

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: P551236

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-82-96-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: P551236
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-30-UNV-82-96-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

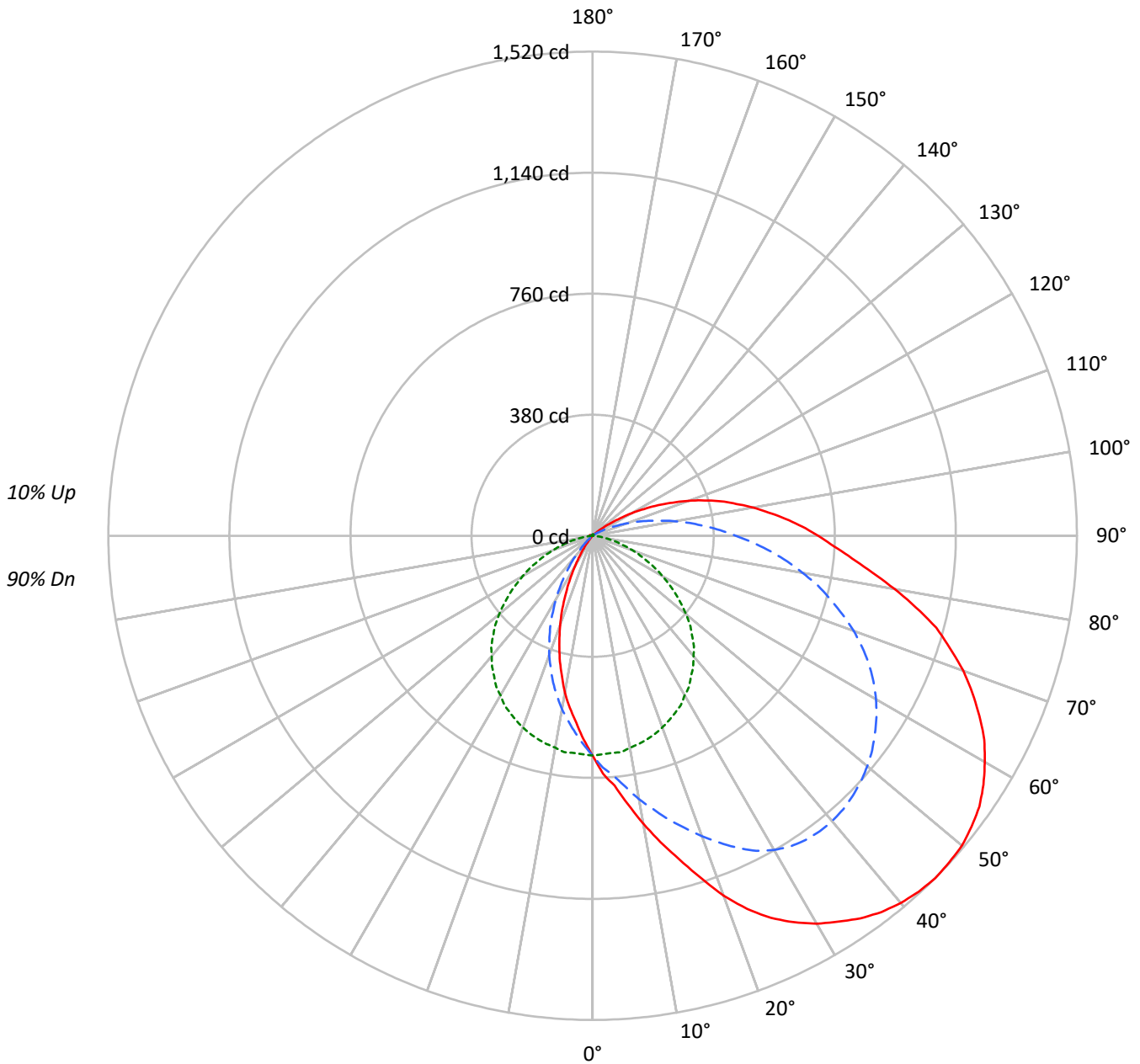
Lumens per Lamp: N/A
Luminaire Lumens: 3409.0 lumens
Efficiency: N/A
Efficacy: 78.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551236

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-82-96-ED1D

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°	7423	7423	7423
5°	8148	7314	6102
10°	9220	7224	5029
15°	10333	7132	3919
20°	11654	7016	2886
25°	12750	6881	1895
30°	13564	6700	1068
35°	14269	6507	470
40°	14894	6267	113
45°	15431	5967	0
50°	15881	5569	0
55°	16224	5064	0
60°	16397	4477	0
65°	16465	3810	0
70°	16410	3106	0
75°	16201	2291	13
80°	15545	1404	71
85°	15024	671	97



