

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: P551215

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-81-88-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: P551215
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-81-88-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

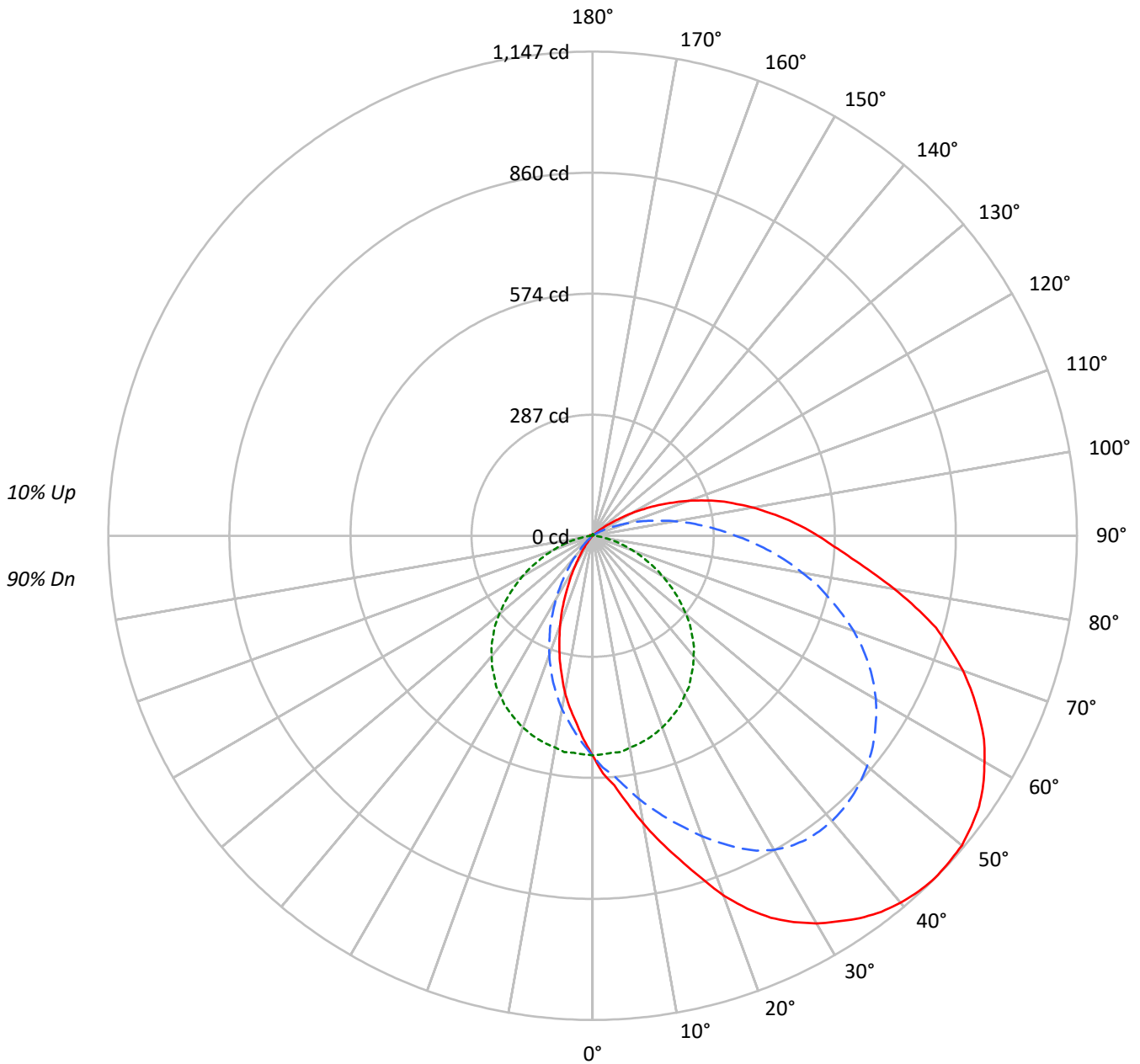
Lumens per Lamp: N/A
Luminaire Lumens: 2570.9 lumens
Efficiency: N/A
Efficacy: 59.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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				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°	5598	5598	5598
5°	6145	5516	4602
10°	6954	5449	3793
15°	7793	5379	2956
20°	8789	5292	2177
25°	9616	5189	1429
30°	10229	5053	805
35°	10762	4907	354
40°	11233	4727	85
45°	11638	4500	0
50°	11978	4200	0
55°	12236	3818	0
60°	12366	3376	0
65°	12417	2874	0
70°	12375	2343	0
75°	12218	1727	10
80°	11723	1056	53
85°	11331	503	74



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.8	1.9
10°-20°	149.2	5.8
20°-30°	241.5	9.4
30°-40°	310.3	12.1
40°-50°	351.2	13.7
50°-60°	363.9	14.2
60°-70°	343.2	13.3
70°-80°	287.6	11.2
80°-90°	208.5	8.1
90°-100°	137.0	5.3
100°-110°	79.1	3.1
110°-120°	34.9	1.4
120°-130°	9.4	0.4
130°-140°	2.2	0.1
140°-150°	1.4	0.1
150°-160°	1.0	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	440.5	17.1
0°-40°	750.8	29.2
0°-60°	1465.9	57.0
0°-90°	2305.1	89.7
90°-120°	251.0	9.8
90°-150°	264.1	10.3
90°-180°	266.0	10.3
0°-180°	2570.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	520	520	520	520	520	
5°	594	570	516	468	444	60
15°	793	695	499	360	301	229
25°	998	816	462	237	148	461
35°	1106	879	406	115	36	693
45°	1147	871	333	26	0	885
55°	1118	816	240	0	0	998
65°	1010	722	143	0	0	1000
75°	842	583	61	1	1	883
85°	616	422	10	3	4	526
90°	534	339	3	4	5	293
95°	458	265	1	5	6	360
105°	315	137	1	3	5	333
115°	172	45	2	2	3	172
125°	51	6	3	2	3	51
135°	3	2	3	3	2	5
145°	1	2	3	2	2	1
155°	1	3	3	2	1	0
165°	1	2	3	2	0	0
175°	1	2	3	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°	520.1	520.1	520.1	520.1	520.1	520.1	520.1	520.1	520.1	520.1	520.1
