1766
30°	12641	6245	994
35°	13298	6063	438
40°	13881	5841	105
45°	14381	5561	0
50°	14801	5190	0
55°	15120	4718	0
60°	15282	4173	0
65°	15344	3551	0
70°	15293	2895	0
75°	15099	2135	12
80°	14487	1306	66
85°	14002	625	90



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.6	1.9
10°-20°	184.3	5.8
20°-30°	298.5	9.4
30°-40°	383.4	12.1
40°-50°	434.0	13.7
50°-60°	449.6	14.2
60°-70°	424.1	13.3
70°-80°	355.4	11.2
80°-90°	257.6	8.1
90°-100°	169.3	5.3
100°-110°	97.8	3.1
110°-120°	43.2	1.4
120°-130°	11.7	0.4
130°-140°	2.7	0.1
140°-150°	1.8	0.1
150°-160°	1.2	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	544.3	17.1
0°-40°	927.7	29.2
0°-60°	1811.4	57.0
0°-90°	2848.4	89.7
90°-120°	310.2	9.8
90°-150°	326.4	10.3
90°-180°	329.0	10.4
0°-180°	3177.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	643	643	643	643	643	
5°	734	704	638	579	549	74
15°	980	859	616	445	372	283
25°	1234	1008	571	293	183	570
35°	1366	1087	502	142	45	857
45°	1417	1076	411	33	0	1094
55°	1381	1008	296	0	0	1233
65°	1248	892	177	0	0	1235
75°	1040	720	75	1	1	1091
85°	761	522	12	3	5	650
90°	660	419	3	5	6	362
95°	566	327	2	6	7	444
105°	390	169	2	4	6	411
115°	212	56	2	2	4	212
125°	63	8	3	2	3	63
135°	3	2	4	3	2	6
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°	642.6	642.6	642.6	642.6	642.6	642.6	642.6	642.6	642.6	642.6	642.6
2.5°	696.7	695.8	693.4	689.3	683.6	673.7	665.6	658.2	648.4	640.2	624.6
5°	733.5	729.4	726.1	722.0	708.9	699.9	685.2	668.8	653.3	637.7	606.6
7.5°	792.4	785.9	781.0	769.5	751.5	731.0	708.1	692.6	681.9	638.5	585.3
10°	855.5	849.7	839.9	819.5	797.4	767.9	735.1	698.3	665.6	629.5	566.5
12.5°	917.7	909.5	895.6	869.4	838.3	801.4	756.4	713.0	666.4	623.8	544.4
15°	979.9	970.9	956.2	924.2	883.3	835.0	780.2	725.3	670.5	616.4	521.5
17.5°	1047.9	1035.6	1013.5	977.5	925.9	866.1	801.4	735.1	668.8	607.4	496.9
20°	1120.7	1103.5	1079.8	1031.5	970.9	900.5	822.7	745.0	668.0	596.8	469.1
22.5°	1181.3	1164.1	1137.9	1088.0	1015.1	929.2	840.7	751.5	664.7	584.5	442.9
25°	1233.7	1219.8	1191.1	1133.8	1056.9	959.4	857.9	756.4	659.8	571.4	415.0
27.5°	1274.6	1261.5	1229.6	1170.7	1092.1	986.5	871.0	758.9	653.3	558.3	386.4
30°	1310.6	1297.5	1259.1	1198.5	1115.8	1007.7	884.1	759.7	645.1	538.7	355.3
32.5°	1338.5	1326.2	1286.9	1222.2	1132.2	1022.5	891.5	758.9	634.4	524.7	321.7
35°	1366.3	1354.0	1308.2	1239.4	1144.5	1029.0	897.2	754.8	621.3	501.8	289.8
37.5°	1387.6	1373.7	1327.0	1250.9	1150.2	1030.7	896.4	749.1	607.4	483.0	257.9
40°	1402.3	1387.6	1337.7	1257.4	1151.8	1028.2	889.9	739.2	591.1	459.3	224.3
42.5°	1412.2	1395.8	1342.6	1267.3	1148.5	1021.7	880.0	727.0	573.0	438.8	192.4
45°	1417.1	1399.9	1343.4	1259.1	1142.8	1009.4	865.3	711.4	553.4	411.0	160.5
47.5°	1414.6	1395.8	1339.3	1250.1	1132.2	996.3	848.9	692.6	529.7	386.4	130.2
50°	1410.5	1390.9	1330.3	1238.6	1117.4	979.9	830.9	669.6	505.1	356.1	103.1
52.5°	1397.4	1377.8	1320.5	1222.2	1100.2	961.1	806.4	645.9	478.9	326.6	78.6
55°	1381.0	1363.0	1303.3	1207.5	1078.1	938.2	783.4	620.5	453.5	296.3	56.5
57.5°	1355.7	1339.3	1282.0	1183.8	1056.0	912.8	758.1	592.7	421.6	266.1	39.3
60°	1324.6	1308.2	1252.5	1156.7	1030.7	884.1	730.2	564.0	392.9	235.8	24.6
62.5°	1291.8	1276.3	1218.1	1123.2	998.7	853.8	699.9	535.4	362.7	207.9	14.7
65°	1248.4	1233.7	1181.3	1083.1	963.5	821.1	666.4	501.0	331.5	176.8	8.2
67.5°	1202.6	1189.5	1136.3	1046.2	922.6	785.1	632.0	467.4	298.8	149.8	4.1
70°	1153.5	1137.1	1088.0	996.3	880.9	744.1	594.3	433.1	267.7	123.6	0.0
72.5°	1096.2	1083.9	1036.4	949.6	832.6	700.8	555.9	395.4	233.3	98.2	0.8
75°	1040.5	1024.9	981.5	899.7	785.1	654.9	513.3	360.2	199.7	75.3	0.8
77.5°	968.4	963.5	922.6	843.2	740.0	610.7	466.6	317.6	167.8	54.0	0.8
80°	896.4	891.5	859.6	786.7	687.7	558.3	423.2	277.5	136.7	36.0	0.8
82.5°	825.2	818.6	788.3	727.8	634.4	514.1	378.2	237.4	108.1	22.1	0.8
85°	761.3	753.1	720.4	664.7	579.6	464.2	331.5	198.1	80.2	12.3	1.6
87.5°	706.5	700.8	664.7	607.4	523.9	417.5	290.6	160.5	56.5	5.7	2.5
90°	659.8	647.5	615.6	555.0	471.5	365.9	247.2	128.5	37.7	3.3	3.3
92.5°	614.0	603.3	568.1	505.9	424.9	321.7	205.5	98.2	23.7	1.6	4.1
95°	566.5	555.0	520.7	463.3	377.4	276.7	168.6	72.0	13.1	1.6	4.1
97.5°	519.8	509.2	473.2	415.9	334.8	237.4	133.4	50.8	6.5	1.6	3.3
100°	476.4	464.2	431.4	374.1	292.3	198.1	103.1	32.7	4.1	1.6	3.3
102.5°	430.6	420.8	387.2	331.5	248.0	161.3	77.0	20.5	1.6	1.6	2.5
105°	389.7	377.4	344.6	287.3	211.2	126.9	54.0	12.3	1.6	1.6	2.5



