

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: P551276

Luminaire Tested: **FCC-X-2-LD4-2HI-35-UNV-81-86-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: P551276  
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-81-86-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

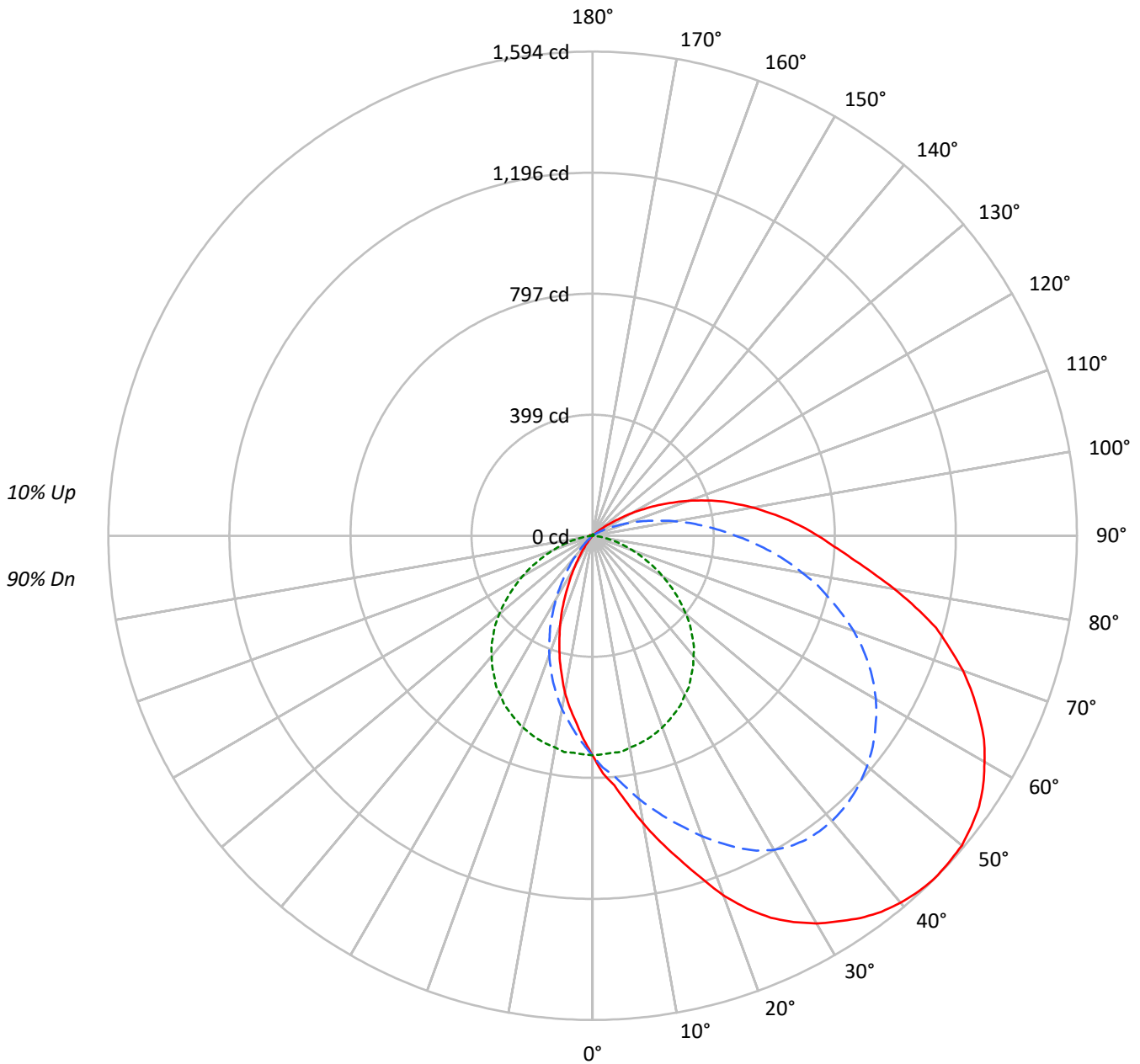
Lumens per Lamp: N/A  
Luminaire Lumens: 3573.0 lumens  
Efficiency: N/A  
Efficacy: 82.5 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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

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CATALOG NUMBER: FCC-X-2-LD4-2HI-35-UNV-81-86-ED1D

