

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: P551348

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-81-96-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: P551348
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-40-UNV-81-96-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

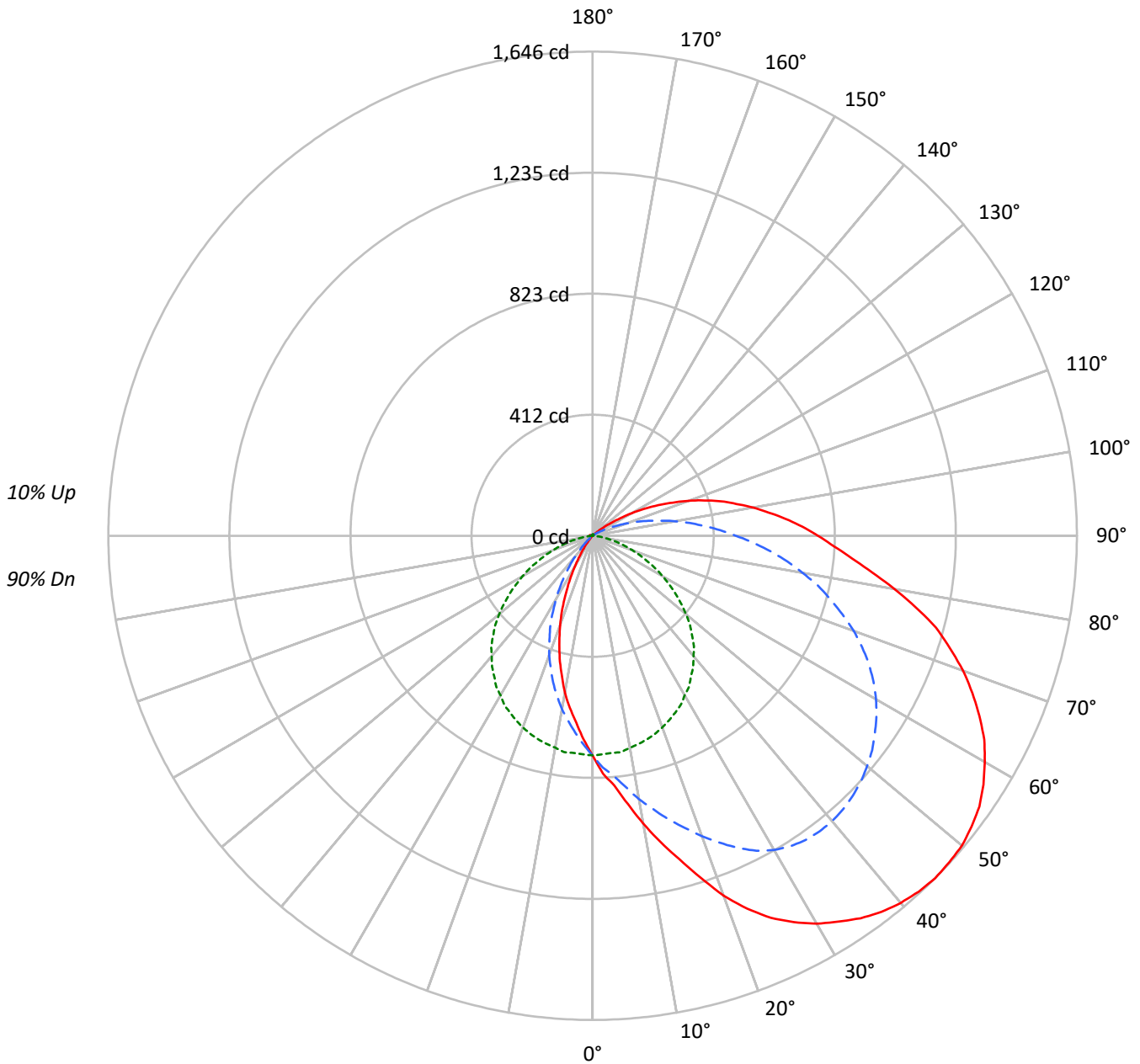
Lumens per Lamp: N/A
Luminaire Lumens: 3691.1 lumens
Efficiency: N/A
Efficacy: 85.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 43.3
Input Voltage (V): NR
Input Current (Ain): 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	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°	8036	8036	8036
5°	8822	7919	6607
10°	9983	7822	5445
15°	11187	7722	4243
20°	12618	7596	3124
25°	13804	7451	2051
30°	14686	7255	1155
35°	15450	7044	509
40°	16126	6786	123
45°	16707	6460	0
50°	17195	6029	0
55°	17567	5483	0
60°	17754	4847	0
65°	17827	4126	0
70°	17767	3364	0
75°	17541	2481	15
80°	16830	1516	78
85°	16268	727	105



