

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: P551201

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-80-94-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: P551201
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-30-UNV-80-94-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

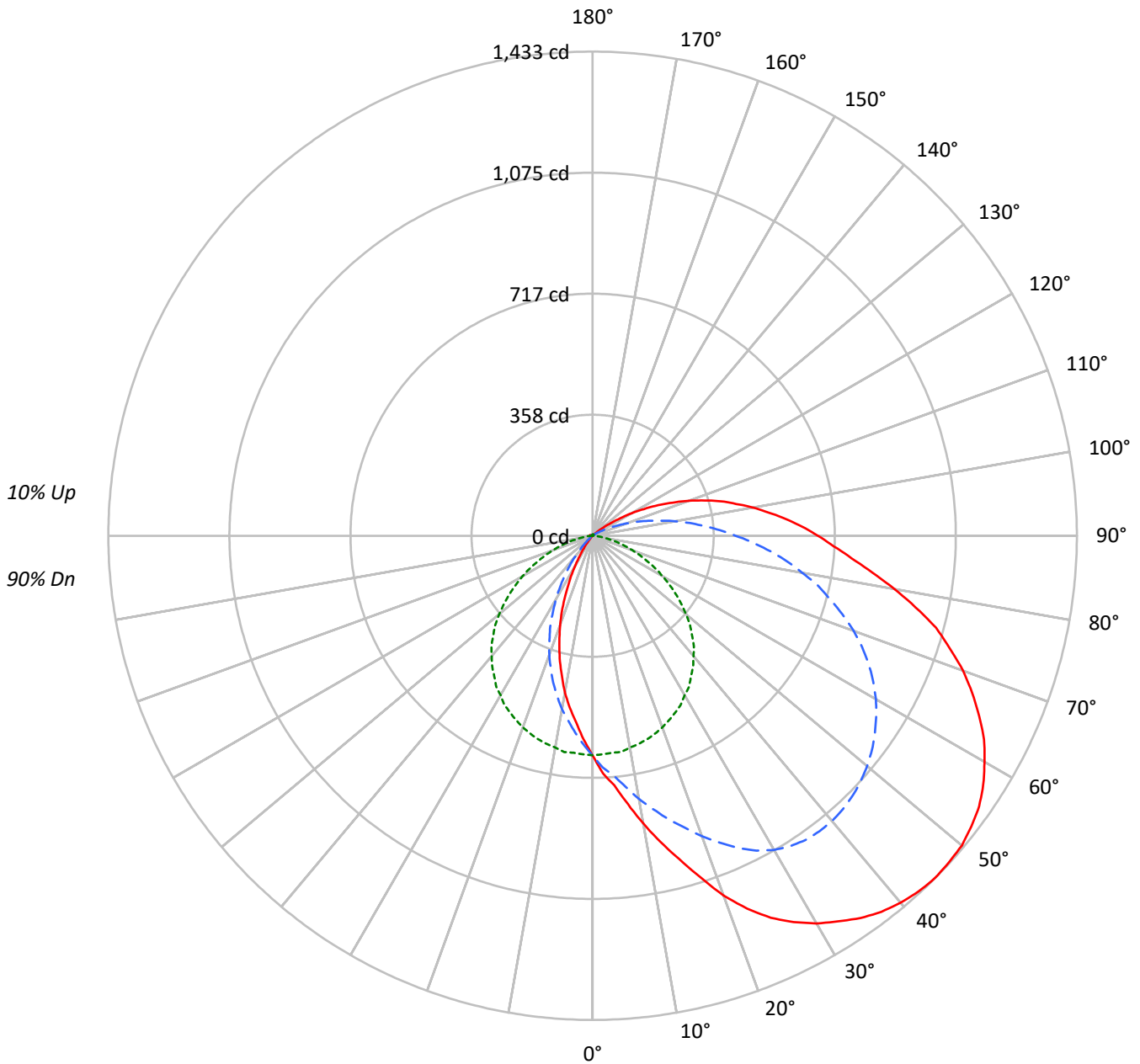
Lumens per Lamp: N/A
Luminaire Lumens: 3212.0 lumens
Efficiency: N/A
Efficacy: 74.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 43.3
Input Voltage (V): NR
Input Current (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°	6993	6993	6993
5°	7677	6891	5750
10°	8687	6807	4739
15°	9736	6720	3693
20°	10981	6611	2719
25°	12013	6483	1786
30°	12780	6313	1006
35°	13445	6131	443
40°	14034	5905	107
45°	14539	5622	0
50°	14964	5247	0
55°	15287	4771	0
60°	15449	4219	0
65°	15513	3591	0
70°	15462	2928	0
75°	15265	2158	12
80°	14647	1320	66
85°	14156	631	92



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.2	1.9
10°-20°	186.3	5.8
20°-30°	301.8	9.4
30°-40°	387.6	12.1
40°-50°	438.8	13.7
50°-60°	454.6	14.2
60°-70°	428.7	13.3
70°-80°	359.3	11.2
80°-90°	260.4	8.1
90°-100°	171.2	5.3
100°-110°	98.9	3.1
110°-120°	43.6	1.4
120°-130°	11.8	0.4
130°-140°	2.7	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°	550.3	17.1
0°-40°	938.0	29.2
0°-60°	1831.4	57.0
0°-90°	2879.8	89.7
90°-120°	313.6	9.8
90°-150°	329.9	10.3
90°-180°	332.0	10.3
0°-180°	3212.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	650	650	650	650	650	
5°	742	712	645	585	555	75
15°	991	869	623	450	376	286
25°	1247	1019	578	296	185	576
35°	1381	1099	507	144	46	866
45°	1433	1088	416	33	0	1106
55°	1396	1019	300	0	0	1247
65°	1262	902	179	0	0	1249
75°	1052	728	76	1	1	1103
85°	770	528	12	3	5	657
90°	667	423	3	5	6	366
95°	573	331	2	6	7	449
105°	394	171	2	4	7	416
115°	214	57	2	2	4	215
125°	64	8	3	2	3	64
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°	649.7	649.7	649.7	649.7	649.7	649.7	649.7	649.7	649.7	649.7	649.7
