

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: P551385

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-80-85-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: P551385  
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-80-85-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

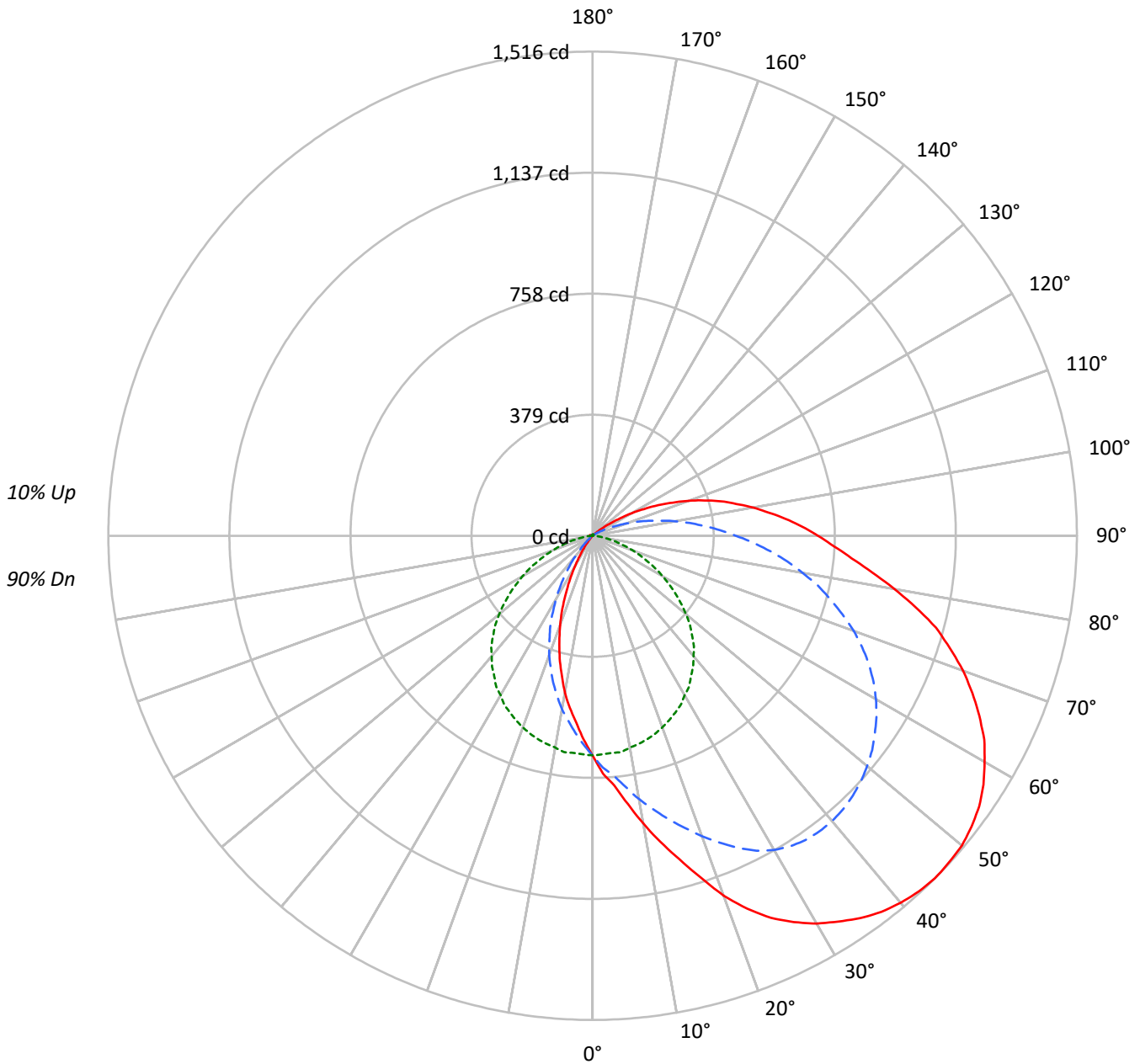
Lumens per Lamp: N/A  
Luminaire Lumens: 3399.0 lumens  
Efficiency: N/A  
Efficacy: 78.5 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 43.3  
Input Voltage (V): NR  
Input Current (A<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: P551385

