

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: P551271

Luminaire Tested: **FCC-X-2-LD4-2HI-35-UNV-81-84-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: P551271  
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-81-84-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

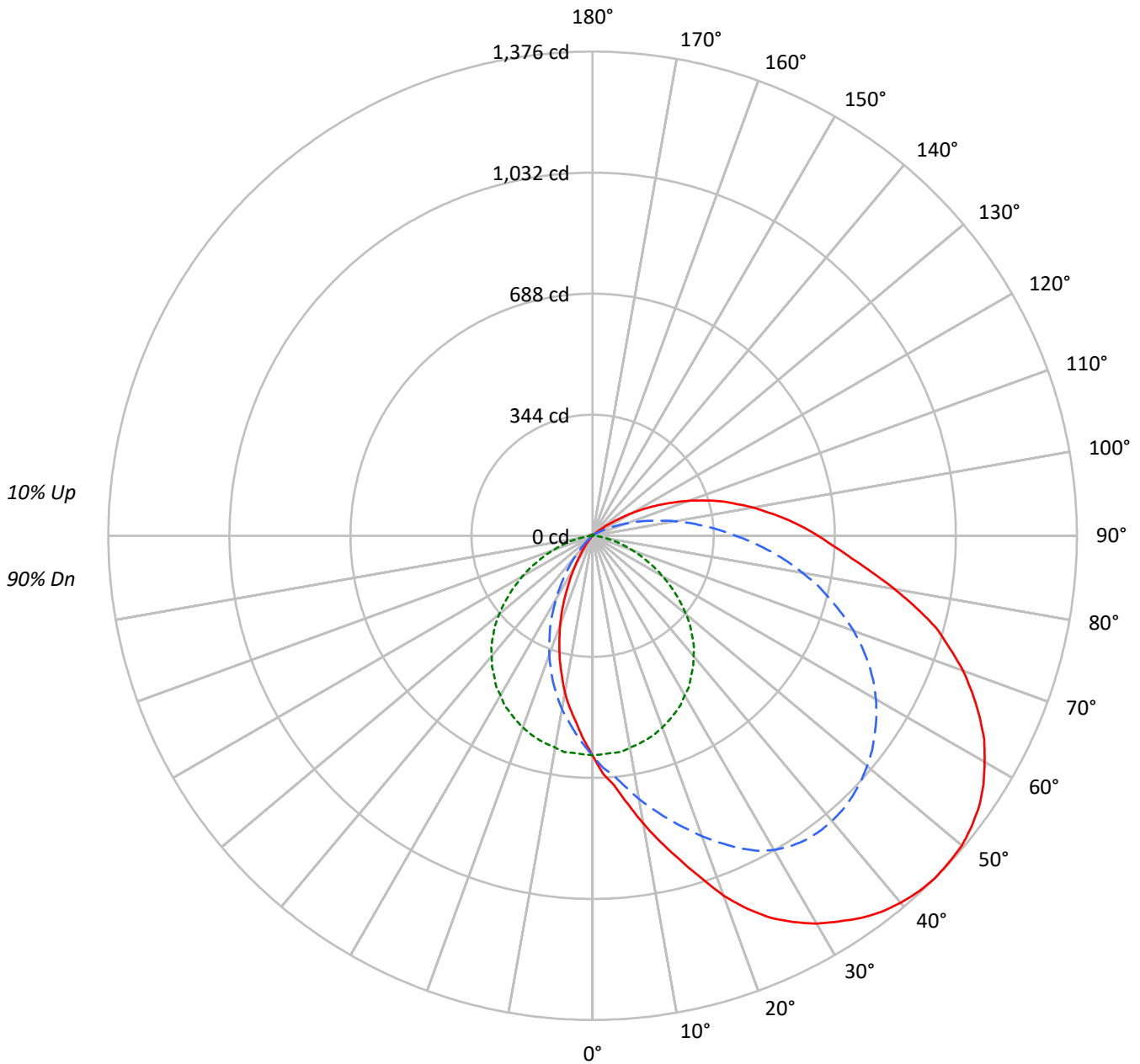
Lumens per Lamp: N/A  
Luminaire Lumens: 3085.1 lumens  
Efficiency: N/A  
Efficacy: 71.2 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P551271