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.5	1.9
10°-20°	214.1	5.8
20°-30°	346.8	9.4
30°-40°	445.4	12.1
40°-50°	504.2	13.7
50°-60°	522.4	14.2
60°-70°	492.7	13.3
70°-80°	412.9	11.2
80°-90°	299.3	8.1
90°-100°	196.7	5.3
100°-110°	113.6	3.1
110°-120°	50.1	1.4
120°-130°	13.6	0.4
130°-140°	3.1	0.1
140°-150°	2.1	0.1
150°-160°	1.4	0.0
160°-170°	0.8	0.0
170°-180°	0.3	0.0
0°-30°	632.4	17.1
0°-40°	1077.8	29.2
0°-60°	2104.5	57.0
0°-90°	3309.3	89.7
90°-120°	360.5	9.8
90°-150°	379.2	10.3
90°-180°	382.0	10.3
0°-180°	3691.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	747	747	747	747	747	
5°	852	818	741	672	638	86
15°	1138	998	716	517	432	328
25°	1433	1171	664	340	213	662
35°	1587	1263	583	166	52	996
45°	1646	1250	477	38	0	1271
55°	1604	1171	344	0	0	1433
65°	1450	1037	205	0	0	1435
75°	1209	836	88	1	1	1268
85°	884	606	14	4	6	755
90°	767	486	4	6	7	420
95°	658	380	2	7	9	516
105°	453	196	2	5	8	478
115°	246	65	3	3	5	247
125°	73	9	4	3	4	73
135°	4	3	5	4	3	7
145°	1	3	4	3	3	1
155°	2	4	4	3	1	1
165°	2	3	4	3	0	1
175°	2	3	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°	746.6	746.6	746.6	746.6	746.6	746.6	746.6	746.6	746.6	746.6	746.6
2.5°	809.4	808.4	805.6	800.8	794.2	782.7	773.2	764.7	753.3	743.7	725.7
5°	852.2	847.4	843.6	838.9	823.6	813.2	796.1	777.0	759.0	740.9	704.8
7.5°	920.6	913.0	907.3	894.0	873.1	849.3	822.7	804.6	792.3	741.8	680.0
10°	993.9	987.2	975.8	952.0	926.4	892.1	854.1	811.3	773.2	731.4	658.1
12.5°	1066.2	1056.7	1040.5	1010.1	973.9	931.1	878.8	828.4	774.2	724.7	632.5
15°	1138.4	1128.0	1110.9	1073.8	1026.2	970.1	906.4	842.7	778.9	716.2	605.8
17.5°	1217.4	1203.1	1177.4	1135.6	1075.7	1006.2	931.1	854.1	777.0	705.7	577.3
20°	1302.0	1282.1	1254.5	1198.4	1128.0	1046.2	955.8	865.5	776.1	693.3	545.0
22.5°	1372.4	1352.4	1322.0	1264.0	1179.3	1079.5	976.8	873.1	772.3	679.1	514.5
25°	1433.3	1417.1	1383.8	1317.3	1227.8	1114.7	996.7	878.8	766.6	663.9	482.2
27.5°	1480.8	1465.6	1428.5	1360.0	1268.7	1146.1	1012.0	881.7	759.0	648.6	448.9
30°	1522.7	1507.5	1462.8	1392.4	1296.3	1170.8	1027.2	882.6	749.5	625.8	412.8
32.5°	1555.0	1540.8	1495.1	1420.0	1315.3	1187.9	1035.7	881.7	737.1	609.6	373.8
