

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: P551371

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-93-86-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: P551371  
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-40-UNV-93-86-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE  
SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI  
LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

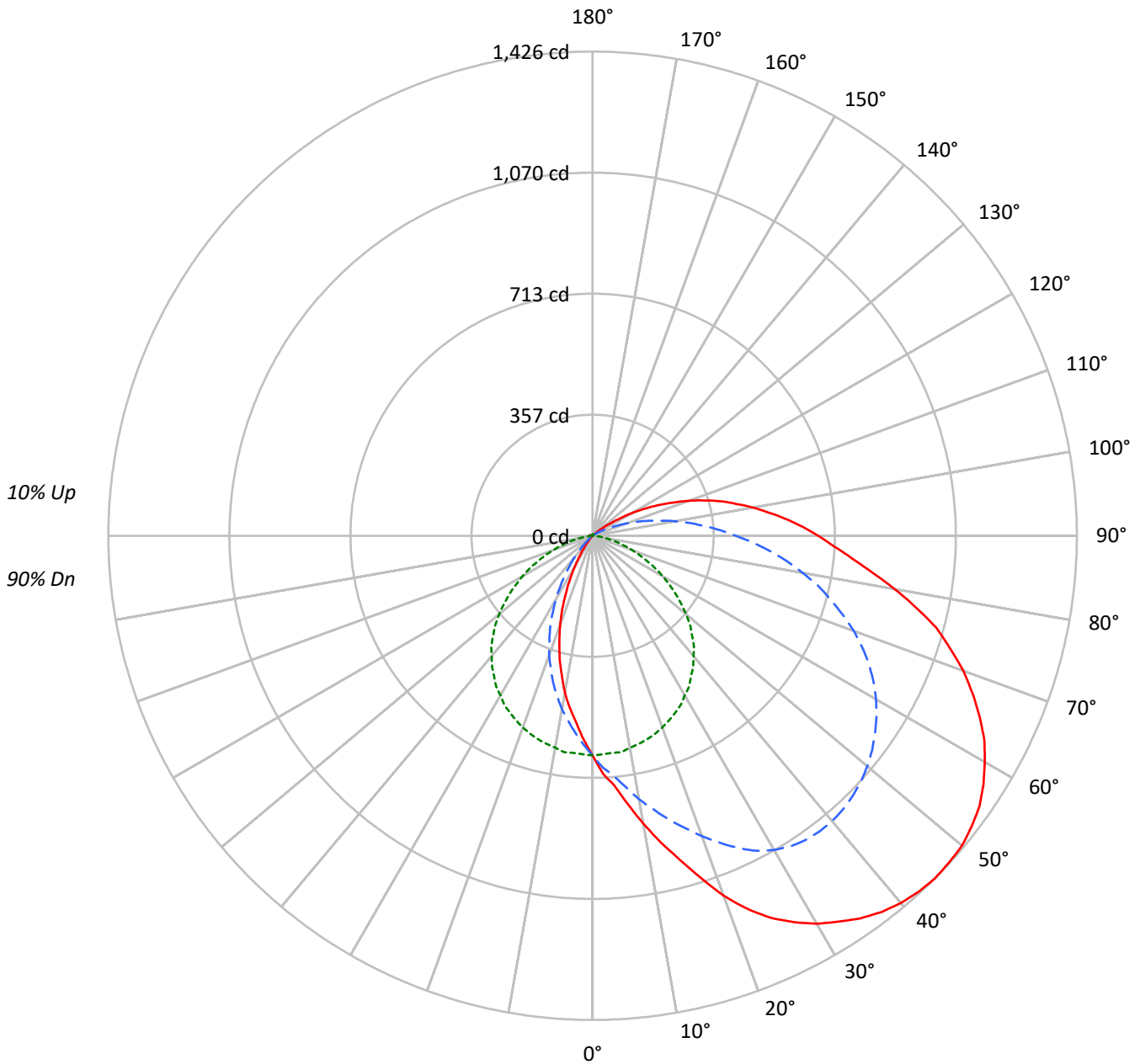
Lumens per Lamp: N/A  
Luminaire Lumens: 3198.0 lumens  
Efficiency: N/A  
Efficacy: 73.9 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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-40-UNV-93-86-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°	6963	6963	6963
5°	7643	6861	5724
10°	8649	6777	4718
15°	9693	6691	3676
20°	10933	6581	2708
25°	11960	6455	1778
30°	12724	6285	1001
35°	13386	6103	441
40°	13973	5879	106
45°	14476	5598	0
50°	14898	5225	0
55°	15220	4750	0
60°	15382	4199	0
65°	15446	3575	0
70°	15394	2914	0
75°	15199	2150	12
80°	14582	1317	66
85°	14096	631	90