2.5°	563.8	563.1	561.1	557.8	553.2	545.2	538.6	532.6	524.7	518.1	505.5
5°	593.6	590.3	587.6	584.3	573.7	566.4	554.5	541.3	528.7	516.1	490.9
7.5°	641.3	636.0	632.0	622.7	608.2	591.6	573.1	560.5	551.9	516.7	473.7
10°	692.3	687.7	679.7	663.1	645.3	621.4	594.9	565.1	538.6	509.5	458.4
12.5°	742.6	736.0	724.8	703.6	678.4	648.6	612.1	577.0	539.3	504.8	440.6
15°	793.0	785.7	773.8	747.9	714.8	675.7	631.3	587.0	542.6	498.9	422.0
17.5°	848.0	838.0	820.2	791.0	749.3	700.9	648.6	594.9	541.3	491.6	402.1
20°	906.9	893.0	873.8	834.7	785.7	728.7	665.8	602.9	540.6	483.0	379.6
22.5°	956.0	942.1	920.9	880.4	821.5	751.9	680.4	608.2	537.9	473.0	358.4
25°	998.4	987.1	963.9	917.5	855.3	776.4	694.3	612.1	534.0	462.4	335.9
27.5°	1031.5	1020.9	995.1	947.4	883.8	798.3	704.9	614.1	528.7	451.8	312.7
30°	1060.6	1050.0	1018.9	969.9	903.0	815.5	715.5	614.8	522.0	435.9	287.5
32.5°	1083.2	1073.2	1041.4	989.1	916.2	827.4	721.4	614.1	513.4	424.7	260.4
35°	1105.7	1095.8	1058.7	1003.0	926.2	832.7	726.1	610.8	502.8	406.1	234.5
37.5°	1122.9	1111.7	1073.9	1012.3	930.8	834.1	725.4	606.2	491.6	390.9	208.7
40°	1134.8	1122.9	1082.5	1017.6	932.1	832.1	720.1	598.2	478.3	371.7	181.5
42.5°	1142.8	1129.5	1086.5	1025.5	929.5	826.8	712.2	588.3	463.7	355.1	155.7
45°	1146.8	1132.9	1087.1	1018.9	924.8	816.8	700.2	575.7	447.8	332.6	129.8
47.5°	1144.8	1129.5	1083.8	1011.6	916.2	806.2	687.0	560.5	428.6	312.7	105.3
50°	1141.5	1125.6	1076.5	1002.3	904.3	793.0	672.4	541.9	408.8	288.2	83.5
52.5°	1130.9	1115.0	1068.6	989.1	890.4	777.8	652.5	522.7	387.6	264.3	63.6
55°	1117.6	1103.0	1054.7	977.2	872.5	759.2	634.0	502.2	367.0	239.8	45.7
57.5°	1097.1	1083.8	1037.5	958.0	854.6	738.7	613.5	479.6	341.2	215.3	31.8
60°	1071.9	1058.7	1013.6	936.1	834.1	715.5	590.9	456.5	318.0	190.8	19.9
62.5°	1045.4	1032.8	985.8	908.9	808.2	691.0	566.4	433.3	293.5	168.3	11.9
65°	1010.3	998.4	956.0	876.5	779.7	664.5	539.3	405.4	268.3	143.1	6.6
67.5°	973.2	962.6	919.5	846.7	746.6	635.3	511.4	378.3	241.8	121.2	3.3
