

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: P551219

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-81-96-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: P551219
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-81-96-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

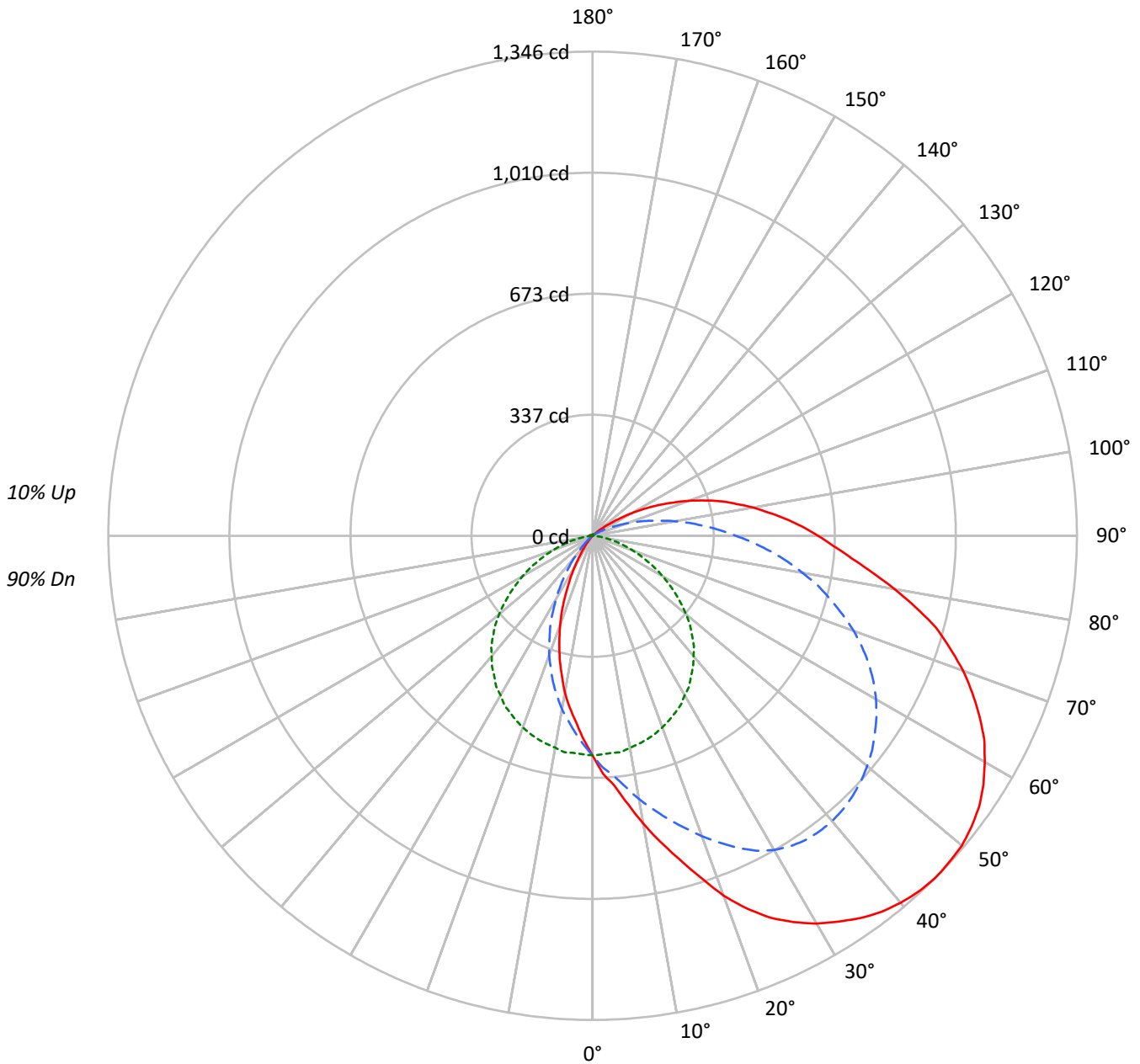
Lumens per Lamp: N/A
Luminaire Lumens: 3018.0 lumens
Efficiency: N/A
Efficacy: 69.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 43.3
Input Voltage (V): NR
Input Current (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°	6571	6571	6571
5°	7213	6475	5402
10°	8163	6395	4453
15°	9148	6314	3470
20°	10317	6211	2555
25°	11287	6092	1678
30°	12008	5932	945
35°	12632	5760	417
40°	13186	5549	100
45°	13661	5283	0
50°	14060	4931	0
55°	14363	4483	0
60°	14517	3964	0
65°	14576	3374	0
70°	14527	2750	0
75°	14343	2028	12
80°	13761	1241	63
85°	13301	595	86



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.5	1.9
10°-20°	175.1	5.8
20°-30°	283.5	9.4
30°-40°	364.2	12.1
40°-50°	412.3	13.7
50°-60°	427.1	14.2
60°-70°	402.8	13.3
70°-80°	337.6	11.2
80°-90°	244.7	8.1
90°-100°	160.8	5.3
100°-110°	92.9	3.1
110°-120°	41.0	1.4
120°-130°	11.1	0.4
130°-140°	2.5	0.1
140°-150°	1.7	0.1
150°-160°	1.2	0.0
160°-170°	0.7	0.0
170°-180°	0.2	0.0
0°-30°	517.1	17.1
0°-40°	881.3	29.2
0°-60°	1720.8	57.0
0°-90°	2705.9	89.7
90°-120°	294.7	9.8
90°-150°	310.0	10.3
90°-180°	312.0	10.3
0°-180°	3018.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	610	610	610	610	610	
5°	697	669	606	550	522	70
15°	931	816	586	423	353	268
25°	1172	958	543	278	174	542
35°	1298	1032	477	135	43	814
45°	1346	1022	390	31	0	1039
55°	1312	958	282	0	0	1172
65°	1186	848	168	0	0	1173
75°	988	684	72	1	1	1037
85°	723	496	12	3	5	618
90°	627	398	3	5	5	344
95°	538	311	2	5	7	422
105°	370	161	2	4	6	391
115°	201	53	2	2	4	202
125°	60	7	3	2	3	60
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°	610.5	610.5	610.5	610.5	610.5	610.5	610.5	610.5	610.5	610.5	610.5
