

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: P551208

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-81-84-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: P551208  
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-81-84-ED1D  
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

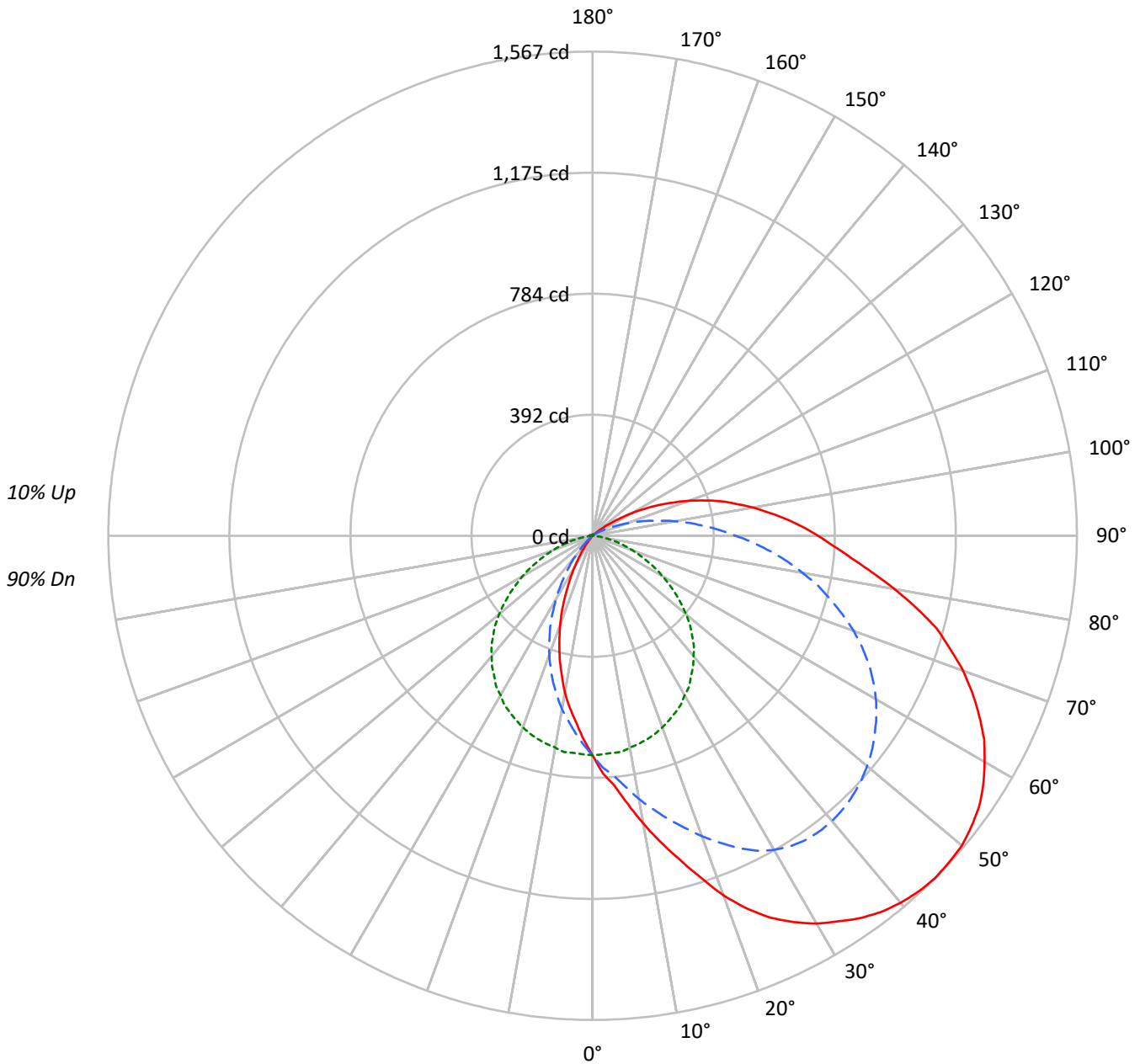
Lumens per Lamp: N/A  
Luminaire Lumens: 3512.9 lumens  
Efficiency: N/A  
Efficacy: 81.1 lumens/watt  
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')  
CIE Type: Semi-Direct

Input Watts (W): 43.3  
Input Voltage (V): NR  
Input Current (A<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: P551208