35°	1587.4	1573.1	1519.8	1439.9	1329.6	1195.5	1042.4	876.9	721.9	583.0	336.7
37.5°	1612.1	1595.9	1541.7	1453.3	1336.3	1197.4	1041.4	870.2	705.7	561.1	299.6
40°	1629.2	1612.1	1554.1	1460.9	1338.2	1194.6	1033.8	858.8	686.7	533.6	260.6
42.5°	1640.6	1621.6	1559.8	1472.3	1334.4	1187.0	1022.4	844.6	665.8	509.8	223.5
45°	1646.3	1626.4	1560.7	1462.8	1327.7	1172.7	1005.3	826.5	642.9	477.4	186.4
47.5°	1643.5	1621.6	1556.0	1452.3	1315.3	1157.5	986.3	804.6	615.4	448.9	151.2
50°	1638.7	1615.9	1545.5	1439.0	1298.2	1138.4	965.3	778.0	586.8	413.7	119.8
52.5°	1623.5	1600.7	1534.1	1420.0	1278.3	1116.6	936.8	750.4	556.4	379.5	91.3
55°	1604.5	1583.6	1514.1	1402.8	1252.6	1089.9	910.2	720.9	526.9	344.3	65.6
57.5°	1575.0	1556.0	1489.4	1375.3	1226.9	1060.5	880.7	688.6	489.8	309.1	45.7
60°	1538.9	1519.8	1455.2	1343.9	1197.4	1027.2	848.4	655.3	456.5	273.9	28.5
62.5°	1500.8	1482.7	1415.2	1304.9	1160.3	992.0	813.2	622.0	421.3	241.6	17.1
65°	1450.4	1433.3	1372.4	1258.3	1119.4	953.9	774.2	582.1	385.2	205.4	9.5
67.5°	1397.1	1381.9	1320.1	1215.5	1071.9	912.1	734.2	543.1	347.1	174.0	4.8
70°	1340.1	1321.1	1264.0	1157.5	1023.4	864.5	690.5	503.1	311.0	143.6	0.0
72.5°	1273.5	1259.2	1204.1	1103.3	967.3	814.1	645.8	459.4	271.1	114.1	1.0
75°	1208.8	1190.8	1140.3	1045.2	912.1	760.9	596.3	418.5	232.1	87.5	1.0
77.5°	1125.1	1119.4	1071.9	979.6	859.8	709.5	542.1	369.0	195.0	62.8	1.0
80°	1041.4	1035.7	998.6	914.0	798.9	648.6	491.7	322.4	158.8	41.8	1.0
82.5°	958.7	951.1	915.9	845.5	737.1	597.3	439.4	275.8	125.5	25.7	1.0
85°	884.5	875.0	837.0	772.3	673.4	539.3	385.2	230.2	93.2	14.3	1.9
87.5°	820.8	814.1	772.3	705.7	608.7	485.1	337.6	186.4	65.6	6.7	2.9
90°	766.6	752.3	715.2	644.8	547.8	425.1	287.2	149.3	43.7	3.8	3.8
92.5°	713.3	700.9	660.1	587.8	493.6	373.8	238.7	114.1	27.6	1.9	4.8
95°	658.1	644.8	604.9	538.3	438.4	321.5	195.9	83.7	15.2	1.9	4.8
97.5°	603.9	591.6	549.7	483.2	389.0	275.8	155.0	59.0	7.6	1.9	3.8
100°	553.5	539.3	501.2	434.6	339.5	230.2	119.8	38.0	4.8	1.9	3.8
102.5°	500.3	488.9	449.9	385.2	288.2	187.4	89.4	23.8	1.9	1.9	2.9
105°	452.7	438.4	400.4	333.8	245.4	147.4	62.8	14.3	1.9	1.9	2.9