70°	933.4	920.2	880.4	806.2	712.8	602.2	481.0	350.5	216.6	100.0	0.0
72.5°	887.1	877.1	838.7	768.5	673.7	567.1	449.8	320.0	188.8	79.5	0.7
75°	842.0	829.4	794.3	728.1	635.3	530.0	415.4	291.5	161.6	60.9	0.7
77.5°	783.7	779.7	746.6	682.4	598.9	494.2	377.6	257.0	135.8	43.7	0.7
80°	725.4	721.4	695.6	636.6	556.5	451.8	342.5	224.6	110.6	29.1	0.7
82.5°	667.8	662.5	638.0	589.0	513.4	416.0	306.1	192.1	87.4	17.9	0.7
85°	616.1	609.5	583.0	537.9	469.0	375.6	268.3	160.3	64.9	9.9	1.3
87.5°	571.7	567.1	537.9	491.6	424.0	337.9	235.2	129.8	45.7	4.6	2.0
90°	534.0	524.0	498.2	449.2	381.6	296.1	200.1	104.0	30.5	2.6	2.6
92.5°	496.9	488.3	459.8	409.4	343.8	260.4	166.3	79.5	19.2	1.3	3.3
95°	458.4	449.2	421.3	375.0	305.4	223.9	136.5	58.3	10.6	1.3	3.3
97.5°	420.7	412.1	382.9	336.5	271.0	192.1	108.0	41.1	5.3	1.3	2.6
100°	385.6	375.6	349.1	302.8	236.5	160.3	83.5	26.5	3.3	1.3	2.6
102.5°	348.5	340.5	313.4	268.3	200.7	130.5	62.3	16.6	1.3	1.3	2.0
105°	315.3	305.4	278.9	232.5	170.9	102.7	43.7	9.9	1.3	1.3	2.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	205.4	197.4	174.2	135.1	86.8	40.4	11.9	2.0	2.0	2.0	2.0
115°	171.6	159.7	139.1	104.7	64.3	26.5	6.0	2.0	2.0	2.0	2.0
117.5°	137.1	127.2	112.6	79.5	42.4	17.2	3.3	2.0	2.0	2.0	2.0
120°	107.3	98.0	81.5	55.0	28.5	9.9	1.3	2.0	2.0	2.0	2.0
122.5°	76.8	69.6	55.0	35.8	17.2	4.6	2.0	2.0	2.6	2.6	2.0
125°	51.0	47.0	36.4	21.9	10.6	2.0	2.0	2.0	2.6	2.6	2.0
127.5°	33.1	29.8	21.2	12.6	4.6	2.0	2.0	2.6	2.6	2.6	2.0
130°	18.5	16.6	12.6	7.3	2.0	2.0	2.0	2.6	2.6	2.6	2.0
132.5°	10.6	9.9	6.6	1.3	2.0	2.0	2.0	2.6	2.6	2.6	2.6
135°	2.6	1.3	1.3	1.3	2.0	2.0	2.6	2.6	3.3	3.3	2.6
137.5°	0.7	0.7	1.3	1.3	2.0	2.0	2.6	3.3	3.3	3.3	2.6
140°	0.7	0.7	1.3	2.0	2.0	2.0	2.6	3.3	3.3	3.3	2.6
142.5°	0.7	1.3	1.3	2.0	2.0	2.6	2.6	3.3	3.3	2.6	2.6
145°	0.7	1.3	1.3	2.0	2.0	2.6	2.6	3.3	2.6	2.6	2.6
147.5°	1.3	1.3	1.3	2.0	2.0	2.6	2.6	3.3	3.3	2.6	2.6
150°	0.7	1.3	1.3	2.0	2.6	2.6	2.6	3.3	2.6	2.6	2.6
152.5°	0.7	1.3	1.3	2.0	2.6	2.6	2.6	3.3	2.6	2.6	2.6
155°	1.3	1.3	1.3	2.0	2.6	2.6	2.6	3.3	2.6	2.6	3.3