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-81-84-ED1D

### Luminous Intensity Polar Plot





TEST NUMBER: P551208

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-81-84-ED1D

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

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	7649	7649	7649
5°	8397	7537	6288
10°	9502	7444	5183
15°	10648	7349	4039
20°	12009	7230	2974
25°	13139	7090	1953
30°	13978	6904	1100
35°	14704	6705	485
40°	15348	6458	117
45°	15901	6149	0
50°	16366	5739	0
55°	16719	5218	0
60°	16897	4613	0
65°	16967	3927	0
70°	16911	3202	0
75°	16695	2362	13
80°	16019	1444	73
85°	15484	692	99



TEST NUMBER: P551208

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-81-84-ED1D

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.1	1.9
10°-20°	203.8	5.8
20°-30°	330.0	9.4
30°-40°	424.0	12.1
40°-50°	479.9	13.7
50°-60°	497.2	14.2
60°-70°	468.9	13.3
70°-80°	393.0	11.2
80°-90°	284.8	8.1
90°-100°	187.2	5.3
100°-110°	108.1	3.1
110°-120°	47.7	1.4
120°-130°	12.9	0.4
130°-140°	2.9	0.1
140°-150°	1.9	0.1
150°-160°	1.4	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	601.9	17.1
0°-40°	1025.9	29.2
0°-60°	2003.0	57.0
0°-90°	3149.7	89.7
90°-120°	343.0	9.8
90°-150°	360.8	10.3
90°-180°	363.0	10.3
0°-180°	3512.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	711	711	711	711	711	
5°	811	779	705	640	607	82
15°	1084	950	682	492	411	312
25°	1364	1115	632	324	203	630
35°	1511	1202	555	158	50	948
45°	1567	1190	454	36	0	1210
55°	1527	1115	328	0	0	1364
65°	1380	987	196	0	0	1366
75°	1150	796	83	1	1	1207
85°	842	577	14	4	5	719
90°	730	463	4	5	6	400
95°	626	362	2	6	8	491
105°	431	187	2	4	7	455
115°	234	62	3	3	4	235
125°	70	9	4	3	4	70
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	



