

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: P551432

Luminaire Tested: **FCC-X-2-LD4-2HI-50-UNV-93-84-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: P551432
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-93-84-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

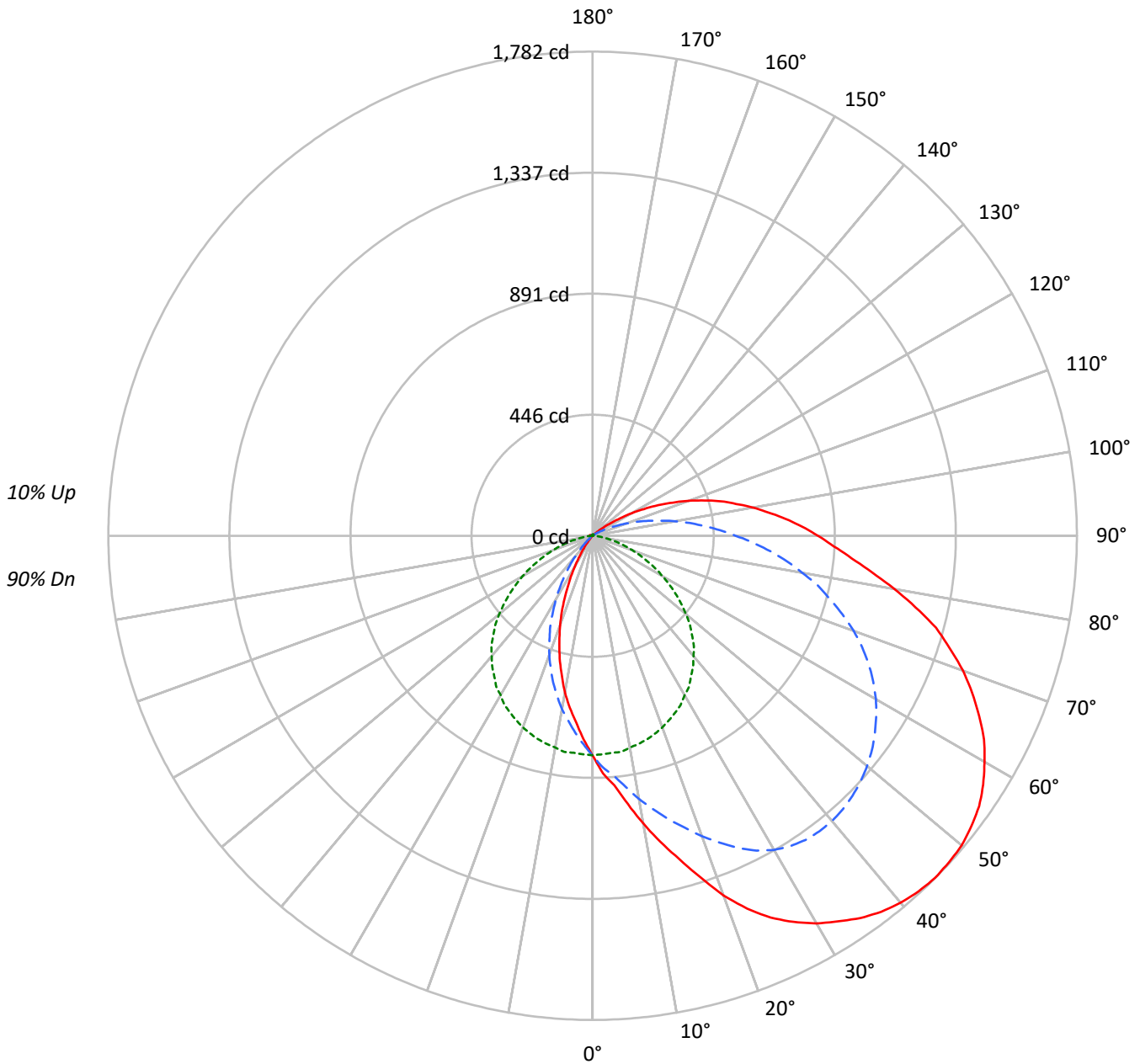
Lumens per Lamp: N/A
Luminaire Lumens: 3994.0 lumens
Efficiency: N/A
Efficacy: 92.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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-93-84-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°	8696	8696	8696
5°	9546	8569	7149
10°	10803	8463	5892
15°	12106	8356	4591
20°	13654	8220	3381
25°	14937	8062	2220
30°	15892	7850	1251
35°	16718	7623	551
40°	17451	7343	133
45°	18079	6990	0
50°	18606	6525	0
55°	19009	5933	0
60°	19211	5245	0
65°	19290	4465	0
70°	19226	3640	0
75°	18982	2686	15
80°	18212	1643	82
85°	17603	783	114



