

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: P551442

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-93-94-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: P551442
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-50-UNV-93-94-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K,
AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

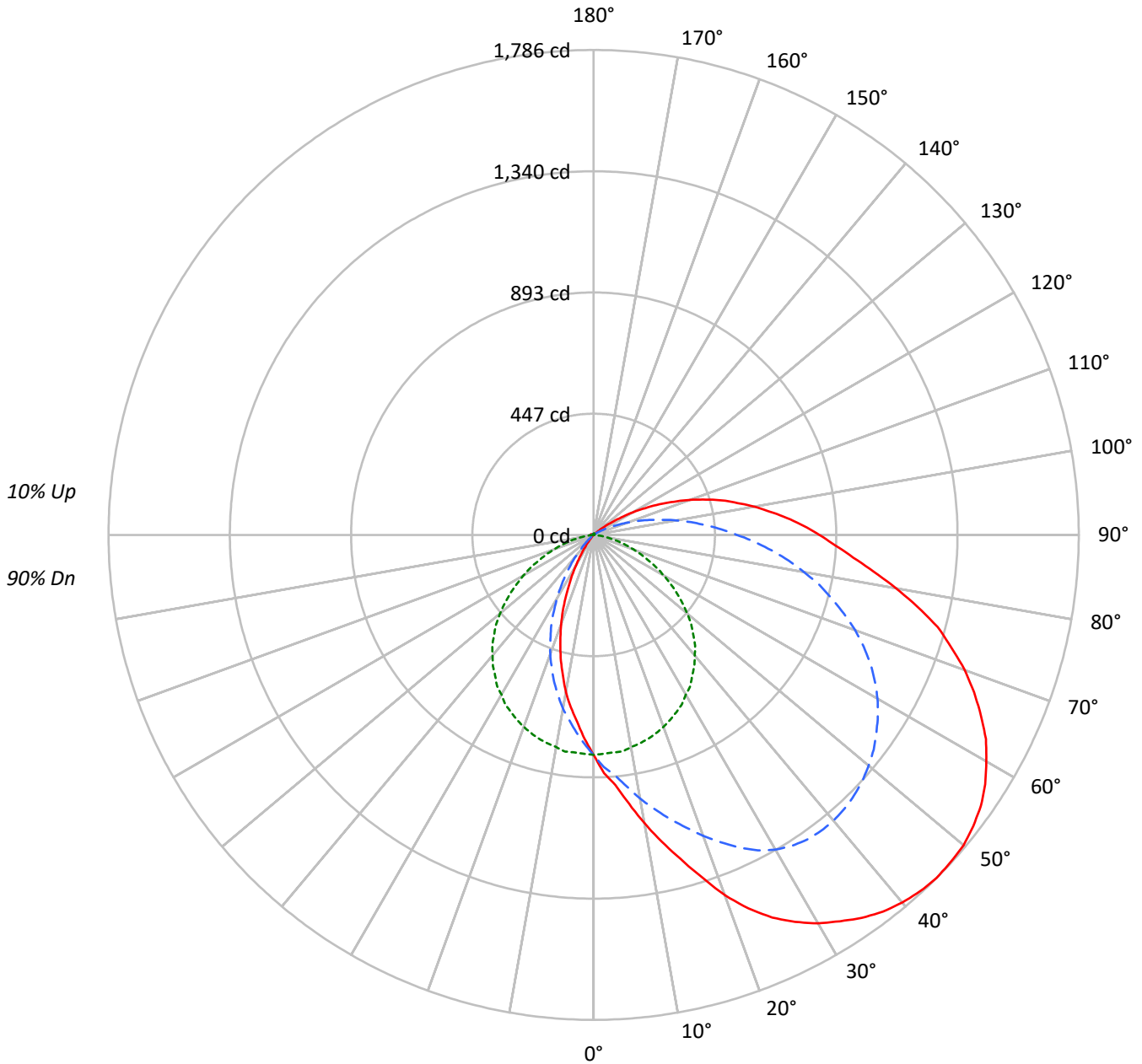
Lumens per Lamp: N/A
Luminaire Lumens: 4004.0 lumens
Efficiency: N/A
Efficacy: 92.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

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CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-93-94-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°	8718	8718	8718
5°	9570	8590	7167
10°	10830	8485	5907
15°	12136	8377	4603
20°	13688	8240	3390
25°	14974	8082	2226
30°	15931	7870	1254
35°	16760	7642	552
40°	17494	7361	133
45°	18124	7008	0
50°	18654	6541	0
55°	19056	5947	0
60°	19258	5258	0
65°	19338	4477	0
70°	19273	3650	0
75°	19028	2691	15
80°	18258	1647	84
85°	17647	788	114



