

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: P551199

Luminaire Tested: **FCC-X-2-LD4-2HI-30-UNV-80-88-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: P551199
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-80-88-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC 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

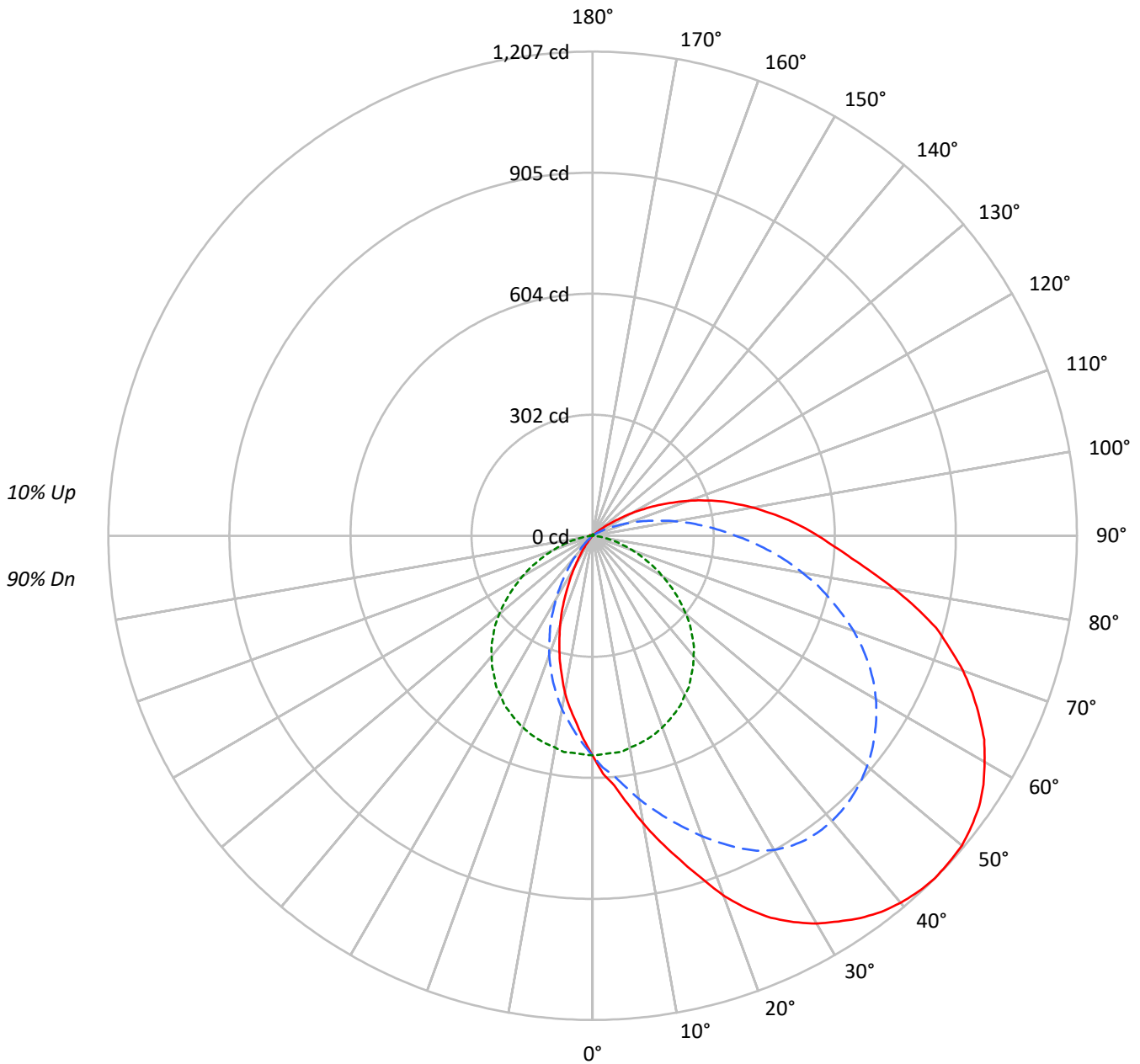
Lumens per Lamp: N/A
Luminaire Lumens: 2706.1 lumens
Efficiency: N/A
Efficacy: 62.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	5892	5892	5892
5°	6468	5806	4844
10°	7318	5734	3992
15°	8202	5661	3111
20°	9251	5569	2291
25°	10120	5462	1504
30°	10767	5319	848
35°	11326	5164	373
40°	11823	4975	90
45°	12249	4736	0
50°	12606	4420	0
55°	12879	4019	0
60°	13016	3553	0
65°	13069	3025	0
70°	13026	2467	0
75°	12860	1818	10
80°	12339	1114	57
85°	11927	534	77