TEST NUMBER: P551203

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-80-96-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	253.8	244.0	215.3	167.0	107.2	49.9	14.7	2.5	2.5	2.5	2.5
115°	212.0	197.3	171.9	129.3	79.4	32.7	7.4	2.5	2.5	2.5	2.5
117.5°	169.5	157.2	139.2	98.2	52.4	21.3	4.1	2.5	2.5	2.5	2.5
120°	132.6	121.2	100.7	67.9	35.2	12.3	1.6	2.5	2.5	2.5	2.5
122.5°	95.0	86.0	67.9	44.2	21.3	5.7	2.5	2.5	3.3	3.3	2.5
125°	63.0	58.1	45.0	27.0	13.1	2.5	2.5	2.5	3.3	3.3	2.5
127.5°	40.9	36.8	26.2	15.6	5.7	2.5	2.5	3.3	3.3	3.3	2.5
130°	22.9	20.5	15.6	9.0	2.5	2.5	2.5	3.3	3.3	3.3	2.5
132.5°	13.1	12.3	8.2	1.6	2.5	2.5	2.5	3.3	3.3	3.3	3.3
135°	3.3	1.6	1.6	1.6	2.5	2.5	3.3	3.3	4.1	4.1	3.3
137.5°	0.8	0.8	1.6	1.6	2.5	2.5	3.3	4.1	4.1	4.1	3.3
140°	0.8	0.8	1.6	2.5	2.5	2.5	3.3	4.1	4.1	4.1	3.3
142.5°	0.8	1.6	1.6	2.5	2.5	3.3	3.3	4.1	4.1	3.3	3.3
145°	0.8	1.6	1.6	2.5	2.5	3.3	3.3	4.1	3.3	3.3	3.3
147.5°	1.6	1.6	1.6	2.5	2.5	3.3	3.3	4.1	4.1	3.3	3.3
150°	0.8	1.6	1.6	2.5	3.3	3.3	3.3	4.1	3.3	3.3	3.3
152.5°	0.8	1.6	1.6	2.5	3.3	3.3	3.3	4.1	3.3	3.3	3.3
155°	1.6	1.6	1.6	2.5	3.3	3.3	3.3	4.1	3.3	3.3	4.1
157.5°	1.6	1.6	1.6	2.5	3.3	3.3	3.3	4.1	3.3	3.3	4.1
160°	1.6	1.6	1.6	2.5	2.5	3.3	3.3	3.3	3.3	3.3	3.3
162.5°	1.6	1.6	1.6	2.5	2.5	3.3	3.3	3.3	3.3	3.3	3.3
165°	1.6	1.6	1.6	1.6	2.5	2.5	3.3	3.3	3.3	3.3	3.3
167.5°	1.6	1.6	1.6	2.5	2.5	2.5	3.3	3.3	3.3	3.3	3.3
170°	1.6	1.6	1.6	2.5	2.5	2.5	3.3	4.1	4.1	4.1	4.1
172.5°	1.6	1.6	1.6	2.5	2.5	3.3	3.3	4.1	4.1	4.1	4.1
175°	1.6	1.6	1.6	2.5	2.5	3.3	3.3	4.1	4.1	4.1	4.1
177.5°	0.8	1.6	1.6	2.5	2.5	3.3	3.3	4.1	4.1	4.1	3.3
180°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5



