

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: P551510

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-93-97-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: P551510
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-93-97-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K,
AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

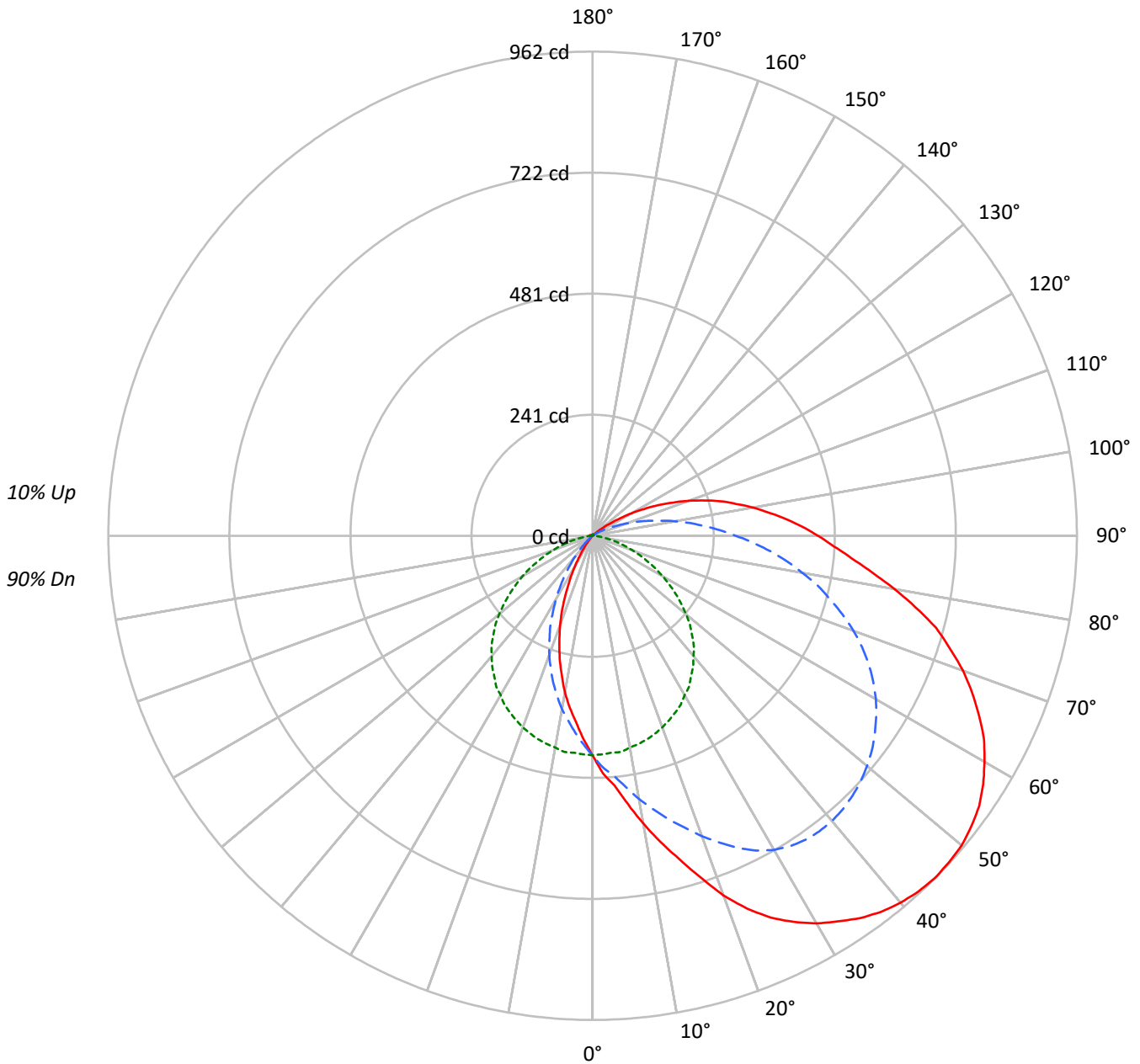
Lumens per Lamp: N/A
Luminaire Lumens: 2156.0 lumens
Efficiency: N/A
Efficacy: 91.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
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