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-80-85-ED1D-90

### Luminous Intensity Polar Plot





TEST NUMBER: P551385

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-80-85-ED1D-90

**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°	7400	7400	7400
5°	8124	7293	6084
10°	9194	7203	5014
15°	10303	7111	3907
20°	11620	6996	2877
25°	12712	6860	1890
30°	13524	6681	1065
35°	14227	6487	469
40°	14851	6248	113
45°	15386	5950	0
50°	15835	5553	0
55°	16176	5049	0
60°	16349	4463	0
65°	16417	3800	0
70°	16362	3099	0
75°	16154	2286	13
80°	15498	1397	71
85°	14980	666	97



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	65.9	1.9
10°-20°	197.2	5.8
20°-30°	319.3	9.4
30°-40°	410.2	12.1
40°-50°	464.3	13.7
50°-60°	481.1	14.2
60°-70°	453.7	13.3
70°-80°	380.2	11.2
80°-90°	275.6	8.1
90°-100°	181.1	5.3
100°-110°	104.6	3.1
110°-120°	46.2	1.4
120°-130°	12.5	0.4
130°-140°	2.9	0.1
140°-150°	1.9	0.1
150°-160°	1.3	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	582.4	17.1
0°-40°	992.6	29.2
0°-60°	1938.0	57.0
0°-90°	3047.5	89.7
90°-120°	331.9	9.8
90°-150°	349.1	10.3
90°-180°	351.0	10.3
0°-180°	3399.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	688	688	688	688	688	
5°	785	754	682	619	588	79
15°	1048	919	660	476	398	302
25°	1320	1079	611	314	196	610
35°	1462	1163	537	152	48	917
45°	1516	1151	440	35	0	1170
55°	1478	1079	317	0	0	1319
65°	1336	955	189	0	0	1321
75°	1113	770	81	1	1	1168
85°	814	558	13	4	5	696
90°	706	448	4	5	6	387
95°	606	350	2	6	8	476
105°	417	181	2	4	7	440
115°	227	60	3	3	4	227
125°	67	8	4	3	4	67
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°	687.5	687.5	687.5	687.5	687.5	687.5	687.5	687.5	687.5	687.5	687.5
2.5°	745.3	744.5	741.8	737.5	731.3	720.8	712.1	704.2	693.7	684.9	668.3
5°	784.8	780.4	776.9	772.5	758.5	748.8	733.1	715.6	698.9	682.3	649.0
7.5°	847.8	840.8	835.6	823.3	804.0	782.1	757.6	741.0	729.6	683.2	626.2
10°	915.3	909.1	898.6	876.7	853.1	821.5	786.5	747.1	712.1	673.5	606.1
12.5°	981.8	973.1	958.2	930.1	896.9	857.4	809.3	762.9	712.9	667.4	582.4
15°	1048.4	1038.7	1023.0	988.8	945.0	893.4	834.7	776.0	717.3	659.5	557.9
17.5°	1121.1	1107.9	1084.3	1045.8	990.6	926.6	857.4	786.5	715.6	649.9	531.6
20°	1199.0	1180.6	1155.2	1103.6	1038.7	963.4	880.2	797.0	714.7	638.5	501.9
22.5°	1263.8	1245.4	1217.4	1164.0	1086.0	994.1	899.5	804.0	711.2	625.4	473.8
25°	1319.9	1305.0	1274.4	1213.0	1130.7	1026.5	917.9	809.3	705.9	611.3	444.1
27.5°	1363.7	1349.7	1315.5	1252.5	1168.4	1055.4	931.9	811.9	698.9	597.3	413.4
30°	1402.2	1388.2	1347.0	1282.2	1193.8	1078.2	945.9	812.8	690.2	576.3	380.1
32.5°	1432.0	1418.9	1376.8	1307.6	1211.3	1093.9	953.8	811.9	678.8	561.4	344.2
35°	1461.8	1448.6	1399.6	1326.0	1224.4	1100.9	959.9	807.5	664.8	536.9	310.0
37.5°	1484.6	1469.7	1419.7	1338.3	1230.6	1102.7	959.0	801.4	649.9	516.7	275.9
40°	1500.3	1484.6	1431.1	1345.3	1232.3	1100.1	952.0	790.9	632.4	491.3	240.0
42.5°	1510.8	1493.3	1436.4	1355.8	1228.8	1093.1	941.5	777.7	613.1	469.5	205.8
45°	1516.1	1497.7	1437.3	1347.0	1222.7	1079.9	925.8	761.1	592.1	439.7	171.7
47.5°	1513.5	1493.3	1432.9	1337.4	1211.3	1065.9	908.2	741.0	566.7	413.4	139.3
50°	1509.1	1488.1	1423.2	1325.1	1195.5	1048.4	889.0	716.4	540.4	381.0	110.4
52.5°	1495.1	1474.0	1412.7	1307.6	1177.1	1028.2	862.7	691.0	512.4	349.5	84.1
55°	1477.5	1458.3	1394.3	1291.9	1153.5	1003.7	838.2	663.9	485.2	317.1	60.4
57.5°	1450.4	1432.9	1371.6	1266.5	1129.8	976.6	811.0	634.1	451.1	284.6	42.0
60°	1417.1	1399.6	1340.0	1237.6	1102.7	945.9	781.3	603.5	420.4	252.2	26.3
62.5°	1382.1	1365.4	1303.3	1201.7	1068.5	913.5	748.8	572.8	388.0	222.5	15.8
65°	1335.7	1319.9	1263.8	1158.7	1030.9	878.5	712.9	536.0	354.7	189.2	8.8
67.5°	1286.6	1272.6	1215.7	1119.3	987.1	839.9	676.2	500.1	319.7	160.3	4.4
70°	1234.1	1216.5	1164.0	1065.9	942.4	796.1	635.9	463.3	286.4	132.3	0.0
72.5°	1172.8	1159.6	1108.8	1016.0	890.7	749.7	594.7	423.0	249.6	105.1	0.9
75°	1113.2	1096.6	1050.1	962.6	839.9	700.7	549.2	385.4	213.7	80.6	0.9
77.5°	1036.1	1030.9	987.1	902.1	791.8	653.4	499.2	339.8	179.5	57.8	0.9
80°	959.0	953.8	919.6	841.7	735.7	597.3	452.8	296.9	146.3	38.5	0.9
82.5°	882.8	875.8	843.4	778.6	678.8	550.0	404.6	254.0	115.6	23.6	0.9
85°	814.5	805.8	770.7	711.2	620.1	496.6	354.7	212.0	85.8	13.1	1.8
87.5°	755.9	749.7	711.2	649.9	560.5	446.7	310.9	171.7	60.4	6.1	2.6
90°	705.9	692.8	658.6	593.8	504.5	391.5	264.5	137.5	40.3	3.5	3.5
92.5°	656.9	645.5	607.8	541.3	454.6	344.2	219.8	105.1	25.4	1.8	4.4
95°	606.1	593.8	557.0	495.7	403.8	296.0	180.4	77.1	14.0	1.8	4.4
97.5°	556.2	544.8	506.2	444.9	358.2	254.0	142.8	54.3	7.0	1.8	3.5
100°	509.7	496.6	461.6	400.3	312.7	212.0	110.4	35.0	4.4	1.8	3.5
102.5°	460.7	450.2	414.3	354.7	265.4	172.5	82.3	21.9	1.8	1.8	2.6
105°	416.9	403.8	368.7	307.4	226.0	135.8	57.8	13.1	1.8	1.8	2.6



