

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: P551456

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-80-88-ED1D**

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: P551456
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-LD4-2LO-30-UNV-80-88-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

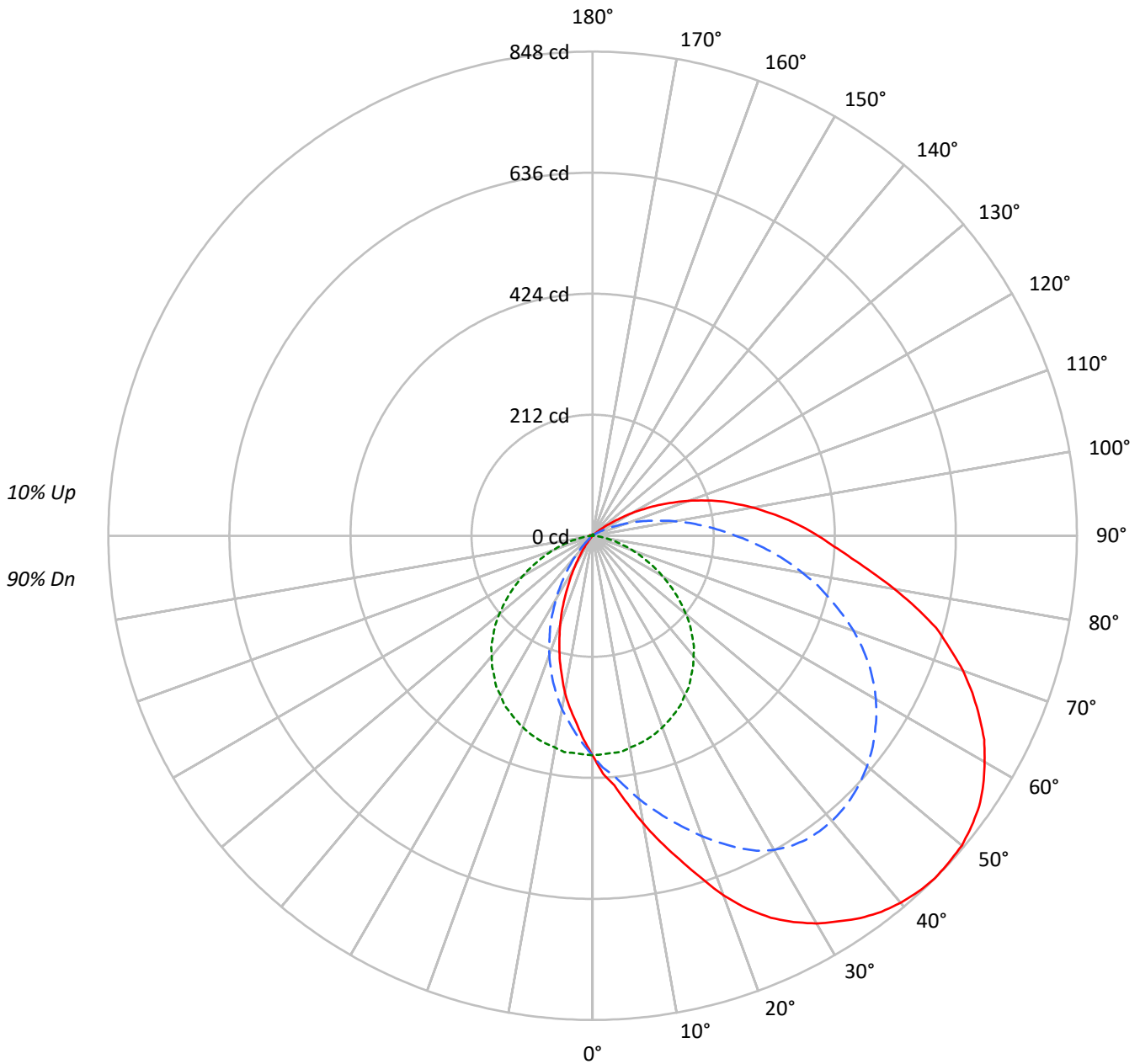
Lumens per Lamp: N/A
Luminaire Lumens: 1901.1 lumens
Efficiency: N/A
Efficacy: 80.9 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
Input Voltage (V): NR
Input Current (Ain): 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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CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-80-88-ED1D