CATALOG NUMBER: FCC-X-2-LD4-2HI-35-UNV-81-84-ED1D-90

### Luminous Intensity Polar Plot





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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°	6717	6717	6717
5°	7374	6619	5522
10°	8344	6537	4551
15°	9350	6454	3547
20°	10547	6349	2612
25°	11538	6227	1715
30°	12275	6064	966
35°	12913	5888	425
40°	13479	5672	102
45°	13964	5400	0
50°	14372	5040	0
55°	14682	4583	0
60°	14839	4051	0
65°	14900	3449	0
70°	14851	2811	0
75°	14662	2073	12
80°	14068	1270	65
85°	13597	605	88



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.8	1.9
10°-20°	179.0	5.8
20°-30°	289.8	9.4
30°-40°	372.3	12.1
40°-50°	421.5	13.7
50°-60°	436.6	14.2
60°-70°	411.8	13.3
70°-80°	345.1	11.2
80°-90°	250.1	8.1
90°-100°	164.4	5.3
100°-110°	95.0	3.1
110°-120°	41.9	1.4
120°-130°	11.4	0.4
130°-140°	2.6	0.1
140°-150°	1.7	0.1
150°-160°	1.2	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	528.6	17.1
0°-40°	900.9	29.2
0°-60°	1759.0	57.0
0°-90°	2766.0	89.7
90°-120°	301.3	9.8
90°-150°	317.0	10.3
90°-180°	319.0	10.3
0°-180°	3085.1	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	624	624	624	624	624	
5°	712	684	619	562	533	72
15°	952	834	599	432	361	274
25°	1198	979	555	285	178	554
35°	1327	1055	487	138	44	832
45°	1376	1045	399	32	0	1062
55°	1341	979	288	0	0	1198
65°	1212	866	172	0	0	1199
75°	1010	699	73	1	1	1060
85°	739	507	12	3	5	631
90°	641	407	3	5	6	351
95°	550	318	2	6	7	432
105°	378	164	2	4	6	399
115°	206	54	2	2	4	206
125°	61	8	3	2	3	61
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°	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0	624.0
2.5°	676.5	675.7	673.3	669.3	663.8	654.2	646.3	639.1	629.6	621.6	606.5
5°	712.3	708.3	705.1	701.1	688.4	679.7	665.4	649.5	634.4	619.3	589.0
7.5°	769.5	763.1	758.4	747.2	729.7	709.9	687.6	672.5	662.2	620.0	568.4
10°	830.7	825.1	815.6	795.7	774.3	745.6	713.8	678.1	646.3	611.3	550.1
12.5°	891.1	883.2	869.7	844.2	814.0	778.2	734.5	692.4	647.1	605.7	528.6
15°	951.5	942.8	928.5	897.5	857.7	810.8	757.6	704.3	651.0	598.6	506.4
17.5°	1017.5	1005.6	984.1	949.1	899.1	841.0	778.2	713.8	649.5	589.8	482.5
20°	1088.3	1071.6	1048.5	1001.6	942.8	874.4	798.9	723.4	648.7	579.5	455.5
22.5°	1147.1	1130.4	1105.0	1056.5	985.7	902.2	816.4	729.7	645.5	567.6	430.1
25°	1198.0	1184.4	1156.6	1101.0	1026.3	931.7	833.1	734.5	640.7	554.9	403.0
27.5°	1237.7	1225.0	1194.0	1136.8	1060.4	957.9	845.8	736.9	634.4	542.1	375.2
30°	1272.7	1260.0	1222.6	1163.8	1083.5	978.6	858.5	737.7	626.4	523.1	345.0
32.5°	1299.7	1287.8	1249.6	1186.8	1099.4	992.9	865.7	736.9	616.1	509.6	312.4
35°	1326.7	1314.8	1270.3	1203.5	1111.3	999.2	871.2	732.9	603.4	487.3	281.4
37.5°	1347.4	1333.9	1288.6	1214.7	1116.9	1000.8	870.5	727.4	589.8	469.0	250.4
40°	1361.7	1347.4	1298.9	1221.0	1118.5	998.4	864.1	717.8	573.9	446.0	217.8
42.5°	1371.3	1355.4	1303.7	1230.6	1115.3	992.1	854.6	705.9	556.5	426.1	186.8
45°	1376.0	1359.3	1304.5	1222.6	1109.7	980.2	840.2	690.8	537.4	399.1	155.8
47.5°	1373.6	1355.4	1300.5	1213.9	1099.4	967.4	824.3	672.5	514.3	375.2	126.4
50°	1369.7	1350.6	1291.8	1202.7	1085.1	951.5	806.9	650.3	490.5	345.8	100.2
52.5°	1356.9	1337.9	1282.2	1186.8	1068.4	933.2	783.0	627.2	465.0	317.2	76.3
55°	1341.0	1323.6	1265.5	1172.5	1046.9	911.0	760.7	602.6	440.4	287.8	54.9
57.5°	1316.4	1300.5	1244.9	1149.5	1025.5	886.3	736.1	575.5	409.4	258.4	38.2
60°	1286.2	1270.3	1216.2	1123.2	1000.8	858.5	709.1	547.7	381.6	228.9	23.8
62.5°	1254.4	1239.3	1182.9	1090.6	969.8	829.1	679.7	519.9	352.2	201.9	14.3
65°	1212.3	1198.0	1147.1	1051.7	935.6	797.3	647.1	486.5	321.9	171.7	7.9
67.5°	1167.8	1155.0	1103.4	1015.9	895.9	762.3	613.7	453.9	290.2	145.5	4.0
70°	1120.1	1104.2	1056.5	967.4	855.3	722.6	577.1	420.5	259.9	120.0	0.0
72.5°	1064.4	1052.5	1006.4	922.1	808.4	680.5	539.8	384.0	226.6	95.4	0.8
75°	1010.4	995.3	953.1	873.6	762.3	635.9	498.4	349.8	194.0	73.1	0.8
77.5°	940.4	935.6	895.9	818.8	718.6	593.0	453.1	308.4	163.0	52.5	0.8
80°	870.5	865.7	834.7	763.9	667.7	542.1	411.0	269.5	132.8	35.0	0.8
82.5°	801.3	794.9	765.5	706.7	616.1	499.2	367.3	230.5	104.9	21.5	0.8
85°	739.3	731.3	699.5	645.5	562.8	450.7	321.9	192.4	77.9	11.9	1.6
87.5°	686.0	680.5	645.5	589.8	508.8	405.4	282.2	155.8	54.9	5.6	2.4
90°	640.7	628.8	597.8	539.0	457.9	355.3	240.1	124.8	36.6	3.2	3.2
92.5°	596.2	585.9	551.7	491.3	412.6	312.4	199.5	95.4	23.1	1.6	4.0
95°	550.1	539.0	505.6	449.9	366.5	268.7	163.8	70.0	12.7	1.6	4.0
97.5°	504.8	494.4	459.5	403.8	325.1	230.5	129.6	49.3	6.4	1.6	3.2
100°	462.7	450.7	418.9	363.3	283.8	192.4	100.2	31.8	4.0	1.6	3.2
102.5°	418.1	408.6	376.0	321.9	240.9	156.6	74.7	19.9	1.6	1.6	2.4
105°	378.4	366.5	334.7	279.0	205.1	123.2	52.5	11.9	1.6	1.6	2.4