TEST NUMBER: P551510

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-93-97-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°	4694	4694	4694
5°	5153	4626	3859
10°	5832	4569	3181
15°	6535	4510	2478
20°	7370	4437	1825
25°	8063	4352	1198
30°	8578	4238	675
35°	9024	4115	298
40°	9420	3964	71
45°	9760	3774	0
50°	10044	3523	0
55°	10261	3202	0
60°	10370	2831	0
65°	10413	2410	0
70°	10379	1965	0
75°	10246	1449	9
80°	9831	885	45
85°	9503	422	61



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.8	1.9
10°-20°	125.1	5.8
20°-30°	202.5	9.4
30°-40°	260.2	12.1
40°-50°	294.5	13.7
50°-60°	305.1	14.2
60°-70°	287.8	13.3
70°-80°	241.2	11.2
80°-90°	174.8	8.1
90°-100°	114.9	5.3
100°-110°	66.4	3.1
110°-120°	29.3	1.4
120°-130°	7.9	0.4
130°-140°	1.8	0.1
140°-150°	1.2	0.1
150°-160°	0.8	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	369.4	17.1
0°-40°	629.6	29.2
0°-60°	1229.3	57.0
0°-90°	1933.1	89.7
90°-120°	210.5	9.8
90°-150°	221.5	10.3
90°-180°	223.0	10.3
0°-180°	2156.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	436	436	436	436	436	
5°	498	478	433	393	373	50
15°	665	583	418	302	252	192
25°	837	684	388	199	124	387
35°	927	738	341	97	31	582
45°	962	730	279	22	0	742
55°	937	684	201	0	0	837
65°	847	606	120	0	0	838
75°	706	489	51	1	1	741
85°	517	354	8	2	3	441
90°	448	284	2	3	4	246
95°	384	222	1	4	5	302
105°	264	115	1	3	4	279
115°	144	38	2	2	3	144
125°	43	5	2	2	2	43
135°	2	2	3	2	2	4
145°	1	2	2	2	2	0
155°	1	2	2	2	1	0
165°	1	2	2	2	0	0
175°	1	2	3	2	1	0
180°	2	2	2	2	2	