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.1	1.9
10°-20°	197.8	5.8
20°-30°	320.3	9.4
30°-40°	411.4	12.1
40°-50°	465.7	13.7
50°-60°	482.5	14.2
60°-70°	455.0	13.3
70°-80°	381.3	11.2
80°-90°	276.4	8.1
90°-100°	181.7	5.3
100°-110°	104.9	3.1
110°-120°	46.3	1.4
120°-130°	12.5	0.4
130°-140°	2.9	0.1
140°-150°	1.9	0.1
150°-160°	1.3	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	584.1	17.1
0°-40°	995.5	29.2
0°-60°	1943.7	57.0
0°-90°	3056.5	89.7
90°-120°	332.9	9.8
90°-150°	350.1	10.3
90°-180°	352.0	10.3
0°-180°	3409.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	690	690	690	690	690	
5°	787	756	684	621	589	79
15°	1052	922	661	478	399	303
25°	1324	1082	613	314	197	612
35°	1466	1166	538	153	48	919
45°	1520	1155	441	35	0	1174
55°	1482	1082	318	0	0	1323
65°	1340	958	190	0	0	1325
75°	1116	773	81	1	1	1171
85°	817	560	13	4	5	698
90°	708	449	4	5	6	388
95°	608	351	2	6	8	477
105°	418	181	2	4	7	441
115°	228	60	3	3	4	228
125°	68	8	4	3	4	68
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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CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-82-96-ED1D