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°	4139	4139	4139
5°	4544	4079	3403
10°	5142	4029	2804
15°	5762	3978	2186
20°	6499	3912	1610
25°	7110	3837	1057
30°	7564	3736	595
35°	7957	3628	262
40°	8306	3495	63
45°	8605	3327	0
50°	8856	3106	0
55°	9048	2823	0
60°	9144	2497	0
65°	9181	2125	0
70°	9151	1734	0
75°	9034	1279	7
80°	8669	783	39
85°	8379	371	53



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.8	1.9
10°-20°	110.3	5.8
20°-30°	178.6	9.4
30°-40°	229.4	12.1
40°-50°	259.7	13.7
50°-60°	269.0	14.2
60°-70°	253.7	13.3
70°-80°	212.6	11.2
80°-90°	154.1	8.1
90°-100°	101.3	5.3
100°-110°	58.5	3.1
110°-120°	25.8	1.4
120°-130°	7.0	0.4
130°-140°	1.6	0.1
140°-150°	1.1	0.1
150°-160°	0.8	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	325.7	17.1
0°-40°	555.1	29.2
0°-60°	1083.9	57.0
0°-90°	1704.4	89.7
90°-120°	185.6	9.8
90°-150°	195.3	10.3
90°-180°	197.0	10.4
0°-180°	1901.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	384	384	384	384	384	
5°	439	422	382	346	329	44
15°	586	514	369	266	222	169
25°	738	603	342	175	110	341
35°	818	650	300	85	27	513
45°	848	644	246	20	0	655
55°	826	603	177	0	0	738
65°	747	534	106	0	0	739
75°	623	431	45	0	0	653
85°	456	312	7	2	3	389
90°	395	251	2	3	3	216
95°	339	196	1	3	4	266
105°	233	101	1	2	4	246
115°	127	34	2	2	2	127
125°	38	5	2	2	2	38
135°	2	2	2	2	2	4
145°	0	2	2	2	2	0
155°	1	2	2	2	0	0
165°	1	2	2	2	0	0
175°	1	2	2	2	0	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°	384.5	384.5	384.5	384.5	384.5	384.5	384.5	384.5	384.5	384.5	384.5
2.5°	416.9	416.4	414.9	412.4	409.0	403.1	398.2	393.8	388.0	383.1	373.8
5°	438.9	436.4	434.5	432.0	424.2	418.8	410.0	400.2	390.9	381.6	363.0
7.5°	474.2	470.2	467.3	460.5	449.7	437.4	423.7	414.4	408.0	382.1	350.2
10°	511.9	508.5	502.6	490.3	477.1	459.5	439.9	417.8	398.2	376.7	339.0
12.5°	549.1	544.2	535.9	520.2	501.6	479.6	452.6	426.7	398.7	373.3	325.7
15°	586.3	581.0	572.1	553.0	528.5	499.6	466.8	434.0	401.2	368.9	312.0
17.5°	627.0	619.7	606.4	584.9	554.0	518.3	479.6	439.9	400.2	363.5	297.3
20°	670.6	660.3	646.1	617.2	581.0	538.8	492.3	445.8	399.7	357.1	280.7
22.5°	706.8	696.6	680.9	651.0	607.4	556.0	503.1	449.7	397.8	349.7	265.0
25°	738.2	729.9	712.7	678.4	632.4	574.1	513.4	452.6	394.8	341.9	248.4