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

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

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	7779	7779	7779
5°	8540	7666	6396
10°	9664	7572	5271
15°	10830	7475	4108
20°	12215	7354	3025
25°	13363	7212	1986
30°	14217	7023	1119
35°	14955	6820	492
40°	15611	6569	119
45°	16173	6254	0
50°	16645	5837	0
55°	17005	5307	0
60°	17186	4693	0
65°	17256	3995	0
70°	17199	3256	0
75°	16981	2402	13
80°	16292	1469	74
85°	15747	702	101



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.2	1.9
10°-20°	207.3	5.8
20°-30°	335.7	9.4
30°-40°	431.2	12.1
40°-50°	488.1	13.7
50°-60°	505.7	14.2
60°-70°	476.9	13.3
70°-80°	399.7	11.2
80°-90°	289.7	8.1
90°-100°	190.4	5.3
100°-110°	110.0	3.1
110°-120°	48.5	1.4
120°-130°	13.2	0.4
130°-140°	3.0	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°	612.2	17.1
0°-40°	1043.4	29.2
0°-60°	2037.2	57.0
0°-90°	3203.5	89.7
90°-120°	348.9	9.8
90°-150°	367.1	10.3
90°-180°	370.0	10.4
0°-180°	3573.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	723	723	723	723	723	
5°	825	792	717	651	618	83
15°	1102	966	693	501	418	318
25°	1388	1134	643	330	206	641
35°	1537	1222	564	160	51	964
45°	1594	1210	462	37	0	1230
55°	1553	1134	333	0	0	1387
65°	1404	1004	199	0	0	1389
75°	1170	810	85	1	1	1227
85°	856	587	14	4	6	731
90°	742	471	4	6	6	407
95°	637	368	2	6	8	500
105°	438	190	2	5	7	462
115°	238	63	3	3	5	239
125°	71	9	4	3	4	71
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°	722.7	722.7	722.7	722.7	722.7	722.7	722.7	722.7	722.7	722.7	722.7
2.5°	783.5	782.6	779.8	775.2	768.8	757.7	748.5	740.2	729.2	720.0	702.5
5°	824.9	820.3	816.6	812.0	797.3	787.2	770.6	752.2	734.7	717.2	682.2
7.5°	891.2	883.9	878.3	865.4	845.2	822.2	796.4	778.9	766.9	718.1	658.3
10°	962.1	955.7	944.6	921.6	896.7	863.6	826.8	785.3	748.5	708.0	637.1
12.5°	1032.1	1022.9	1007.2	977.8	942.8	901.3	850.7	801.9	749.4	701.6	612.3
15°	1102.1	1091.9	1075.4	1039.4	993.4	939.1	877.4	815.7	754.0	693.3	586.5
17.5°	1178.5	1164.7	1139.8	1099.3	1041.3	974.1	901.3	826.8	752.2	683.1	558.9
20°	1260.4	1241.1	1214.4	1160.1	1091.9	1012.7	925.3	837.8	751.3	671.2	527.5
22.5°	1328.5	1309.2	1279.7	1223.6	1141.6	1045.0	945.5	845.2	747.6	657.4	498.1
25°	1387.5	1371.8	1339.6	1275.1	1188.6	1079.0	964.9	850.7	742.1	642.6	466.8
27.5°	1433.5	1418.8	1382.9	1316.6	1228.2	1109.4	979.6	853.5	734.7	627.9	434.6
30°	1474.0	1459.3	1416.0	1347.9	1254.9	1133.4	994.3	854.4	725.5	605.8	399.6
32.5°	1505.3	1491.5	1447.3	1374.6	1273.3	1149.9	1002.6	853.5	713.5	590.2	361.8
35°	1536.6	1522.8	1471.2	1393.9	1287.1	1157.3	1009.1	848.9	698.8	564.4	325.9
37.5°	1560.5	1544.9	1492.4	1406.8	1293.6	1159.1	1008.1	842.4	683.1	543.2	290.0
40°	1577.1	1560.5	1504.4	1414.2	1295.4	1156.4	1000.8	831.4	664.7	516.5	252.3
42.5°	1588.2	1569.8	1509.9	1425.2	1291.7	1149.0	989.7	817.6	644.5	493.5	216.4
45°	1593.7	1574.4	1510.8	1416.0	1285.3	1135.2	973.2	800.1	622.4	462.2	180.5
47.5°	1590.9	1569.8	1506.2	1405.9	1273.3	1120.5	954.7	778.9	595.7	434.6	146.4
50°	1586.3	1564.2	1496.1	1393.0	1256.7	1102.1	934.5	753.1	568.1	400.5	116.0
52.5°	1571.6	1549.5	1485.1	1374.6	1237.4	1080.9	906.9	726.4	538.6	367.4	88.4
55°	1553.2	1532.9	1465.7	1358.0	1212.5	1055.1	881.1	697.9	510.1	333.3	63.5
57.5°	1524.6	1506.2	1441.8	1331.3	1187.7	1026.6	852.5	666.6	474.1	299.2	44.2
60°	1489.7	1471.2	1408.6	1300.9	1159.1	994.3	821.2	634.3	441.9	265.2	27.6
62.5°	1452.8	1435.3	1370.0	1263.2	1123.2	960.3	787.2	602.1	407.9	233.9	16.6
65°	1404.0	1387.5	1328.5	1218.1	1083.6	923.4	749.4	563.5	372.9	198.9	9.2
67.5°	1352.5	1337.7	1277.9	1176.6	1037.6	882.9	710.8	525.7	336.0	168.5	4.6
70°	1297.2	1278.8	1223.6	1120.5	990.6	836.9	668.4	487.0	301.1	139.0	0.0
72.5°	1232.8	1219.0	1165.6	1068.0	936.3	788.1	625.1	444.7	262.4	110.5	0.9
75°	1170.2	1152.7	1103.9	1011.8	882.9	736.5	577.3	405.1	224.6	84.7	0.9
77.5°	1089.2	1083.6	1037.6	948.3	832.3	686.8	524.8	357.2	188.7	60.8	0.9
80°	1008.1	1002.6	966.7	884.8	773.4	627.9	476.0	312.1	153.8	40.5	0.9
82.5°	928.0	920.7	886.6	818.5	713.5	578.2	425.4	267.0	121.5	24.9	0.9
85°	856.2	847.0	810.2	747.6	651.8	522.0	372.9	222.8	90.2	13.8	1.8
87.5°	794.5	788.1	747.6	683.1	589.2	469.5	326.8	180.5	63.5	6.4	2.8
90°	742.1	728.3	692.3	624.2	530.3	411.5	278.0	144.5	42.4	3.7	3.7
92.5°	690.5	678.5	639.0	569.0	477.8	361.8	231.1	110.5	26.7	1.8	4.6
95°	637.1	624.2	585.6	521.1	424.4	311.2	189.7	81.0	14.7	1.8	4.6
97.5°	584.6	572.7	532.2	467.7	376.6	267.0	150.1	57.1	7.4	1.8	3.7
100°	535.8	522.0	485.2	420.7	328.7	222.8	116.0	36.8	4.6	1.8	3.7
102.5°	484.3	473.2	435.5	372.9	279.0	181.4	86.5	23.0	1.8	1.8	2.8
105°	438.2	424.4	387.6	323.2	237.5	142.7	60.8	13.8	1.8	1.8	2.8