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	689.6	689.6	689.6	689.6	689.6	689.6	689.6	689.6	689.6	689.6	689.6
2.5°	747.5	746.7	744.0	739.6	733.5	722.9	714.2	706.2	695.7	686.9	670.2
5°	787.1	782.7	779.2	774.8	760.7	751.0	735.2	717.7	701.0	684.3	650.9
7.5°	850.3	843.3	838.0	825.7	806.4	784.4	759.8	743.1	731.7	685.2	628.1
10°	917.9	911.8	901.3	879.3	855.6	824.0	788.8	749.3	714.2	675.5	607.9
12.5°	984.7	975.9	961.0	932.9	899.5	860.0	811.7	765.1	715.0	669.4	584.1
15°	1051.5	1041.8	1026.0	991.7	947.8	896.0	837.1	778.3	719.4	661.4	559.6
17.5°	1124.4	1111.2	1087.5	1048.8	993.5	929.4	860.0	788.8	717.7	651.8	533.2
20°	1202.6	1184.1	1158.6	1106.8	1041.8	966.3	882.8	799.4	716.8	640.4	503.3
22.5°	1267.6	1249.1	1221.0	1167.4	1089.2	997.0	902.1	806.4	713.3	627.2	475.2
25°	1323.8	1308.8	1278.1	1216.6	1134.0	1029.5	920.6	811.7	708.0	613.1	445.4
27.5°	1367.7	1353.6	1319.4	1256.1	1171.8	1058.5	934.6	814.3	701.0	599.1	414.6
30°	1406.3	1392.3	1351.0	1286.0	1197.3	1081.3	948.7	815.2	692.2	578.0	381.2
32.5°	1436.2	1423.0	1380.9	1311.5	1214.9	1097.1	956.6	814.3	680.8	563.1	345.2
35°	1466.1	1452.9	1403.7	1329.9	1228.0	1104.2	962.7	809.9	666.7	538.5	311.0
37.5°	1488.9	1474.0	1423.9	1342.2	1234.2	1105.9	961.9	803.8	651.8	518.3	276.7
40°	1504.7	1488.9	1435.3	1349.3	1235.9	1103.3	954.8	793.2	634.2	492.8	240.7
42.5°	1515.3	1497.7	1440.6	1359.8	1232.4	1096.3	944.3	780.0	614.9	470.8	206.4
45°	1520.5	1502.1	1441.5	1351.0	1226.3	1083.1	928.5	763.3	593.8	441.0	172.2
47.5°	1517.9	1497.7	1437.1	1341.3	1214.9	1069.0	910.9	743.1	568.3	414.6	139.7
50°	1513.5	1492.4	1427.4	1329.0	1199.0	1051.5	891.6	718.5	542.0	382.1	110.7
52.5°	1499.5	1478.4	1416.9	1311.5	1180.6	1031.3	865.2	693.1	513.9	350.5	84.3
55°	1481.9	1462.6	1398.4	1295.7	1156.9	1006.7	840.6	665.8	486.6	318.0	60.6
57.5°	1454.7	1437.1	1375.6	1270.2	1133.2	979.4	813.4	636.0	452.4	285.5	42.2
60°	1421.3	1403.7	1344.0	1241.2	1105.9	948.7	783.5	605.2	421.6	253.0	26.4
62.5°	1386.1	1369.5	1307.1	1205.2	1071.7	916.2	751.0	574.5	389.1	223.1	15.8
65°	1339.6	1323.8	1267.6	1162.1	1033.9	881.1	715.0	537.6	355.8	189.7	8.8
67.5°	1290.4	1276.3	1219.2	1122.6	990.0	842.4	678.1	501.6	320.6	160.8	4.4
70°	1237.7	1220.1	1167.4	1069.0	945.2	798.5	637.7	464.7	287.2	132.6	0.0
72.5°	1176.2	1163.0	1112.1	1019.0	893.4	751.9	596.4	424.3	250.3	105.4	0.9
75°	1116.5	1099.8	1053.2	965.4	842.4	702.7	550.8	386.5	214.3	80.8	0.9
77.5°	1039.2	1033.9	990.0	904.8	794.1	655.3	500.7	340.8	180.1	58.0	0.9
80°	961.9	956.6	922.3	844.2	737.9	599.1	454.1	297.8	146.7	38.7	0.9
82.5°	885.4	878.4	845.9	780.9	680.8	551.6	405.8	254.7	116.0	23.7	0.9
85°	816.9	808.1	773.0	713.3	621.9	498.1	355.8	212.6	86.1	13.2	1.8
87.5°	758.1	751.9	713.3	651.8	562.2	448.0	311.8	172.2	60.6	6.1	2.6
90°	708.0	694.8	660.6	595.6	506.0	392.7	265.3	137.9	40.4	3.5	3.5
92.5°	658.8	647.4	609.6	542.9	455.9	345.2	220.5	105.4	25.5	1.8	4.4
95°	607.9	595.6	558.7	497.2	405.0	296.9	181.0	77.3	14.1	1.8	4.4
97.5°	557.8	546.4	507.7	446.2	359.3	254.7	143.2	54.5	7.0	1.8	3.5
100°	511.2	498.1	462.9	401.4	313.6	212.6	110.7	35.1	4.4	1.8	3.5
102.5°	462.0	451.5	415.5	355.8	266.2	173.0	82.6	22.0	1.8	1.8	2.6
105°	418.1	405.0	369.8	308.3	226.6	136.2	58.0	13.2	1.8	1.8	2.6