157.5°	1.3	1.3	1.3	2.0	2.6	2.6	2.6	3.3	2.6	2.6	3.3
160°	1.3	1.3	1.3	2.0	2.0	2.6	2.6	2.6	2.6	2.6	2.6
162.5°	1.3	1.3	1.3	2.0	2.0	2.6	2.6	2.6	2.6	2.6	2.6
165°	1.3	1.3	1.3	1.3	2.0	2.0	2.6	2.6	2.6	2.6	2.6
167.5°	1.3	1.3	1.3	2.0	2.0	2.0	2.6	2.6	2.6	2.6	2.6
170°	1.3	1.3	1.3	2.0	2.0	2.0	2.6	3.3	3.3	3.3	3.3
172.5°	1.3	1.3	1.3	2.0	2.0	2.6	2.6	3.3	3.3	3.3	3.3
175°	1.3	1.3	1.3	2.0	2.0	2.6	2.6	3.3	3.3	3.3	3.3
177.5°	0.7	1.3	1.3	2.0	2.0	2.6	2.6	3.3	3.3	3.3	2.6
180°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	520.1	520.1	520.1
2.5°	494.9	485.6	483.0
5°	468.4	453.1	444.5
7.5°	441.9	421.3	411.4
10°	417.4	388.2	377.6
12.5°	388.2	354.4	337.9
15°	360.4	316.7	300.8
17.5°	329.3	280.2	261.7
20°	300.1	243.8	224.6
22.5°	267.0	208.0	186.8
25°	237.2	172.2	148.4
27.5°	204.0	135.8	115.3
30°	172.9	104.0	83.5
32.5°	143.1	76.2	57.6
35°	115.3	51.7	36.4
37.5°	88.8	31.8	18.5
40°	64.3	16.6	8.6
42.5°	43.1	7.9	4.6
45°	26.5	4.0	0.0
47.5°	15.2	0.0	0.0
50°	7.9	0.0	0.0
52.5°	3.3	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°	0.7	0.7	0.7
77.5°	0.7	1.3	2.0
80°	1.3	2.6	3.3
82.5°	2.6	3.3	3.3
85°	2.6	3.3	4.0
87.5°	3.3	4.0	4.6
90°	4.0	4.6	4.6
92.5°	4.0	5.3	5.3
95°	4.6	5.3	6.0
97.5°	5.3	6.0	6.0
100°	4.6	6.0	6.6
102.5°	4.0	6.0	6.0
105°	3.3	4.6	5.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.6	3.3	3.3
115°	2.0	2.6	3.3
117.5°	2.0	2.6	2.6
120°	2.0	2.0	2.6
122.5°	2.0	2.0	2.6
125°	2.0	2.0	2.6
127.5°	2.6	2.0	2.0
130°	2.0	2.0	2.0
132.5°	2.6	2.0	2.0
135°	2.6	2.0	2.0
137.5°	2.6	2.0	2.0
140°	2.6	2.0	2.0
142.5°	2.6	2.0	2.0
145°	2.0	2.0	2.0
147.5°	2.0	2.0	2.0
150°	2.0	2.0	1.3
152.5°	2.0	1.3	1.3
155°	2.0	1.3	0.7
157.5°	2.6	1.3	0.7
160°	2.0	1.3	0.7
162.5°	2.0	1.3	0.7
165°	2.0	1.3	0.0
167.5°	2.0	1.3	0.7
170°	2.0	1.3	0.7
172.5°	2.0	1.3	0.7
175°	2.0	0.7	0.7
177.5°	2.0	0.7	0.7
180°	2.0	2.0	2.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	278.2	270.3	243.8	200.1	139.8	78.2	29.1	5.3	1.3	2.0	2.0
110°	242.5	235.8	208.7	166.3	112.6	58.3	19.2	3.3	2.0	2.0	2.0





107.5°	2.6	4.0	4.6
110°	2.6	3.3	4.0



(END OF REPORT)