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	246.4	236.9	209.1	162.2	104.1	48.5	14.3	2.4	2.4	2.4	2.4
115°	205.9	191.6	166.9	125.6	77.1	31.8	7.2	2.4	2.4	2.4	2.4
117.5°	164.6	152.6	135.1	95.4	50.9	20.7	4.0	2.4	2.4	2.4	2.4
120°	128.8	117.6	97.8	66.0	34.2	11.9	1.6	2.4	2.4	2.4	2.4
122.5°	92.2	83.5	66.0	42.9	20.7	5.6	2.4	2.4	3.2	3.2	2.4
125°	61.2	56.4	43.7	26.2	12.7	2.4	2.4	2.4	3.2	3.2	2.4
127.5°	39.7	35.8	25.4	15.1	5.6	2.4	2.4	3.2	3.2	3.2	2.4
130°	22.3	19.9	15.1	8.7	2.4	2.4	2.4	3.2	3.2	3.2	2.4
132.5°	12.7	11.9	7.9	1.6	2.4	2.4	2.4	3.2	3.2	3.2	3.2
135°	3.2	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	3.2
137.5°	0.8	0.8	1.6	1.6	2.4	2.4	3.2	4.0	4.0	4.0	3.2
140°	0.8	0.8	1.6	2.4	2.4	2.4	3.2	4.0	4.0	4.0	3.2
142.5°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	3.2	3.2
145°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.0	3.2	3.2	3.2
147.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	3.2	3.2
150°	0.8	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	3.2
152.5°	0.8	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	3.2
155°	1.6	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	4.0
157.5°	1.6	1.6	1.6	2.4	3.2	3.2	3.2	4.0	3.2	3.2	4.0
160°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2	3.2
162.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2	3.2
165°	1.6	1.6	1.6	1.6	2.4	2.4	3.2	3.2	3.2	3.2	3.2
167.5°	1.6	1.6	1.6	2.4	2.4	2.4	3.2	3.2	3.2	3.2	3.2
170°	1.6	1.6	1.6	2.4	2.4	2.4	3.2	4.0	4.0	4.0	4.0
172.5°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	4.0	4.0
175°	1.6	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	4.0	4.0
177.5°	0.8	1.6	1.6	2.4	2.4	3.2	3.2	4.0	4.0	4.0	3.2
180°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	624.0	624.0	624.0
2.5°	593.8	582.7	579.5
5°	562.0	543.7	533.4
7.5°	530.2	505.6	493.7
10°	500.8	465.8	453.1
12.5°	465.8	425.3	405.4
15°	432.4	380.0	360.9
17.5°	395.1	336.3	314.0
20°	360.1	292.5	269.5
22.5°	320.4	249.6	224.2
25°	284.6	206.7	178.1
27.5°	244.8	163.0	138.3
30°	207.5	124.8	100.2
32.5°	171.7	91.4	69.2
35°	138.3	62.0	43.7
37.5°	106.5	38.2	22.3
40°	77.1	19.9	10.3
42.5°	51.7	9.5	5.6
45°	31.8	4.8	0.0
47.5°	18.3	0.0	0.0
50°	9.5	0.0	0.0
52.5°	4.0	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	2.4
80°	1.6	3.2	4.0
82.5°	3.2	4.0	4.0
85°	3.2	4.0	4.8
87.5°	4.0	4.8	5.6
90°	4.8	5.6	5.6
92.5°	4.8	6.4	6.4
95°	5.6	6.4	7.2
97.5°	6.4	7.2	7.2
100°	5.6	7.2	7.9
102.5°	4.8	7.2	7.2
105°	4.0	5.6	6.4