2.5°	704.3	703.5	701.0	696.9	691.1	681.2	672.9	665.4	655.5	647.2	631.5
5°	741.6	737.4	734.1	730.0	716.8	707.6	692.7	676.2	660.5	644.7	613.3
7.5°	801.2	794.6	789.6	778.0	759.8	739.1	715.9	700.2	689.4	645.6	591.8
10°	864.9	859.1	849.2	828.5	806.1	776.3	743.2	706.0	672.9	636.5	572.7
12.5°	927.8	919.5	905.5	879.0	847.5	810.3	764.8	720.9	673.7	630.7	550.4
15°	990.7	981.6	966.7	934.4	893.0	844.2	788.8	733.3	677.9	623.2	527.2
17.5°	1059.4	1047.0	1024.6	988.2	936.1	875.7	810.3	743.2	676.2	614.1	502.4
20°	1133.1	1115.7	1091.7	1042.8	981.6	910.4	831.8	753.2	675.4	603.4	474.2
22.5°	1194.3	1176.9	1150.4	1100.0	1026.3	939.4	850.0	759.8	672.1	590.9	447.8
25°	1247.3	1233.2	1204.2	1146.3	1068.5	970.0	867.4	764.8	667.1	577.7	419.6
27.5°	1288.7	1275.4	1243.1	1183.5	1104.1	997.3	880.6	767.2	660.5	564.5	390.7
30°	1325.1	1311.8	1272.9	1211.7	1128.1	1018.8	893.9	768.1	652.2	544.6	359.2
32.5°	1353.2	1340.8	1301.1	1235.7	1144.6	1033.7	901.3	767.2	641.4	530.5	325.3
35°	1381.4	1368.9	1322.6	1253.1	1157.1	1040.4	907.1	763.1	628.2	507.4	293.0
37.5°	1402.9	1388.8	1341.6	1264.7	1162.9	1042.0	906.3	757.3	614.1	488.3	260.7
40°	1417.8	1402.9	1352.4	1271.3	1164.5	1039.5	899.7	747.4	597.6	464.3	226.8
42.5°	1427.7	1411.2	1357.4	1281.2	1161.2	1032.9	889.7	735.0	579.4	443.6	194.5
45°	1432.7	1415.3	1358.2	1272.9	1155.4	1020.5	874.8	719.2	559.5	415.5	162.2
47.5°	1430.2	1411.2	1354.0	1263.8	1144.6	1007.3	858.3	700.2	535.5	390.7	131.6
50°	1426.1	1406.2	1344.9	1252.2	1129.8	990.7	840.1	677.0	510.7	360.0	104.3
52.5°	1412.8	1392.9	1335.0	1235.7	1112.4	971.7	815.2	653.0	484.2	330.2	79.5
55°	1396.3	1378.0	1317.6	1220.8	1090.0	948.5	792.1	627.4	458.5	299.6	57.1
57.5°	1370.6	1354.0	1296.1	1196.8	1067.7	922.8	766.4	599.2	426.2	269.0	39.7
60°	1339.1	1322.6	1266.3	1169.5	1042.0	893.9	738.3	570.3	397.3	238.4	24.8
62.5°	1306.0	1290.3	1231.6	1135.5	1009.7	863.2	707.6	541.3	366.7	210.2	14.9
65°	1262.2	1247.3	1194.3	1095.0	974.2	830.1	673.7	506.5	335.2	178.8	8.3