2.5°	661.8	661.0	658.7	654.8	649.4	640.0	632.2	625.2	615.9	608.1	593.4
5°	696.8	692.9	689.8	685.9	673.5	664.9	650.9	635.4	620.6	605.8	576.3
7.5°	752.8	746.6	741.9	731.0	713.9	694.5	672.7	657.9	647.8	606.6	556.0
10°	812.7	807.2	797.9	778.4	757.4	729.5	698.3	663.4	632.2	598.0	538.1
12.5°	871.8	864.0	850.8	825.9	796.3	761.3	718.6	677.3	633.0	592.6	517.1
15°	930.9	922.3	908.3	878.0	839.1	793.2	741.1	689.0	636.9	585.6	495.4
17.5°	995.4	983.7	962.8	928.5	879.5	822.8	761.3	698.3	635.4	577.0	472.0
20°	1064.6	1048.3	1025.7	979.9	922.3	855.4	781.6	707.7	634.6	566.9	445.6
22.5°	1122.2	1105.8	1081.0	1033.5	964.3	882.7	798.7	713.9	631.5	555.3	420.7
25°	1171.9	1158.7	1131.5	1077.1	1004.0	911.4	815.0	718.6	626.8	542.8	394.3
27.5°	1210.8	1198.4	1168.1	1112.1	1037.4	937.1	827.4	720.9	620.6	530.4	367.1
30°	1245.0	1232.6	1196.1	1138.5	1060.0	957.3	839.9	721.7	612.8	511.7	337.5
32.5°	1271.5	1259.8	1222.5	1161.1	1075.5	971.3	846.9	720.9	602.7	498.5	305.6
35°	1297.9	1286.3	1242.7	1177.4	1087.2	977.5	852.3	717.0	590.2	476.7	275.3
37.5°	1318.1	1304.9	1260.6	1188.3	1092.6	979.1	851.5	711.6	577.0	458.8	245.0
40°	1332.1	1318.1	1270.7	1194.5	1094.2	976.8	845.3	702.2	561.5	436.3	213.1
42.5°	1341.5	1325.9	1275.4	1203.8	1091.1	970.5	836.0	690.6	544.4	416.8	182.8
45°	1346.1	1329.8	1276.2	1196.1	1085.6	958.9	822.0	675.8	525.7	390.4	152.4
47.5°	1343.8	1325.9	1272.3	1187.5	1075.5	946.4	806.4	657.9	503.2	367.1	123.6
50°	1339.9	1321.3	1263.7	1176.6	1061.5	930.9	789.3	636.1	479.8	338.3	98.0
52.5°	1327.5	1308.8	1254.4	1161.1	1045.2	913.0	766.0	613.6	454.9	310.3	74.7
55°	1311.9	1294.8	1238.0	1147.1	1024.2	891.2	744.2	589.5	430.8	281.5	53.7
57.5°	1287.8	1272.3	1217.8	1124.5	1003.2	867.1	720.1	563.0	400.5	252.7	37.3
60°	1258.3	1242.7	1189.8	1098.8	979.1	839.9	693.7	535.8	373.3	224.0	23.3
62.5°	1227.2	1212.4	1157.2	1067.0	948.8	811.1	664.9	508.6	344.5	197.5	14.0
65°	1185.9	1171.9	1122.2	1028.9	915.3	780.0	633.0	475.9	315.0	168.0	7.8
67.5°	1142.4	1130.0	1079.4	993.9	876.4	745.8	600.4	444.0	283.8	142.3	3.9