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	285.4	274.4	242.1	187.8	120.6	56.2	16.6	2.8	2.8	2.8	2.8
115°	238.5	221.9	193.3	145.5	89.3	36.8	8.3	2.8	2.8	2.8	2.8
117.5°	190.6	176.8	156.5	110.5	58.9	23.9	4.6	2.8	2.8	2.8	2.8
120°	149.1	136.3	113.2	76.4	39.6	13.8	1.8	2.8	2.8	2.8	2.8
122.5°	106.8	96.7	76.4	49.7	23.9	6.4	2.8	2.8	3.7	3.7	2.8
125°	70.9	65.4	50.6	30.4	14.7	2.8	2.8	2.8	3.7	3.7	2.8
127.5°	46.0	41.4	29.5	17.5	6.4	2.8	2.8	3.7	3.7	3.7	2.8
130°	25.8	23.0	17.5	10.1	2.8	2.8	2.8	3.7	3.7	3.7	2.8
132.5°	14.7	13.8	9.2	1.8	2.8	2.8	2.8	3.7	3.7	3.7	3.7
135°	3.7	1.8	1.8	1.8	2.8	2.8	3.7	3.7	4.6	4.6	3.7
137.5°	0.9	0.9	1.8	1.8	2.8	2.8	3.7	4.6	4.6	4.6	3.7
140°	0.9	0.9	1.8	2.8	2.8	2.8	3.7	4.6	4.6	4.6	3.7
142.5°	0.9	1.8	1.8	2.8	2.8	3.7	3.7	4.6	4.6	3.7	3.7
145°	0.9	1.8	1.8	2.8	2.8	3.7	3.7	4.6	3.7	3.7	3.7
147.5°	1.8	1.8	1.8	2.8	2.8	3.7	3.7	4.6	4.6	3.7	3.7
150°	0.9	1.8	1.8	2.8	3.7	3.7	3.7	4.6	3.7	3.7	3.7
152.5°	0.9	1.8	1.8	2.8	3.7	3.7	3.7	4.6	3.7	3.7	3.7
155°	1.8	1.8	1.8	2.8	3.7	3.7	3.7	4.6	3.7	3.7	4.6
157.5°	1.8	1.8	1.8	2.8	3.7	3.7	3.7	4.6	3.7	3.7	4.6
160°	1.8	1.8	1.8	2.8	2.8	3.7	3.7	3.7	3.7	3.7	3.7
162.5°	1.8	1.8	1.8	2.8	2.8	3.7	3.7	3.7	3.7	3.7	3.7
165°	1.8	1.8	1.8	1.8	2.8	2.8	3.7	3.7	3.7	3.7	3.7
167.5°	1.8	1.8	1.8	2.8	2.8	2.8	3.7	3.7	3.7	3.7	3.7
170°	1.8	1.8	1.8	2.8	2.8	2.8	3.7	4.6	4.6	4.6	4.6
172.5°	1.8	1.8	1.8	2.8	2.8	3.7	3.7	4.6	4.6	4.6	4.6
175°	1.8	1.8	1.8	2.8	2.8	3.7	3.7	4.6	4.6	4.6	4.6
177.5°	0.9	1.8	1.8	2.8	2.8	3.7	3.7	4.6	4.6	4.6	3.7
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°	722.7	722.7	722.7
2.5°	687.7	674.9	671.2
5°	650.9	629.7	617.8
7.5°	614.1	585.6	571.7
10°	580.0	539.5	524.8
12.5°	539.5	492.6	469.5
15°	500.8	440.1	418.0
17.5°	457.6	389.4	363.7
20°	417.1	338.8	312.1
22.5°	371.0	289.1	259.6
25°	329.6	239.4	206.2
27.5°	283.6	188.7	160.2
30°	240.3	144.5	116.0
32.5°	198.9	105.9	80.1
35°	160.2	71.8	50.6
37.5°	123.4	44.2	25.8
40°	89.3	23.0	12.0
42.5°	59.8	11.0	6.4
45°	36.8	5.5	0.0
47.5°	21.2	0.0	0.0
50°	11.0	0.0	0.0
52.5°	4.6	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	2.8
80°	1.8	3.7	4.6
82.5°	3.7	4.6	4.6
85°	3.7	4.6	5.5
87.5°	4.6	5.5	6.4
90°	5.5	6.4	6.4
92.5°	5.5	7.4	7.4
95°	6.4	7.4	8.3
97.5°	7.4	8.3	8.3
100°	6.4	8.3	9.2
102.5°	5.5	8.3	8.3
105°	4.6	6.4	7.4





