

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: P551278

Luminaire Tested: **FCC-X-2-LD4-2HI-35-UNV-81-87-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: P551278  
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-81-87-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

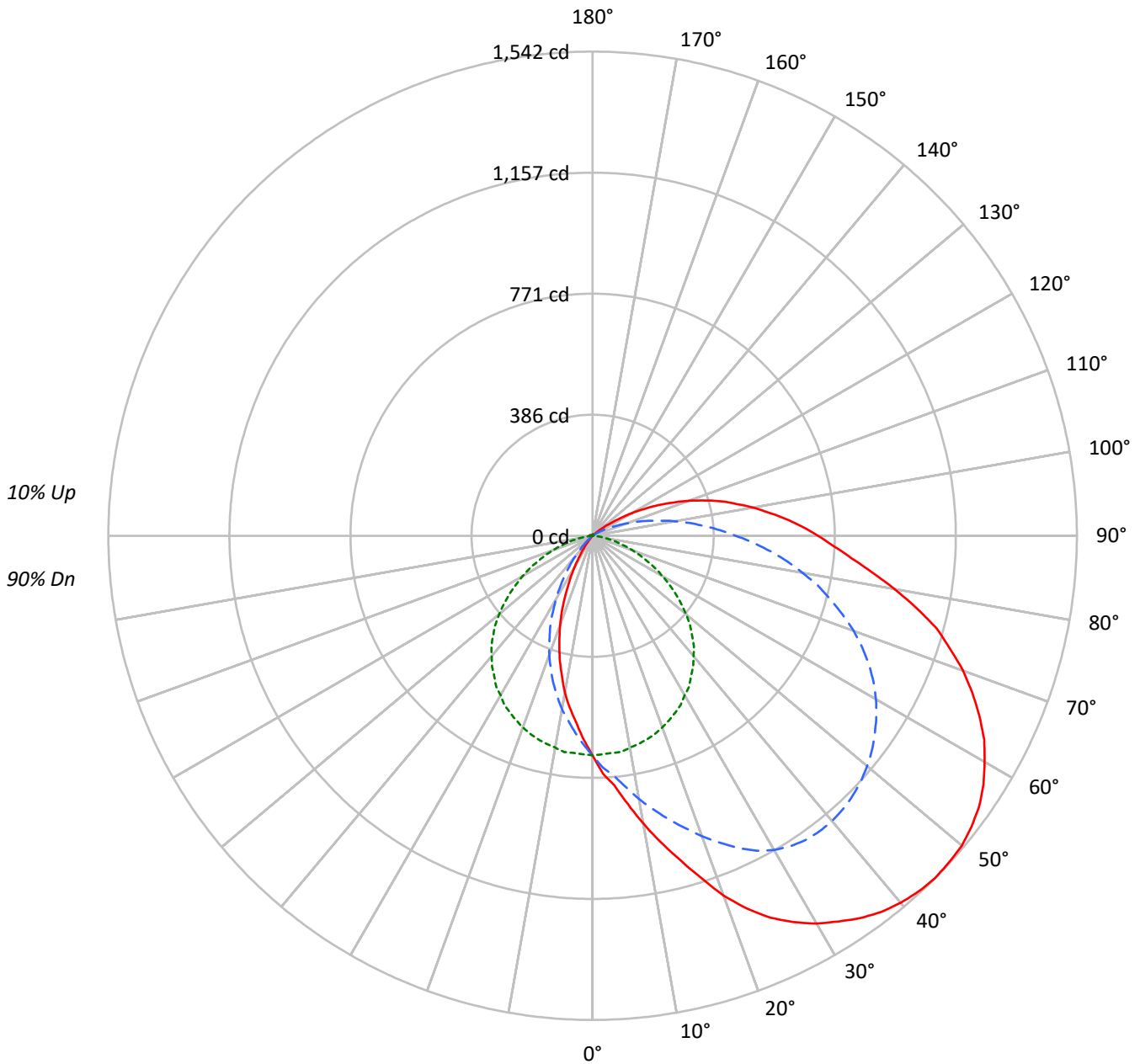
Lumens per Lamp: N/A  
Luminaire Lumens: 3457.1 lumens  
Efficiency: N/A  
Efficacy: 79.8 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 43.3  
Input Voltage (V): NR  
Input Current (Ain): 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: P551278

CATALOG NUMBER: FCC-X-2-LD4-2HI-35-UNV-81-87-ED1D

### 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°	7527	7527	7527
5°	8262	7417	6187
10°	9350	7326	5100
15°	10479	7233	3974
20°	11818	7115	2927
25°	12929	6978	1921
30°	13756	6794	1082
35°	14470	6598	477
40°	15104	6355	115
45°	15649	6051	0
50°	16105	5648	0
55°	16453	5135	0
60°	16628	4539	0
65°	16697	3864	0
70°	16640	3151	0
75°	16429	2325	13
80°	15763	1422	73
85°	15236	681	97