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.4	1.9
10°-20°	157.0	5.8
20°-30°	254.2	9.4
30°-40°	326.6	12.1
40°-50°	369.7	13.7
50°-60°	383.0	14.2
60°-70°	361.2	13.3
70°-80°	302.7	11.2
80°-90°	219.4	8.1
90°-100°	144.2	5.3
100°-110°	83.3	3.1
110°-120°	36.8	1.4
120°-130°	10.0	0.4
130°-140°	2.3	0.1
140°-150°	1.5	0.1
150°-160°	1.1	0.0
160°-170°	0.6	0.0
170°-180°	0.2	0.0
0°-30°	463.6	17.1
0°-40°	790.2	29.2
0°-60°	1542.9	57.0
0°-90°	2426.2	89.7
90°-120°	264.3	9.8
90°-150°	278.0	10.3
90°-180°	280.0	10.3
0°-180°	2706.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	547	547	547	547	547	
5°	625	600	543	493	468	63
15°	835	732	525	379	317	241
25°	1051	859	487	250	156	486
35°	1164	926	427	121	38	730
45°	1207	917	350	28	0	932
55°	1176	859	252	0	0	1050
65°	1063	760	151	0	0	1052
75°	886	613	64	1	1	930
85°	648	445	10	3	4	554
90°	562	357	3	4	5	308
95°	482	279	1	5	6	379
105°	332	144	1	4	6	350
115°	181	48	2	2	4	181
125°	54	7	3	2	3	54
135°	3	2	4	3	2	5
145°	1	2	3	2	2	1
155°	1	3	3	2	1	1
165°	1	2	3	2	0	0
175°	1	2	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°	547.4	547.4	547.4	547.4	547.4	547.4	547.4	547.4	547.4	547.4	547.4
2.5°	593.4	592.7	590.6	587.1	582.2	573.9	566.9	560.6	552.2	545.3	532.0
5°	624.8	621.3	618.5	615.0	603.8	596.2	583.6	569.7	556.4	543.2	516.7
7.5°	675.0	669.4	665.2	655.4	640.1	622.7	603.1	589.9	580.8	543.9	498.5
10°	728.6	723.8	715.4	698.0	679.1	654.0	626.2	594.8	566.9	536.2	482.5
12.5°	781.6	774.7	762.8	740.5	714.0	682.6	644.3	607.3	567.6	531.3	463.7
15°	834.6	827.0	814.4	787.2	752.4	711.2	664.5	617.8	571.1	525.0	444.2
17.5°	892.5	882.0	863.2	832.5	788.6	737.7	682.6	626.2	569.7	517.4	423.2
20°	954.6	939.9	919.7	878.6	827.0	767.0	700.8	634.5	569.0	508.3	399.5
22.5°	1006.2	991.5	969.2	926.7	864.6	791.4	716.1	640.1	566.2	497.9	377.2
25°	1050.8	1038.9	1014.5	965.7	900.2	817.2	730.7	644.3	562.0	486.7	353.5
27.5°	1085.7	1074.5	1047.3	997.1	930.2	840.2	741.9	646.4	556.4	475.5	329.1
30°	1116.3	1105.2	1072.4	1020.8	950.4	858.3	753.1	647.1	549.5	458.8	302.6
32.5°	1140.0	1129.6	1096.1	1041.0	964.3	870.9	759.3	646.4	540.4	447.0	274.0