27.5°	762.7	754.8	735.7	700.5	653.5	590.3	521.2	454.1	390.9	334.1	231.2
30°	784.2	776.4	753.4	717.1	667.7	603.0	529.0	454.6	386.0	322.3	212.6
32.5°	800.9	793.5	770.0	731.3	677.5	611.8	533.4	454.1	379.6	314.0	192.5
35°	817.5	810.2	782.8	741.6	684.8	615.7	536.9	451.6	371.8	300.3	173.4
37.5°	830.3	822.0	794.0	748.5	688.2	616.7	536.4	448.2	363.5	289.0	154.3
40°	839.1	830.3	800.4	752.4	689.2	615.2	532.5	442.3	353.7	274.8	134.2
42.5°	845.0	835.2	803.3	758.3	687.2	611.3	526.6	435.0	342.9	262.6	115.1
45°	847.9	837.6	803.8	753.4	683.8	604.0	517.8	425.7	331.1	245.9	96.0
47.5°	846.4	835.2	801.4	748.0	677.5	596.1	508.0	414.4	316.9	231.2	77.9
50°	844.0	832.2	796.0	741.1	668.6	586.3	497.2	400.7	302.2	213.1	61.7
52.5°	836.2	824.4	790.1	731.3	658.3	575.1	482.5	386.5	286.6	195.4	47.0
55°	826.4	815.6	779.8	722.5	645.1	561.4	468.8	371.3	271.4	177.3	33.8
57.5°	811.2	801.4	767.1	708.3	631.9	546.2	453.6	354.6	252.3	159.2	23.5
60°	792.6	782.8	749.5	692.1	616.7	529.0	436.9	337.5	235.1	141.1	14.7
62.5°	773.0	763.7	728.9	672.1	597.6	510.9	418.8	320.4	217.0	124.4	8.8
65°	747.0	738.2	706.8	648.1	576.5	491.3	398.7	299.8	198.4	105.8	4.9
67.5°	719.6	711.7	679.9	626.0	552.1	469.8	378.2	279.7	178.8	89.6	2.4
70°	690.2	680.4	651.0	596.1	527.1	445.3	355.6	259.1	160.2	74.0	0.0
72.5°	655.9	648.6	620.1	568.2	498.2	419.3	332.6	236.6	139.6	58.8	0.5
75°	622.6	613.3	587.3	538.3	469.8	391.9	307.1	215.5	119.5	45.1	0.5
77.5°	579.5	576.5	552.1	504.5	442.8	365.4	279.2	190.1	100.4	32.3	0.5
80°	536.4	533.4	514.3	470.7	411.5	334.1	253.2	166.1	81.8	21.6	0.5
82.5°	493.8	489.8	471.7	435.5	379.6	307.6	226.3	142.1	64.7	13.2	0.5
85°	455.6	450.7	431.1	397.8	346.8	277.7	198.4	118.5	48.0	7.3	1.0
87.5°	422.7	419.3	397.8	363.5	313.5	249.8	173.9	96.0	33.8	3.4	1.5
90°	394.8	387.5	368.4	332.1	282.1	219.0	147.9	76.9	22.5	2.0	2.0
92.5°	367.4	361.0	340.0	302.7	254.2	192.5	123.0	58.8	14.2	1.0	2.4
95°	339.0	332.1	311.5	277.3	225.8	165.6	100.9	43.1	7.8	1.0	2.4
97.5°	311.1	304.7	283.1	248.8	200.3	142.1	79.8	30.4	3.9	1.0	2.0
100°	285.1	277.7	258.1	223.9	174.9	118.5	61.7	19.6	2.4	1.0	2.0
102.5°	257.7	251.8	231.7	198.4	148.4	96.5	46.0	12.2	1.0	1.0	1.5
105°	233.2	225.8	206.2	171.9	126.4	75.9	32.3	7.3	1.0	1.0	1.5



