

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: P551214

Luminaire Tested: **FCC-X-2-LD4-2HI-30-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: P551214
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-81-87-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

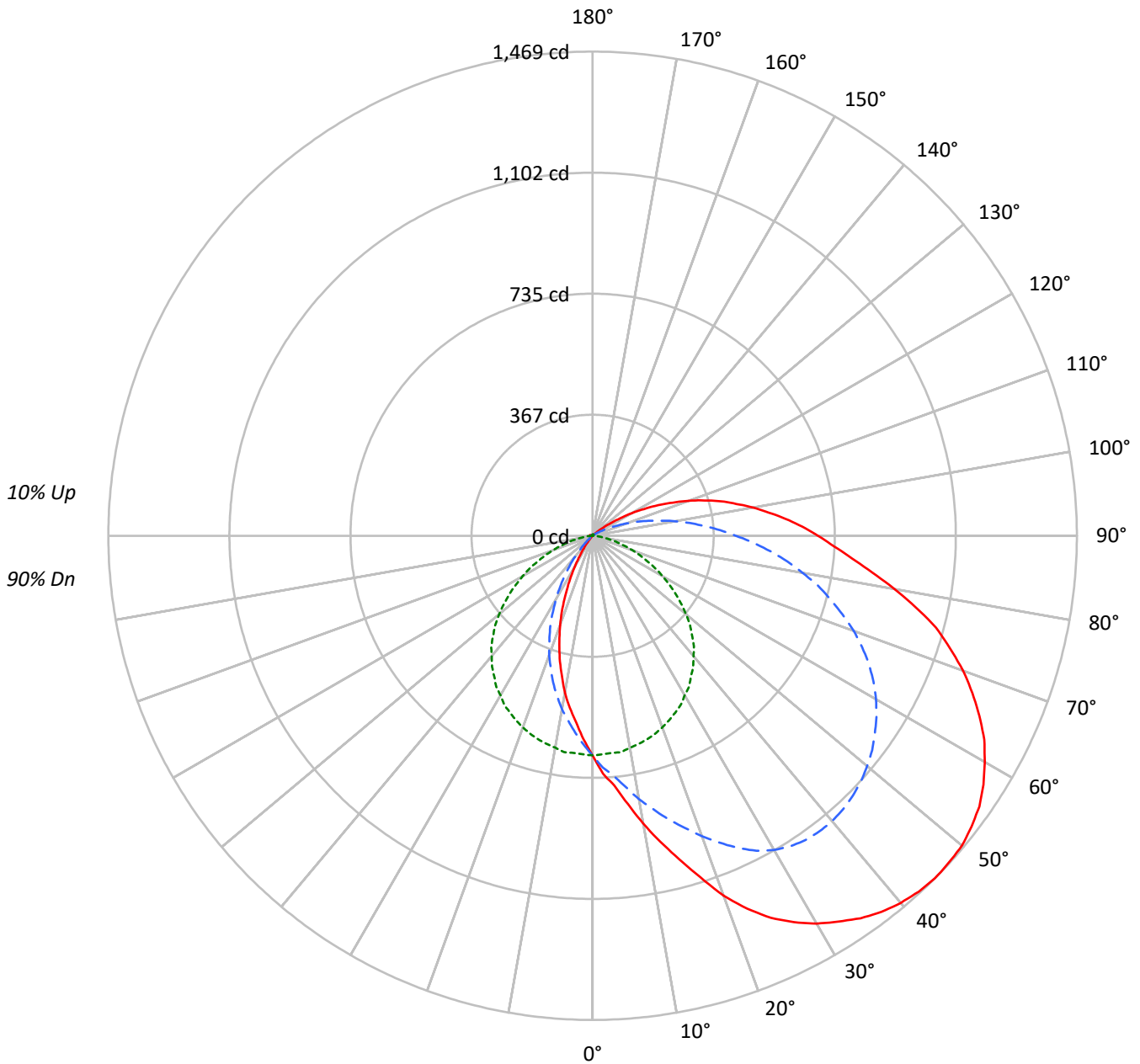
Lumens per Lamp: N/A
Luminaire Lumens: 3293.9 lumens
Efficiency: N/A
Efficacy: 76.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 43.3
Input Voltage (V): NR
Input Current (A_{in}): 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: P551214

