

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: P551331

Luminaire Tested: **FCC-X-2-LD4-2HI-40-UNV-80-96-ED1D-90**

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: P551331
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-80-96-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

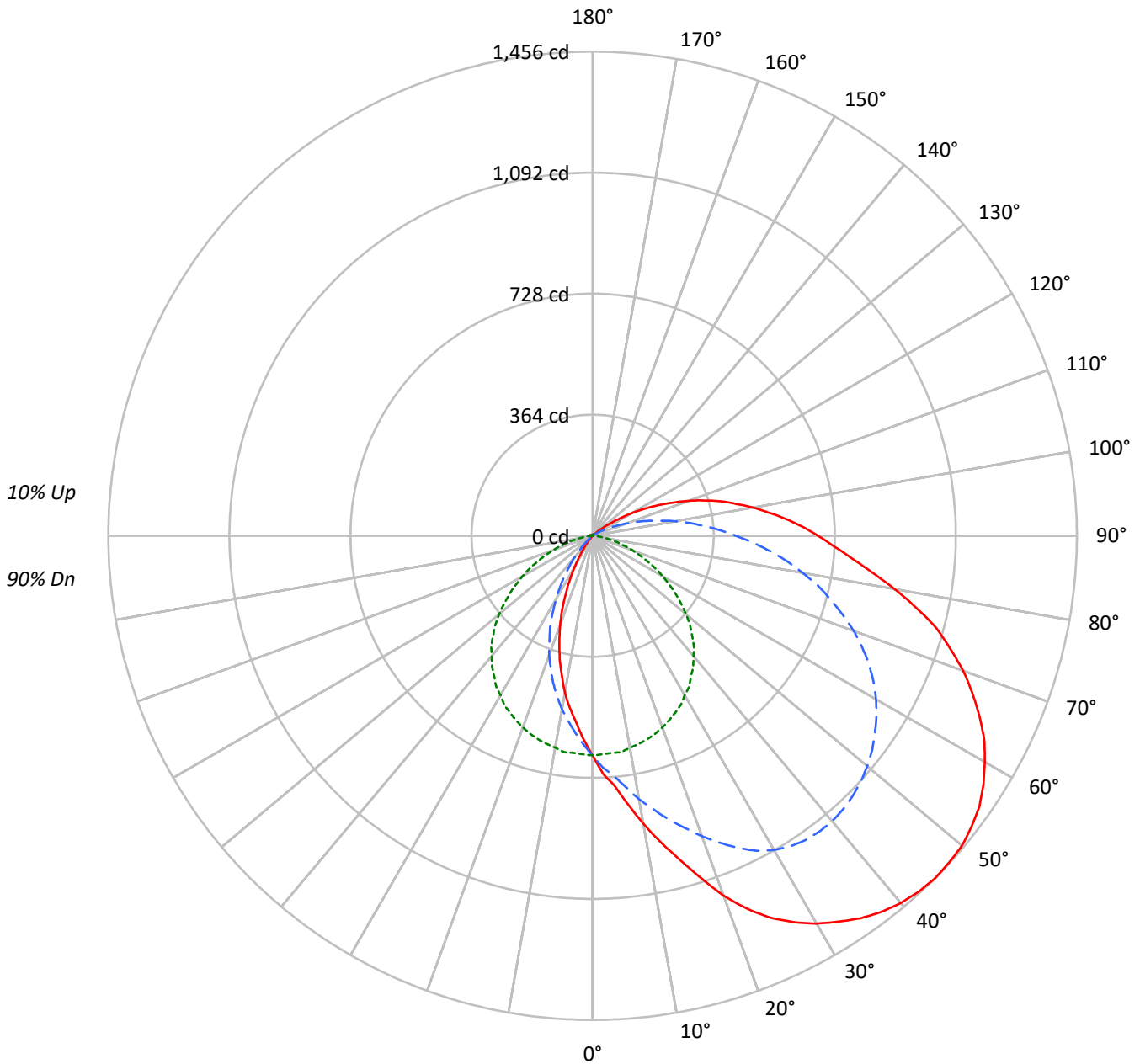
Lumens per Lamp: N/A
Luminaire Lumens: 3265.0 lumens
Efficiency: N/A
Efficacy: 75.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	90																			
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	67																			
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	53																			
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	43																			
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	36																			
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	30																			
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	26																			
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	23																			
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	20																			
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	18																			
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	16																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	7108	7108	7108
5°	7803	7005	5844
10°	8831	6919	4816
15°	9897	6831	3754
20°	11162	6719	2764
25°	12211	6590	1815
30°	12991	6418	1022
35°	13667	6231	451
40°	14266	6003	108
45°	14779	5714	0
50°	15211	5334	0
55°	15539	4850	0
60°	15704	4288	0
65°	15769	3650	0
70°	15716	2975	0
75°	15516	2195	12
80°	14887	1342	68
85°	14390	641	92



