

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: P551322

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-80-85-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: P551322
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-80-85-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

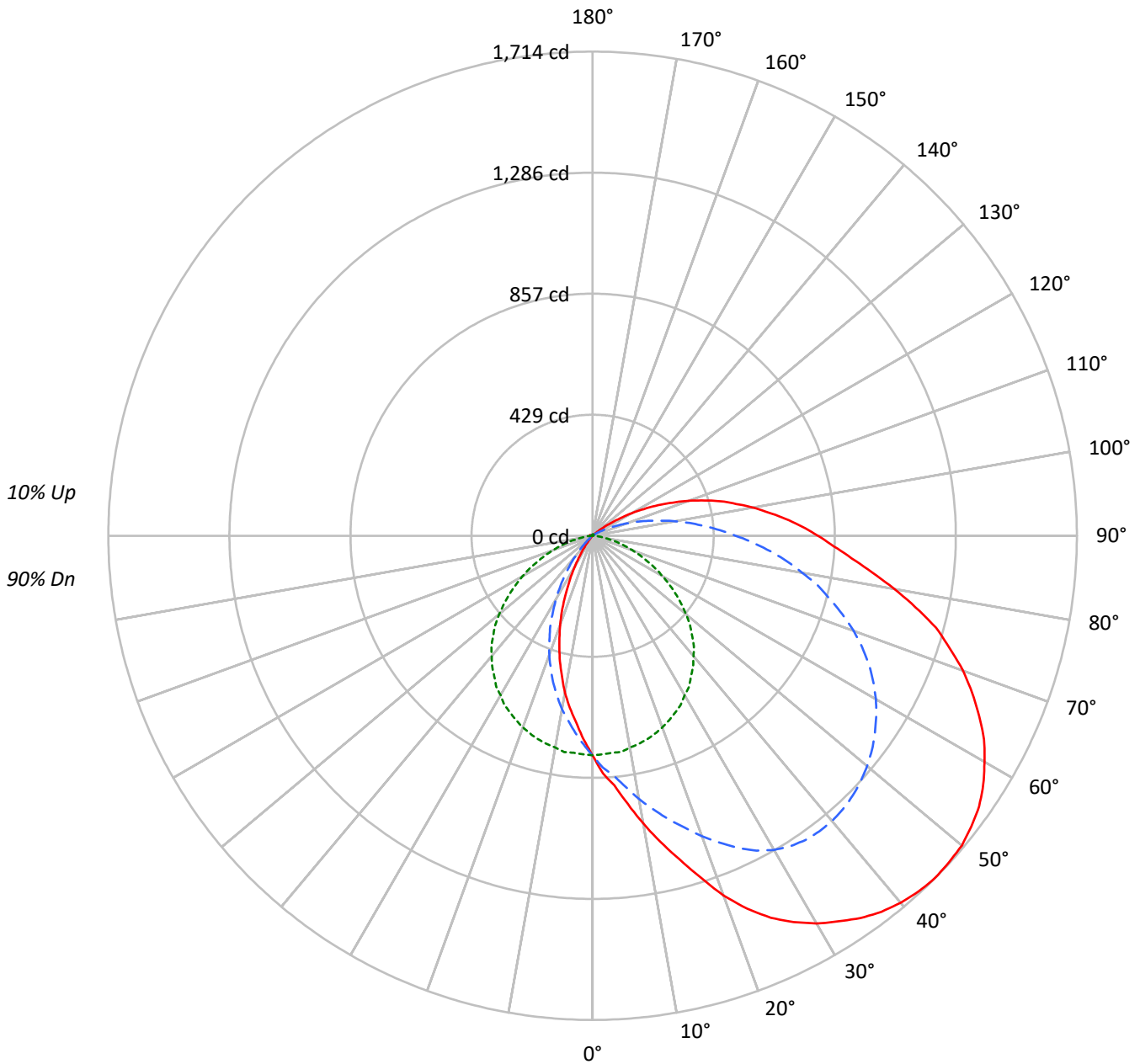
Lumens per Lamp: N/A
Luminaire Lumens: 3842.0 lumens
Efficiency: N/A
Efficacy: 88.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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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CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-80-85-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	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°	8365	8365	8365
5°	9182	8243	6877
10°	10391	8142	5668
15°	11645	8038	4417
20°	13134	7907	3252
25°	14369	7755	2136
30°	15287	7551	1203
35°	16082	7333	529
40°	16787	7063	128
45°	17391	6725	0
50°	17899	6276	0
55°	18285	5707	0
60°	18480	5045	0
65°	18555	4294	0
70°	18494	3502	0
75°	18259	2583	15
80°	17518	1581	79
85°	16933	753	109



