

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: P551363

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-82-96-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: P551363  
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-82-96-ED1D-90  
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

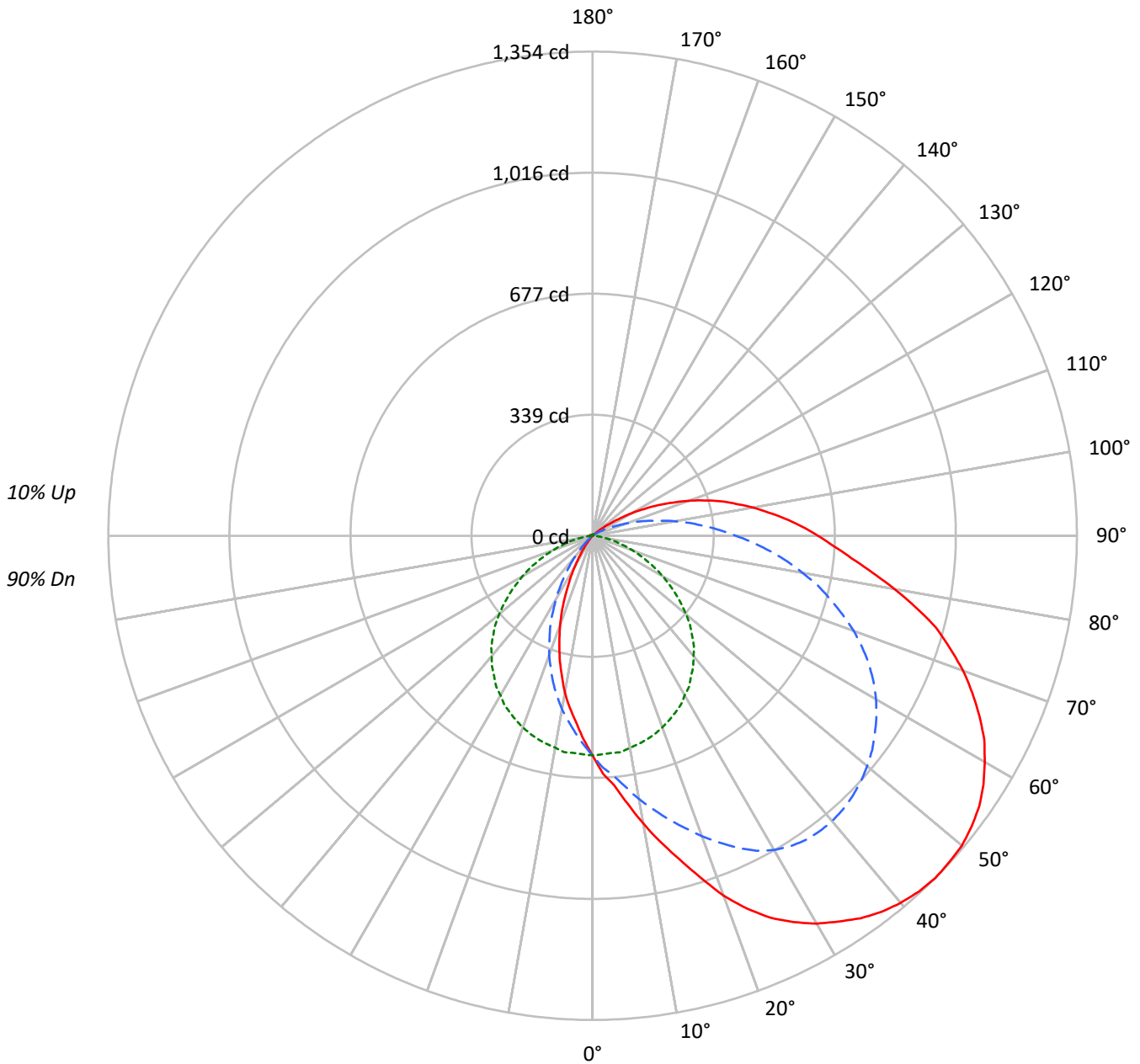
Lumens per Lamp: N/A  
Luminaire Lumens: 3035.9 lumens  
Efficiency: N/A  
Efficacy: 70.1 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

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: P551363

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-82-96-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°	6610	6610	6610
5°	7256	6513	5434
10°	8211	6434	4479
15°	9202	6352	3491
20°	10379	6248	2570
25°	11354	6127	1687
30°	12080	5968	951
35°	12708	5795	419
40°	13265	5582	101
45°	13743	5314	0
50°	14144	4960	0
55°	14449	4510	0
60°	14603	3987	0
65°	14663	3394	0
70°	14615	2767	0
75°	14428	2042	12
80°	13843	1248	63
85°	13380	595	86