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	271.5	261.0	230.3	178.7	114.7	53.4	15.8	2.6	2.6	2.6	2.6
115°	226.8	211.1	183.9	138.4	85.0	35.0	7.9	2.6	2.6	2.6	2.6
117.5°	181.3	168.2	148.9	105.1	56.1	22.8	4.4	2.6	2.6	2.6	2.6
120°	141.9	129.6	107.7	72.7	37.7	13.1	1.8	2.6	2.6	2.6	2.6
122.5°	101.6	92.0	72.7	47.3	22.8	6.1	2.6	2.6	3.5	3.5	2.6
125°	67.4	62.2	48.2	28.9	14.0	2.6	2.6	2.6	3.5	3.5	2.6
127.5°	43.8	39.4	28.0	16.6	6.1	2.6	2.6	3.5	3.5	3.5	2.6
130°	24.5	21.9	16.6	9.6	2.6	2.6	2.6	3.5	3.5	3.5	2.6
132.5°	14.0	13.1	8.8	1.8	2.6	2.6	2.6	3.5	3.5	3.5	3.5
135°	3.5	1.8	1.8	1.8	2.6	2.6	3.5	3.5	4.4	4.4	3.5
137.5°	0.9	0.9	1.8	1.8	2.6	2.6	3.5	4.4	4.4	4.4	3.5
140°	0.9	0.9	1.8	2.6	2.6	2.6	3.5	4.4	4.4	4.4	3.5
142.5°	0.9	1.8	1.8	2.6	2.6	3.5	3.5	4.4	4.4	3.5	3.5
145°	0.9	1.8	1.8	2.6	2.6	3.5	3.5	4.4	3.5	3.5	3.5
147.5°	1.8	1.8	1.8	2.6	2.6	3.5	3.5	4.4	4.4	3.5	3.5
150°	0.9	1.8	1.8	2.6	3.5	3.5	3.5	4.4	3.5	3.5	3.5
152.5°	0.9	1.8	1.8	2.6	3.5	3.5	3.5	4.4	3.5	3.5	3.5
155°	1.8	1.8	1.8	2.6	3.5	3.5	3.5	4.4	3.5	3.5	4.4
157.5°	1.8	1.8	1.8	2.6	3.5	3.5	3.5	4.4	3.5	3.5	4.4
160°	1.8	1.8	1.8	2.6	2.6	3.5	3.5	3.5	3.5	3.5	3.5
162.5°	1.8	1.8	1.8	2.6	2.6	3.5	3.5	3.5	3.5	3.5	3.5
165°	1.8	1.8	1.8	1.8	2.6	2.6	3.5	3.5	3.5	3.5	3.5
167.5°	1.8	1.8	1.8	2.6	2.6	2.6	3.5	3.5	3.5	3.5	3.5
170°	1.8	1.8	1.8	2.6	2.6	2.6	3.5	4.4	4.4	4.4	4.4
172.5°	1.8	1.8	1.8	2.6	2.6	3.5	3.5	4.4	4.4	4.4	4.4
175°	1.8	1.8	1.8	2.6	2.6	3.5	3.5	4.4	4.4	4.4	4.4
177.5°	0.9	1.8	1.8	2.6	2.6	3.5	3.5	4.4	4.4	4.4	3.5
180°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6



