

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: P551444

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-93-96-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: P551444
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-93-96-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K,
AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

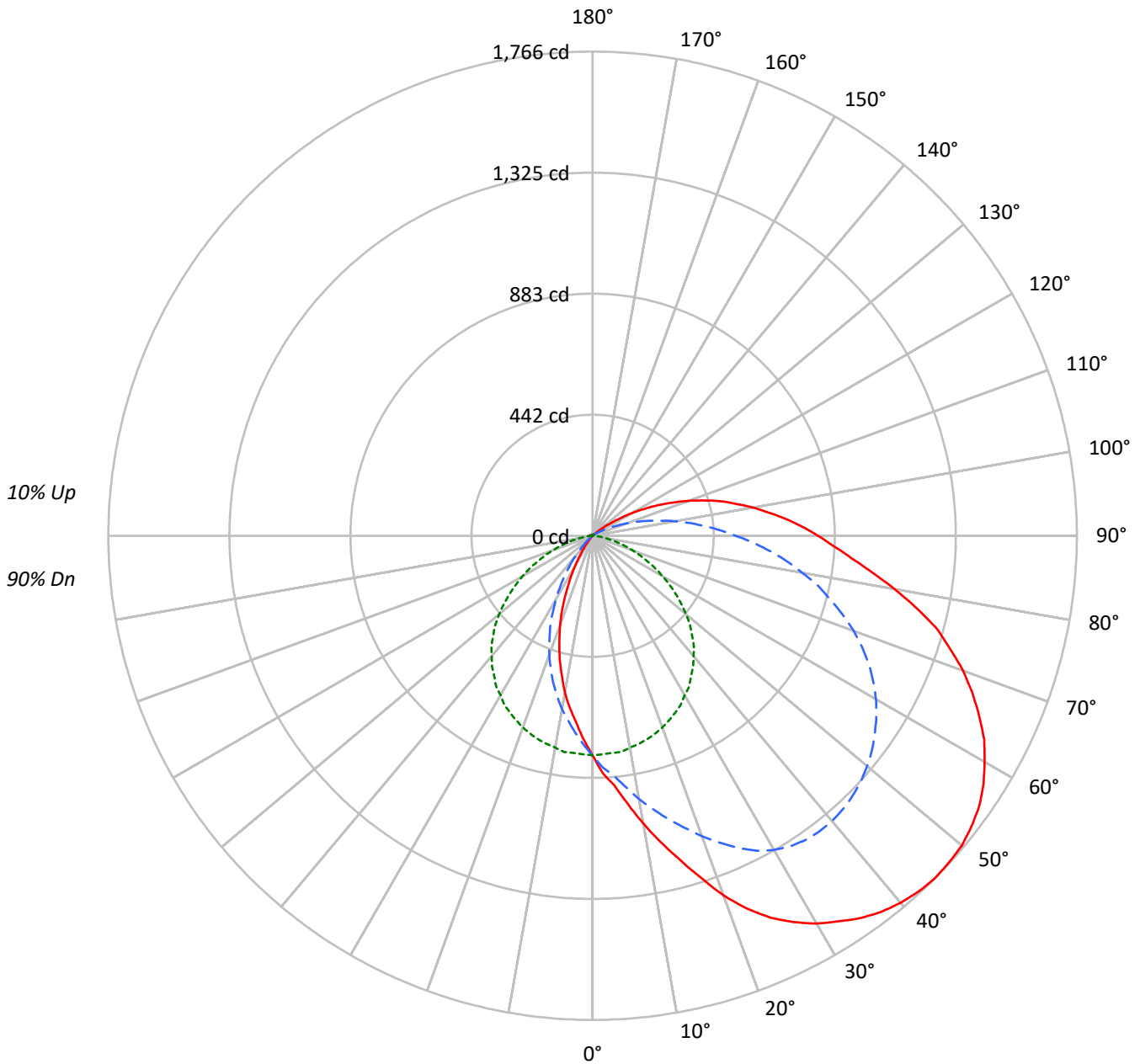
Lumens per Lamp: N/A
Luminaire Lumens: 3959.1 lumens
Efficiency: N/A
Efficacy: 91.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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-93-96-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°	8620	8620	8620
5°	9462	8494	7086
10°	10707	8390	5841
15°	12000	8283	4551
20°	13535	8148	3351
25°	14807	7992	2201
30°	15752	7782	1239
35°	16571	7555	546
40°	17297	7278	132
45°	17921	6929	0
50°	18444	6468	0
55°	18842	5881	0
60°	19043	5199	0
65°	19121	4427	0
70°	19057	3608	0
75°	18815	2663	15
80°	18053	1629	82
85°	17448	778	112