70°	1095.7	1080.2	1033.5	946.4	836.8	706.9	564.6	411.4	254.3	117.4	0.0
72.5°	1041.3	1029.6	984.5	902.1	790.9	665.7	528.0	375.6	221.6	93.3	0.8
75°	988.4	973.6	932.4	854.7	745.8	622.1	487.6	342.2	189.8	71.5	0.8
77.5°	920.0	915.3	876.4	801.0	703.0	580.1	443.3	301.7	159.4	51.3	0.8
80°	851.5	846.9	816.6	747.3	653.2	530.4	402.1	263.6	129.9	34.2	0.8
82.5°	783.9	777.7	748.9	691.3	602.7	488.4	359.3	225.5	102.7	21.0	0.8
85°	723.2	715.5	684.3	631.5	550.6	440.9	315.0	188.2	76.2	11.7	1.6
87.5°	671.1	665.7	631.5	577.0	497.7	396.6	276.1	152.4	53.7	5.4	2.3
90°	626.8	615.1	584.8	527.3	447.9	347.6	234.9	122.1	35.8	3.1	3.1
92.5°	583.3	573.1	539.7	480.6	403.6	305.6	195.2	93.3	22.6	1.6	3.9
95°	538.1	527.3	494.6	440.2	358.5	262.9	160.2	68.4	12.4	1.6	3.9
97.5°	493.8	483.7	449.5	395.1	318.1	225.5	126.8	48.2	6.2	1.6	3.1
100°	452.6	440.9	409.8	355.4	277.6	188.2	98.0	31.1	3.9	1.6	3.1
102.5°	409.1	399.7	367.8	315.0	235.6	153.2	73.1	19.4	1.6	1.6	2.3
105°	370.2	358.5	327.4	273.0	200.6	120.5	51.3	11.7	1.6	1.6	2.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	241.1	231.7	204.5	158.6	101.9	47.4	14.0	2.3	2.3	2.3	2.3
115°	201.4	187.4	163.3	122.9	75.4	31.1	7.0	2.3	2.3	2.3	2.3
117.5°	161.0	149.3	132.2	93.3	49.8	20.2	3.9	2.3	2.3	2.3	2.3
120°	126.0	115.1	95.7	64.5	33.4	11.7	1.6	2.3	2.3	2.3	2.3
122.5°	90.2	81.7	64.5	42.0	20.2	5.4	2.3	2.3	3.1	3.1	2.3
125°	59.9	55.2	42.8	25.7	12.4	2.3	2.3	2.3	3.1	3.1	2.3
127.5°	38.9	35.0	24.9	14.8	5.4	2.3	2.3	3.1	3.1	3.1	2.3
130°	21.8	19.4	14.8	8.6	2.3	2.3	2.3	3.1	3.1	3.1	2.3
132.5°	12.4	11.7	7.8	1.6	2.3	2.3	2.3	3.1	3.1	3.1	3.1
135°	3.1	1.6	1.6	1.6	2.3	2.3	3.1	3.1	3.9	3.9	3.1
137.5°	0.8	0.8	1.6	1.6	2.3	2.3	3.1	3.9	3.9	3.9	3.1
140°	0.8	0.8	1.6	2.3	2.3	2.3	3.1	3.9	3.9	3.9	3.1
142.5°	0.8	1.6	1.6	2.3	2.3	3.1	3.1	3.9	3.9	3.1	3.1
145°	0.8	1.6	1.6	2.3	2.3	3.1	3.1	3.9	3.1	3.1	3.1
147.5°	1.6	1.6	1.6	2.3	2.3	3.1	3.1	3.9	3.9	3.1	3.1
150°	0.8	1.6	1.6	2.3	3.1	3.1	3.1	3.9	3.1	3.1	3.1
152.5°	0.8	1.6	1.6	2.3	3.1	3.1	3.1	3.9	3.1	3.1	3.1
155°	1.6	1.6	1.6	2.3	3.1	3.1	3.1	3.9	3.1	3.1	3.9