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.6	1.9
10°-20°	232.3	5.8
20°-30°	376.2	9.4
30°-40°	483.2	12.1
40°-50°	547.0	13.7
50°-60°	566.7	14.2
60°-70°	534.5	13.3
70°-80°	447.9	11.2
80°-90°	324.7	8.1
90°-100°	213.4	5.3
100°-110°	123.2	3.1
110°-120°	54.4	1.4
120°-130°	14.7	0.4
130°-140°	3.4	0.1
140°-150°	2.2	0.1
150°-160°	1.6	0.0
160°-170°	0.9	0.0
170°-180°	0.3	0.0
0°-30°	686.0	17.1
0°-40°	1169.3	29.2
0°-60°	2283.0	57.0
0°-90°	3590.0	89.7
90°-120°	391.0	9.8
90°-150°	411.3	10.3
90°-180°	414.0	10.3
0°-180°	4004.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	810	810	810	810	810	
5°	924	888	804	729	692	93
15°	1235	1083	777	561	468	356
25°	1555	1271	720	369	231	719
35°	1722	1370	632	180	57	1080
45°	1786	1356	518	41	0	1379
55°	1740	1271	374	0	0	1554
65°	1573	1125	223	0	0	1557
75°	1311	907	95	1	1	1375
85°	960	658	16	4	6	819
90°	832	528	4	6	7	456
95°	714	412	2	7	9	560
105°	491	213	2	5	8	518
115°	267	71	3	3	5	268
125°	79	10	4	3	4	79
135°	4	3	5	4	3	7
145°	1	4	4	3	3	1
155°	2	4	4	3	1	1
165°	2	3	4	3	0	1
175°	2	4	5	3	1	0
180°	3	3	3	3	3	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	809.9	809.9	809.9	809.9	809.9	809.9	809.9	809.9	809.9	809.9	809.9
2.5°	878.0	877.0	873.9	868.7	861.5	849.1	838.8	829.5	817.1	806.8	787.2
5°	924.4	919.3	915.2	910.0	893.5	882.1	863.6	842.9	823.3	803.7	764.5
7.5°	998.7	990.5	984.3	969.8	947.1	921.3	892.5	872.8	859.4	804.8	737.7
10°	1078.2	1070.9	1058.6	1032.8	1004.9	967.8	926.5	880.1	838.8	793.4	714.0
12.5°	1156.6	1146.3	1128.7	1095.7	1056.5	1010.1	953.3	898.6	839.8	786.2	686.1
15°	1235.0	1223.6	1205.1	1164.8	1113.2	1052.4	983.2	914.1	845.0	776.9	657.2
17.5°	1320.6	1305.1	1277.3	1231.9	1166.9	1091.6	1010.1	926.5	842.9	765.5	626.3
20°	1412.4	1390.8	1360.9	1300.0	1223.6	1134.9	1036.9	938.9	841.9	752.1	591.2
22.5°	1488.8	1467.1	1434.1	1371.2	1279.4	1171.0	1059.6	947.1	837.8	736.7	558.2
25°	1554.8	1537.3	1501.2	1429.0	1332.0	1209.2	1081.3	953.3	831.6	720.2	523.1
27.5°	1606.4	1589.9	1549.7	1475.4	1376.3	1243.2	1097.8	956.4	823.3	703.6	487.0
30°	1651.8	1635.3	1586.8	1510.5	1406.3	1270.1	1114.3	957.5	813.0	678.9	447.8
32.5°	1686.9	1671.4	1621.9	1540.4	1426.9	1288.6	1123.6	956.4	799.6	661.3	405.5
35°	1722.0	1706.5	1648.7	1562.0	1442.4	1296.9	1130.8	951.3	783.1	632.5	365.2
37.5°	1748.8	1731.3	1672.4	1576.5	1449.6	1299.0	1129.8	944.0	765.5	608.7	325.0
40°	1767.4	1748.8	1685.9	1584.7	1451.7	1295.9	1121.5	931.7	744.9	578.8	282.7
42.5°	1779.7	1759.1	1692.0	1597.1	1447.5	1287.6	1109.1	916.2	722.2	553.0	242.5
45°	1785.9	1764.3	1693.1	1586.8	1440.3	1272.1	1090.5	896.6	697.5	517.9	202.2
47.5°	1782.8	1759.1	1687.9	1575.5	1426.9	1255.6	1069.9	872.8	667.5	487.0	164.0
50°	1777.7	1752.9	1676.6	1561.0	1408.3	1235.0	1047.2	844.0	636.6	448.8	130.0
52.5°	1761.2	1736.4	1664.2	1540.4	1386.7	1211.3	1016.3	814.0	603.6	411.7	99.0
55°	1740.5	1717.8	1642.5	1521.8	1358.8	1182.4	987.4	782.1	571.6	373.5	71.2
57.5°	1708.6	1687.9	1615.7	1491.9	1330.9	1150.4	955.4	747.0	531.3	335.3	49.5
60°	1669.3	1648.7	1578.6	1457.8	1299.0	1114.3	920.3	710.9	495.2	297.1	31.0
62.5°	1628.1	1608.5	1535.2	1415.5	1258.7	1076.1	882.1	674.8	457.1	262.1	18.6
65°	1573.4	1554.8	1488.8	1365.0	1214.4	1034.8	839.8	631.4	417.9	222.9	10.3
67.5°	1515.6	1499.1	1432.1	1318.6	1162.8	989.4	796.5	589.1	376.6	188.8	5.2
70°	1453.7	1433.1	1371.2	1255.6	1110.1	937.8	749.0	545.8	337.4	155.8	0.0
72.5°	1381.5	1366.0	1306.2	1196.8	1049.3	883.2	700.5	498.3	294.0	123.8	1.0
75°	1311.3	1291.7	1237.1	1133.9	989.4	825.4	646.9	454.0	251.7	94.9	1.0
77.5°	1220.5	1214.4	1162.8	1062.7	932.7	769.7	588.1	400.3	211.5	68.1	1.0
80°	1129.8	1123.6	1083.3	991.5	866.7	703.6	533.4	349.8	172.3	45.4	1.0
82.5°	1040.0	1031.7	993.6	917.2	799.6	647.9	476.7	299.2	136.2	27.9	1.0
85°	959.5	949.2	907.9	837.8	730.5	585.0	417.9	249.7	101.1	15.5	2.1
87.5°	890.4	883.2	837.8	765.5	660.3	526.2	366.3	202.2	71.2	7.2	3.1
90°	831.6	816.1	775.9	699.5	594.3	461.2	311.6	162.0	47.5	4.1	4.1
92.5°	773.8	760.4	716.0	637.6	535.5	405.5	259.0	123.8	29.9	2.1	5.2
95°	714.0	699.5	656.2	584.0	475.6	348.7	212.5	90.8	16.5	2.1	5.2
97.5°	655.2	641.7	596.3	524.1	422.0	299.2	168.2	64.0	8.3	2.1	4.1
100°	600.5	585.0	543.7	471.5	368.3	249.7	130.0	41.3	5.2	2.1	4.1
102.5°	542.7	530.3	488.0	417.9	312.6	203.3	97.0	25.8	2.1	2.1	3.1
105°	491.1	475.6	434.4	362.1	266.2	159.9	68.1	15.5	2.1	2.1	3.1