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.4	1.9
10°-20°	222.9	5.8
20°-30°	360.9	9.4
30°-40°	463.7	12.1
40°-50°	524.9	13.7
50°-60°	543.8	14.2
60°-70°	512.8	13.3
70°-80°	429.8	11.2
80°-90°	311.5	8.1
90°-100°	204.7	5.3
100°-110°	118.2	3.1
110°-120°	52.2	1.4
120°-130°	14.1	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°	658.3	17.1
0°-40°	1121.9	29.2
0°-60°	2190.6	57.0
0°-90°	3444.7	89.7
90°-120°	375.2	9.8
90°-150°	394.7	10.3
90°-180°	397.0	10.3
0°-180°	3842.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	777	777	777	777	777	
5°	887	852	771	700	664	89
15°	1185	1039	746	539	450	342
25°	1492	1219	691	354	222	690
35°	1652	1314	607	172	54	1036
45°	1714	1301	497	40	0	1323
55°	1670	1219	358	0	0	1491
65°	1510	1079	214	0	0	1494
75°	1258	871	91	1	1	1320
85°	921	631	15	4	6	786
90°	798	506	4	6	7	438
95°	685	396	2	7	9	537
105°	471	204	2	5	8	497
115°	256	68	3	3	5	257
125°	76	9	4	3	4	76
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°	777.1	777.1	777.1	777.1	777.1	777.1	777.1	777.1	777.1	777.1	777.1
2.5°	842.5	841.5	838.5	833.6	826.6	814.8	804.9	796.0	784.1	774.2	755.4
5°	887.0	882.1	878.1	873.2	857.3	846.4	828.6	808.8	790.0	771.2	733.6
7.5°	958.3	950.4	944.5	930.6	908.8	884.1	856.3	837.5	824.7	772.2	707.8
10°	1034.5	1027.6	1015.7	991.0	964.3	928.6	889.0	844.5	804.9	761.3	685.1
12.5°	1109.8	1099.9	1083.1	1051.4	1013.8	969.2	914.8	862.3	805.9	754.4	658.3
15°	1185.0	1174.1	1156.3	1117.7	1068.2	1009.8	943.5	877.1	810.8	745.5	630.6
17.5°	1267.2	1252.3	1225.6	1182.1	1119.7	1047.4	969.2	889.0	808.8	734.6	600.9
20°	1355.3	1334.5	1305.8	1247.4	1174.1	1089.0	994.9	900.9	807.8	721.7	567.3
22.5°	1428.6	1407.8	1376.1	1315.7	1227.6	1123.6	1016.7	908.8	803.9	706.9	535.6
25°	1491.9	1475.1	1440.4	1371.1	1278.1	1160.3	1037.5	914.8	797.9	691.0	501.9
27.5°	1541.4	1525.6	1487.0	1415.7	1320.7	1192.9	1053.4	917.7	790.0	675.2	467.3
30°	1585.0	1569.1	1522.6	1449.3	1349.4	1218.7	1069.2	918.7	780.1	651.4	429.7
32.5°	1618.6	1603.8	1556.3	1478.1	1369.2	1236.5	1078.1	917.7	767.2	634.6	389.1
35°	1652.3	1637.4	1582.0	1498.8	1384.0	1244.4	1085.0	912.8	751.4	606.9	350.5
37.5°	1678.0	1661.2	1604.8	1512.7	1390.9	1246.4	1084.0	905.8	734.6	584.1	311.8
40°	1695.9	1678.0	1617.6	1520.6	1392.9	1243.4	1076.1	894.0	714.8	555.4	271.3