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.4	1.9
10°-20°	231.7	5.8
20°-30°	375.2	9.4
30°-40°	482.0	12.1
40°-50°	545.6	13.7
50°-60°	565.3	14.2
60°-70°	533.1	13.3
70°-80°	446.8	11.2
80°-90°	323.8	8.1
90°-100°	212.8	5.3
100°-110°	122.9	3.1
110°-120°	54.2	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°	684.3	17.1
0°-40°	1166.3	29.2
0°-60°	2277.2	57.0
0°-90°	3581.0	89.7
90°-120°	390.0	9.8
90°-150°	410.3	10.3
90°-180°	413.0	10.3
0°-180°	3994.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	808	808	808	808	808	
5°	922	886	802	728	691	93
15°	1232	1080	775	560	467	355
25°	1551	1267	718	368	230	717
35°	1718	1366	631	179	57	1077
45°	1782	1353	517	41	0	1375
55°	1736	1267	373	0	0	1550
65°	1570	1122	222	0	0	1553
75°	1308	905	95	1	1	1372
85°	957	656	15	4	6	817
90°	830	526	4	6	7	455
95°	712	411	2	7	9	559
105°	490	212	2	5	8	517
115°	267	70	3	3	5	267
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°	807.9	807.9	807.9	807.9	807.9	807.9	807.9	807.9	807.9	807.9	807.9
2.5°	875.8	874.8	871.7	866.6	859.3	847.0	836.7	827.4	815.1	804.8	785.2
5°	922.1	917.0	912.9	907.7	891.3	879.9	861.4	840.8	821.3	801.7	762.6
7.5°	996.2	988.0	981.8	967.4	944.8	919.0	890.2	870.7	857.3	802.7	735.8
10°	1075.5	1068.3	1055.9	1030.2	1002.4	965.4	924.2	877.9	836.7	791.4	712.2
12.5°	1153.7	1143.4	1125.9	1093.0	1053.9	1007.5	950.9	896.4	837.7	784.2	684.4
15°	1231.9	1220.6	1202.1	1161.9	1110.5	1049.7	980.8	911.8	842.9	775.0	655.6
17.5°	1317.3	1301.9	1274.1	1228.8	1164.0	1088.9	1007.5	924.2	840.8	763.6	624.7
20°	1408.9	1387.3	1357.5	1296.7	1220.6	1132.1	1034.3	936.5	839.8	750.3	589.7
22.5°	1485.1	1463.5	1430.5	1367.8	1276.2	1168.1	1056.9	944.8	835.7	734.8	556.8
25°	1550.9	1533.4	1497.4	1425.4	1328.6	1206.2	1078.6	950.9	829.5	718.4	521.8
27.5°	1602.4	1585.9	1545.8	1471.7	1372.9	1240.1	1095.0	954.0	821.3	701.9	485.8
30°	1647.7	1631.2	1582.8	1506.7	1402.7	1266.9	1111.5	955.1	811.0	677.2	446.7
32.5°	1682.7	1667.2	1617.8	1536.5	1423.3	1285.4	1120.8	954.0	797.6	659.7	404.5
35°	1717.7	1702.2	1644.6	1558.1	1438.8	1293.7	1128.0	948.9	781.1	630.9	364.3
37.5°	1744.4	1726.9	1668.3	1572.6	1446.0	1295.7	1126.9	941.7	763.6	607.2	324.2