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.3	1.9
10°-20°	189.4	5.8
20°-30°	306.7	9.4
30°-40°	394.0	12.1
40°-50°	446.0	13.7
50°-60°	462.1	14.2
60°-70°	435.8	13.3
70°-80°	365.2	11.2
80°-90°	264.7	8.1
90°-100°	174.0	5.3
100°-110°	100.5	3.1
110°-120°	44.3	1.4
120°-130°	12.0	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°	559.4	17.1
0°-40°	953.4	29.2
0°-60°	1861.6	57.0
0°-90°	2927.3	89.7
90°-120°	318.8	9.8
90°-150°	335.4	10.3
90°-180°	338.0	10.4
0°-180°	3265.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	660	660	660	660	660	
5°	754	724	655	595	564	76
15°	1007	883	634	458	382	290
25°	1268	1036	587	301	188	586
35°	1404	1117	516	146	46	881
45°	1456	1106	422	34	0	1124
55°	1419	1036	305	0	0	1267
65°	1283	917	182	0	0	1269
75°	1069	740	77	1	1	1122
85°	782	536	13	3	5	668
90°	678	430	3	5	6	372
95°	582	336	2	6	8	457
105°	400	174	2	4	7	423
115°	218	58	2	2	4	218
125°	65	8	3	2	3	65
135°	3	2	4	3	2	6
145°	1	3	3	2	2	1
155°	2	3	3	2	1	1
165°	2	2	3	2	0	0
175°	2	3	4	2	1	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	660.4	660.4	660.4	660.4	660.4	660.4	660.4	660.4	660.4	660.4	660.4
2.5°	716.0	715.1	712.6	708.4	702.5	692.4	684.0	676.4	666.3	657.9	641.9
5°	753.8	749.6	746.2	742.0	728.6	719.3	704.2	687.4	671.4	655.4	623.4
7.5°	814.4	807.7	802.6	790.8	772.3	751.3	727.7	711.8	700.8	656.2	601.5
10°	879.2	873.3	863.2	842.2	819.4	789.2	755.5	717.6	684.0	647.0	582.2
12.5°	943.1	934.7	920.4	893.5	861.5	823.6	777.4	732.8	684.8	641.1	559.5
15°	1007.1	997.8	982.7	949.8	907.8	858.1	801.8	745.4	689.0	633.5	535.9
17.5°	1076.9	1064.3	1041.5	1004.5	951.5	890.1	823.6	755.5	687.4	624.3	510.7
20°	1151.8	1134.1	1109.7	1060.1	997.8	925.4	845.5	765.6	686.5	613.3	482.1
22.5°	1214.0	1196.3	1169.4	1118.1	1043.2	954.9	864.0	772.3	683.1	600.7	455.2
25°	1267.9	1253.6	1224.1	1165.2	1086.1	986.0	881.7	777.4	678.1	587.2	426.5
27.5°	1309.9	1296.5	1263.7	1203.1	1122.3	1013.8	895.2	779.9	671.4	573.8	397.1
30°	1346.9	1333.5	1293.9	1231.7	1146.7	1035.7	908.6	780.7	663.0	553.6	365.1
32.5°	1375.5	1362.9	1322.5	1256.1	1163.5	1050.8	916.2	779.9	652.0	539.3	330.6
35°	1404.2	1391.5	1344.4	1273.7	1176.2	1057.5	922.1	775.7	638.6	515.7	297.8
37.5°	1426.0	1411.7	1363.8	1285.5	1182.0	1059.2	921.2	769.8	624.3	496.4	265.0
40°	1441.2	1426.0	1374.7	1292.3	1183.7	1056.7	914.5	759.7	607.4	472.0	230.5
42.5°	1451.3	1434.4	1379.8	1302.4	1180.4	1050.0	904.4	747.1	588.9	450.9	197.7