42.5°	1707.7	1687.9	1623.6	1532.5	1389.0	1235.5	1064.2	879.1	693.0	530.6	232.6
45°	1713.7	1692.9	1624.6	1522.6	1382.0	1220.7	1046.4	860.3	669.2	497.0	194.0
47.5°	1710.7	1687.9	1619.6	1511.7	1369.2	1204.8	1026.6	837.5	640.5	467.3	157.4
50°	1705.8	1682.0	1608.7	1497.9	1351.3	1185.0	1004.8	809.8	610.8	430.6	124.7
52.5°	1689.9	1666.2	1596.9	1478.1	1330.6	1162.3	975.1	781.1	579.1	395.0	95.0
55°	1670.1	1648.3	1576.1	1460.2	1303.8	1134.5	947.4	750.4	548.5	358.4	68.3
57.5°	1639.4	1619.6	1550.3	1431.5	1277.1	1103.8	916.7	716.8	509.8	321.7	47.5
60°	1601.8	1582.0	1514.7	1398.9	1246.4	1069.2	883.1	682.1	475.2	285.1	29.7
62.5°	1562.2	1543.4	1473.1	1358.3	1207.8	1032.6	846.4	647.5	438.6	251.5	17.8
65°	1509.7	1491.9	1428.6	1309.8	1165.2	993.0	805.9	605.9	400.9	213.8	9.9
67.5°	1454.3	1438.5	1374.1	1265.2	1115.7	949.4	764.3	565.3	361.3	181.2	4.9
70°	1394.9	1375.1	1315.7	1204.8	1065.2	899.9	718.7	523.7	323.7	149.5	0.0
72.5°	1325.6	1310.8	1253.3	1148.4	1006.8	847.4	672.2	478.2	282.1	118.8	1.0
75°	1258.3	1239.5	1187.0	1088.0	949.4	792.0	620.7	435.6	241.6	91.1	1.0
77.5°	1171.2	1165.2	1115.7	1019.7	895.0	738.5	564.3	384.1	202.9	65.3	1.0
80°	1084.0	1078.1	1039.5	951.4	831.6	675.2	511.8	335.6	165.3	43.6	1.0
82.5°	997.9	990.0	953.4	880.1	767.2	621.7	457.4	287.1	130.7	26.7	1.0
85°	920.7	910.8	871.2	803.9	700.9	561.3	400.9	239.6	97.0	14.8	2.0
87.5°	854.4	847.4	803.9	734.6	633.6	504.9	351.4	194.0	68.3	6.9	3.0
90°	797.9	783.1	744.5	671.2	570.2	442.5	299.0	155.4	45.5	4.0	4.0
92.5°	742.5	729.6	687.1	611.8	513.8	389.1	248.5	118.8	28.7	2.0	4.9
95°	685.1	671.2	629.6	560.3	456.4	334.6	203.9	87.1	15.8	2.0	4.9
97.5°	628.6	615.8	572.2	502.9	404.9	287.1	161.4	61.4	7.9	2.0	4.0
100°	576.2	561.3	521.7	452.4	353.4	239.6	124.7	39.6	4.9	2.0	4.0
102.5°	520.7	508.9	468.3	400.9	300.0	195.0	93.1	24.7	2.0	2.0	3.0
105°	471.2	456.4	416.8	347.5	255.4	153.4	65.3	14.8	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°	306.9	295.0	260.4	202.0	129.7	60.4	17.8	3.0	3.0	3.0	3.0
115°	256.4	238.6	207.9	156.4	96.0	39.6	8.9	3.0	3.0	3.0	3.0
117.5°	204.9	190.1	168.3	118.8	63.4	25.7	4.9	3.0	3.0	3.0	3.0
120°	160.4	146.5	121.8	82.2	42.6	14.8	2.0	3.0	3.0	3.0	3.0
122.5°	114.8	103.9	82.2	53.5	25.7	6.9	3.0	3.0	4.0	4.0	3.0
125°	76.2	70.3	54.4	32.7	15.8	3.0	3.0	3.0	4.0	4.0	3.0