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.0	1.9
10°-20°	200.6	5.8
20°-30°	324.8	9.4
30°-40°	417.2	12.1
40°-50°	472.3	13.7
50°-60°	489.3	14.2
60°-70°	461.4	13.3
70°-80°	386.7	11.2
80°-90°	280.3	8.1
90°-100°	184.2	5.3
100°-110°	106.4	3.1
110°-120°	47.0	1.4
120°-130°	12.7	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°	592.3	17.1
0°-40°	1009.5	29.2
0°-60°	1971.1	57.0
0°-90°	3099.5	89.7
90°-120°	337.6	9.8
90°-150°	355.2	10.3
90°-180°	358.0	10.4
0°-180°	3457.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	699	699	699	699	699	
5°	798	766	694	630	598	80
15°	1066	935	671	485	404	307
25°	1342	1097	622	319	200	620
35°	1487	1182	546	155	49	932
45°	1542	1171	447	36	0	1190
55°	1503	1097	322	0	0	1342
65°	1358	971	192	0	0	1344
75°	1132	783	82	1	1	1188
85°	828	568	13	4	5	707
90°	718	456	4	5	6	394
95°	616	356	2	6	8	484
105°	424	184	2	4	7	447
115°	231	61	3	3	4	231
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°	699.3	699.3	699.3	699.3	699.3	699.3	699.3	699.3	699.3	699.3	699.3
2.5°	758.1	757.2	754.5	750.0	743.8	733.1	724.2	716.2	705.5	696.6	679.7
5°	798.1	793.7	790.1	785.7	771.4	761.6	745.6	727.8	710.8	693.9	660.1
7.5°	862.3	855.2	849.8	837.3	817.7	795.5	770.5	753.6	742.0	694.8	636.9
10°	930.9	924.6	913.9	891.7	867.6	835.6	799.9	759.8	724.2	685.0	616.4
12.5°	998.6	989.7	974.5	946.0	912.2	872.1	823.1	775.9	725.1	678.8	592.4
15°	1066.3	1056.5	1040.4	1005.7	961.2	908.6	848.9	789.2	729.6	670.8	567.4
17.5°	1140.2	1126.8	1102.8	1063.6	1007.5	942.5	872.1	799.9	727.8	661.0	540.7
20°	1219.5	1200.8	1174.9	1122.4	1056.5	979.9	895.2	810.6	726.9	649.4	510.4
22.5°	1285.4	1266.7	1238.2	1183.9	1104.6	1011.0	914.8	817.7	723.3	636.0	481.9
25°	1342.4	1327.3	1296.1	1233.7	1150.0	1044.0	933.5	823.1	718.0	621.8	451.6
27.5°	1387.0	1372.7	1338.0	1273.8	1188.3	1073.4	947.8	825.8	710.8	607.5	420.5
30°	1426.2	1411.9	1370.0	1304.1	1214.1	1096.6	962.1	826.7	701.9	586.1	386.6
32.5°	1456.4	1443.1	1400.3	1329.9	1232.0	1112.6	970.1	825.8	690.4	571.0	350.1
35°	1486.7	1473.4	1423.5	1348.7	1245.3	1119.7	976.3	821.3	676.1	546.1	315.3
37.5°	1509.9	1494.7	1444.0	1361.1	1251.6	1121.5	975.4	815.1	661.0	525.6	280.6
40°	1525.9	1509.9	1455.5	1368.2	1253.3	1118.8	968.3	804.4	643.1	499.7	244.1
42.5°	1536.6	1518.8	1460.9	1378.9	1249.8	1111.7	957.6	791.0	623.6	477.5	209.3
45°	1542.0	1523.2	1461.8	1370.0	1243.5	1098.3	941.6	774.1	602.2	447.2	174.6
47.5°	1539.3	1518.8	1457.3	1360.2	1232.0	1084.1	923.7	753.6	576.3	420.5	141.6
50°	1534.8	1513.4	1447.5	1347.8	1215.9	1066.3	904.1	728.7	549.6	387.5	112.2
52.5°	1520.6	1499.2	1436.8	1329.9	1197.2	1045.8	877.4	702.8	521.1	355.4	85.5
55°	1502.8	1483.2	1418.1	1313.9	1173.2	1020.8	852.5	675.2	493.5	322.5	61.5
57.5°	1475.1	1457.3	1395.0	1288.1	1149.1	993.2	824.9	644.9	458.8	289.5	42.8
60°	1441.3	1423.5	1362.9	1258.7	1121.5	962.1	794.6	613.8	427.6	256.5	26.7
62.5°	1405.7	1388.7	1325.5	1222.2	1086.8	929.1	761.6	582.6	394.6	226.3	16.0
65°	1358.5	1342.4	1285.4	1178.5	1048.5	893.5	725.1	545.2	360.8	192.4	8.9
67.5°	1308.6	1294.3	1236.4	1138.4	1003.9	854.3	687.7	508.6	325.1	163.0	4.5
70°	1255.1	1237.3	1183.9	1084.1	958.5	809.7	646.7	471.2	291.3	134.5	0.0
72.5°	1192.8	1179.4	1127.7	1033.3	905.9	762.5	604.8	430.3	253.9	106.9	0.9
75°	1132.2	1115.3	1068.1	979.0	854.3	712.6	558.5	391.9	217.4	82.0	0.9
77.5°	1053.8	1048.5	1003.9	917.5	805.3	664.5	507.7	345.6	182.6	58.8	0.9
80°	975.4	970.1	935.3	856.0	748.3	607.5	460.5	302.0	148.8	39.2	0.9
82.5°	897.9	890.8	857.8	791.9	690.4	559.4	411.5	258.3	117.6	24.1	0.9
85°	828.4	819.5	783.9	723.3	630.7	505.1	360.8	215.6	87.3	13.4	1.8
87.5°	768.7	762.5	723.3	661.0	570.1	454.3	316.2	174.6	61.5	6.2	2.7
90°	718.0	704.6	669.9	604.0	513.1	398.2	269.0	139.9	41.0	3.6	3.6
92.5°	668.1	656.5	618.2	550.5	462.3	350.1	223.6	106.9	25.8	1.8	4.5
95°	616.4	604.0	566.5	504.2	410.7	301.1	183.5	78.4	14.3	1.8	4.5
97.5°	565.6	554.1	514.9	452.5	364.3	258.3	145.2	55.2	7.1	1.8	3.6
100°	518.4	505.1	469.4	407.1	318.0	215.6	112.2	35.6	4.5	1.8	3.6
102.5°	468.6	457.9	421.3	360.8	269.9	175.5	83.7	22.3	1.8	1.8	2.7
105°	424.0	410.7	375.0	312.7	229.8	138.1	58.8	13.4	1.8	1.8	2.7