TEST NUMBER: P551208

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-81-84-ED1D

**CANDELA DISTRIBUTION (FULL):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	710.6	710.6	710.6	710.6	710.6	710.6	710.6	710.6	710.6	710.6	710.6
2.5°	770.3	769.4	766.7	762.2	755.9	745.0	735.9	727.8	716.9	707.9	690.7
5°	811.1	806.5	802.9	798.4	783.9	774.0	757.7	739.6	722.4	705.2	670.8
7.5°	876.3	869.0	863.6	850.9	831.0	808.4	783.0	765.8	754.0	706.1	647.2
10°	946.0	939.6	928.8	906.1	881.7	849.1	812.9	772.2	735.9	696.1	626.4
12.5°	1014.7	1005.7	990.3	961.3	926.9	886.2	836.4	788.4	736.8	689.8	602.0
15°	1083.5	1073.6	1057.3	1022.0	976.7	923.3	862.7	802.0	741.4	681.6	576.6
17.5°	1158.7	1145.1	1120.7	1080.8	1023.8	957.7	886.2	812.9	739.6	671.7	549.5
20°	1239.2	1220.2	1194.0	1140.6	1073.6	995.7	909.7	823.7	738.7	659.9	518.7
22.5°	1306.2	1287.2	1258.3	1203.0	1122.5	1027.4	929.7	831.0	735.0	646.3	489.7
25°	1364.2	1348.8	1317.1	1253.7	1168.6	1060.9	948.7	836.4	729.6	631.8	458.9
27.5°	1409.4	1394.9	1359.6	1294.5	1207.6	1090.8	963.2	839.1	722.4	617.4	427.3
30°	1449.3	1434.8	1392.2	1325.2	1233.8	1114.3	977.6	840.0	713.3	595.6	392.9
32.5°	1480.0	1466.5	1423.0	1351.5	1251.9	1130.6	985.8	839.1	701.5	580.2	355.8
35°	1510.8	1497.2	1446.5	1370.5	1265.5	1137.9	992.1	834.6	687.1	554.9	320.4
37.5°	1534.3	1519.0	1467.4	1383.2	1271.8	1139.7	991.2	828.3	671.7	534.1	285.1
40°	1550.6	1534.3	1479.1	1390.4	1273.6	1137.0	984.0	817.4	653.6	507.8	248.0
42.5°	1561.5	1543.4	1484.6	1401.3	1270.0	1129.7	973.1	803.8	633.7	485.2	212.7
45°	1566.9	1547.9	1485.5	1392.2	1263.7	1116.1	956.8	786.6	611.9	454.4	177.4
47.5°	1564.2	1543.4	1480.9	1382.3	1251.9	1101.6	938.7	765.8	585.7	427.3	143.9
50°	1559.7	1538.0	1471.0	1369.6	1235.6	1083.5	918.8	740.5	558.5	393.8	114.1
52.5°	1545.2	1523.5	1460.1	1351.5	1216.6	1062.7	891.6	714.2	529.6	361.2	86.9
55°	1527.1	1507.2	1441.1	1335.2	1192.2	1037.4	866.3	686.2	501.5	327.7	62.5
57.5°	1499.0	1480.9	1417.6	1308.9	1167.7	1009.3	838.2	655.4	466.2	294.2	43.5
60°	1464.6	1446.5	1385.0	1279.1	1139.7	977.6	807.5	623.7	434.5	260.7	27.2
62.5°	1428.4	1411.2	1347.0	1242.0	1104.4	944.1	774.0	592.0	401.0	229.9	16.3
65°	1380.5	1364.2	1306.2	1197.6	1065.4	907.9	736.8	554.0	366.6	195.5	9.1
67.5°	1329.8	1315.3	1256.4	1156.9	1020.2	868.1	698.8	516.9	330.4	165.7	4.5
70°	1275.5	1257.3	1203.0	1101.6	974.0	822.8	657.2	478.9	296.0	136.7	0.0
72.5°	1212.1	1198.5	1146.0	1050.1	920.6	774.9	614.6	437.2	258.0	108.6	0.9
75°	1150.5	1133.3	1085.4	994.8	868.1	724.2	567.6	398.3	220.9	83.3	0.9
77.5°	1070.9	1065.4	1020.2	932.4	818.3	675.3	516.0	351.2	185.6	59.7	0.9
80°	991.2	985.8	950.5	869.9	760.4	617.4	468.0	306.9	151.2	39.8	0.9
82.5°	912.5	905.2	871.7	804.7	701.5	568.5	418.2	262.5	119.5	24.4	0.9
85°	841.9	832.8	796.6	735.0	640.9	513.3	366.6	219.1	88.7	13.6	1.8
87.5°	781.2	774.9	735.0	671.7	579.3	461.7	321.4	177.4	62.5	6.3	2.7
90°	729.6	716.0	680.7	613.7	521.4	404.6	273.4	142.1	41.6	3.6	3.6
92.5°	678.9	667.1	628.2	559.4	469.8	355.8	227.2	108.6	26.3	1.8	4.5
95°	626.4	613.7	575.7	512.4	417.3	306.0	186.5	79.7	14.5	1.8	4.5
97.5°	574.8	563.0	523.2	459.9	370.2	262.5	147.6	56.1	7.2	1.8	3.6
100°	526.8	513.3	477.0	413.7	323.2	219.1	114.1	36.2	4.5	1.8	3.6
102.5°	476.1	465.3	428.2	366.6	274.3	178.3	85.1	22.6	1.8	1.8	2.7
105°	430.9	417.3	381.1	317.7	233.5	140.3	59.7	13.6	1.8	1.8	2.7