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CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-93-94-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	319.8	307.5	271.3	210.5	135.2	62.9	18.6	3.1	3.1	3.1	3.1
115°	267.2	248.6	216.7	163.0	100.1	41.3	9.3	3.1	3.1	3.1	3.1
117.5°	213.6	198.1	175.4	123.8	66.0	26.8	5.2	3.1	3.1	3.1	3.1
120°	167.1	152.7	126.9	85.6	44.4	15.5	2.1	3.1	3.1	3.1	3.1
122.5°	119.7	108.3	85.6	55.7	26.8	7.2	3.1	3.1	4.1	4.1	3.1
125°	79.4	73.3	56.7	34.0	16.5	3.1	3.1	3.1	4.1	4.1	3.1
127.5°	51.6	46.4	33.0	19.6	7.2	3.1	3.1	4.1	4.1	4.1	3.1
130°	28.9	25.8	19.6	11.3	3.1	3.1	3.1	4.1	4.1	4.1	3.1
132.5°	16.5	15.5	10.3	2.1	3.1	3.1	3.1	4.1	4.1	4.1	4.1
135°	4.1	2.1	2.1	2.1	3.1	3.1	4.1	4.1	5.2	5.2	4.1
137.5°	1.0	1.0	2.1	2.1	3.1	3.1	4.1	5.2	5.2	5.2	4.1
140°	1.0	1.0	2.1	3.1	3.1	3.1	4.1	5.2	5.2	5.2	4.1
142.5°	1.0	2.1	2.1	3.1	3.1	4.1	4.1	5.2	5.2	4.1	4.1
145°	1.0	2.1	2.1	3.1	3.1	4.1	4.1	5.2	4.1	4.1	4.1
147.5°	2.1	2.1	2.1	3.1	3.1	4.1	4.1	5.2	5.2	4.1	4.1
150°	1.0	2.1	2.1	3.1	4.1	4.1	4.1	5.2	4.1	4.1	4.1
152.5°	1.0	2.1	2.1	3.1	4.1	4.1	4.1	5.2	4.1	4.1	4.1
155°	2.1	2.1	2.1	3.1	4.1	4.1	4.1	5.2	4.1	4.1	5.2
157.5°	2.1	2.1	2.1	3.1	4.1	4.1	4.1	5.2	4.1	4.1	5.2
160°	2.1	2.1	2.1	3.1	3.1	4.1	4.1	4.1	4.1	4.1	4.1
162.5°	2.1	2.1	2.1	3.1	3.1	4.1	4.1	4.1	4.1	4.1	4.1
165°	2.1	2.1	2.1	2.1	3.1	3.1	4.1	4.1	4.1	4.1	4.1
167.5°	2.1	2.1	2.1	3.1	3.1	3.1	4.1	4.1	4.1	4.1	4.1
170°	2.1	2.1	2.1	3.1	3.1	3.1	4.1	5.2	5.2	5.2	5.2
172.5°	2.1	2.1	2.1	3.1	3.1	4.1	4.1	5.2	5.2	5.2	5.2
175°	2.1	2.1	2.1	3.1	3.1	4.1	4.1	5.2	5.2	5.2	5.2
177.5°	1.0	2.1	2.1	3.1	3.1	4.1	4.1	5.2	5.2	5.2	4.1
180°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	809.9	809.9	809.9
2.5°	770.7	756.3	752.1
5°	729.4	705.7	692.3
7.5°	688.2	656.2	640.7
10°	650.0	604.6	588.1
12.5°	604.6	552.0	526.2
15°	561.3	493.2	468.4
17.5°	512.8	436.4	407.5
20°	467.4	379.7	349.8
22.5°	415.8	324.0	290.9
25°	369.4	268.3	231.1
27.5°	317.8	211.5	179.5
30°	269.3	162.0	130.0
32.5°	222.9	118.6	89.8
35°	179.5	80.5	56.7
37.5°	138.3	49.5	28.9
40°	100.1	25.8	13.4
42.5°	67.1	12.4	7.2
45°	41.3	6.2	0.0
47.5°	23.7	0.0	0.0
50°	12.4	0.0	0.0
52.5°	5.2	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°	1.0	1.0	1.0
77.5°	1.0	2.1	3.1
80°	2.1	4.1	5.2
82.5°	4.1	5.2	5.2
85°	4.1	5.2	6.2
87.5°	5.2	6.2	7.2
90°	6.2	7.2	7.2
92.5°	6.2	8.3	8.3
95°	7.2	8.3	9.3
97.5°	8.3	9.3	9.3
100°	7.2	9.3	10.3
102.5°	6.2	9.3	9.3
105°	5.2	7.2	8.3