67.5°	1215.8	1202.6	1148.8	1057.7	932.8	793.7	639.0	472.6	302.1	151.5	4.1
70°	1166.2	1149.6	1100.0	1007.3	890.6	752.3	600.9	437.8	270.6	125.0	0.0
72.5°	1108.2	1095.8	1047.8	960.1	841.7	708.5	562.0	399.8	235.9	99.3	0.8
75°	1052.0	1036.2	992.4	909.6	793.7	662.1	518.9	364.2	201.9	76.1	0.8
77.5°	979.1	974.2	932.8	852.5	748.2	617.4	471.8	321.1	169.7	54.6	0.8
80°	906.3	901.3	869.0	795.4	695.2	564.5	427.9	280.6	138.2	36.4	0.8
82.5°	834.3	827.7	797.0	735.8	641.4	519.8	382.4	240.0	109.3	22.3	0.8
85°	769.7	761.4	728.3	672.1	586.0	469.3	335.2	200.3	81.1	12.4	1.7
87.5°	714.3	708.5	672.1	614.1	529.7	422.1	293.8	162.2	57.1	5.8	2.5
90°	667.1	654.7	622.4	561.2	476.7	370.0	250.0	129.9	38.1	3.3	3.3
92.5°	620.7	610.0	574.4	511.5	429.6	325.3	207.7	99.3	24.0	1.7	4.1
95°	572.7	561.2	526.4	468.5	381.5	279.7	170.5	72.8	13.2	1.7	4.1
97.5°	525.6	514.8	478.4	420.4	338.5	240.0	134.9	51.3	6.6	1.7	3.3
100°	481.7	469.3	436.2	378.2	295.5	200.3	104.3	33.1	4.1	1.7	3.3
102.5°	435.3	425.4	391.5	335.2	250.8	163.0	77.8	20.7	1.7	1.7	2.5
105°	394.0	381.5	348.4	290.5	213.5	128.3	54.6	12.4	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°	256.6	246.6	217.7	168.8	108.4	50.5	14.9	2.5	2.5	2.5	2.5
115°	214.4	199.5	173.8	130.8	80.3	33.1	7.4	2.5	2.5	2.5	2.5
117.5°	171.3	158.9	140.7	99.3	53.0	21.5	4.1	2.5	2.5	2.5	2.5
120°	134.1	122.5	101.8	68.7	35.6	12.4	1.7	2.5	2.5	2.5	2.5
122.5°	96.0	86.9	68.7	44.7	21.5	5.8	2.5	2.5	3.3	3.3	2.5
125°	63.7	58.8	45.5	27.3	13.2	2.5	2.5	2.5	3.3	3.3	2.5
127.5°	41.4	37.2	26.5	15.7	5.8	2.5	2.5	3.3	3.3	3.3	2.5
130°	23.2	20.7	15.7	9.1	2.5	2.5	2.5	3.3	3.3	3.3	2.5
132.5°	13.2	12.4	8.3	1.7	2.5	2.5	2.5	3.3	3.3	3.3	3.3
135°	3.3	1.7	1.7	1.7	2.5	2.5	3.3	3.3	4.1	4.1	3.3
137.5°	0.8	0.8	1.7	1.7	2.5	2.5	3.3	4.1	4.1	4.1	3.3
140°	0.8	0.8	1.7	2.5	2.5	2.5	3.3	4.1	4.1	4.1	3.3
142.5°	0.8	1.7	1.7	2.5	2.5	3.3	3.3	4.1	4.1	3.3	3.3
145°	0.8	1.7	1.7	2.5	2.5	3.3	3.3	4.1	3.3	3.3	3.3
147.5°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	4.1	4.1	3.3	3.3
150°	0.8	1.7	1.7	2.5	3.3	3.3	3.3	4.1	3.3	3.3	3.3
