

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: P551314

Luminaire Tested: **FCC-X-2-LD4-2HI-35-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: P551314
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-35-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 3500K,
AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

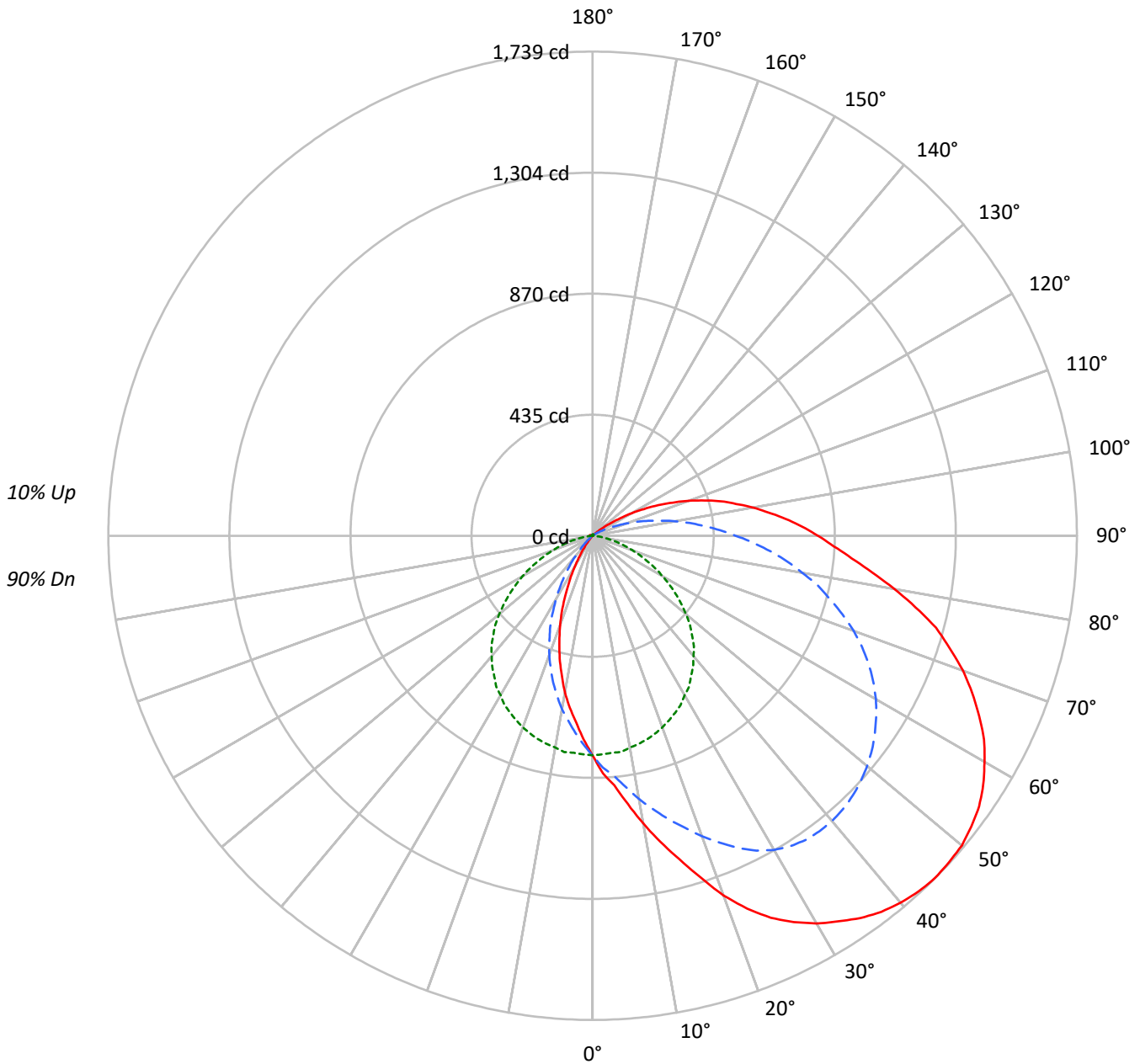
Lumens per Lamp: N/A
Luminaire Lumens: 3897.9 lumens
Efficiency: N/A
Efficacy: 90.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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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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	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°	8487	8487	8487
5°	9317	8362	6977
10°	10543	8260	5750
15°	11815	8155	4481
20°	13326	8022	3300
25°	14579	7868	2167
30°	15510	7661	1221
35°	16316	7439	537
40°	17031	7166	130
45°	17645	6822	0
50°	18159	6368	0
55°	18552	5790	0
60°	18749	5120	0
65°	18826	4359	0
70°	18763	3554	0
75°	18525	2620	15
80°	17774	1603	81
85°	17180	768	110



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.5	1.9
10°-20°	226.1	5.8
20°-30°	366.2	9.4
30°-40°	470.4	12.1
40°-50°	532.5	13.7
50°-60°	551.7	14.2
60°-70°	520.3	13.3
70°-80°	436.0	11.2
80°-90°	316.0	8.1
90°-100°	207.7	5.3
100°-110°	120.0	3.1
110°-120°	52.9	1.4
120°-130°	14.3	0.4
130°-140°	3.3	0.1
140°-150°	2.1	0.1
150°-160°	1.5	0.0
160°-170°	0.9	0.0
170°-180°	0.3	0.0
0°-30°	667.9	17.1
0°-40°	1138.3	29.2
0°-60°	2222.5	57.0
0°-90°	3494.9	89.7
90°-120°	380.6	9.8
90°-150°	400.3	10.3
90°-180°	403.0	10.3
0°-180°	3897.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	788	788	788	788	788	
5°	900	864	782	710	674	91
15°	1202	1054	756	546	456	347
25°	1514	1237	701	360	225	700
35°	1676	1333	616	175	55	1051
45°	1739	1320	504	40	0	1342
55°	1694	1237	364	0	0	1513
65°	1532	1095	217	0	0	1515
75°	1277	883	92	1	1	1339
85°	934	640	15	4	6	798
90°	810	514	4	6	7	444
95°	695	401	2	7	9	545
105°	478	207	2	5	8	505
115°	260	69	3	3	5	261
125°	77	10	4	3	4	77
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°	788.5	788.5	788.5	788.5	788.5	788.5	788.5	788.5	788.5	788.5	788.5