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	294.8	283.4	250.1	194.0	124.6	58.0	17.1	2.9	2.9	2.9	2.9
115°	246.3	229.2	199.7	150.3	92.3	38.0	8.6	2.9	2.9	2.9	2.9
117.5°	196.9	182.6	161.7	114.1	60.9	24.7	4.8	2.9	2.9	2.9	2.9
120°	154.1	140.8	117.0	78.9	40.9	14.3	1.9	2.9	2.9	2.9	2.9
122.5°	110.3	99.9	78.9	51.4	24.7	6.7	2.9	2.9	3.8	3.8	2.9
125°	73.2	67.5	52.3	31.4	15.2	2.9	2.9	2.9	3.8	3.8	2.9
127.5°	47.6	42.8	30.4	18.1	6.7	2.9	2.9	3.8	3.8	3.8	2.9
130°	26.6	23.8	18.1	10.5	2.9	2.9	2.9	3.8	3.8	3.8	2.9
132.5°	15.2	14.3	9.5	1.9	2.9	2.9	2.9	3.8	3.8	3.8	3.8
135°	3.8	1.9	1.9	1.9	2.9	2.9	3.8	3.8	4.8	4.8	3.8
137.5°	1.0	1.0	1.9	1.9	2.9	2.9	3.8	4.8	4.8	4.8	3.8
140°	1.0	1.0	1.9	2.9	2.9	2.9	3.8	4.8	4.8	4.8	3.8
142.5°	1.0	1.9	1.9	2.9	2.9	3.8	3.8	4.8	4.8	3.8	3.8
145°	1.0	1.9	1.9	2.9	2.9	3.8	3.8	4.8	3.8	3.8	3.8
147.5°	1.9	1.9	1.9	2.9	2.9	3.8	3.8	4.8	4.8	3.8	3.8
150°	1.0	1.9	1.9	2.9	3.8	3.8	3.8	4.8	3.8	3.8	3.8
152.5°	1.0	1.9	1.9	2.9	3.8	3.8	3.8	4.8	3.8	3.8	3.8
155°	1.9	1.9	1.9	2.9	3.8	3.8	3.8	4.8	3.8	3.8	4.8
157.5°	1.9	1.9	1.9	2.9	3.8	3.8	3.8	4.8	3.8	3.8	4.8
160°	1.9	1.9	1.9	2.9	2.9	3.8	3.8	3.8	3.8	3.8	3.8
162.5°	1.9	1.9	1.9	2.9	2.9	3.8	3.8	3.8	3.8	3.8	3.8
165°	1.9	1.9	1.9	1.9	2.9	2.9	3.8	3.8	3.8	3.8	3.8
167.5°	1.9	1.9	1.9	2.9	2.9	2.9	3.8	3.8	3.8	3.8	3.8
170°	1.9	1.9	1.9	2.9	2.9	2.9	3.8	4.8	4.8	4.8	4.8
172.5°	1.9	1.9	1.9	2.9	2.9	3.8	3.8	4.8	4.8	4.8	4.8
175°	1.9	1.9	1.9	2.9	2.9	3.8	3.8	4.8	4.8	4.8	4.8
177.5°	1.0	1.9	1.9	2.9	2.9	3.8	3.8	4.8	4.8	4.8	3.8
180°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	746.6	746.6	746.6
2.5°	710.5	697.1	693.3
5°	672.4	650.5	638.2
7.5°	634.4	604.9	590.6
10°	599.2	557.3	542.1
12.5°	557.3	508.8	485.1
15°	517.4	454.6	431.8
17.5°	472.7	402.3	375.7
20°	430.8	350.0	322.4
22.5°	383.3	298.6	268.2
25°	340.5	247.3	213.0
27.5°	292.9	195.0	165.5
30°	248.2	149.3	119.8
32.5°	205.4	109.4	82.7
35°	165.5	74.2	52.3
37.5°	127.4	45.7	26.6
40°	92.3	23.8	12.4
42.5°	61.8	11.4	6.7
45°	38.0	5.7	0.0
47.5°	21.9	0.0	0.0
50°	11.4	0.0	0.0
52.5°	4.8	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	1.9	2.9
80°	1.9	3.8	4.8
82.5°	3.8	4.8	4.8
85°	3.8	4.8	5.7
87.5°	4.8	5.7	6.7
90°	5.7	6.7	6.7
92.5°	5.7	7.6	7.6
95°	6.7	7.6	8.6
97.5°	7.6	8.6	8.6
100°	6.7	8.6	9.5
102.5°	5.7	8.6	8.6
105°	4.8	6.7	7.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.8	4.8	4.8
115°	2.9	3.8	4.8
117.5°	2.9	3.8	3.8
120°	2.9	2.9	3.8
122.5°	2.9	2.9	3.8
125°	2.9	2.9	3.8
127.5°	3.8	2.9	2.9
130°	2.9	2.9	2.9
132.5°	3.8	2.9	2.9
135°	3.8	2.9	2.9
137.5°	3.8	2.9	2.9
140°	3.8	2.9	2.9
142.5°	3.8	2.9	2.9
145°	2.9	2.9	2.9
147.5°	2.9	2.9	2.9
150°	2.9	2.9	1.9
152.5°	2.9	1.9	1.9
155°	2.9	1.9	1.0
157.5°	3.8	1.9	1.0
160°	2.9	1.9	1.0
162.5°	2.9	1.9	1.0
165°	2.9	1.9	0.0
167.5°	2.9	1.9	1.0
170°	2.9	1.9	1.0
172.5°	2.9	1.9	1.0
175°	2.9	1.0	1.0
177.5°	2.9	1.0	1.0
180°	2.9	2.9	2.9



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	399.5	388.0	350.0	287.2	200.7	112.2	41.8	7.6	1.9	2.9	2.9
110°	348.1	338.6	299.6	238.7	161.7	83.7	27.6	4.8	2.9	2.9	2.9





107.5°	3.8	5.7	6.7
110°	3.8	4.8	5.7



(END OF REPORT)