TEST NUMBER: P551208

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-81-84-ED1D

**CANDELA DISTRIBUTION (continued):**

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	280.6	269.8	238.1	184.7	118.6	55.2	16.3	2.7	2.7	2.7	2.7
115°	234.5	218.2	190.1	143.0	87.8	36.2	8.1	2.7	2.7	2.7	2.7
117.5°	187.4	173.8	153.9	108.6	57.9	23.5	4.5	2.7	2.7	2.7	2.7
120°	146.6	134.0	111.3	75.1	38.9	13.6	1.8	2.7	2.7	2.7	2.7
122.5°	105.0	95.0	75.1	48.9	23.5	6.3	2.7	2.7	3.6	3.6	2.7
125°	69.7	64.3	49.8	29.9	14.5	2.7	2.7	2.7	3.6	3.6	2.7
127.5°	45.3	40.7	29.0	17.2	6.3	2.7	2.7	3.6	3.6	3.6	2.7
130°	25.3	22.6	17.2	10.0	2.7	2.7	2.7	3.6	3.6	3.6	2.7
132.5°	14.5	13.6	9.1	1.8	2.7	2.7	2.7	3.6	3.6	3.6	3.6
135°	3.6	1.8	1.8	1.8	2.7	2.7	3.6	3.6	4.5	4.5	3.6
137.5°	0.9	0.9	1.8	1.8	2.7	2.7	3.6	4.5	4.5	4.5	3.6
140°	0.9	0.9	1.8	2.7	2.7	2.7	3.6	4.5	4.5	4.5	3.6
142.5°	0.9	1.8	1.8	2.7	2.7	3.6	3.6	4.5	4.5	3.6	3.6
145°	0.9	1.8	1.8	2.7	2.7	3.6	3.6	4.5	3.6	3.6	3.6
147.5°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	4.5	4.5	3.6	3.6
150°	0.9	1.8	1.8	2.7	3.6	3.6	3.6	4.5	3.6	3.6	3.6
152.5°	0.9	1.8	1.8	2.7	3.6	3.6	3.6	4.5	3.6	3.6	3.6
155°	1.8	1.8	1.8	2.7	3.6	3.6	3.6	4.5	3.6	3.6	4.5
157.5°	1.8	1.8	1.8	2.7	3.6	3.6	3.6	4.5	3.6	3.6	4.5
160°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	3.6	3.6	3.6	3.6
162.5°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	3.6	3.6	3.6	3.6
165°	1.8	1.8	1.8	1.8	2.7	2.7	3.6	3.6	3.6	3.6	3.6
167.5°	1.8	1.8	1.8	2.7	2.7	2.7	3.6	3.6	3.6	3.6	3.6
170°	1.8	1.8	1.8	2.7	2.7	2.7	3.6	4.5	4.5	4.5	4.5
172.5°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	4.5	4.5	4.5	4.5
175°	1.8	1.8	1.8	2.7	2.7	3.6	3.6	4.5	4.5	4.5	4.5
177.5°	0.9	1.8	1.8	2.7	2.7	3.6	3.6	4.5	4.5	4.5	3.6
180°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7



TEST NUMBER: P551208

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-81-84-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
0°	710.6	710.6	710.6
2.5°	676.2	663.5	659.9
5°	640.0	619.2	607.4
7.5°	603.8	575.7	562.1
10°	570.3	530.5	516.0
12.5°	530.5	484.3	461.7
15°	492.4	432.7	411.0
17.5°	449.9	382.9	357.6
20°	410.1	333.1	306.9
22.5°	364.8	284.2	255.3
25°	324.1	235.4	202.8
27.5°	278.8	185.6	157.5
30°	236.3	142.1	114.1
32.5°	195.5	104.1	78.8
35°	157.5	70.6	49.8
37.5°	121.3	43.5	25.3
40°	87.8	22.6	11.8
42.5°	58.8	10.9	6.3
45°	36.2	5.4	0.0
47.5°	20.8	0.0	0.0
50°	10.9	0.0	0.0
52.5°	4.5	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	2.7
80°	1.8	3.6	4.5
82.5°	3.6	4.5	4.5
85°	3.6	4.5	5.4
87.5°	4.5	5.4	6.3
90°	5.4	6.3	6.3
92.5°	5.4	7.2	7.2
95°	6.3	7.2	8.1
97.5°	7.2	8.1	8.1
100°	6.3	8.1	9.1
102.5°	5.4	8.1	8.1
105°	4.5	6.3	7.2





TEST NUMBER: P551208

CATALOG NUMBER: FCC-X-2-LD4-2HI-30-UNV-81-84-ED1D

**CANDELA DISTRIBUTION (continued):**

	135°	157.5°	180°
112.5°	3.6	4.5	4.5
115°	2.7	3.6	4.5
117.5°	2.7	3.6	3.6
120°	2.7	2.7	3.6
122.5°	2.7	2.7	3.6
125°	2.7	2.7	3.6
127.5°	3.6	2.7	2.7
130°	2.7	2.7	2.7
132.5°	3.6	2.7	2.7
135°	3.6	2.7	2.7
137.5°	3.6	2.7	2.7
140°	3.6	2.7	2.7
142.5°	3.6	2.7	2.7
145°	2.7	2.7	2.7
147.5°	2.7	2.7	2.7
150°	2.7	2.7	1.8
152.5°	2.7	1.8	1.8
155°	2.7	1.8	0.9
157.5°	3.6	1.8	0.9
160°	2.7	1.8	0.9
162.5°	2.7	1.8	0.9
165°	2.7	1.8	0.0
167.5°	2.7	1.8	0.9
170°	2.7	1.8	0.9
172.5°	2.7	1.8	0.9
175°	2.7	0.9	0.9
177.5°	2.7	0.9	0.9
180°	2.7	2.7	2.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	380.2	369.3	333.1	273.4	191.0	106.8	39.8	7.2	1.8	2.7	2.7
110°	331.3	322.3	285.1	227.2	153.9	79.7	26.3	4.5	2.7	2.7	2.7







107.5°	3.6	5.4	6.3
110°	3.6	4.5	5.4



(END OF REPORT)