40°	1763.0	1744.4	1681.6	1580.8	1448.0	1292.6	1118.7	929.3	743.1	577.4	282.0
42.5°	1775.3	1754.7	1687.8	1593.1	1443.9	1284.4	1106.3	913.9	720.4	551.6	241.9
45°	1781.5	1759.9	1688.9	1582.8	1436.7	1269.0	1087.8	894.3	695.7	516.6	201.7
47.5°	1778.4	1754.7	1683.7	1571.5	1423.3	1252.5	1067.2	870.7	665.9	485.8	163.6
50°	1773.2	1748.5	1672.4	1557.1	1404.8	1231.9	1044.6	841.9	635.0	447.7	129.7
52.5°	1756.8	1732.1	1660.0	1536.5	1383.2	1208.2	1013.7	812.0	602.1	410.6	98.8
55°	1736.2	1713.6	1638.4	1518.0	1355.4	1179.4	984.9	780.1	570.2	372.6	71.0
57.5°	1704.3	1683.7	1611.7	1488.2	1327.6	1147.5	953.0	745.1	530.0	334.5	49.4
60°	1665.2	1644.6	1574.6	1454.2	1295.7	1111.5	918.0	709.1	494.0	296.4	30.9
62.5°	1624.0	1604.5	1531.4	1412.0	1255.6	1073.4	879.9	673.1	455.9	261.4	18.5
65°	1569.5	1550.9	1485.1	1361.6	1211.3	1032.2	837.7	629.8	416.8	222.3	10.3
67.5°	1511.8	1495.4	1428.5	1315.3	1159.9	987.0	794.5	587.7	375.6	188.3	5.1
70°	1450.1	1429.5	1367.8	1252.5	1107.4	935.5	747.2	544.4	336.5	155.4	0.0
72.5°	1378.0	1362.6	1302.9	1193.8	1046.7	881.0	698.8	497.1	293.3	123.5	1.0
75°	1308.1	1288.5	1234.0	1131.0	987.0	823.3	645.3	452.8	251.1	94.7	1.0
77.5°	1217.5	1211.3	1159.9	1060.0	930.4	767.8	586.6	399.3	211.0	67.9	1.0
80°	1126.9	1120.8	1080.6	989.0	864.5	701.9	532.1	348.9	171.9	45.3	1.0
82.5°	1037.4	1029.2	991.1	914.9	797.6	646.3	475.5	298.5	135.8	27.8	1.0
85°	957.1	946.8	905.7	835.7	728.6	583.5	416.8	249.1	100.9	15.4	2.1
87.5°	888.2	881.0	835.7	763.6	658.7	524.9	365.4	201.7	71.0	7.2	3.1
90°	829.5	814.1	773.9	697.8	592.8	460.0	310.8	161.6	47.3	4.1	4.1
92.5°	771.9	758.5	714.2	636.0	534.1	404.5	258.3	123.5	29.8	2.1	5.1
95°	712.2	697.8	654.5	582.5	474.4	347.9	212.0	90.6	16.5	2.1	5.1
97.5°	653.5	640.1	594.9	522.8	420.9	298.5	167.8	63.8	8.2	2.1	4.1
100°	599.0	583.5	542.4	470.3	367.4	249.1	129.7	41.2	5.1	2.1	4.1
102.5°	541.3	529.0	486.8	416.8	311.8	202.7	96.7	25.7	2.1	2.1	3.1
105°	489.9	474.4	433.3	361.2	265.5	159.5	67.9	15.4	2.1	2.1	3.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	319.0	306.7	270.7	209.9	134.8	62.8	18.5	3.1	3.1	3.1	3.1
115°	266.6	248.0	216.1	162.6	99.8	41.2	9.3	3.1	3.1	3.1	3.1
117.5°	213.0	197.6	175.0	123.5	65.9	26.8	5.1	3.1	3.1	3.1	3.1