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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.2	4.0	4.0
115°	2.4	3.2	4.0
117.5°	2.4	3.2	3.2
120°	2.4	2.4	3.2
122.5°	2.4	2.4	3.2
125°	2.4	2.4	3.2
127.5°	3.2	2.4	2.4
130°	2.4	2.4	2.4
132.5°	3.2	2.4	2.4
135°	3.2	2.4	2.4
137.5°	3.2	2.4	2.4
140°	3.2	2.4	2.4
142.5°	3.2	2.4	2.4
145°	2.4	2.4	2.4
147.5°	2.4	2.4	2.4
150°	2.4	2.4	1.6
152.5°	2.4	1.6	1.6
155°	2.4	1.6	0.8
157.5°	3.2	1.6	0.8
160°	2.4	1.6	0.8
162.5°	2.4	1.6	0.8
165°	2.4	1.6	0.0
167.5°	2.4	1.6	0.8
170°	2.4	1.6	0.8
172.5°	2.4	1.6	0.8
175°	2.4	0.8	0.8
177.5°	2.4	0.8	0.8
180°	2.4	2.4	2.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	333.9	324.3	292.5	240.1	167.7	93.8	35.0	6.4	1.6	2.4	2.4
110°	290.9	283.0	250.4	199.5	135.1	70.0	23.1	4.0	2.4	2.4	2.4







107.5°	3.2	4.8	5.6
110°	3.2	4.0	4.8



(END OF REPORT)