

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: P551328

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-80-88-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: P551328
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-80-88-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

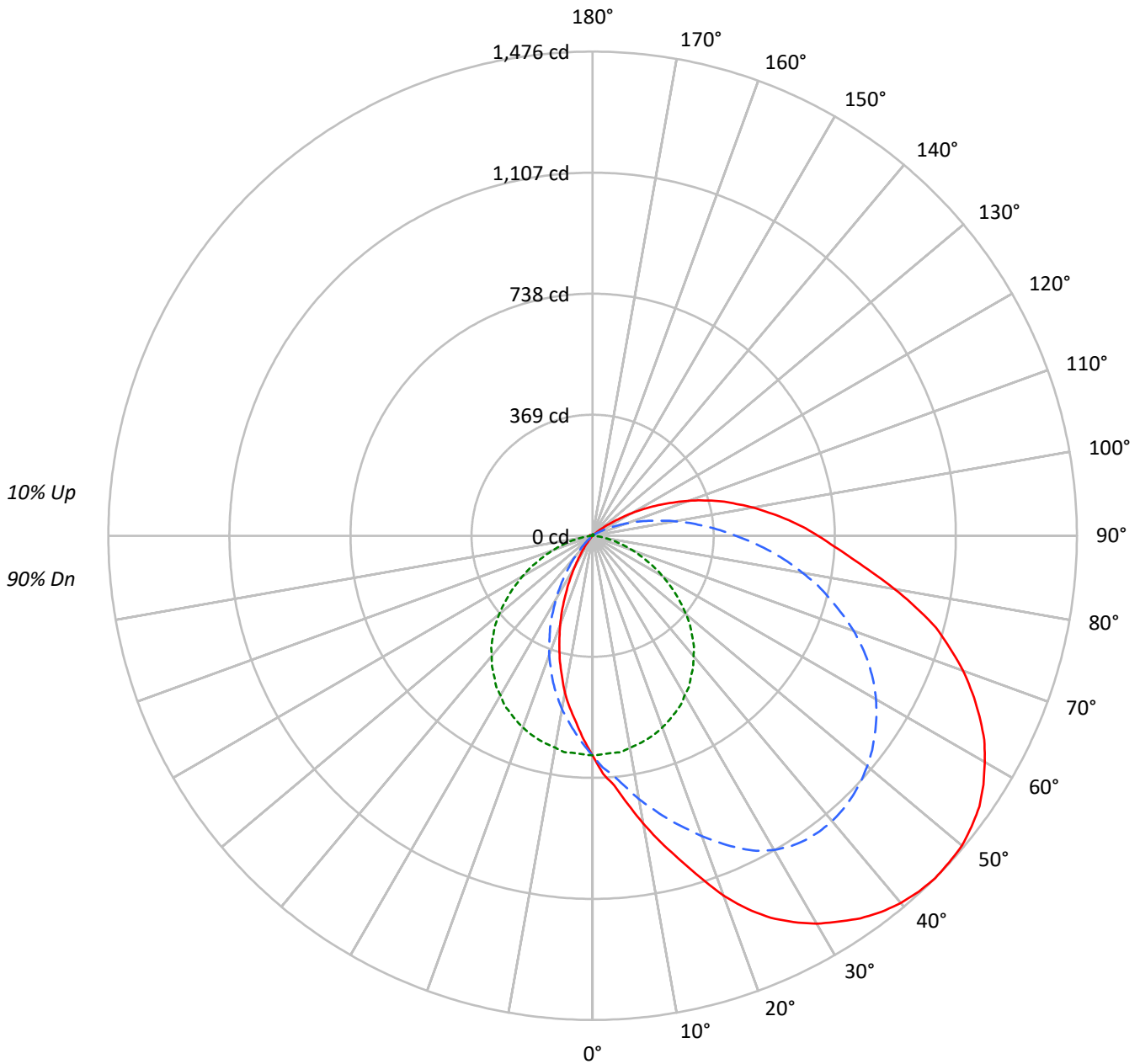
Lumens per Lamp: N/A
Luminaire Lumens: 3310.1 lumens
Efficiency: N/A
Efficacy: 76.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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-40-UNV-80-88-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°	7206	7206	7206
5°	7911	7101	5925
10°	8953	7014	4884
15°	10032	6925	3805
20°	11315	6813	2802
25°	12379	6681	1841
30°	13170	6506	1037
35°	13855	6317	456
40°	14462	6085	110
45°	14983	5794	0
50°	15421	5407	0
55°	15754	4917	0
60°	15921	4346	0
65°	15987	3700	0
70°	15932	3017	0
75°	15730	2226	13
80°	15093	1360	69
85°	14588	651	94