TEST NUMBER: P551385

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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	687.5	687.5	687.5
2.5°	654.3	642.0	638.5
5°	619.2	599.1	587.7
7.5°	584.2	557.0	543.9
10°	551.8	513.2	499.2
12.5°	513.2	468.6	446.7
15°	476.5	418.7	397.6
17.5°	435.3	370.5	346.0
20°	396.8	322.3	296.9
22.5°	353.0	275.0	247.0
25°	313.6	227.7	196.2
27.5°	269.8	179.5	152.4
30°	228.6	137.5	110.4
32.5°	189.2	100.7	76.2
35°	152.4	68.3	48.2
37.5°	117.4	42.0	24.5
40°	85.0	21.9	11.4
42.5°	56.9	10.5	6.1
45°	35.0	5.3	0.0
47.5°	20.1	0.0	0.0
50°	10.5	0.0	0.0
52.5°	4.4	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	2.6
80°	1.8	3.5	4.4
82.5°	3.5	4.4	4.4
85°	3.5	4.4	5.3
87.5°	4.4	5.3	6.1
90°	5.3	6.1	6.1
92.5°	5.3	7.0	7.0
95°	6.1	7.0	7.9
97.5°	7.0	7.9	7.9
100°	6.1	7.9	8.8
102.5°	5.3	7.9	7.9
105°	4.4	6.1	7.0





TEST NUMBER: P551385

CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-80-85-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.5	4.4	4.4
115°	2.6	3.5	4.4
117.5°	2.6	3.5	3.5
120°	2.6	2.6	3.5
122.5°	2.6	2.6	3.5
125°	2.6	2.6	3.5
127.5°	3.5	2.6	2.6
130°	2.6	2.6	2.6
132.5°	3.5	2.6	2.6
135°	3.5	2.6	2.6
137.5°	3.5	2.6	2.6
140°	3.5	2.6	2.6
142.5°	3.5	2.6	2.6
145°	2.6	2.6	2.6
147.5°	2.6	2.6	2.6
150°	2.6	2.6	1.8
152.5°	2.6	1.8	1.8
155°	2.6	1.8	0.9
157.5°	3.5	1.8	0.9
160°	2.6	1.8	0.9
162.5°	2.6	1.8	0.9
165°	2.6	1.8	0.0
167.5°	2.6	1.8	0.9
170°	2.6	1.8	0.9
172.5°	2.6	1.8	0.9
175°	2.6	0.9	0.9
177.5°	2.6	0.9	0.9
180°	2.6	2.6	2.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	367.9	357.3	322.3	264.5	184.8	103.3	38.5	7.0	1.8	2.6	2.6
110°	320.6	311.8	275.9	219.8	148.9	77.1	25.4	4.4	2.6	2.6	2.6







107.5°	3.5	5.3	6.1
110°	3.5	4.4	5.3



(END OF REPORT)