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.7	1.9
10°-20°	229.7	5.8
20°-30°	371.9	9.4
30°-40°	477.8	12.1
40°-50°	540.8	13.7
50°-60°	560.3	14.2
60°-70°	528.5	13.3
70°-80°	442.8	11.2
80°-90°	321.0	8.1
90°-100°	211.0	5.3
100°-110°	121.8	3.1
110°-120°	53.8	1.4
120°-130°	14.6	0.4
130°-140°	3.3	0.1
140°-150°	2.2	0.1
150°-160°	1.5	0.0
160°-170°	0.9	0.0
170°-180°	0.3	0.0
0°-30°	678.3	17.1
0°-40°	1156.1	29.2
0°-60°	2257.3	57.0
0°-90°	3549.6	89.7
90°-120°	386.6	9.8
90°-150°	406.7	10.3
90°-180°	409.0	10.3
0°-180°	3959.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	801	801	801	801	801	
5°	914	878	795	721	684	92
15°	1221	1071	768	555	463	352
25°	1537	1256	712	365	228	711
35°	1703	1354	625	178	56	1068
45°	1766	1341	512	41	0	1363
55°	1721	1256	369	0	0	1537
65°	1556	1112	220	0	0	1539
75°	1297	897	94	1	1	1360
85°	949	650	15	4	6	810
90°	822	522	4	6	7	451
95°	706	408	2	7	9	554
105°	486	211	2	5	8	512
115°	264	70	3	3	5	265
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°	800.8	800.8	800.8	800.8	800.8	800.8	800.8	800.8	800.8	800.8	800.8
2.5°	868.1	867.1	864.1	859.0	851.8	839.6	829.4	820.2	808.0	797.8	778.4
5°	914.0	908.9	904.9	899.8	883.4	872.2	853.9	833.5	814.1	794.7	755.9
7.5°	987.5	979.3	973.2	958.9	936.5	911.0	882.4	863.0	849.8	795.7	729.4
10°	1066.0	1058.9	1046.7	1021.2	993.6	956.9	916.1	870.2	829.4	784.5	705.9
12.5°	1143.6	1133.4	1116.0	1083.4	1044.6	998.7	942.6	888.5	830.4	777.3	678.4
15°	1221.1	1209.9	1191.5	1151.7	1100.7	1040.5	972.2	903.8	835.5	768.2	649.8
17.5°	1305.8	1290.5	1262.9	1218.0	1153.8	1079.3	998.7	916.1	833.5	756.9	619.2
20°	1396.6	1375.1	1345.6	1285.4	1209.9	1122.2	1025.2	928.3	832.4	743.7	584.5
22.5°	1472.1	1450.6	1418.0	1355.8	1265.0	1157.9	1047.7	936.5	828.4	728.4	551.9
25°	1537.4	1520.0	1484.3	1412.9	1317.0	1195.6	1069.1	942.6	822.2	712.1	517.2
27.5°	1588.4	1572.0	1532.3	1458.8	1360.9	1229.3	1085.4	945.7	814.1	695.7	481.5
30°	1633.2	1616.9	1569.0	1493.5	1390.5	1255.8	1101.8	946.7	803.9	671.3	442.7
32.5°	1667.9	1652.6	1603.7	1523.1	1410.9	1274.2	1110.9	945.7	790.6	653.9	400.9