35°	1163.7	1153.3	1114.2	1055.7	974.8	876.5	764.2	642.9	529.2	427.4	246.8
37.5°	1181.9	1170.0	1130.3	1065.4	979.7	877.9	763.5	638.0	517.4	411.4	219.6
40°	1194.4	1181.9	1139.3	1071.0	981.1	875.8	757.9	629.6	503.4	391.2	191.1
42.5°	1202.8	1188.8	1143.5	1079.4	978.3	870.2	749.6	619.2	488.1	373.7	163.9
45°	1207.0	1192.3	1144.2	1072.4	973.4	859.7	737.0	605.9	471.4	350.0	136.7
47.5°	1204.9	1188.8	1140.7	1064.7	964.3	848.6	723.1	589.9	451.1	329.1	110.9
50°	1201.4	1184.7	1133.1	1055.0	951.8	834.6	707.7	570.4	430.2	303.3	87.9
52.5°	1190.2	1173.5	1124.7	1041.0	937.1	818.6	686.8	550.1	407.9	278.2	66.9
55°	1176.3	1161.0	1110.1	1028.5	918.3	799.1	667.3	528.5	386.3	252.4	48.1
57.5°	1154.7	1140.7	1091.9	1008.3	899.5	777.5	645.7	504.8	359.1	226.6	33.5
60°	1128.2	1114.2	1066.8	985.2	877.9	753.1	622.0	480.4	334.7	200.8	20.9
62.5°	1100.3	1087.0	1037.5	956.7	850.7	727.3	596.2	456.0	308.9	177.1	12.6
65°	1063.3	1050.8	1006.2	922.5	820.7	699.4	567.6	426.7	282.4	150.6	7.0
67.5°	1024.3	1013.1	967.8	891.1	785.8	668.7	538.3	398.1	254.5	127.6	3.5
70°	982.5	968.5	926.7	848.6	750.3	633.8	506.2	368.9	228.0	105.3	0.0
72.5°	933.6	923.2	882.7	808.8	709.1	596.9	473.4	336.8	198.7	83.7	0.7
75°	886.2	873.0	836.0	766.3	668.7	557.8	437.2	306.8	170.1	64.1	0.7
77.5°	824.9	820.7	785.8	718.2	630.3	520.2	397.4	270.5	142.9	46.0	0.7
80°	763.5	759.3	732.1	670.1	585.7	475.5	360.5	236.4	116.4	30.7	0.7
82.5°	702.9	697.3	671.5	619.9	540.4	437.9	322.1	202.2	92.0	18.8	0.7
85°	648.5	641.5	613.6	566.2	493.7	395.4	282.4	168.7	68.3	10.5	1.4
87.5°	601.7	596.9	566.2	517.4	446.3	355.6	247.5	136.7	48.1	4.9	2.1
90°	562.0	551.5	524.3	472.8	401.6	311.7	210.6	109.5	32.1	2.8	2.8
92.5°	523.0	513.9	483.9	430.9	361.9	274.0	175.0	83.7	20.2	1.4	3.5
95°	482.5	472.8	443.5	394.7	321.4	235.7	143.6	61.4	11.2	1.4	3.5
97.5°	442.8	433.7	403.0	354.2	285.2	202.2	113.7	43.2	5.6	1.4	2.8
100°	405.8	395.4	367.5	318.7	248.9	168.7	87.9	27.9	3.5	1.4	2.8
102.5°	366.8	358.4	329.8	282.4	211.3	137.4	65.5	17.4	1.4	1.4	2.1
105°	331.9	321.4	293.6	244.7	179.9	108.1	46.0	10.5	1.4	1.4	2.1