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.1	1.9
10°-20°	192.0	5.8
20°-30°	311.0	9.4
30°-40°	399.5	12.1
40°-50°	452.2	13.7
50°-60°	468.5	14.2
60°-70°	441.8	13.3
70°-80°	370.3	11.2
80°-90°	268.4	8.1
90°-100°	176.4	5.3
100°-110°	101.9	3.1
110°-120°	45.0	1.4
120°-130°	12.2	0.4
130°-140°	2.8	0.1
140°-150°	1.8	0.1
150°-160°	1.3	0.0
160°-170°	0.7	0.0
170°-180°	0.3	0.0
0°-30°	567.1	17.1
0°-40°	966.6	29.2
0°-60°	1887.2	57.0
0°-90°	2967.7	89.7
90°-120°	323.3	9.8
90°-150°	340.1	10.3
90°-180°	342.0	10.3
0°-180°	3310.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	670	670	670	670	670	
5°	764	734	664	603	572	77
15°	1021	895	642	464	387	294
25°	1285	1050	595	305	191	594
35°	1424	1132	523	148	47	893
45°	1476	1121	428	34	0	1140
55°	1439	1050	309	0	0	1285
65°	1301	930	184	0	0	1287
75°	1084	750	78	1	1	1137
85°	793	544	13	3	5	677
90°	687	436	3	5	6	377
95°	590	341	2	6	8	463
105°	406	176	2	4	7	428
115°	221	58	3	3	4	221
125°	66	8	3	3	3	66
135°	3	3	4	3	3	6
145°	1	3	3	3	3	1
155°	2	3	3	3	1	1
165°	2	3	3	3	0	0
175°	2	3	4	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°	669.5	669.5	669.5	669.5	669.5	669.5	669.5	669.5	669.5	669.5	669.5
2.5°	725.8	725.0	722.4	718.1	712.2	701.9	693.4	685.7	675.5	667.0	650.8
5°	764.2	759.9	756.5	752.3	738.6	729.2	713.9	696.8	680.6	664.4	632.0
7.5°	825.6	818.8	813.7	801.7	783.0	761.6	737.8	721.6	710.5	665.3	609.8
10°	891.3	885.3	875.1	853.8	830.7	800.0	765.9	727.5	693.4	655.9	590.2
12.5°	956.1	947.6	933.1	905.8	873.4	835.0	788.1	742.9	694.3	649.9	567.2
15°	1020.9	1011.6	996.2	962.9	920.3	870.0	812.8	755.7	698.5	642.2	543.3
17.5°	1091.7	1078.9	1055.9	1018.4	964.6	902.4	835.0	765.9	696.8	632.9	517.7
20°	1167.6	1149.7	1125.0	1074.7	1011.6	938.2	857.2	776.1	696.0	621.8	488.7
22.5°	1230.7	1212.8	1185.5	1133.5	1057.6	968.1	875.9	783.0	692.6	609.0	461.4
25°	1285.3	1270.8	1241.0	1181.3	1101.1	999.6	893.8	788.1	687.4	595.3	432.4
27.5°	1328.0	1314.3	1281.1	1219.7	1137.8	1027.8	907.5	790.6	680.6	581.7	402.6
30°	1365.5	1351.9	1311.8	1248.7	1162.5	1049.9	921.1	791.5	672.1	561.2	370.2
32.5°	1394.5	1381.7	1340.8	1273.4	1179.6	1065.3	928.8	790.6	661.0	546.7	335.2