TEST NUMBER: P551278

CATALOG NUMBER: FCC-X-2-LD4-2HI-35-UNV-81-87-ED1D

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	276.1	265.5	234.3	181.7	116.7	54.3	16.0	2.7	2.7	2.7	2.7
115°	230.7	214.7	187.1	140.7	86.4	35.6	8.0	2.7	2.7	2.7	2.7
117.5°	184.4	171.0	151.4	106.9	57.0	23.2	4.5	2.7	2.7	2.7	2.7
120°	144.3	131.8	109.6	73.9	38.3	13.4	1.8	2.7	2.7	2.7	2.7
122.5°	103.3	93.5	73.9	48.1	23.2	6.2	2.7	2.7	3.6	3.6	2.7
125°	68.6	63.2	49.0	29.4	14.3	2.7	2.7	2.7	3.6	3.6	2.7
127.5°	44.5	40.1	28.5	16.9	6.2	2.7	2.7	3.6	3.6	3.6	2.7
130°	24.9	22.3	16.9	9.8	2.7	2.7	2.7	3.6	3.6	3.6	2.7
132.5°	14.3	13.4	8.9	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: P551278

CATALOG NUMBER: FCC-X-2-LD4-2HI-35-UNV-81-87-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	699.3	699.3	699.3
2.5°	665.4	652.9	649.4
5°	629.8	609.3	597.7
7.5°	594.2	566.5	553.2
10°	561.2	522.0	507.7
12.5°	522.0	476.6	454.3
15°	484.6	425.8	404.4
17.5°	442.7	376.8	351.9
20°	403.5	327.8	302.0
22.5°	359.0	279.7	251.2
25°	318.9	231.6	199.5
27.5°	274.4	182.6	155.0
30°	232.5	139.9	112.2
32.5°	192.4	102.4	77.5
35°	155.0	69.5	49.0
37.5°	119.4	42.8	24.9
40°	86.4	22.3	11.6
42.5°	57.9	10.7	6.2
45°	35.6	5.3	0.0
47.5°	20.5	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	5.3
87.5°	4.5	5.3	6.2
90°	5.3	6.2	6.2
92.5°	5.3	7.1	7.1
95°	6.2	7.1	8.0
97.5°	7.1	8.0	8.0
100°	6.2	8.0	8.9
102.5°	5.3	8.0	8.0
105°	4.5	6.2	7.1





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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°	374.1	363.4	327.8	269.0	188.0	105.1	39.2	7.1	1.8	2.7	2.7
110°	326.0	317.1	280.6	223.6	151.4	78.4	25.8	4.5	2.7	2.7	2.7







107.5°	3.6	5.3	6.2
110°	3.6	4.5	5.3



(END OF REPORT)