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.0	1.9
10°-20°	185.5	5.8
20°-30°	300.4	9.4
30°-40°	385.9	12.1
40°-50°	436.9	13.7
50°-60°	452.6	14.2
60°-70°	426.9	13.3
70°-80°	357.7	11.2
80°-90°	259.3	8.1
90°-100°	170.4	5.3
100°-110°	98.4	3.1
110°-120°	43.4	1.4
120°-130°	11.8	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°	547.9	17.1
0°-40°	933.9	29.2
0°-60°	1823.4	57.0
0°-90°	2867.3	89.7
90°-120°	312.3	9.8
90°-150°	328.5	10.3
90°-180°	331.0	10.4
0°-180°	3198.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	647	647	647	647	647	
5°	738	709	642	583	553	74
15°	986	865	620	448	374	284
25°	1242	1015	575	295	185	574
35°	1375	1094	505	143	45	863
45°	1426	1083	414	33	0	1101
55°	1390	1015	298	0	0	1241
65°	1257	898	178	0	0	1243
75°	1047	725	76	1	1	1099
85°	766	525	12	3	5	654
90°	664	422	3	5	6	364
95°	570	329	2	6	7	447
105°	392	170	2	4	7	414
115°	213	56	2	2	4	214
125°	64	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°	646.9	646.9	646.9	646.9	646.9	646.9	646.9	646.9	646.9	646.9	646.9
2.5°	701.3	700.4	698.0	693.8	688.1	678.2	670.0	662.5	652.6	644.4	628.7
5°	738.3	734.2	730.9	726.8	713.6	704.6	689.7	673.2	657.6	641.9	610.6
7.5°	797.7	791.1	786.1	774.6	756.5	735.9	712.8	697.1	686.4	642.8	589.2
10°	861.1	855.4	845.5	824.9	802.6	773.0	740.0	702.9	670.0	633.7	570.2
12.5°	923.8	915.5	901.5	875.1	843.8	806.7	761.4	717.7	670.8	627.9	548.0
15°	986.4	977.3	962.5	930.4	889.1	840.5	785.3	730.1	674.9	620.5	524.9
17.5°	1054.8	1042.4	1020.2	983.9	932.0	871.8	806.7	740.0	673.2	611.4	500.2
20°	1128.1	1110.8	1086.9	1038.3	977.3	906.5	828.2	749.9	672.4	600.7	472.2
22.5°	1189.1	1171.8	1145.4	1095.2	1021.8	935.3	846.3	756.5	669.1	588.4	445.8
25°	1241.8	1227.8	1199.0	1141.3	1063.8	965.8	863.6	761.4	664.2	575.2	417.8
27.5°	1283.0	1269.9	1237.7	1178.4	1099.3	993.0	876.8	763.9	657.6	562.0	389.0
30°	1319.3	1306.1	1267.4	1206.4	1123.2	1014.4	890.0	764.7	649.4	542.2	357.6
32.5°	1347.3	1335.0	1295.4	1230.3	1139.7	1029.2	897.4	763.9	638.6	528.2	323.9
35°	1375.3	1363.0	1316.8	1247.6	1152.0	1035.8	903.2	759.8	625.5	505.1	291.7
37.5°	1396.8	1382.8	1335.8	1259.1	1157.8	1037.5	902.3	754.0	611.4	486.2	259.6
40°	1411.6	1396.8	1346.5	1265.7	1159.4	1035.0	895.7	744.1	595.0	462.3	225.8
42.5°	1421.5	1405.0	1351.4	1275.6	1156.1	1028.4	885.9	731.8	576.8	441.7	193.7
45°	1426.4	1409.1	1352.3	1267.4	1150.4	1016.1	871.0	716.1	557.1	413.7	161.5
47.5°	1424.0	1405.0	1348.1	1258.3	1139.7	1002.9	854.5	697.1	533.2	389.0	131.0
50°	1419.8	1400.1	1339.1	1246.8	1124.8	986.4	836.4	674.1	508.4	358.5	103.8
52.5°	1406.7	1386.9	1329.2	1230.3	1107.5	967.4	811.7	650.2	482.1	328.8	79.1
55°	1390.2	1372.0	1311.9	1215.5	1085.3	944.4	788.6	624.6	456.5	298.3	56.9
57.5°	1364.6	1348.1	1290.5	1191.6	1063.0	918.8	763.1	596.6	424.4	267.8	39.6
60°	1333.3	1316.8	1260.8	1164.4	1037.5	890.0	735.1	567.8	395.5	237.3	24.7
62.5°	1300.3	1284.7	1226.2	1130.6	1005.3	859.5	704.6	538.9	365.1	209.3	14.8
65°	1256.7	1241.8	1189.1	1090.2	969.9	826.5	670.8	504.3	333.7	178.0	8.2
67.5°	1210.5	1197.3	1143.8	1053.1	928.7	790.3	636.2	470.5	300.8	150.8	4.1
70°	1161.1	1144.6	1095.2	1002.9	886.7	749.1	598.3	435.9	269.5	124.4	0.0
72.5°	1103.4	1091.0	1043.2	955.9	838.1	705.4	559.5	398.0	234.9	98.9	0.8
75°	1047.4	1031.7	988.0	905.6	790.3	659.2	516.7	362.6	201.1	75.8	0.8
77.5°	974.9	969.9	928.7	848.8	744.9	614.7	469.7	319.7	168.9	54.4	0.8
80°	902.3	897.4	865.3	791.9	692.2	562.0	426.0	279.4	137.6	36.3	0.8
82.5°	830.6	824.0	793.6	732.6	638.6	517.5	380.7	239.0	108.8	22.2	0.8
85°	766.4	758.1	725.2	669.1	583.4	467.2	333.7	199.4	80.8	12.4	1.6
87.5°	711.2	705.4	669.1	611.4	527.4	420.3	292.5	161.5	56.9	5.8	2.5
90°	664.2	651.8	619.7	558.7	474.7	368.3	248.9	129.4	37.9	3.3	3.3
92.5°	618.0	607.3	571.9	509.3	427.7	323.9	206.8	98.9	23.9	1.6	4.1
95°	570.2	558.7	524.1	466.4	379.9	278.5	169.8	72.5	13.2	1.6	4.1
97.5°	523.3	512.6	476.3	418.6	337.0	239.0	134.3	51.1	6.6	1.6	3.3
100°	479.6	467.2	434.3	376.6	294.2	199.4	103.8	33.0	4.1	1.6	3.3
102.5°	433.4	423.6	389.8	333.7	249.7	162.3	77.5	20.6	1.6	1.6	2.5
105°	392.2	379.9	346.9	289.2	212.6	127.7	54.4	12.4	1.6	1.6	2.5