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-81-87-ED1D

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	76	73	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	7172	7172	7172
5°	7873	7067	5896
10°	8909	6980	4859
15°	9984	6891	3786
20°	11261	6780	2788
25°	12319	6649	1831
30°	13106	6474	1031
35°	13788	6287	455
40°	14392	6056	109
45°	14910	5766	0
50°	15346	5381	0
55°	15677	4893	0
60°	15843	4327	0
65°	15909	3682	0
70°	15856	3003	0
75°	15654	2215	12
80°	15020	1353	68
85°	14519	646	94



TEST NUMBER: P551214

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.8	1.9
10°-20°	191.1	5.8
20°-30°	309.5	9.4
30°-40°	397.5	12.1
40°-50°	450.0	13.7
50°-60°	466.2	14.2
60°-70°	439.7	13.3
70°-80°	368.5	11.2
80°-90°	267.1	8.1
90°-100°	175.5	5.3
100°-110°	101.4	3.1
110°-120°	44.7	1.4
120°-130°	12.1	0.4
130°-140°	2.8	0.1
140°-150°	1.8	0.1
150°-160°	1.3	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	564.4	17.1
0°-40°	961.9	29.2
0°-60°	1878.1	57.0
0°-90°	2953.3	89.7
90°-120°	321.6	9.8
90°-150°	338.3	10.3
90°-180°	341.0	10.4
0°-180°	3293.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	666	666	666	666	666	
5°	760	730	661	600	570	77
15°	1016	891	639	462	385	293
25°	1279	1045	592	304	190	591
35°	1417	1127	520	148	47	888
45°	1469	1116	426	34	0	1134
55°	1432	1045	307	0	0	1279
65°	1294	925	183	0	0	1281
75°	1079	746	78	1	1	1131
85°	789	541	13	3	5	674
90°	684	434	3	5	6	375
95°	587	339	2	6	8	461
105°	404	175	2	4	7	426
115°	220	58	2	2	4	220
125°	65	8	3	2	3	65
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°	666.3	666.3	666.3	666.3	666.3	666.3	666.3	666.3	666.3	666.3	666.3
2.5°	722.3	721.5	718.9	714.7	708.7	698.6	690.1	682.4	672.2	663.8	647.6
5°	760.5	756.3	752.9	748.6	735.0	725.7	710.4	693.5	677.3	661.2	629.0
7.5°	821.6	814.8	809.7	797.9	779.2	758.0	734.2	718.1	707.0	662.1	606.9
10°	887.0	881.0	870.9	849.6	826.7	796.2	762.2	724.0	690.1	652.7	587.4
12.5°	951.5	943.0	928.6	901.4	869.2	831.0	784.3	739.3	690.9	646.8	564.4
15°	1016.0	1006.7	991.4	958.3	915.8	865.8	808.9	752.0	695.2	639.1	540.7
17.5°	1086.4	1073.7	1050.8	1013.5	960.0	898.0	831.0	762.2	693.5	629.8	515.2
20°	1162.0	1144.2	1119.5	1069.5	1006.7	933.7	853.0	772.4	692.6	618.8	486.4
22.5°	1224.8	1207.0	1179.8	1128.0	1052.5	963.4	871.7	779.2	689.2	606.0	459.2
25°	1279.1	1264.7	1235.0	1175.6	1095.8	994.8	889.5	784.3	684.1	592.5	430.3