TEST NUMBER: P551456

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-80-88-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	151.9	146.0	128.8	99.9	64.2	29.9	8.8	1.5	1.5	1.5	1.5
115°	126.9	118.1	102.9	77.4	47.5	19.6	4.4	1.5	1.5	1.5	1.5
117.5°	101.4	94.0	83.3	58.8	31.3	12.7	2.4	1.5	1.5	1.5	1.5
120°	79.4	72.5	60.3	40.7	21.1	7.3	1.0	1.5	1.5	1.5	1.5
122.5°	56.8	51.4	40.7	26.5	12.7	3.4	1.5	1.5	2.0	2.0	1.5
125°	37.7	34.8	26.9	16.2	7.8	1.5	1.5	1.5	2.0	2.0	1.5
127.5°	24.5	22.0	15.7	9.3	3.4	1.5	1.5	2.0	2.0	2.0	1.5
130°	13.7	12.2	9.3	5.4	1.5	1.5	1.5	2.0	2.0	2.0	1.5
132.5°	7.8	7.3	4.9	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0
135°	2.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.4	2.4	2.0
137.5°	0.5	0.5	1.0	1.0	1.5	1.5	2.0	2.4	2.4	2.4	2.0
140°	0.5	0.5	1.0	1.5	1.5	1.5	2.0	2.4	2.4	2.4	2.0
142.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.4	2.4	2.0	2.0
145°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.4	2.0	2.0	2.0
147.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.4	2.4	2.0	2.0
150°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.4	2.0	2.0	2.0
152.5°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.4	2.0	2.0	2.0
155°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.4	2.0	2.0	2.4
157.5°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.4	2.0	2.0	2.4
160°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
162.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
165°	1.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0
167.5°	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0	2.0
170°	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.4	2.4	2.4	2.4
172.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.4	2.4	2.4	2.4
175°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.4	2.4	2.4	2.4
177.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.4	2.4	2.4	2.0
180°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	384.5	384.5	384.5
2.5°	365.9	359.1	357.1
5°	346.3	335.1	328.7
7.5°	326.7	311.5	304.2
10°	308.6	287.0	279.2
12.5°	287.0	262.1	249.8
15°	266.5	234.1	222.4
17.5°	243.5	207.2	193.5
20°	221.9	180.3	166.1
22.5°	197.4	153.8	138.1
25°	175.4	127.4	109.7
27.5°	150.9	100.4	85.2
30°	127.8	76.9	61.7
32.5°	105.8	56.3	42.6
35°	85.2	38.2	26.9
37.5°	65.6	23.5	13.7
40°	47.5	12.2	6.4
42.5°	31.8	5.9	3.4
45°	19.6	2.9	0.0
47.5°	11.3	0.0	0.0
50°	5.9	0.0	0.0
52.5°	2.4	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°	0.5	0.5	0.5
77.5°	0.5	1.0	1.5
80°	1.0	2.0	2.4
82.5°	2.0	2.4	2.4
85°	2.0	2.4	2.9
87.5°	2.4	2.9	3.4
90°	2.9	3.4	3.4
92.5°	2.9	3.9	3.9
95°	3.4	3.9	4.4
97.5°	3.9	4.4	4.4
100°	3.4	4.4	4.9
102.5°	2.9	4.4	4.4
105°	2.4	3.4	3.9



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CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-80-88-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.0	2.4	2.4
115°	1.5	2.0	2.4
117.5°	1.5	2.0	2.0
120°	1.5	1.5	2.0
122.5°	1.5	1.5	2.0
125°	1.5	1.5	2.0
127.5°	2.0	1.5	1.5
130°	1.5	1.5	1.5
132.5°	2.0	1.5	1.5
135°	2.0	1.5	1.5
137.5°	2.0	1.5	1.5
140°	2.0	1.5	1.5
142.5°	2.0	1.5	1.5
145°	1.5	1.5	1.5
147.5°	1.5	1.5	1.5
150°	1.5	1.5	1.0
152.5°	1.5	1.0	1.0
155°	1.5	1.0	0.5
157.5°	2.0	1.0	0.5
160°	1.5	1.0	0.5
162.5°	1.5	1.0	0.5
165°	1.5	1.0	0.0
167.5°	1.5	1.0	0.5
170°	1.5	1.0	0.5
172.5°	1.5	1.0	0.5
175°	1.5	0.5	0.5
177.5°	1.5	0.5	0.5
180°	1.5	1.5	1.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	205.7	199.9	180.3	147.9	103.4	57.8	21.6	3.9	1.0	1.5	1.5
110°	179.3	174.4	154.3	123.0	83.3	43.1	14.2	2.4	1.5	1.5	1.5





107.5°	2.0	2.9	3.4
110°	2.0	2.4	2.9



(END OF REPORT)