35°	1702.6	1687.3	1630.2	1544.5	1426.2	1282.3	1118.1	940.6	774.3	625.3	361.1
37.5°	1729.1	1711.8	1653.6	1558.8	1433.3	1284.4	1117.1	933.4	756.9	601.9	321.3
40°	1747.5	1729.1	1666.9	1566.9	1435.3	1281.3	1108.9	921.2	736.5	572.3	279.5
42.5°	1759.7	1739.3	1673.0	1579.2	1431.3	1273.1	1096.7	905.9	714.1	546.8	239.7
45°	1765.9	1744.4	1674.1	1569.0	1424.1	1257.8	1078.3	886.5	689.6	512.1	199.9
47.5°	1762.8	1739.3	1669.0	1557.8	1410.9	1241.5	1057.9	863.0	660.0	481.5	162.2
50°	1757.7	1733.2	1657.7	1543.5	1392.5	1221.1	1035.4	834.5	629.4	443.8	128.5
52.5°	1741.4	1716.9	1645.5	1523.1	1371.1	1197.6	1004.8	804.9	596.8	407.0	97.9
55°	1721.0	1698.5	1624.1	1504.7	1343.5	1169.1	976.3	773.3	565.2	369.3	70.4
57.5°	1689.4	1669.0	1597.5	1475.1	1316.0	1137.5	944.7	738.6	525.4	331.5	49.0
60°	1650.6	1630.2	1560.8	1441.5	1284.4	1101.8	910.0	702.9	489.7	293.8	30.6
62.5°	1609.8	1590.4	1518.0	1399.6	1244.6	1064.0	872.2	667.2	451.9	259.1	18.4
65°	1555.7	1537.4	1472.1	1349.6	1200.7	1023.2	830.4	624.3	413.2	220.4	10.2
67.5°	1498.6	1482.3	1416.0	1303.7	1149.7	978.3	787.5	582.5	372.4	186.7	5.1
70°	1437.4	1417.0	1355.8	1241.5	1097.7	927.3	740.6	539.7	333.6	154.0	0.0
72.5°	1366.0	1350.7	1291.5	1183.4	1037.5	873.2	692.7	492.7	290.7	122.4	1.0
75°	1296.6	1277.2	1223.1	1121.1	978.3	816.1	639.6	448.9	248.9	93.9	1.0
77.5°	1206.8	1200.7	1149.7	1050.7	922.2	761.0	581.5	395.8	209.1	67.3	1.0
80°	1117.1	1110.9	1071.1	980.4	856.9	695.7	527.4	345.8	170.4	44.9	1.0
82.5°	1028.3	1020.1	982.4	906.9	790.6	640.6	471.3	295.8	134.7	27.5	1.0
85°	948.7	938.5	897.7	828.4	722.3	578.4	413.2	246.9	100.0	15.3	2.0
87.5°	880.4	873.2	828.4	756.9	652.9	520.3	362.2	199.9	70.4	7.1	3.1
90°	822.2	806.9	767.1	691.7	587.6	456.0	308.1	160.2	46.9	4.1	4.1
92.5°	765.1	751.8	708.0	630.4	529.5	400.9	256.1	122.4	29.6	2.0	5.1
95°	705.9	691.7	648.8	577.4	470.3	344.8	210.1	89.8	16.3	2.0	5.1
97.5°	647.8	634.5	589.6	518.2	417.2	295.8	166.3	63.2	8.2	2.0	4.1
100°	593.7	578.4	537.6	466.2	364.2	246.9	128.5	40.8	5.1	2.0	4.1
102.5°	536.6	524.4	482.5	413.2	309.1	201.0	95.9	25.5	2.0	2.0	3.1
105°	485.6	470.3	429.5	358.1	263.2	158.1	67.3	15.3	2.0	2.0	3.1