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CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-93-94-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	4.1	5.2	5.2
115°	3.1	4.1	5.2
117.5°	3.1	4.1	4.1
120°	3.1	3.1	4.1
122.5°	3.1	3.1	4.1
125°	3.1	3.1	4.1
127.5°	4.1	3.1	3.1
130°	3.1	3.1	3.1
132.5°	4.1	3.1	3.1
135°	4.1	3.1	3.1
137.5°	4.1	3.1	3.1
140°	4.1	3.1	3.1
142.5°	4.1	3.1	3.1
145°	3.1	3.1	3.1
147.5°	3.1	3.1	3.1
150°	3.1	3.1	2.1
152.5°	3.1	2.1	2.1
155°	3.1	2.1	1.0
157.5°	4.1	2.1	1.0
160°	3.1	2.1	1.0
162.5°	3.1	2.1	1.0
165°	3.1	2.1	0.0
167.5°	3.1	2.1	1.0
170°	3.1	2.1	1.0
172.5°	3.1	2.1	1.0
175°	3.1	1.0	1.0
177.5°	3.1	1.0	1.0
180°	3.1	3.1	3.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	433.3	420.9	379.7	311.6	217.7	121.7	45.4	8.3	2.1	3.1	3.1
110°	377.6	367.3	325.0	259.0	175.4	90.8	29.9	5.2	3.1	3.1	3.1





107.5°	4.1	6.2	7.2
110°	4.1	5.2	6.2



(END OF REPORT)