27.5°	1321.6	1308.0	1274.9	1213.8	1132.3	1022.8	903.1	786.8	677.3	578.9	400.6
30°	1358.9	1345.3	1305.4	1242.6	1156.9	1044.9	916.7	787.7	668.8	558.5	368.4
32.5°	1387.8	1375.0	1334.3	1267.2	1173.9	1060.1	924.3	786.8	657.8	544.1	333.6
35°	1416.6	1403.9	1356.4	1285.1	1186.6	1066.9	930.3	782.6	644.2	520.3	300.5
37.5°	1438.7	1424.3	1375.9	1296.9	1192.5	1068.6	929.4	776.6	629.8	500.8	267.4
40°	1454.0	1438.7	1386.9	1303.7	1194.2	1066.1	922.6	766.5	612.8	476.2	232.6
42.5°	1464.2	1447.2	1392.0	1313.9	1190.8	1059.3	912.4	753.7	594.2	454.9	199.5
45°	1469.2	1451.4	1392.9	1305.4	1184.9	1046.6	897.2	737.6	573.8	426.1	166.4
47.5°	1466.7	1447.2	1388.6	1296.1	1173.9	1033.0	880.2	718.1	549.2	400.6	135.0
50°	1462.5	1442.1	1379.3	1284.2	1158.6	1016.0	861.5	694.3	523.7	369.2	106.9
52.5°	1448.9	1428.5	1369.1	1267.2	1140.8	996.5	836.1	669.7	496.5	338.7	81.5
55°	1431.9	1413.2	1351.3	1252.0	1117.9	972.7	812.3	643.4	470.2	307.3	58.6
57.5°	1405.6	1388.6	1329.2	1227.3	1094.9	946.4	786.0	614.5	437.1	275.9	40.7
60°	1373.3	1356.4	1298.6	1199.3	1068.6	916.7	757.1	584.8	407.4	244.5	25.5
62.5°	1339.4	1323.3	1263.0	1164.5	1035.5	885.3	725.7	555.1	376.0	215.6	15.3
65°	1294.4	1279.1	1224.8	1122.9	999.0	851.3	690.9	519.5	343.8	183.3	8.5
67.5°	1246.9	1233.3	1178.1	1084.7	956.6	814.0	655.3	484.7	309.8	155.3	4.2
70°	1195.9	1179.0	1128.0	1033.0	913.3	771.5	616.2	449.0	277.6	128.2	0.0
72.5°	1136.5	1123.8	1074.6	984.6	863.2	726.6	576.3	410.0	241.9	101.9	0.8
75°	1078.8	1062.7	1017.7	932.8	814.0	679.0	532.2	373.5	207.1	78.1	0.8
77.5°	1004.1	999.0	956.6	874.2	767.3	633.2	483.8	329.3	174.0	56.0	0.8
80°	929.4	924.3	891.2	815.7	713.0	578.9	438.8	287.7	141.7	37.3	0.8
82.5°	855.6	848.8	817.4	754.6	657.8	533.0	392.1	246.1	112.0	22.9	0.8
85°	789.4	780.9	746.9	689.2	600.9	481.3	343.8	205.4	83.2	12.7	1.7
87.5°	732.5	726.6	689.2	629.8	543.2	432.9	301.3	166.4	58.6	5.9	2.5
90°	684.1	671.4	638.3	575.5	488.9	379.4	256.3	133.3	39.0	3.4	3.4
92.5°	636.6	625.6	589.1	524.5	440.5	333.6	213.0	101.9	24.6	1.7	4.2
95°	587.4	575.5	539.8	480.4	391.3	286.9	174.8	74.7	13.6	1.7	4.2
97.5°	539.0	527.9	490.6	431.2	347.2	246.1	138.4	52.6	6.8	1.7	3.4
100°	494.0	481.3	447.3	387.9	303.0	205.4	106.9	34.0	4.2	1.7	3.4
102.5°	446.5	436.3	401.5	343.8	257.2	167.2	79.8	21.2	1.7	1.7	2.5
105°	404.0	391.3	357.3	297.9	219.0	131.6	56.0	12.7	1.7	1.7	2.5