35°	1423.5	1410.7	1362.9	1291.3	1192.4	1072.1	934.8	786.4	647.4	522.8	301.9
37.5°	1445.7	1431.2	1382.6	1303.2	1198.3	1073.8	933.9	780.4	632.9	503.2	268.7
40°	1461.0	1445.7	1393.7	1310.1	1200.0	1071.3	927.1	770.2	615.8	478.5	233.7
42.5°	1471.3	1454.2	1398.8	1320.3	1196.6	1064.4	916.9	757.4	597.0	457.2	200.4
45°	1476.4	1458.5	1399.6	1311.8	1190.7	1051.6	901.5	741.2	576.6	428.2	167.2
47.5°	1473.8	1454.2	1395.4	1302.4	1179.6	1038.0	884.5	721.6	551.8	402.6	135.6
50°	1469.6	1449.1	1386.0	1290.5	1164.2	1020.9	865.7	697.7	526.2	371.0	107.5
52.5°	1455.9	1435.4	1375.7	1273.4	1146.3	1001.3	840.1	672.9	499.0	340.3	81.9
55°	1438.9	1420.1	1357.8	1258.0	1123.3	977.4	816.2	646.5	472.5	308.8	58.9
57.5°	1412.4	1395.4	1335.7	1233.3	1100.3	951.0	789.8	617.5	439.2	277.2	40.9
60°	1380.0	1362.9	1305.0	1205.2	1073.8	921.1	760.8	587.7	409.4	245.6	25.6
62.5°	1345.9	1329.7	1269.1	1170.2	1040.5	889.6	729.2	557.8	377.8	216.6	15.4
65°	1300.7	1285.3	1230.7	1128.4	1003.9	855.5	694.3	522.0	345.4	184.2	8.5
67.5°	1252.9	1239.3	1183.8	1090.0	961.2	817.9	658.4	487.0	311.3	156.1	4.3
70°	1201.7	1184.7	1133.5	1038.0	917.7	775.3	619.2	451.2	278.9	128.8	0.0
72.5°	1142.0	1129.3	1079.8	989.4	867.4	730.1	579.1	412.0	243.1	102.3	0.9
75°	1084.0	1067.8	1022.6	937.3	817.9	682.3	534.8	375.3	208.1	78.5	0.9
77.5°	1009.0	1003.9	961.2	878.5	771.0	636.3	486.2	330.9	174.8	56.3	0.9
80°	933.9	928.8	895.6	819.6	716.4	581.7	441.0	289.1	142.4	37.5	0.9
82.5°	859.7	852.9	821.4	758.2	661.0	535.6	394.0	247.3	112.6	23.0	0.9
85°	793.2	784.7	750.6	692.6	603.9	483.6	345.4	206.4	83.6	12.8	1.7
87.5°	736.1	730.1	692.6	632.9	545.9	435.0	302.8	167.2	58.9	6.0	2.6
90°	687.4	674.7	641.4	578.3	491.3	381.3	257.6	133.9	39.2	3.4	3.4
92.5°	639.7	628.6	591.9	527.1	442.7	335.2	214.1	102.3	24.7	1.7	4.3
95°	590.2	578.3	542.5	482.7	393.2	288.3	175.7	75.1	13.6	1.7	4.3
97.5°	541.6	530.5	493.0	433.3	348.8	247.3	139.0	52.9	6.8	1.7	3.4
100°	496.4	483.6	449.5	389.8	304.5	206.4	107.5	34.1	4.3	1.7	3.4
102.5°	448.6	438.4	403.4	345.4	258.4	168.0	80.2	21.3	1.7	1.7	2.6
105°	406.0	393.2	359.1	299.4	220.1	132.2	56.3	12.8	1.7	1.7	2.6