157.5°	1.6	1.6	1.6	2.3	3.1	3.1	3.1	3.9	3.1	3.1	3.9
160°	1.6	1.6	1.6	2.3	2.3	3.1	3.1	3.1	3.1	3.1	3.1
162.5°	1.6	1.6	1.6	2.3	2.3	3.1	3.1	3.1	3.1	3.1	3.1
165°	1.6	1.6	1.6	1.6	2.3	2.3	3.1	3.1	3.1	3.1	3.1
167.5°	1.6	1.6	1.6	2.3	2.3	2.3	3.1	3.1	3.1	3.1	3.1
170°	1.6	1.6	1.6	2.3	2.3	2.3	3.1	3.9	3.9	3.9	3.9
172.5°	1.6	1.6	1.6	2.3	2.3	3.1	3.1	3.9	3.9	3.9	3.9
175°	1.6	1.6	1.6	2.3	2.3	3.1	3.1	3.9	3.9	3.9	3.9
177.5°	0.8	1.6	1.6	2.3	2.3	3.1	3.1	3.9	3.9	3.9	3.1
180°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	610.5	610.5	610.5
2.5°	580.9	570.0	566.9
5°	549.8	531.9	521.8
7.5°	518.7	494.6	482.9
10°	489.9	455.7	443.3
12.5°	455.7	416.1	396.6
15°	423.1	371.7	353.1
17.5°	386.5	329.0	307.2
20°	352.3	286.2	263.6
22.5°	313.4	244.2	219.3
25°	278.4	202.2	174.2
27.5°	239.5	159.4	135.3
30°	203.0	122.1	98.0
32.5°	168.0	89.4	67.7
35°	135.3	60.7	42.8
37.5°	104.2	37.3	21.8
40°	75.4	19.4	10.1
42.5°	50.5	9.3	5.4
45°	31.1	4.7	0.0
47.5°	17.9	0.0	0.0
50°	9.3	0.0	0.0
52.5°	3.9	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°	0.8	0.8	0.8
77.5°	0.8	1.6	2.3
80°	1.6	3.1	3.9
82.5°	3.1	3.9	3.9
85°	3.1	3.9	4.7
87.5°	3.9	4.7	5.4
90°	4.7	5.4	5.4
92.5°	4.7	6.2	6.2
95°	5.4	6.2	7.0
97.5°	6.2	7.0	7.0
100°	5.4	7.0	7.8
102.5°	4.7	7.0	7.0
105°	3.9	5.4	6.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	3.1	3.9	3.9
115°	2.3	3.1	3.9
117.5°	2.3	3.1	3.1
120°	2.3	2.3	3.1
122.5°	2.3	2.3	3.1
125°	2.3	2.3	3.1
127.5°	3.1	2.3	2.3
130°	2.3	2.3	2.3
132.5°	3.1	2.3	2.3
135°	3.1	2.3	2.3
137.5°	3.1	2.3	2.3
140°	3.1	2.3	2.3
142.5°	3.1	2.3	2.3
145°	2.3	2.3	2.3
147.5°	2.3	2.3	2.3
150°	2.3	2.3	1.6
152.5°	2.3	1.6	1.6
155°	2.3	1.6	0.8
157.5°	3.1	1.6	0.8
160°	2.3	1.6	0.8
162.5°	2.3	1.6	0.8
165°	2.3	1.6	0.0
167.5°	2.3	1.6	0.8
170°	2.3	1.6	0.8
172.5°	2.3	1.6	0.8
175°	2.3	0.8	0.8
177.5°	2.3	0.8	0.8
180°	2.3	2.3	2.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	326.6	317.3	286.2	234.9	164.1	91.8	34.2	6.2	1.6	2.3	2.3
110°	284.6	276.8	245.0	195.2	132.2	68.4	22.6	3.9	2.3	2.3	2.3





107.5°	3.1	4.7	5.4
110°	3.1	3.9	4.7



(END OF REPORT)