TEST NUMBER: P551203

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-80-96-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	642.6	642.6	642.6
2.5°	611.5	600.1	596.8
5°	578.8	559.9	549.3
7.5°	546.0	520.7	508.4
10°	515.7	479.7	466.6
12.5°	479.7	438.0	417.5
15°	445.3	391.3	371.7
17.5°	406.9	346.3	323.4
20°	370.8	301.3	277.5
22.5°	329.9	257.1	230.9
25°	293.1	212.8	183.4
27.5°	252.1	167.8	142.4
30°	213.7	128.5	103.1
32.5°	176.8	94.1	71.2
35°	142.4	63.9	45.0
37.5°	109.7	39.3	22.9
40°	79.4	20.5	10.6
42.5°	53.2	9.8	5.7
45°	32.7	4.9	0.0
47.5°	18.8	0.0	0.0
50°	9.8	0.0	0.0
52.5°	4.1	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	1.6	2.5
80°	1.6	3.3	4.1
82.5°	3.3	4.1	4.1
85°	3.3	4.1	4.9
87.5°	4.1	4.9	5.7
90°	4.9	5.7	5.7
92.5°	4.9	6.5	6.5
95°	5.7	6.5	7.4
97.5°	6.5	7.4	7.4
100°	5.7	7.4	8.2
102.5°	4.9	7.4	7.4
105°	4.1	5.7	6.5





TEST NUMBER: P551203

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-80-96-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.3	4.1	4.1
115°	2.5	3.3	4.1
117.5°	2.5	3.3	3.3
120°	2.5	2.5	3.3
122.5°	2.5	2.5	3.3
125°	2.5	2.5	3.3
127.5°	3.3	2.5	2.5
130°	2.5	2.5	2.5
132.5°	3.3	2.5	2.5
135°	3.3	2.5	2.5
137.5°	3.3	2.5	2.5
140°	3.3	2.5	2.5
142.5°	3.3	2.5	2.5
145°	2.5	2.5	2.5
147.5°	2.5	2.5	2.5
150°	2.5	2.5	1.6
152.5°	2.5	1.6	1.6
155°	2.5	1.6	0.8
157.5°	3.3	1.6	0.8
160°	2.5	1.6	0.8
162.5°	2.5	1.6	0.8
165°	2.5	1.6	0.0
167.5°	2.5	1.6	0.8
170°	2.5	1.6	0.8
172.5°	2.5	1.6	0.8
175°	2.5	0.8	0.8
177.5°	2.5	0.8	0.8
180°	2.5	2.5	2.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	343.8	334.0	301.3	247.2	172.7	96.6	36.0	6.5	1.6	2.5	2.5
110°	299.6	291.4	257.9	205.5	139.2	72.0	23.7	4.1	2.5	2.5	2.5







107.5°	3.3	4.9	5.7
110°	3.3	4.1	4.9



(END OF REPORT)