120°	166.7	152.3	126.6	85.4	44.3	15.4	2.1	3.1	3.1	3.1	3.1
122.5°	119.4	108.1	85.4	55.6	26.8	7.2	3.1	3.1	4.1	4.1	3.1
125°	79.2	73.1	56.6	34.0	16.5	3.1	3.1	3.1	4.1	4.1	3.1
127.5°	51.5	46.3	32.9	19.6	7.2	3.1	3.1	4.1	4.1	4.1	3.1
130°	28.8	25.7	19.6	11.3	3.1	3.1	3.1	4.1	4.1	4.1	3.1
132.5°	16.5	15.4	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	5.1	5.1	4.1
137.5°	1.0	1.0	2.1	2.1	3.1	3.1	4.1	5.1	5.1	5.1	4.1
140°	1.0	1.0	2.1	3.1	3.1	3.1	4.1	5.1	5.1	5.1	4.1
142.5°	1.0	2.1	2.1	3.1	3.1	4.1	4.1	5.1	5.1	4.1	4.1
145°	1.0	2.1	2.1	3.1	3.1	4.1	4.1	5.1	4.1	4.1	4.1
147.5°	2.1	2.1	2.1	3.1	3.1	4.1	4.1	5.1	5.1	4.1	4.1
150°	1.0	2.1	2.1	3.1	4.1	4.1	4.1	5.1	4.1	4.1	4.1
152.5°	1.0	2.1	2.1	3.1	4.1	4.1	4.1	5.1	4.1	4.1	4.1
155°	2.1	2.1	2.1	3.1	4.1	4.1	4.1	5.1	4.1	4.1	5.1
157.5°	2.1	2.1	2.1	3.1	4.1	4.1	4.1	5.1	4.1	4.1	5.1
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	5.1	5.1	5.1	5.1
172.5°	2.1	2.1	2.1	3.1	3.1	4.1	4.1	5.1	5.1	5.1	5.1
175°	2.1	2.1	2.1	3.1	3.1	4.1	4.1	5.1	5.1	5.1	5.1
177.5°	1.0	2.1	2.1	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°	807.9	807.9	807.9
2.5°	768.8	754.4	750.3
5°	727.6	703.9	690.6
7.5°	686.4	654.5	639.1
10°	648.4	603.1	586.6
12.5°	603.1	550.6	524.9
15°	559.9	491.9	467.2
17.5°	511.5	435.3	406.5
20°	466.2	378.7	348.9
22.5°	414.8	323.2	290.2
25°	368.4	267.6	230.5
27.5°	317.0	211.0	179.1
30°	268.6	161.6	129.7
32.5°	222.3	118.4	89.5
35°	179.1	80.3	56.6
37.5°	137.9	49.4	28.8
40°	99.8	25.7	13.4
42.5°	66.9	12.3	7.2
45°	41.2	6.2	0.0
47.5°	23.7	0.0	0.0
50°	12.3	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	2.1	3.1
80°	2.1	4.1	5.1
82.5°	4.1	5.1	5.1
85°	4.1	5.1	6.2
87.5°	5.1	6.2	7.2
90°	6.2	7.2	7.2
92.5°	6.2	8.2	8.2
95°	7.2	8.2	9.3
97.5°	8.2	9.3	9.3
100°	7.2	9.3	10.3
102.5°	6.2	9.3	9.3
105°	5.1	7.2	8.2



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CATALOG NUMBER: FCC-X-2-LD4-2HI-50-UNV-93-84-ED1D

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	2.1
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°	432.2	419.9	378.7	310.8	217.2	121.4	45.3	8.2	2.1	3.1	3.1
110°	376.7	366.4	324.2	258.3	175.0	90.6	29.8	5.1	3.1	3.1	3.1





107.5°	4.1	6.2	7.2
110°	4.1	5.1	6.2



(END OF REPORT)