127.5°	49.5	44.5	31.7	18.8	6.9	3.0	3.0	4.0	4.0	4.0	3.0
130°	27.7	24.7	18.8	10.9	3.0	3.0	3.0	4.0	4.0	4.0	3.0
132.5°	15.8	14.8	9.9	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	4.9	4.9	4.0
137.5°	1.0	1.0	2.0	2.0	3.0	3.0	4.0	4.9	4.9	4.9	4.0
140°	1.0	1.0	2.0	3.0	3.0	3.0	4.0	4.9	4.9	4.9	4.0
142.5°	1.0	2.0	2.0	3.0	3.0	4.0	4.0	4.9	4.9	4.0	4.0
145°	1.0	2.0	2.0	3.0	3.0	4.0	4.0	4.9	4.0	4.0	4.0
147.5°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	4.9	4.9	4.0	4.0
150°	1.0	2.0	2.0	3.0	4.0	4.0	4.0	4.9	4.0	4.0	4.0
152.5°	1.0	2.0	2.0	3.0	4.0	4.0	4.0	4.9	4.0	4.0	4.0
155°	2.0	2.0	2.0	3.0	4.0	4.0	4.0	4.9	4.0	4.0	4.9
157.5°	2.0	2.0	2.0	3.0	4.0	4.0	4.0	4.9	4.0	4.0	4.9
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	4.9	4.9	4.9	4.9
172.5°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	4.9	4.9	4.9	4.9
175°	2.0	2.0	2.0	3.0	3.0	4.0	4.0	4.9	4.9	4.9	4.9
177.5°	1.0	2.0	2.0	3.0	3.0	4.0	4.0	4.9	4.9	4.9	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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CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-80-85-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	777.1	777.1	777.1
2.5°	739.5	725.7	721.7
5°	699.9	677.2	664.3
7.5°	660.3	629.6	614.8
10°	623.7	580.1	564.3
12.5°	580.1	529.6	504.9
15°	538.6	473.2	449.5
17.5°	492.0	418.8	391.0
20°	448.5	364.3	335.6
22.5°	399.0	310.9	279.2
25°	354.4	257.4	221.8
27.5°	304.9	202.9	172.3
30°	258.4	155.4	124.7
32.5°	213.8	113.8	86.1
35°	172.3	77.2	54.4
37.5°	132.7	47.5	27.7
40°	96.0	24.7	12.9
42.5°	64.3	11.9	6.9
45°	39.6	5.9	0.0
47.5°	22.8	0.0	0.0
50°	11.9	0.0	0.0
52.5°	4.9	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	4.9
82.5°	4.0	4.9	4.9
85°	4.0	4.9	5.9
87.5°	4.9	5.9	6.9
90°	5.9	6.9	6.9
92.5°	5.9	7.9	7.9
95°	6.9	7.9	8.9
97.5°	7.9	8.9	8.9
100°	6.9	8.9	9.9
102.5°	5.9	8.9	8.9
105°	4.9	6.9	7.9



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CATALOG NUMBER: FCC-X-2-LD4-2HI-40-UNV-80-85-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	4.0	4.9	4.9
115°	3.0	4.0	4.9
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°	415.8	403.9	364.3	299.0	208.9	116.8	43.6	7.9	2.0	3.0	3.0
110°	362.3	352.4	311.8	248.5	168.3	87.1	28.7	4.9	3.0	3.0	3.0





107.5°	4.0	5.9	6.9
110°	4.0	4.9	5.9



(END OF REPORT)