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CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-93-96-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	316.2	304.0	268.3	208.1	133.6	62.2	18.4	3.1	3.1	3.1	3.1
115°	264.2	245.9	214.2	161.2	99.0	40.8	9.2	3.1	3.1	3.1	3.1
117.5°	211.2	195.9	173.4	122.4	65.3	26.5	5.1	3.1	3.1	3.1	3.1
120°	165.3	151.0	125.5	84.7	43.9	15.3	2.0	3.1	3.1	3.1	3.1
122.5°	118.3	107.1	84.7	55.1	26.5	7.1	3.1	3.1	4.1	4.1	3.1
125°	78.6	72.4	56.1	33.7	16.3	3.1	3.1	3.1	4.1	4.1	3.1
127.5°	51.0	45.9	32.6	19.4	7.1	3.1	3.1	4.1	4.1	4.1	3.1
130°	28.6	25.5	19.4	11.2	3.1	3.1	3.1	4.1	4.1	4.1	3.1
132.5°	16.3	15.3	10.2	2.0	3.1	3.1	3.1	4.1	4.1	4.1	4.1
135°	4.1	2.0	2.0	2.0	3.1	3.1	4.1	4.1	5.1	5.1	4.1
137.5°	1.0	1.0	2.0	2.0	3.1	3.1	4.1	5.1	5.1	5.1	4.1
140°	1.0	1.0	2.0	3.1	3.1	3.1	4.1	5.1	5.1	5.1	4.1
142.5°	1.0	2.0	2.0	3.1	3.1	4.1	4.1	5.1	5.1	4.1	4.1
145°	1.0	2.0	2.0	3.1	3.1	4.1	4.1	5.1	4.1	4.1	4.1
147.5°	2.0	2.0	2.0	3.1	3.1	4.1	4.1	5.1	5.1	4.1	4.1
150°	1.0	2.0	2.0	3.1	4.1	4.1	4.1	5.1	4.1	4.1	4.1
152.5°	1.0	2.0	2.0	3.1	4.1	4.1	4.1	5.1	4.1	4.1	4.1
155°	2.0	2.0	2.0	3.1	4.1	4.1	4.1	5.1	4.1	4.1	5.1
157.5°	2.0	2.0	2.0	3.1	4.1	4.1	4.1	5.1	4.1	4.1	5.1
160°	2.0	2.0	2.0	3.1	3.1	4.1	4.1	4.1	4.1	4.1	4.1
162.5°	2.0	2.0	2.0	3.1	3.1	4.1	4.1	4.1	4.1	4.1	4.1
165°	2.0	2.0	2.0	2.0	3.1	3.1	4.1	4.1	4.1	4.1	4.1
167.5°	2.0	2.0	2.0	3.1	3.1	3.1	4.1	4.1	4.1	4.1	4.1
170°	2.0	2.0	2.0	3.1	3.1	3.1	4.1	5.1	5.1	5.1	5.1
172.5°	2.0	2.0	2.0	3.1	3.1	4.1	4.1	5.1	5.1	5.1	5.1
175°	2.0	2.0	2.0	3.1	3.1	4.1	4.1	5.1	5.1	5.1	5.1
177.5°	1.0	2.0	2.0	3.1	3.1	4.1	4.1	5.1	5.1	5.1	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°	800.8	800.8	800.8
2.5°	762.0	747.8	743.7
5°	721.2	697.8	684.5
7.5°	680.4	648.8	633.5
10°	642.7	597.8	581.5
12.5°	597.8	545.8	520.3
15°	555.0	487.6	463.1
17.5°	507.0	431.5	403.0
20°	462.1	375.4	345.8
22.5°	411.1	320.3	287.7
25°	365.2	265.2	228.5
27.5°	314.2	209.1	177.5
30°	266.3	160.2	128.5
32.5°	220.4	117.3	88.8
35°	177.5	79.6	56.1
37.5°	136.7	49.0	28.6
40°	99.0	25.5	13.3
42.5°	66.3	12.2	7.1
45°	40.8	6.1	0.0
47.5°	23.5	0.0	0.0
50°	12.2	0.0	0.0
52.5°	5.1	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	2.0	3.1
80°	2.0	4.1	5.1
82.5°	4.1	5.1	5.1
85°	4.1	5.1	6.1
87.5°	5.1	6.1	7.1
90°	6.1	7.1	7.1
92.5°	6.1	8.2	8.2
95°	7.1	8.2	9.2
97.5°	8.2	9.2	9.2
100°	7.1	9.2	10.2
102.5°	6.1	9.2	9.2
105°	5.1	7.1	8.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	4.1	5.1	5.1
115°	3.1	4.1	5.1
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	2.0
152.5°	3.1	2.0	2.0
155°	3.1	2.0	1.0
157.5°	4.1	2.0	1.0
160°	3.1	2.0	1.0
162.5°	3.1	2.0	1.0
165°	3.1	2.0	0.0
167.5°	3.1	2.0	1.0
170°	3.1	2.0	1.0
172.5°	3.1	2.0	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°	428.5	416.2	375.4	308.1	215.2	120.4	44.9	8.2	2.0	3.1	3.1
110°	373.4	363.2	321.3	256.1	173.4	89.8	29.6	5.1	3.1	3.1	3.1





107.5°	4.1	6.1	7.1
110°	4.1	5.1	6.1



(END OF REPORT)