2.5°	854.8	853.8	850.7	845.7	838.7	826.6	816.6	807.6	795.5	785.5	766.4
5°	900.0	894.9	890.9	885.9	869.8	858.8	840.7	820.6	801.5	782.4	744.3
7.5°	972.3	964.2	958.2	944.2	922.1	896.9	868.8	849.7	836.7	783.4	718.2
10°	1049.6	1042.6	1030.5	1005.4	978.3	942.1	902.0	856.8	816.6	772.4	695.1
12.5°	1126.0	1115.9	1098.8	1066.7	1028.5	983.3	928.1	874.9	817.6	765.4	667.9
15°	1202.3	1191.2	1173.2	1134.0	1083.8	1024.5	957.2	889.9	822.6	756.3	639.8
17.5°	1285.7	1270.6	1243.5	1199.3	1136.0	1062.7	983.3	902.0	820.6	745.3	609.7
20°	1375.1	1354.0	1324.8	1265.6	1191.2	1104.9	1009.4	914.0	819.6	732.2	575.5
22.5°	1449.4	1428.3	1396.1	1334.9	1245.5	1140.0	1031.5	922.1	815.6	717.2	543.4
25°	1513.7	1496.6	1461.4	1391.1	1296.7	1177.2	1052.6	928.1	809.6	701.1	509.2
27.5°	1563.9	1547.8	1508.6	1436.3	1339.9	1210.3	1068.7	931.1	801.5	685.0	474.1
30°	1608.1	1592.0	1544.8	1470.5	1369.0	1236.4	1084.8	932.1	791.5	660.9	435.9
32.5°	1642.2	1627.2	1579.0	1499.6	1389.1	1254.5	1093.8	931.1	778.4	643.8	394.7
35°	1676.4	1661.3	1605.1	1520.7	1404.2	1262.6	1100.8	926.1	762.4	615.7	355.6
37.5°	1702.5	1685.4	1628.2	1534.8	1411.2	1264.6	1099.8	919.0	745.3	592.6	316.4
40°	1720.6	1702.5	1641.2	1542.8	1413.2	1261.6	1091.8	907.0	725.2	563.5	275.2
42.5°	1732.6	1712.5	1647.3	1554.8	1409.2	1253.5	1079.8	891.9	703.1	538.4	236.0
45°	1738.7	1717.6	1648.3	1544.8	1402.2	1238.5	1061.7	872.8	679.0	504.2	196.9
47.5°	1735.6	1712.5	1643.2	1533.8	1389.1	1222.4	1041.6	849.7	649.9	474.1	159.7
50°	1730.6	1706.5	1632.2	1519.7	1371.0	1202.3	1019.5	821.6	619.7	436.9	126.6
52.5°	1714.5	1690.4	1620.1	1499.6	1349.9	1179.2	989.4	792.5	587.6	400.8	96.4
55°	1694.5	1672.4	1599.0	1481.5	1322.8	1151.1	961.2	761.4	556.5	363.6	69.3
57.5°	1663.3	1643.2	1572.9	1452.4	1295.7	1119.9	930.1	727.2	517.3	326.4	48.2
60°	1625.2	1605.1	1536.8	1419.2	1264.6	1084.8	895.9	692.0	482.1	289.3	30.1
62.5°	1585.0	1565.9	1494.6	1378.1	1225.4	1047.6	858.8	656.9	445.0	255.1	18.1
65°	1531.7	1513.7	1449.4	1328.9	1182.2	1007.4	817.6	614.7	406.8	217.0	10.0
67.5°	1475.5	1459.4	1394.1	1283.7	1132.0	963.2	775.4	573.5	366.6	183.8	5.0