152.5°	0.8	1.7	1.7	2.5	3.3	3.3	3.3	4.1	3.3	3.3	3.3
155°	1.7	1.7	1.7	2.5	3.3	3.3	3.3	4.1	3.3	3.3	4.1
157.5°	1.7	1.7	1.7	2.5	3.3	3.3	3.3	4.1	3.3	3.3	4.1
160°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	3.3	3.3	3.3	3.3
162.5°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	3.3	3.3	3.3	3.3
165°	1.7	1.7	1.7	1.7	2.5	2.5	3.3	3.3	3.3	3.3	3.3
167.5°	1.7	1.7	1.7	2.5	2.5	2.5	3.3	3.3	3.3	3.3	3.3
170°	1.7	1.7	1.7	2.5	2.5	2.5	3.3	4.1	4.1	4.1	4.1
172.5°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	4.1	4.1	4.1	4.1
175°	1.7	1.7	1.7	2.5	2.5	3.3	3.3	4.1	4.1	4.1	4.1
177.5°	0.8	1.7	1.7	2.5	2.5	3.3	3.3	4.1	4.1	4.1	3.3
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°	649.7	649.7	649.7
2.5°	618.3	606.7	603.4
5°	585.2	566.1	555.4
7.5°	552.0	526.4	514.0
10°	521.4	485.0	471.8
12.5°	485.0	442.8	422.1
15°	450.2	395.6	375.8
17.5°	411.3	350.1	326.9
20°	374.9	304.6	280.6
22.5°	333.5	259.9	233.4
25°	296.3	215.2	185.4
27.5°	254.9	169.7	144.0
30°	216.0	129.9	104.3
32.5°	178.8	95.2	72.0
35°	144.0	64.6	45.5
37.5°	110.9	39.7	23.2
40°	80.3	20.7	10.8
42.5°	53.8	9.9	5.8
45°	33.1	5.0	0.0
47.5°	19.0	0.0	0.0
50°	9.9	0.0	0.0
52.5°	4.1	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	3.3	4.1
82.5°	3.3	4.1	4.1
85°	3.3	4.1	5.0
87.5°	4.1	5.0	5.8
90°	5.0	5.8	5.8
92.5°	5.0	6.6	6.6
95°	5.8	6.6	7.4
97.5°	6.6	7.4	7.4
100°	5.8	7.4	8.3
102.5°	5.0	7.4	7.4
105°	4.1	5.8	6.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.3	4.1	4.1
115°	2.5	3.3	4.1
117.5°	2.5	3.3	3.3
120°	2.5	2.5	3.3
122.5°	2.5	2.5	3.3
125°	2.5	2.5	3.3
127.5°	3.3	2.5	2.5
130°	2.5	2.5	2.5
132.5°	3.3	2.5	2.5
135°	3.3	2.5	2.5
137.5°	3.3	2.5	2.5
140°	3.3	2.5	2.5
142.5°	3.3	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°	3.3	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°	347.6	337.7	304.6	250.0	174.6	97.7	36.4	6.6	1.7	2.5	2.5
110°	302.9	294.6	260.7	207.7	140.7	72.8	24.0	4.1	2.5	2.5	2.5





107.5°	3.3	5.0	5.8
110°	3.3	4.1	5.0



(END OF REPORT)