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CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-82-96-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	272.3	261.8	231.0	179.2	115.1	53.6	15.8	2.6	2.6	2.6	2.6
115°	227.5	211.7	184.5	138.8	85.2	35.1	7.9	2.6	2.6	2.6	2.6
117.5°	181.8	168.7	149.3	105.4	56.2	22.8	4.4	2.6	2.6	2.6	2.6
120°	142.3	130.0	108.0	72.9	37.8	13.2	1.8	2.6	2.6	2.6	2.6
122.5°	101.9	92.2	72.9	47.4	22.8	6.1	2.6	2.6	3.5	3.5	2.6
125°	67.6	62.4	48.3	29.0	14.1	2.6	2.6	2.6	3.5	3.5	2.6
127.5°	43.9	39.5	28.1	16.7	6.1	2.6	2.6	3.5	3.5	3.5	2.6
130°	24.6	22.0	16.7	9.7	2.6	2.6	2.6	3.5	3.5	3.5	2.6
132.5°	14.1	13.2	8.8	1.8	2.6	2.6	2.6	3.5	3.5	3.5	3.5
135°	3.5	1.8	1.8	1.8	2.6	2.6	3.5	3.5	4.4	4.4	3.5
137.5°	0.9	0.9	1.8	1.8	2.6	2.6	3.5	4.4	4.4	4.4	3.5
140°	0.9	0.9	1.8	2.6	2.6	2.6	3.5	4.4	4.4	4.4	3.5
142.5°	0.9	1.8	1.8	2.6	2.6	3.5	3.5	4.4	4.4	3.5	3.5
145°	0.9	1.8	1.8	2.6	2.6	3.5	3.5	4.4	3.5	3.5	3.5
147.5°	1.8	1.8	1.8	2.6	2.6	3.5	3.5	4.4	4.4	3.5	3.5
150°	0.9	1.8	1.8	2.6	3.5	3.5	3.5	4.4	3.5	3.5	3.5
152.5°	0.9	1.8	1.8	2.6	3.5	3.5	3.5	4.4	3.5	3.5	3.5
155°	1.8	1.8	1.8	2.6	3.5	3.5	3.5	4.4	3.5	3.5	4.4
157.5°	1.8	1.8	1.8	2.6	3.5	3.5	3.5	4.4	3.5	3.5	4.4
160°	1.8	1.8	1.8	2.6	2.6	3.5	3.5	3.5	3.5	3.5	3.5
162.5°	1.8	1.8	1.8	2.6	2.6	3.5	3.5	3.5	3.5	3.5	3.5
165°	1.8	1.8	1.8	1.8	2.6	2.6	3.5	3.5	3.5	3.5	3.5
167.5°	1.8	1.8	1.8	2.6	2.6	2.6	3.5	3.5	3.5	3.5	3.5
170°	1.8	1.8	1.8	2.6	2.6	2.6	3.5	4.4	4.4	4.4	4.4
172.5°	1.8	1.8	1.8	2.6	2.6	3.5	3.5	4.4	4.4	4.4	4.4
175°	1.8	1.8	1.8	2.6	2.6	3.5	3.5	4.4	4.4	4.4	4.4
177.5°	0.9	1.8	1.8	2.6	2.6	3.5	3.5	4.4	4.4	4.4	3.5
180°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	689.6	689.6	689.6
2.5°	656.2	643.9	640.4
5°	621.0	600.8	589.4
7.5°	585.9	558.7	545.5
10°	553.4	514.8	500.7
12.5°	514.8	470.0	448.0
15°	477.9	419.9	398.8
17.5°	436.6	371.6	347.0
20°	397.9	323.3	297.8
22.5°	354.0	275.8	247.7
25°	314.5	228.4	196.8
27.5°	270.6	180.1	152.8
30°	229.3	137.9	110.7
32.5°	189.7	101.0	76.4
35°	152.8	68.5	48.3
37.5°	117.7	42.2	24.6
40°	85.2	22.0	11.4
42.5°	57.1	10.5	6.1
45°	35.1	5.3	0.0
47.5°	20.2	0.0	0.0
50°	10.5	0.0	0.0
52.5°	4.4	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	2.6
80°	1.8	3.5	4.4
82.5°	3.5	4.4	4.4
85°	3.5	4.4	5.3
87.5°	4.4	5.3	6.1
90°	5.3	6.1	6.1
92.5°	5.3	7.0	7.0
95°	6.1	7.0	7.9
97.5°	7.0	7.9	7.9
100°	6.1	7.9	8.8
102.5°	5.3	7.9	7.9
105°	4.4	6.1	7.0



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CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-82-96-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.5	4.4	4.4
115°	2.6	3.5	4.4
117.5°	2.6	3.5	3.5
120°	2.6	2.6	3.5
122.5°	2.6	2.6	3.5
125°	2.6	2.6	3.5
127.5°	3.5	2.6	2.6
130°	2.6	2.6	2.6
132.5°	3.5	2.6	2.6
135°	3.5	2.6	2.6
137.5°	3.5	2.6	2.6
140°	3.5	2.6	2.6
142.5°	3.5	2.6	2.6
145°	2.6	2.6	2.6
147.5°	2.6	2.6	2.6
150°	2.6	2.6	1.8
152.5°	2.6	1.8	1.8
155°	2.6	1.8	0.9
157.5°	3.5	1.8	0.9
160°	2.6	1.8	0.9
162.5°	2.6	1.8	0.9
165°	2.6	1.8	0.0
167.5°	2.6	1.8	0.9
170°	2.6	1.8	0.9
172.5°	2.6	1.8	0.9
175°	2.6	0.9	0.9
177.5°	2.6	0.9	0.9
180°	2.6	2.6	2.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	368.9	358.4	323.3	265.3	185.3	103.7	38.7	7.0	1.8	2.6	2.6
110°	321.5	312.7	276.7	220.5	149.3	77.3	25.5	4.4	2.6	2.6	2.6





107.5°	3.5	5.3	6.1
110°	3.5	4.4	5.3



(END OF REPORT)