TEST NUMBER: P551363

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.8	1.9
10°-20°	176.1	5.8
20°-30°	285.2	9.4
30°-40°	366.4	12.1
40°-50°	414.8	13.7
50°-60°	429.7	14.2
60°-70°	405.2	13.3
70°-80°	339.6	11.2
80°-90°	246.2	8.1
90°-100°	161.8	5.3
100°-110°	93.4	3.1
110°-120°	41.2	1.4
120°-130°	11.1	0.4
130°-140°	2.5	0.1
140°-150°	1.7	0.1
150°-160°	1.2	0.0
160°-170°	0.7	0.0
170°-180°	0.2	0.0
0°-30°	520.2	17.1
0°-40°	886.6	29.2
0°-60°	1731.0	57.0
0°-90°	2722.0	89.7
90°-120°	296.4	9.8
90°-150°	311.8	10.3
90°-180°	314.0	10.3
0°-180°	3035.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	614	614	614	614	614	
5°	701	673	609	553	525	71
15°	936	821	589	426	355	270
25°	1179	963	546	280	175	545
35°	1306	1039	480	136	43	819
45°	1354	1028	393	31	0	1045
55°	1320	963	283	0	0	1179
65°	1193	853	169	0	0	1180
75°	994	688	72	1	1	1043
85°	728	499	12	3	5	621
90°	630	400	3	5	6	346
95°	541	312	2	6	7	425
105°	372	162	2	4	6	393
115°	203	54	2	2	4	203
125°	60	7	3	2	3	60
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°	614.1	614.1	614.1	614.1	614.1	614.1	614.1	614.1	614.1	614.1	614.1
2.5°	665.7	665.0	662.6	658.7	653.2	643.8	636.0	629.0	619.6	611.8	596.9
5°	700.9	697.0	693.9	690.0	677.5	668.9	654.8	639.1	624.3	609.4	579.7
7.5°	757.3	751.0	746.3	735.4	718.2	698.6	676.7	661.8	651.7	610.2	559.3
10°	817.5	812.0	802.6	783.1	762.0	733.8	702.5	667.3	636.0	601.6	541.4
12.5°	877.0	869.1	855.8	830.8	801.1	765.9	722.9	681.4	636.8	596.1	520.2
15°	936.4	927.8	913.7	883.2	844.1	798.0	745.5	693.1	640.7	589.1	498.3
17.5°	1001.4	989.6	968.5	934.1	884.8	827.7	765.9	702.5	639.1	580.5	474.9
20°	1071.0	1054.5	1031.9	985.7	927.8	860.5	786.2	711.9	638.4	570.3	448.3
22.5°	1128.9	1112.4	1087.4	1039.7	970.1	887.9	803.4	718.2	635.2	558.6	423.2
25°	1178.9	1165.6	1138.3	1083.5	1010.0	916.9	819.9	722.9	630.5	546.0	396.6
27.5°	1218.0	1205.5	1175.0	1118.7	1043.6	942.7	832.4	725.2	624.3	533.5	369.2
30°	1252.5	1240.0	1203.2	1145.3	1066.3	963.0	844.9	726.0	616.5	514.8	339.5
32.5°	1279.1	1267.3	1229.8	1168.0	1081.9	977.1	851.9	725.2	606.3	501.5	307.4
35°	1305.7	1293.9	1250.1	1184.4	1093.7	983.4	857.4	721.3	593.8	479.6	276.9
37.5°	1326.0	1312.7	1268.1	1195.4	1099.1	984.9	856.6	715.8	580.5	461.6	246.4
40°	1340.1	1326.0	1278.3	1201.6	1100.7	982.6	850.4	706.4	564.8	438.9	214.4
42.5°	1349.5	1333.8	1283.0	1211.0	1097.6	976.3	841.0	694.7	547.6	419.3	183.8
45°	1354.2	1337.7	1283.8	1203.2	1092.1	964.6	826.9	679.8	528.8	392.7	153.3
47.5°	1351.8	1333.8	1279.9	1194.6	1081.9	952.1	811.3	661.8	506.2	369.2	124.4
50°	1347.9	1329.1	1271.2	1183.6	1067.8	936.4	794.0	639.9	482.7	340.3	98.6
52.5°	1335.4	1316.6	1261.9	1168.0	1051.4	918.4	770.6	617.2	457.6	312.1	75.1
55°	1319.7	1302.5	1245.4	1153.9	1030.3	896.5	748.7	593.0	433.4	283.2	54.0
57.5°	1295.5	1279.9	1225.1	1131.2	1009.2	872.3	724.4	566.4	402.9	254.2	37.6
60°	1265.8	1250.1	1196.9	1105.4	984.9	844.9	697.8	539.0	375.5	225.3	23.5
62.5°	1234.5	1219.6	1164.1	1073.3	954.4	815.9	668.9	511.6	346.6	198.7	14.1
65°	1193.0	1178.9	1128.9	1035.0	920.8	784.7	636.8	478.8	316.8	169.0	7.8
67.5°	1149.2	1136.7	1085.8	999.8	881.7	750.2	603.9	446.7	285.5	143.2	3.9
70°	1102.3	1086.6	1039.7	952.1	841.8	711.1	568.0	413.8	255.8	118.1	0.0
72.5°	1047.5	1035.8	990.4	907.5	795.6	669.7	531.2	377.9	223.0	93.9	0.8
75°	994.3	979.4	938.0	859.8	750.2	625.8	490.5	344.2	190.9	72.0	0.8
77.5°	925.5	920.8	881.7	805.8	707.2	583.6	445.9	303.5	160.4	51.6	0.8
80°	856.6	851.9	821.4	751.8	657.1	533.5	404.5	265.2	130.6	34.4	0.8
82.5°	788.6	782.3	753.4	695.5	606.3	491.3	361.4	226.9	103.3	21.1	0.8
85°	727.5	719.7	688.4	635.2	553.9	443.6	316.8	189.3	76.7	11.7	1.6
87.5°	675.1	669.7	635.2	580.5	500.7	399.0	277.7	153.3	54.0	5.5	2.3
90°	630.5	618.8	588.3	530.4	450.6	349.7	236.3	122.8	36.0	3.1	3.1
92.5°	586.7	576.6	542.9	483.5	406.0	307.4	196.4	93.9	22.7	1.6	3.9
95°	541.4	530.4	497.5	442.8	360.6	264.4	161.2	68.8	12.5	1.6	3.9
97.5°	496.8	486.6	452.2	397.4	320.0	226.9	127.5	48.5	6.3	1.6	3.1
100°	455.3	443.6	412.3	357.5	279.3	189.3	98.6	31.3	3.9	1.6	3.1
102.5°	411.5	402.1	370.0	316.8	237.0	154.1	73.5	19.6	1.6	1.6	2.3
105°	372.4	360.6	329.4	274.6	201.8	121.3	51.6	11.7	1.6	1.6	2.3