70°	1415.2	1395.1	1334.9	1222.4	1080.8	913.0	729.2	531.3	328.4	151.7	0.0
72.5°	1344.9	1329.9	1271.6	1165.1	1021.5	859.8	682.0	485.1	286.3	120.5	1.0
75°	1276.6	1257.5	1204.3	1103.9	963.2	803.5	629.8	441.9	245.1	92.4	1.0
77.5°	1188.2	1182.2	1132.0	1034.6	908.0	749.3	572.5	389.7	205.9	66.3	1.0
80°	1099.8	1093.8	1054.6	965.3	843.7	685.0	519.3	340.5	167.7	44.2	1.0
82.5°	1012.5	1004.4	967.3	892.9	778.4	630.8	464.0	291.3	132.6	27.1	1.0
85°	934.1	924.1	883.9	815.6	711.1	569.5	406.8	243.1	98.4	15.1	2.0
87.5°	866.8	859.8	815.6	745.3	642.8	512.3	356.6	196.9	69.3	7.0	3.0
90°	809.6	794.5	755.3	681.0	578.5	449.0	303.3	157.7	46.2	4.0	4.0
92.5°	753.3	740.3	697.1	620.7	521.3	394.7	252.1	120.5	29.1	2.0	5.0
95°	695.1	681.0	638.8	568.5	463.0	339.5	206.9	88.4	16.1	2.0	5.0
97.5°	637.8	624.8	580.6	510.2	410.8	291.3	163.7	62.3	8.0	2.0	4.0
100°	584.6	569.5	529.3	459.0	358.6	243.1	126.6	40.2	5.0	2.0	4.0
102.5°	528.3	516.3	475.1	406.8	304.3	197.9	94.4	25.1	2.0	2.0	3.0
105°	478.1	463.0	422.9	352.6	259.1	155.7	66.3	15.1	2.0	2.0	3.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	311.4	299.3	264.2	204.9	131.6	61.3	18.1	3.0	3.0	3.0	3.0
115°	260.1	242.1	210.9	158.7	97.4	40.2	9.0	3.0	3.0	3.0	3.0
117.5°	207.9	192.8	170.8	120.5	64.3	26.1	5.0	3.0	3.0	3.0	3.0
120°	162.7	148.7	123.5	83.4	43.2	15.1	2.0	3.0	3.0	3.0	3.0
122.5°	116.5	105.5	83.4	54.2	26.1	7.0	3.0	3.0	4.0	4.0	3.0
125°	77.3	71.3	55.2	33.1	16.1	3.0	3.0	3.0	4.0	4.0	3.0
127.5°	50.2	45.2	32.1	19.1	7.0	3.0	3.0	4.0	4.0	4.0	3.0
130°	28.1	25.1	19.1	11.0	3.0	3.0	3.0	4.0	4.0	4.0	3.0
132.5°	16.1	15.1	10.0	2.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0
135°	4.0	2.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	4.0
137.5°	1.0	1.0	2.0	2.0	3.0	3.0	4.0	5.0	5.0	5.0	4.0
140°	1.0	1.0	2.0	3.0	3.0	3.0	4.0	5.0	5.0	5.0	4.0
142.5°	1.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	4.0	4.0
145°	1.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	4.0	4.0	4.0
147.5°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	4.0	4.0
150°	1.0	2.0	2.0	3.0	4.0	4.0	4.0	5.0	4.0	4.0	4.0
152.5°	1.0	2.0	2.0	3.0	4.0	4.0	4.0	5.0	4.0	4.0	4.0
155°	2.0	2.0	2.0	3.0	4.0	4.0	4.0	5.0	4.0	4.0	5.0