TEST NUMBER: P551510

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	436.1	436.1	436.1	436.1	436.1	436.1	436.1	436.1	436.1	436.1	436.1
2.5°	472.8	472.2	470.6	467.8	463.9	457.2	451.7	446.7	440.0	434.4	423.9
5°	497.8	495.0	492.8	490.0	481.1	475.0	465.0	453.9	443.3	432.8	411.7
7.5°	537.8	533.3	530.0	522.2	510.0	496.1	480.6	470.0	462.8	433.3	397.2
10°	580.6	576.7	570.0	556.1	541.1	521.1	498.9	473.9	451.7	427.2	384.4
12.5°	622.8	617.2	607.8	590.0	568.9	543.9	513.3	483.9	452.2	423.3	369.4
15°	665.0	658.9	648.9	627.2	599.4	566.7	529.4	492.2	455.0	418.3	353.9
17.5°	711.1	702.8	687.8	663.3	628.3	587.8	543.9	498.9	453.9	412.2	337.2
20°	760.5	748.9	732.8	700.0	658.9	611.1	558.3	505.6	453.3	405.0	318.3
22.5°	801.7	790.0	772.2	738.3	688.9	630.5	570.6	510.0	451.1	396.7	300.6
25°	837.2	827.8	808.3	769.4	717.2	651.1	582.2	513.3	447.8	387.8	281.7
27.5°	865.0	856.1	834.4	794.4	741.1	669.4	591.1	515.0	443.3	378.9	262.2
30°	889.4	880.5	854.4	813.3	757.2	683.9	600.0	515.6	437.8	365.6	241.1
32.5°	908.3	900.0	873.3	829.4	768.3	693.9	605.0	515.0	430.6	356.1	218.3
35°	927.2	918.9	887.8	841.1	776.7	698.3	608.9	512.2	421.7	340.6	196.7
37.5°	941.7	932.2	900.5	848.9	780.5	699.4	608.3	508.3	412.2	327.8	175.0
40°	951.7	941.7	907.8	853.3	781.7	697.8	603.9	501.7	401.1	311.7	152.2
42.5°	958.3	947.2	911.1	860.0	779.4	693.3	597.2	493.3	388.9	297.8	130.6
45°	961.7	950.0	911.7	854.4	775.5	685.0	587.2	482.8	375.6	278.9	108.9
47.5°	960.0	947.2	908.9	848.3	768.3	676.1	576.1	470.0	359.4	262.2	88.3
50°	957.2	943.9	902.8	840.5	758.3	665.0	563.9	454.4	342.8	241.7	70.0
52.5°	948.3	935.0	896.1	829.4	746.7	652.2	547.2	438.3	325.0	221.7	53.3
55°	937.2	925.0	884.4	819.4	731.7	636.7	531.7	421.1	307.8	201.1	38.3
57.5°	920.0	908.9	870.0	803.3	716.7	619.4	514.4	402.2	286.1	180.6	26.7
60°	898.9	887.8	850.0	785.0	699.4	600.0	495.6	382.8	266.7	160.0	16.7
62.5°	876.7	866.1	826.7	762.2	677.8	579.4	475.0	363.3	246.1	141.1	10.0
65°	847.2	837.2	801.7	735.0	653.9	557.2	452.2	340.0	225.0	120.0	5.6
67.5°	816.1	807.2	771.1	710.0	626.1	532.8	428.9	317.2	202.8	101.7	2.8
70°	782.8	771.7	738.3	676.1	597.8	505.0	403.3	293.9	181.7	83.9	0.0
72.5°	743.9	735.5	703.3	644.4	565.0	475.6	377.2	268.3	158.3	66.7	0.6
75°	706.1	695.5	666.1	610.5	532.8	444.4	348.3	244.4	135.6	51.1	0.6
77.5°	657.2	653.9	626.1	572.2	502.2	414.4	316.7	215.6	113.9	36.7	0.6
80°	608.3	605.0	583.3	533.9	466.7	378.9	287.2	188.3	92.8	24.4	0.6
82.5°	560.0	555.6	535.0	493.9	430.6	348.9	256.7	161.1	73.3	15.0	0.6
85°	516.7	511.1	488.9	451.1	393.3	315.0	225.0	134.4	54.4	8.3	1.1
87.5°	479.4	475.6	451.1	412.2	355.6	283.3	197.2	108.9	38.3	3.9	1.7
90°	447.8	439.4	417.8	376.7	320.0	248.3	167.8	87.2	25.6	2.2	2.2
92.5°	416.7	409.4	385.6	343.3	288.3	218.3	139.4	66.7	16.1	1.1	2.8
95°	384.4	376.7	353.3	314.4	256.1	187.8	114.4	48.9	8.9	1.1	2.8
97.5°	352.8	345.6	321.1	282.2	227.2	161.1	90.6	34.4	4.4	1.1	2.2
100°	323.3	315.0	292.8	253.9	198.3	134.4	70.0	22.2	2.8	1.1	2.2
102.5°	292.2	285.6	262.8	225.0	168.3	109.4	52.2	13.9	1.1	1.1	1.7
105°	264.4	256.1	233.9	195.0	143.3	86.1	36.7	8.3	1.1	1.1	1.7