TEST NUMBER: P551363

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**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	242.5	233.1	205.7	159.6	102.5	47.7	14.1	2.3	2.3	2.3	2.3
115°	202.6	188.5	164.3	123.6	75.9	31.3	7.0	2.3	2.3	2.3	2.3
117.5°	161.9	150.2	133.0	93.9	50.1	20.3	3.9	2.3	2.3	2.3	2.3
120°	126.7	115.8	96.2	64.9	33.6	11.7	1.6	2.3	2.3	2.3	2.3
122.5°	90.7	82.1	64.9	42.2	20.3	5.5	2.3	2.3	3.1	3.1	2.3
125°	60.2	55.5	43.0	25.8	12.5	2.3	2.3	2.3	3.1	3.1	2.3
127.5°	39.1	35.2	25.0	14.9	5.5	2.3	2.3	3.1	3.1	3.1	2.3
130°	21.9	19.6	14.9	8.6	2.3	2.3	2.3	3.1	3.1	3.1	2.3
132.5°	12.5	11.7	7.8	1.6	2.3	2.3	2.3	3.1	3.1	3.1	3.1
135°	3.1	1.6	1.6	1.6	2.3	2.3	3.1	3.1	3.9	3.9	3.1
137.5°	0.8	0.8	1.6	1.6	2.3	2.3	3.1	3.9	3.9	3.9	3.1
140°	0.8	0.8	1.6	2.3	2.3	2.3	3.1	3.9	3.9	3.9	3.1
142.5°	0.8	1.6	1.6	2.3	2.3	3.1	3.1	3.9	3.9	3.1	3.1
145°	0.8	1.6	1.6	2.3	2.3	3.1	3.1	3.9	3.1	3.1	3.1
147.5°	1.6	1.6	1.6	2.3	2.3	3.1	3.1	3.9	3.9	3.1	3.1
150°	0.8	1.6	1.6	2.3	3.1	3.1	3.1	3.9	3.1	3.1	3.1
152.5°	0.8	1.6	1.6	2.3	3.1	3.1	3.1	3.9	3.1	3.1	3.1
155°	1.6	1.6	1.6	2.3	3.1	3.1	3.1	3.9	3.1	3.1	3.9
157.5°	1.6	1.6	1.6	2.3	3.1	3.1	3.1	3.9	3.1	3.1	3.9
160°	1.6	1.6	1.6	2.3	2.3	3.1	3.1	3.1	3.1	3.1	3.1
162.5°	1.6	1.6	1.6	2.3	2.3	3.1	3.1	3.1	3.1	3.1	3.1
165°	1.6	1.6	1.6	1.6	2.3	2.3	3.1	3.1	3.1	3.1	3.1
167.5°	1.6	1.6	1.6	2.3	2.3	2.3	3.1	3.1	3.1	3.1	3.1
170°	1.6	1.6	1.6	2.3	2.3	2.3	3.1	3.9	3.9	3.9	3.9
172.5°	1.6	1.6	1.6	2.3	2.3	3.1	3.1	3.9	3.9	3.9	3.9
175°	1.6	1.6	1.6	2.3	2.3	3.1	3.1	3.9	3.9	3.9	3.9
177.5°	0.8	1.6	1.6	2.3	2.3	3.1	3.1	3.9	3.9	3.9	3.1
180°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3