45°	1456.3	1438.6	1380.6	1293.9	1174.5	1037.3	889.3	731.1	568.7	422.3	164.9
47.5°	1453.8	1434.4	1376.4	1284.7	1163.5	1023.9	872.4	711.8	544.3	397.1	133.8
50°	1449.6	1429.4	1367.1	1272.9	1148.4	1007.1	853.9	688.2	519.1	366.0	106.0
52.5°	1436.1	1415.9	1357.0	1256.1	1130.7	987.7	828.7	663.8	492.2	335.7	80.8
55°	1419.3	1400.8	1339.4	1240.9	1108.0	964.1	805.1	637.7	466.1	304.6	58.1
57.5°	1393.2	1376.4	1317.5	1216.5	1085.3	938.1	779.1	609.1	433.3	273.4	40.4
60°	1361.2	1344.4	1287.2	1188.8	1059.2	908.6	750.5	579.7	403.8	242.3	25.2
62.5°	1327.6	1311.6	1251.9	1154.3	1026.4	877.5	719.3	550.2	372.7	213.7	15.1
65°	1283.0	1267.9	1214.0	1113.1	990.2	843.8	684.8	514.9	340.7	181.7	8.4
67.5°	1235.9	1222.4	1167.7	1075.2	948.2	806.8	649.5	480.4	307.1	154.0	4.2
70°	1185.4	1168.6	1118.1	1023.9	905.3	764.8	610.8	445.1	275.1	127.0	0.0
72.5°	1126.5	1113.9	1065.1	975.9	855.6	720.2	571.3	406.4	239.8	101.0	0.8
75°	1069.3	1053.3	1008.7	924.6	806.8	673.1	527.5	370.2	205.3	77.4	0.8
77.5°	995.3	990.2	948.2	866.6	760.5	627.6	479.5	326.4	172.5	55.5	0.8
80°	921.2	916.2	883.4	808.5	706.7	573.8	435.0	285.2	140.5	37.0	0.8
82.5°	848.0	841.3	810.2	747.9	652.0	528.3	388.7	244.0	111.1	22.7	0.8
85°	782.4	774.0	740.4	683.1	595.6	477.0	340.7	203.6	82.4	12.6	1.7
87.5°	726.1	720.2	683.1	624.3	538.4	429.1	298.7	164.9	58.1	5.9	2.5
90°	678.1	665.5	632.7	570.4	484.6	376.1	254.1	132.1	38.7	3.4	3.4
92.5°	631.0	620.0	583.9	519.9	436.6	330.6	211.2	101.0	24.4	1.7	4.2
95°	582.2	570.4	535.1	476.2	387.8	284.4	173.3	74.0	13.5	1.7	4.2
97.5°	534.2	523.3	486.3	427.4	344.1	244.0	137.1	52.2	6.7	1.7	3.4
100°	489.6	477.0	443.4	384.5	300.3	203.6	106.0	33.7	4.2	1.7	3.4
102.5°	442.5	432.4	397.9	340.7	254.9	165.7	79.1	21.0	1.7	1.7	2.5
105°	400.5	387.8	354.2	295.3	217.1	130.4	55.5	12.6	1.7	1.7	2.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	260.8	250.7	221.3	171.6	110.2	51.3	15.1	2.5	2.5	2.5	2.5
115°	217.9	202.8	176.7	132.9	81.6	33.7	7.6	2.5	2.5	2.5	2.5
117.5°	174.2	161.5	143.0	101.0	53.8	21.9	4.2	2.5	2.5	2.5	2.5
120°	136.3	124.5	103.5	69.8	36.2	12.6	1.7	2.5	2.5	2.5	2.5
122.5°	97.6	88.3	69.8	45.4	21.9	5.9	2.5	2.5	3.4	3.4	2.5
125°	64.8	59.7	46.3	27.8	13.5	2.5	2.5	2.5	3.4	3.4	2.5
127.5°	42.1	37.9	26.9	16.0	5.9	2.5	2.5	3.4	3.4	3.4	2.5
130°	23.6	21.0	16.0	9.3	2.5	2.5	2.5	3.4	3.4	3.4	2.5
132.5°	13.5	12.6	8.4	1.7	2.5	2.5	2.5	3.4	3.4	3.4	3.4
135°	3.4	1.7	1.7	1.7	2.5	2.5	3.4	3.4	4.2	4.2	3.4
137.5°	0.8	0.8	1.7	1.7	2.5	2.5	3.4	4.2	4.2	4.2	3.4