157.5°	2.0	2.0	2.0	3.0	4.0	4.0	4.0	5.0	4.0	4.0	5.0
160°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
162.5°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0
165°	2.0	2.0	2.0	2.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0
167.5°	2.0	2.0	2.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0
170°	2.0	2.0	2.0	3.0	3.0	3.0	4.0	5.0	5.0	5.0	5.0
172.5°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	5.0	5.0
175°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	5.0	5.0
177.5°	1.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	5.0	4.0
180°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	788.5	788.5	788.5
2.5°	750.3	736.2	732.2
5°	710.1	687.0	674.0
7.5°	669.9	638.8	623.7
10°	632.8	588.6	572.5
12.5°	588.6	537.4	512.3
15°	546.4	480.1	456.0
17.5°	499.2	424.9	396.7
20°	455.0	369.6	340.5
22.5°	404.8	315.4	283.2
25°	359.6	261.1	225.0
27.5°	309.4	205.9	174.8
30°	262.2	157.7	126.6
32.5°	217.0	115.5	87.4
35°	174.8	78.3	55.2
37.5°	134.6	48.2	28.1
40°	97.4	25.1	13.1
42.5°	65.3	12.1	7.0
45°	40.2	6.0	0.0
47.5°	23.1	0.0	0.0
50°	12.1	0.0	0.0
52.5°	5.0	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	3.0
80°	2.0	4.0	5.0
82.5°	4.0	5.0	5.0
85°	4.0	5.0	6.0
87.5°	5.0	6.0	7.0
90°	6.0	7.0	7.0
92.5°	6.0	8.0	8.0
95°	7.0	8.0	9.0
97.5°	8.0	9.0	9.0
100°	7.0	9.0	10.0
102.5°	6.0	9.0	9.0
105°	5.0	7.0	8.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	4.0	5.0	5.0
115°	3.0	4.0	5.0
117.5°	3.0	4.0	4.0
120°	3.0	3.0	4.0
122.5°	3.0	3.0	4.0
125°	3.0	3.0	4.0
127.5°	4.0	3.0	3.0
130°	3.0	3.0	3.0
132.5°	4.0	3.0	3.0
135°	4.0	3.0	3.0
137.5°	4.0	3.0	3.0
140°	4.0	3.0	3.0
142.5°	4.0	3.0	3.0
145°	3.0	3.0	3.0
147.5°	3.0	3.0	3.0
150°	3.0	3.0	2.0
152.5°	3.0	2.0	2.0
155°	3.0	2.0	1.0
157.5°	4.0	2.0	1.0
160°	3.0	2.0	1.0
162.5°	3.0	2.0	1.0
165°	3.0	2.0	0.0
167.5°	3.0	2.0	1.0
170°	3.0	2.0	1.0
172.5°	3.0	2.0	1.0
175°	3.0	1.0	1.0
177.5°	3.0	1.0	1.0
180°	3.0	3.0	3.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	421.9	409.8	369.6	303.3	211.9	118.5	44.2	8.0	2.0	3.0	3.0
110°	367.6	357.6	316.4	252.1	170.8	88.4	29.1	5.0	3.0	3.0	3.0





107.5°	4.0	6.0	7.0
110°	4.0	5.0	6.0



(END OF REPORT)