TEST NUMBER: P551363

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-82-96-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	614.1	614.1	614.1
2.5°	584.4	573.4	570.3
5°	553.1	535.1	524.9
7.5°	521.8	497.5	485.8
10°	492.9	458.4	445.9
12.5°	458.4	418.5	399.0
15°	425.6	373.9	355.2
17.5°	388.8	330.9	309.0
20°	354.4	287.9	265.2
22.5°	315.3	245.6	220.6
25°	280.1	203.4	175.2
27.5°	241.0	160.4	136.1
30°	204.2	122.8	98.6
32.5°	169.0	90.0	68.1
35°	136.1	61.0	43.0
37.5°	104.8	37.6	21.9
40°	75.9	19.6	10.2
42.5°	50.8	9.4	5.5
45°	31.3	4.7	0.0
47.5°	18.0	0.0	0.0
50°	9.4	0.0	0.0
52.5°	3.9	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	2.3
80°	1.6	3.1	3.9
82.5°	3.1	3.9	3.9
85°	3.1	3.9	4.7
87.5°	3.9	4.7	5.5
90°	4.7	5.5	5.5
92.5°	4.7	6.3	6.3
95°	5.5	6.3	7.0
97.5°	6.3	7.0	7.0
100°	5.5	7.0	7.8
102.5°	4.7	7.0	7.0
105°	3.9	5.5	6.3





TEST NUMBER: P551363

CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-82-96-ED1D-90

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.1	3.9	3.9
115°	2.3	3.1	3.9
117.5°	2.3	3.1	3.1
120°	2.3	2.3	3.1
122.5°	2.3	2.3	3.1
125°	2.3	2.3	3.1
127.5°	3.1	2.3	2.3
130°	2.3	2.3	2.3
132.5°	3.1	2.3	2.3
135°	3.1	2.3	2.3
137.5°	3.1	2.3	2.3
140°	3.1	2.3	2.3
142.5°	3.1	2.3	2.3
145°	2.3	2.3	2.3
147.5°	2.3	2.3	2.3
150°	2.3	2.3	1.6
152.5°	2.3	1.6	1.6
155°	2.3	1.6	0.8
157.5°	3.1	1.6	0.8
160°	2.3	1.6	0.8
162.5°	2.3	1.6	0.8
165°	2.3	1.6	0.0
167.5°	2.3	1.6	0.8
170°	2.3	1.6	0.8
172.5°	2.3	1.6	0.8
175°	2.3	0.8	0.8
177.5°	2.3	0.8	0.8
180°	2.3	2.3	2.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	328.6	319.2	287.9	236.3	165.1	92.3	34.4	6.3	1.6	2.3	2.3
110°	286.3	278.5	246.4	196.4	133.0	68.8	22.7	3.9	2.3	2.3	2.3







107.5°	3.1	4.7	5.5
110°	3.1	3.9	4.7



(END OF REPORT)