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	264.4	254.2	224.3	174.0	111.7	52.0	15.4	2.6	2.6	2.6	2.6
115°	220.9	205.6	179.1	134.8	82.7	34.1	7.7	2.6	2.6	2.6	2.6
117.5°	176.6	163.8	145.0	102.3	54.6	22.2	4.3	2.6	2.6	2.6	2.6
120°	138.2	126.2	104.9	70.8	36.7	12.8	1.7	2.6	2.6	2.6	2.6
122.5°	98.9	89.6	70.8	46.1	22.2	6.0	2.6	2.6	3.4	3.4	2.6
125°	65.7	60.6	46.9	28.1	13.6	2.6	2.6	2.6	3.4	3.4	2.6
127.5°	42.6	38.4	27.3	16.2	6.0	2.6	2.6	3.4	3.4	3.4	2.6
130°	23.9	21.3	16.2	9.4	2.6	2.6	2.6	3.4	3.4	3.4	2.6
132.5°	13.6	12.8	8.5	1.7	2.6	2.6	2.6	3.4	3.4	3.4	3.4
135°	3.4	1.7	1.7	1.7	2.6	2.6	3.4	3.4	4.3	4.3	3.4
137.5°	0.9	0.9	1.7	1.7	2.6	2.6	3.4	4.3	4.3	4.3	3.4
140°	0.9	0.9	1.7	2.6	2.6	2.6	3.4	4.3	4.3	4.3	3.4
142.5°	0.9	1.7	1.7	2.6	2.6	3.4	3.4	4.3	4.3	3.4	3.4
145°	0.9	1.7	1.7	2.6	2.6	3.4	3.4	4.3	3.4	3.4	3.4
147.5°	1.7	1.7	1.7	2.6	2.6	3.4	3.4	4.3	4.3	3.4	3.4
150°	0.9	1.7	1.7	2.6	3.4	3.4	3.4	4.3	3.4	3.4	3.4
152.5°	0.9	1.7	1.7	2.6	3.4	3.4	3.4	4.3	3.4	3.4	3.4
155°	1.7	1.7	1.7	2.6	3.4	3.4	3.4	4.3	3.4	3.4	4.3
157.5°	1.7	1.7	1.7	2.6	3.4	3.4	3.4	4.3	3.4	3.4	4.3
160°	1.7	1.7	1.7	2.6	2.6	3.4	3.4	3.4	3.4	3.4	3.4
162.5°	1.7	1.7	1.7	2.6	2.6	3.4	3.4	3.4	3.4	3.4	3.4
165°	1.7	1.7	1.7	1.7	2.6	2.6	3.4	3.4	3.4	3.4	3.4
167.5°	1.7	1.7	1.7	2.6	2.6	2.6	3.4	3.4	3.4	3.4	3.4
170°	1.7	1.7	1.7	2.6	2.6	2.6	3.4	4.3	4.3	4.3	4.3
172.5°	1.7	1.7	1.7	2.6	2.6	3.4	3.4	4.3	4.3	4.3	4.3
175°	1.7	1.7	1.7	2.6	2.6	3.4	3.4	4.3	4.3	4.3	4.3
177.5°	0.9	1.7	1.7	2.6	2.6	3.4	3.4	4.3	4.3	4.3	3.4
180°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	669.5	669.5	669.5
2.5°	637.1	625.2	621.8
5°	603.0	583.4	572.3
7.5°	568.9	542.5	529.7
10°	537.3	499.8	486.2
12.5°	499.8	456.3	435.0
15°	464.0	407.7	387.2
17.5°	423.9	360.8	336.9
20°	386.4	313.9	289.1
22.5°	343.7	267.8	240.5
25°	305.3	221.8	191.1
27.5°	262.7	174.8	148.4
30°	222.6	133.9	107.5
32.5°	184.2	98.1	74.2
35°	148.4	66.5	46.9
37.5°	114.3	40.9	23.9
40°	82.7	21.3	11.1
42.5°	55.4	10.2	6.0
45°	34.1	5.1	0.0
47.5°	19.6	0.0	0.0
50°	10.2	0.0	0.0
52.5°	4.3	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°	0.9	0.9	0.9
77.5°	0.9	1.7	2.6
80°	1.7	3.4	4.3
82.5°	3.4	4.3	4.3
85°	3.4	4.3	5.1
87.5°	4.3	5.1	6.0
90°	5.1	6.0	6.0
92.5°	5.1	6.8	6.8
95°	6.0	6.8	7.7
97.5°	6.8	7.7	7.7
100°	6.0	7.7	8.5
102.5°	5.1	7.7	7.7
105°	4.3	6.0	6.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.4	4.3	4.3
115°	2.6	3.4	4.3
117.5°	2.6	3.4	3.4
120°	2.6	2.6	3.4
122.5°	2.6	2.6	3.4
125°	2.6	2.6	3.4
127.5°	3.4	2.6	2.6
130°	2.6	2.6	2.6
132.5°	3.4	2.6	2.6
135°	3.4	2.6	2.6
137.5°	3.4	2.6	2.6
140°	3.4	2.6	2.6
142.5°	3.4	2.6	2.6
145°	2.6	2.6	2.6
147.5°	2.6	2.6	2.6
150°	2.6	2.6	1.7
152.5°	2.6	1.7	1.7
155°	2.6	1.7	0.9
157.5°	3.4	1.7	0.9
160°	2.6	1.7	0.9
162.5°	2.6	1.7	0.9
165°	2.6	1.7	0.0
167.5°	2.6	1.7	0.9
170°	2.6	1.7	0.9
172.5°	2.6	1.7	0.9
175°	2.6	0.9	0.9
177.5°	2.6	0.9	0.9
180°	2.6	2.6	2.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	358.2	348.0	313.9	257.6	180.0	100.6	37.5	6.8	1.7	2.6	2.6
110°	312.2	303.6	268.7	214.1	145.0	75.1	24.7	4.3	2.6	2.6	2.6





107.5°	3.4	5.1	6.0
110°	3.4	4.3	5.1



(END OF REPORT)