TEST NUMBER: P551214

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-81-87-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	263.1	252.9	223.2	173.2	111.2	51.8	15.3	2.5	2.5	2.5	2.5
115°	219.8	204.6	178.2	134.1	82.3	34.0	7.6	2.5	2.5	2.5	2.5
117.5°	175.7	163.0	144.3	101.9	54.3	22.1	4.2	2.5	2.5	2.5	2.5
120°	137.5	125.6	104.4	70.4	36.5	12.7	1.7	2.5	2.5	2.5	2.5
122.5°	98.5	89.1	70.4	45.8	22.1	5.9	2.5	2.5	3.4	3.4	2.5
125°	65.4	60.3	46.7	28.0	13.6	2.5	2.5	2.5	3.4	3.4	2.5
127.5°	42.4	38.2	27.2	16.1	5.9	2.5	2.5	3.4	3.4	3.4	2.5
130°	23.8	21.2	16.1	9.3	2.5	2.5	2.5	3.4	3.4	3.4	2.5
132.5°	13.6	12.7	8.5	1.7	2.5	2.5	2.5	3.4	3.4	3.4	3.4
135°	3.4	1.7	1.7	1.7	2.5	2.5	3.4	3.4	4.2	4.2	3.4
137.5°	0.8	0.8	1.7	1.7	2.5	2.5	3.4	4.2	4.2	4.2	3.4
140°	0.8	0.8	1.7	2.5	2.5	2.5	3.4	4.2	4.2	4.2	3.4
142.5°	0.8	1.7	1.7	2.5	2.5	3.4	3.4	4.2	4.2	3.4	3.4
145°	0.8	1.7	1.7	2.5	2.5	3.4	3.4	4.2	3.4	3.4	3.4
147.5°	1.7	1.7	1.7	2.5	2.5	3.4	3.4	4.2	4.2	3.4	3.4
150°	0.8	1.7	1.7	2.5	3.4	3.4	3.4	4.2	3.4	3.4	3.4
152.5°	0.8	1.7	1.7	2.5	3.4	3.4	3.4	4.2	3.4	3.4	3.4
155°	1.7	1.7	1.7	2.5	3.4	3.4	3.4	4.2	3.4	3.4	4.2
157.5°	1.7	1.7	1.7	2.5	3.4	3.4	3.4	4.2	3.4	3.4	4.2
160°	1.7	1.7	1.7	2.5	2.5	3.4	3.4	3.4	3.4	3.4	3.4
162.5°	1.7	1.7	1.7	2.5	2.5	3.4	3.4	3.4	3.4	3.4	3.4
165°	1.7	1.7	1.7	1.7	2.5	2.5	3.4	3.4	3.4	3.4	3.4
167.5°	1.7	1.7	1.7	2.5	2.5	2.5	3.4	3.4	3.4	3.4	3.4
170°	1.7	1.7	1.7	2.5	2.5	2.5	3.4	4.2	4.2	4.2	4.2
172.5°	1.7	1.7	1.7	2.5	2.5	3.4	3.4	4.2	4.2	4.2	4.2
175°	1.7	1.7	1.7	2.5	2.5	3.4	3.4	4.2	4.2	4.2	4.2
177.5°	0.8	1.7	1.7	2.5	2.5	3.4	3.4	4.2	4.2	4.2	3.4
180°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5



TEST NUMBER: P551214

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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	666.3	666.3	666.3
2.5°	634.0	622.2	618.8
5°	600.1	580.6	569.5
7.5°	566.1	539.8	527.1
10°	534.7	497.4	483.8
12.5°	497.4	454.1	432.9
15°	461.7	405.7	385.3
17.5°	421.8	359.0	335.3
20°	384.5	312.4	287.7
22.5°	342.1	266.5	239.4
25°	303.9	220.7	190.1
27.5°	261.4	174.0	147.7
30°	221.5	133.3	106.9
32.5°	183.3	97.6	73.8
35°	147.7	66.2	46.7
37.5°	113.7	40.7	23.8
40°	82.3	21.2	11.0
42.5°	55.2	10.2	5.9
45°	34.0	5.1	0.0
47.5°	19.5	0.0	0.0
50°	10.2	0.0	0.0
52.5°	4.2	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	1.7	2.5
80°	1.7	3.4	4.2
82.5°	3.4	4.2	4.2
85°	3.4	4.2	5.1
87.5°	4.2	5.1	5.9
90°	5.1	5.9	5.9
92.5°	5.1	6.8	6.8
95°	5.9	6.8	7.6
97.5°	6.8	7.6	7.6
100°	5.9	7.6	8.5
102.5°	5.1	7.6	7.6
105°	4.2	5.9	6.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.4	4.2	4.2
115°	2.5	3.4	4.2
117.5°	2.5	3.4	3.4
120°	2.5	2.5	3.4
122.5°	2.5	2.5	3.4
125°	2.5	2.5	3.4
127.5°	3.4	2.5	2.5
130°	2.5	2.5	2.5
132.5°	3.4	2.5	2.5
135°	3.4	2.5	2.5
137.5°	3.4	2.5	2.5
140°	3.4	2.5	2.5
142.5°	3.4	2.5	2.5
145°	2.5	2.5	2.5
147.5°	2.5	2.5	2.5
150°	2.5	2.5	1.7
152.5°	2.5	1.7	1.7
155°	2.5	1.7	0.8
157.5°	3.4	1.7	0.8
160°	2.5	1.7	0.8
162.5°	2.5	1.7	0.8
165°	2.5	1.7	0.0
167.5°	2.5	1.7	0.8
170°	2.5	1.7	0.8
172.5°	2.5	1.7	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°	356.5	346.3	312.4	256.3	179.1	100.2	37.3	6.8	1.7	2.5	2.5
110°	310.7	302.2	267.4	213.0	144.3	74.7	24.6	4.2	2.5	2.5	2.5





107.5°	3.4	5.1	5.9
110°	3.4	4.2	5.1



(END OF REPORT)