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	216.2	207.8	183.4	142.2	91.3	42.5	12.6	2.1	2.1	2.1	2.1
115°	180.6	168.0	146.4	110.2	67.6	27.9	6.3	2.1	2.1	2.1	2.1
117.5°	144.3	133.9	118.5	83.7	44.6	18.1	3.5	2.1	2.1	2.1	2.1
120°	113.0	103.2	85.8	57.9	30.0	10.5	1.4	2.1	2.1	2.1	2.1
122.5°	80.9	73.2	57.9	37.7	18.1	4.9	2.1	2.1	2.8	2.8	2.1
125°	53.7	49.5	38.3	23.0	11.2	2.1	2.1	2.1	2.8	2.8	2.1
127.5°	34.9	31.4	22.3	13.2	4.9	2.1	2.1	2.8	2.8	2.8	2.1
130°	19.5	17.4	13.2	7.7	2.1	2.1	2.1	2.8	2.8	2.8	2.1
132.5°	11.2	10.5	7.0	1.4	2.1	2.1	2.1	2.8	2.8	2.8	2.8
135°	2.8	1.4	1.4	1.4	2.1	2.1	2.8	2.8	3.5	3.5	2.8
137.5°	0.7	0.7	1.4	1.4	2.1	2.1	2.8	3.5	3.5	3.5	2.8
140°	0.7	0.7	1.4	2.1	2.1	2.1	2.8	3.5	3.5	3.5	2.8
142.5°	0.7	1.4	1.4	2.1	2.1	2.8	2.8	3.5	3.5	2.8	2.8
145°	0.7	1.4	1.4	2.1	2.1	2.8	2.8	3.5	2.8	2.8	2.8
147.5°	1.4	1.4	1.4	2.1	2.1	2.8	2.8	3.5	3.5	2.8	2.8
150°	0.7	1.4	1.4	2.1	2.8	2.8	2.8	3.5	2.8	2.8	2.8
152.5°	0.7	1.4	1.4	2.1	2.8	2.8	2.8	3.5	2.8	2.8	2.8
155°	1.4	1.4	1.4	2.1	2.8	2.8	2.8	3.5	2.8	2.8	3.5
157.5°	1.4	1.4	1.4	2.1	2.8	2.8	2.8	3.5	2.8	2.8	3.5
160°	1.4	1.4	1.4	2.1	2.1	2.8	2.8	2.8	2.8	2.8	2.8
162.5°	1.4	1.4	1.4	2.1	2.1	2.8	2.8	2.8	2.8	2.8	2.8
165°	1.4	1.4	1.4	1.4	2.1	2.1	2.8	2.8	2.8	2.8	2.8
167.5°	1.4	1.4	1.4	2.1	2.1	2.1	2.8	2.8	2.8	2.8	2.8
170°	1.4	1.4	1.4	2.1	2.1	2.1	2.8	3.5	3.5	3.5	3.5
172.5°	1.4	1.4	1.4	2.1	2.1	2.8	2.8	3.5	3.5	3.5	3.5
175°	1.4	1.4	1.4	2.1	2.1	2.8	2.8	3.5	3.5	3.5	3.5
177.5°	0.7	1.4	1.4	2.1	2.1	2.8	2.8	3.5	3.5	3.5	2.8
180°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	547.4	547.4	547.4
2.5°	520.9	511.1	508.3
5°	493.0	476.9	467.9
7.5°	465.1	443.5	433.0
10°	439.3	408.6	397.4
12.5°	408.6	373.0	355.6
15°	379.3	333.3	316.6
17.5°	346.5	294.9	275.4
20°	315.9	256.6	236.4
22.5°	281.0	218.9	196.6
25°	249.6	181.3	156.2
27.5°	214.8	142.9	121.3
30°	182.0	109.5	87.9
32.5°	150.6	80.2	60.7
35°	121.3	54.4	38.3
37.5°	93.4	33.5	19.5
40°	67.6	17.4	9.1
42.5°	45.3	8.4	4.9
45°	27.9	4.2	0.0
47.5°	16.0	0.0	0.0
50°	8.4	0.0	0.0
52.5°	3.5	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	1.4	2.1
80°	1.4	2.8	3.5
82.5°	2.8	3.5	3.5
85°	2.8	3.5	4.2
87.5°	3.5	4.2	4.9
90°	4.2	4.9	4.9
92.5°	4.2	5.6	5.6
95°	4.9	5.6	6.3
97.5°	5.6	6.3	6.3
100°	4.9	6.3	7.0
102.5°	4.2	6.3	6.3
105°	3.5	4.9	5.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.8	3.5	3.5
115°	2.1	2.8	3.5
117.5°	2.1	2.8	2.8
120°	2.1	2.1	2.8
122.5°	2.1	2.1	2.8
125°	2.1	2.1	2.8
127.5°	2.8	2.1	2.1
130°	2.1	2.1	2.1
132.5°	2.8	2.1	2.1
135°	2.8	2.1	2.1
137.5°	2.8	2.1	2.1
140°	2.8	2.1	2.1
142.5°	2.8	2.1	2.1
145°	2.1	2.1	2.1
147.5°	2.1	2.1	2.1
150°	2.1	2.1	1.4
152.5°	2.1	1.4	1.4
155°	2.1	1.4	0.7
157.5°	2.8	1.4	0.7
160°	2.1	1.4	0.7
162.5°	2.1	1.4	0.7
165°	2.1	1.4	0.0
167.5°	2.1	1.4	0.7
170°	2.1	1.4	0.7
172.5°	2.1	1.4	0.7
175°	2.1	0.7	0.7
177.5°	2.1	0.7	0.7
180°	2.1	2.1	2.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	292.9	284.5	256.6	210.6	147.1	82.3	30.7	5.6	1.4	2.1	2.1
110°	255.2	248.2	219.6	175.0	118.5	61.4	20.2	3.5	2.1	2.1	2.1





107.5°	2.8	4.2	4.9
110°	2.8	3.5	4.2



(END OF REPORT)