140°	0.8	0.8	1.7	2.5	2.5	2.5	3.4	4.2	4.2	4.2	3.4
142.5°	0.8	1.7	1.7	2.5	2.5	3.4	3.4	4.2	4.2	3.4	3.4
145°	0.8	1.7	1.7	2.5	2.5	3.4	3.4	4.2	3.4	3.4	3.4
147.5°	1.7	1.7	1.7	2.5	2.5	3.4	3.4	4.2	4.2	3.4	3.4
150°	0.8	1.7	1.7	2.5	3.4	3.4	3.4	4.2	3.4	3.4	3.4
152.5°	0.8	1.7	1.7	2.5	3.4	3.4	3.4	4.2	3.4	3.4	3.4
155°	1.7	1.7	1.7	2.5	3.4	3.4	3.4	4.2	3.4	3.4	4.2
157.5°	1.7	1.7	1.7	2.5	3.4	3.4	3.4	4.2	3.4	3.4	4.2
160°	1.7	1.7	1.7	2.5	2.5	3.4	3.4	3.4	3.4	3.4	3.4
162.5°	1.7	1.7	1.7	2.5	2.5	3.4	3.4	3.4	3.4	3.4	3.4
165°	1.7	1.7	1.7	1.7	2.5	2.5	3.4	3.4	3.4	3.4	3.4
167.5°	1.7	1.7	1.7	2.5	2.5	2.5	3.4	3.4	3.4	3.4	3.4
170°	1.7	1.7	1.7	2.5	2.5	2.5	3.4	4.2	4.2	4.2	4.2
172.5°	1.7	1.7	1.7	2.5	2.5	3.4	3.4	4.2	4.2	4.2	4.2
175°	1.7	1.7	1.7	2.5	2.5	3.4	3.4	4.2	4.2	4.2	4.2
177.5°	0.8	1.7	1.7	2.5	2.5	3.4	3.4	4.2	4.2	4.2	3.4
180°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	660.4	660.4	660.4
2.5°	628.5	616.7	613.3
5°	594.8	575.5	564.5
7.5°	561.2	535.1	522.5
10°	530.0	493.0	479.5
12.5°	493.0	450.1	429.1
15°	457.7	402.1	382.0
17.5°	418.1	355.9	332.3
20°	381.1	309.6	285.2
22.5°	339.0	264.2	237.3
25°	301.2	218.7	188.5
27.5°	259.1	172.5	146.4
30°	219.6	132.1	106.0
32.5°	181.7	96.8	73.2
35°	146.4	65.6	46.3
37.5°	112.7	40.4	23.6
40°	81.6	21.0	10.9
42.5°	54.7	10.1	5.9
45°	33.7	5.0	0.0
47.5°	19.4	0.0	0.0
50°	10.1	0.0	0.0
52.5°	4.2	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°	0.8	0.8	0.8
77.5°	0.8	1.7	2.5
80°	1.7	3.4	4.2
82.5°	3.4	4.2	4.2
85°	3.4	4.2	5.0
87.5°	4.2	5.0	5.9
90°	5.0	5.9	5.9
92.5°	5.0	6.7	6.7
95°	5.9	6.7	7.6
97.5°	6.7	7.6	7.6
100°	5.9	7.6	8.4
102.5°	5.0	7.6	7.6
105°	4.2	5.9	6.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.4	4.2	4.2
115°	2.5	3.4	4.2
117.5°	2.5	3.4	3.4
120°	2.5	2.5	3.4
122.5°	2.5	2.5	3.4
125°	2.5	2.5	3.4
127.5°	3.4	2.5	2.5
130°	2.5	2.5	2.5
132.5°	3.4	2.5	2.5
135°	3.4	2.5	2.5
137.5°	3.4	2.5	2.5
140°	3.4	2.5	2.5
142.5°	3.4	2.5	2.5
145°	2.5	2.5	2.5
147.5°	2.5	2.5	2.5
150°	2.5	2.5	1.7
152.5°	2.5	1.7	1.7
155°	2.5	1.7	0.8
157.5°	3.4	1.7	0.8
160°	2.5	1.7	0.8
162.5°	2.5	1.7	0.8
165°	2.5	1.7	0.0
167.5°	2.5	1.7	0.8
170°	2.5	1.7	0.8
172.5°	2.5	1.7	0.8
175°	2.5	0.8	0.8
177.5°	2.5	0.8	0.8
180°	2.5	2.5	2.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	353.4	343.3	309.6	254.1	177.5	99.3	37.0	6.7	1.7	2.5	2.5
110°	307.9	299.5	265.0	211.2	143.0	74.0	24.4	4.2	2.5	2.5	2.5





107.5°	3.4	5.0	5.9
110°	3.4	4.2	5.0



(END OF REPORT)