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.7	4.6	4.6
115°	2.8	3.7	4.6
117.5°	2.8	3.7	3.7
120°	2.8	2.8	3.7
122.5°	2.8	2.8	3.7
125°	2.8	2.8	3.7
127.5°	3.7	2.8	2.8
130°	2.8	2.8	2.8
132.5°	3.7	2.8	2.8
135°	3.7	2.8	2.8
137.5°	3.7	2.8	2.8
140°	3.7	2.8	2.8
142.5°	3.7	2.8	2.8
145°	2.8	2.8	2.8
147.5°	2.8	2.8	2.8
150°	2.8	2.8	1.8
152.5°	2.8	1.8	1.8
155°	2.8	1.8	0.9
157.5°	3.7	1.8	0.9
160°	2.8	1.8	0.9
162.5°	2.8	1.8	0.9
165°	2.8	1.8	0.0
167.5°	2.8	1.8	0.9
170°	2.8	1.8	0.9
172.5°	2.8	1.8	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°	386.7	375.6	338.8	278.0	194.3	108.6	40.5	7.4	1.8	2.8	2.8
110°	337.0	327.8	290.0	231.1	156.5	81.0	26.7	4.6	2.8	2.8	2.8







107.5°	3.7	5.5	6.4
110°	3.7	4.6	5.5



(END OF REPORT)