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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	255.5	245.6	216.7	168.1	108.0	50.3	14.8	2.5	2.5	2.5	2.5
115°	213.4	198.6	173.1	130.2	79.9	33.0	7.4	2.5	2.5	2.5	2.5
117.5°	170.6	158.2	140.1	98.9	52.7	21.4	4.1	2.5	2.5	2.5	2.5
120°	133.5	122.0	101.4	68.4	35.4	12.4	1.6	2.5	2.5	2.5	2.5
122.5°	95.6	86.5	68.4	44.5	21.4	5.8	2.5	2.5	3.3	3.3	2.5
125°	63.5	58.5	45.3	27.2	13.2	2.5	2.5	2.5	3.3	3.3	2.5
127.5°	41.2	37.1	26.4	15.7	5.8	2.5	2.5	3.3	3.3	3.3	2.5
130°	23.1	20.6	15.7	9.1	2.5	2.5	2.5	3.3	3.3	3.3	2.5
132.5°	13.2	12.4	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



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**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	646.9	646.9	646.9
2.5°	615.6	604.0	600.7
5°	582.6	563.6	552.9
7.5°	549.6	524.1	511.7
10°	519.2	482.9	469.7
12.5°	482.9	440.9	420.3
15°	448.3	393.9	374.1
17.5°	409.6	348.6	325.5
20°	373.3	303.3	279.4
22.5°	332.1	258.8	232.4
25°	295.0	214.3	184.6
27.5°	253.8	168.9	143.4
30°	215.1	129.4	103.8
32.5°	178.0	94.8	71.7
35°	143.4	64.3	45.3
37.5°	110.4	39.6	23.1
40°	79.9	20.6	10.7
42.5°	53.6	9.9	5.8
45°	33.0	4.9	0.0
47.5°	19.0	0.0	0.0
50°	9.9	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	5.8
90°	4.9	5.8	5.8
92.5°	4.9	6.6	6.6
95°	5.8	6.6	7.4
97.5°	6.6	7.4	7.4
100°	5.8	7.4	8.2
102.5°	4.9	7.4	7.4
105°	4.1	5.8	6.6





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**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°	346.1	336.2	303.3	248.9	173.9	97.2	36.3	6.6	1.6	2.5	2.5
110°	301.6	293.4	259.6	206.8	140.1	72.5	23.9	4.1	2.5	2.5	2.5







107.5°	3.3	4.9	5.8
110°	3.3	4.1	4.9



(END OF REPORT)