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CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-93-97-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	172.2	165.6	146.1	113.3	72.8	33.9	10.0	1.7	1.7	1.7	1.7
115°	143.9	133.9	116.7	87.8	53.9	22.2	5.0	1.7	1.7	1.7	1.7
117.5°	115.0	106.7	94.4	66.7	35.6	14.4	2.8	1.7	1.7	1.7	1.7
120°	90.0	82.2	68.3	46.1	23.9	8.3	1.1	1.7	1.7	1.7	1.7
122.5°	64.4	58.3	46.1	30.0	14.4	3.9	1.7	1.7	2.2	2.2	1.7
125°	42.8	39.4	30.6	18.3	8.9	1.7	1.7	1.7	2.2	2.2	1.7
127.5°	27.8	25.0	17.8	10.6	3.9	1.7	1.7	2.2	2.2	2.2	1.7
130°	15.6	13.9	10.6	6.1	1.7	1.7	1.7	2.2	2.2	2.2	1.7
132.5°	8.9	8.3	5.6	1.1	1.7	1.7	1.7	2.2	2.2	2.2	2.2
135°	2.2	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.2
137.5°	0.6	0.6	1.1	1.1	1.7	1.7	2.2	2.8	2.8	2.8	2.2
140°	0.6	0.6	1.1	1.7	1.7	1.7	2.2	2.8	2.8	2.8	2.2
142.5°	0.6	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.2	2.2
145°	0.6	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.2	2.2	2.2
147.5°	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.2	2.2
150°	0.6	1.1	1.1	1.7	2.2	2.2	2.2	2.8	2.2	2.2	2.2
152.5°	0.6	1.1	1.1	1.7	2.2	2.2	2.2	2.8	2.2	2.2	2.2
155°	1.1	1.1	1.1	1.7	2.2	2.2	2.2	2.8	2.2	2.2	2.8
157.5°	1.1	1.1	1.1	1.7	2.2	2.2	2.2	2.8	2.2	2.2	2.8
160°	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.2	2.2	2.2	2.2
162.5°	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.2	2.2	2.2	2.2
165°	1.1	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.2	2.2	2.2
167.5°	1.1	1.1	1.1	1.7	1.7	1.7	2.2	2.2	2.2	2.2	2.2
170°	1.1	1.1	1.1	1.7	1.7	1.7	2.2	2.8	2.8	2.8	2.8
172.5°	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.8	2.8
175°	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.8	2.8
177.5°	0.6	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.8	2.2
180°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	436.1	436.1	436.1
2.5°	415.0	407.2	405.0
5°	392.8	380.0	372.8
7.5°	370.6	353.3	345.0
10°	350.0	325.6	316.7
12.5°	325.6	297.2	283.3
15°	302.2	265.6	252.2
17.5°	276.1	235.0	219.4
20°	251.7	204.4	188.3
22.5°	223.9	174.4	156.7
25°	198.9	144.4	124.4
27.5°	171.1	113.9	96.7
30°	145.0	87.2	70.0
32.5°	120.0	63.9	48.3
35°	96.7	43.3	30.6
37.5°	74.4	26.7	15.6
40°	53.9	13.9	7.2
42.5°	36.1	6.7	3.9
45°	22.2	3.3	0.0
47.5°	12.8	0.0	0.0
50°	6.7	0.0	0.0
52.5°	2.8	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°	0.6	0.6	0.6
77.5°	0.6	1.1	1.7
80°	1.1	2.2	2.8
82.5°	2.2	2.8	2.8
85°	2.2	2.8	3.3
87.5°	2.8	3.3	3.9
90°	3.3	3.9	3.9
92.5°	3.3	4.4	4.4
95°	3.9	4.4	5.0
97.5°	4.4	5.0	5.0
100°	3.9	5.0	5.6
102.5°	3.3	5.0	5.0
105°	2.8	3.9	4.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.2	2.8	2.8
115°	1.7	2.2	2.8
117.5°	1.7	2.2	2.2
120°	1.7	1.7	2.2
122.5°	1.7	1.7	2.2
125°	1.7	1.7	2.2
127.5°	2.2	1.7	1.7
130°	1.7	1.7	1.7
132.5°	2.2	1.7	1.7
135°	2.2	1.7	1.7
137.5°	2.2	1.7	1.7
140°	2.2	1.7	1.7
142.5°	2.2	1.7	1.7
145°	1.7	1.7	1.7
147.5°	1.7	1.7	1.7
150°	1.7	1.7	1.1
152.5°	1.7	1.1	1.1
155°	1.7	1.1	0.6
157.5°	2.2	1.1	0.6
160°	1.7	1.1	0.6
162.5°	1.7	1.1	0.6
165°	1.7	1.1	0.0
167.5°	1.7	1.1	0.6
170°	1.7	1.1	0.6
172.5°	1.7	1.1	0.6
175°	1.7	0.6	0.6
177.5°	1.7	0.6	0.6
180°	1.7	1.7	1.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	233.3	226.7	204.4	167.8	117.2	65.6	24.4	4.4	1.1	1.7	1.7
110°	203.3	197.8	175.0	139.4	94.4	48.9	16.1	2.8	1.7	1.7	1.7





107.5°	2.2	3.3	3.9
110°	2.2	2.8	3.3



(END OF REPORT)