

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: P551488

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-82-88-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: P551488
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-82-88-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC 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

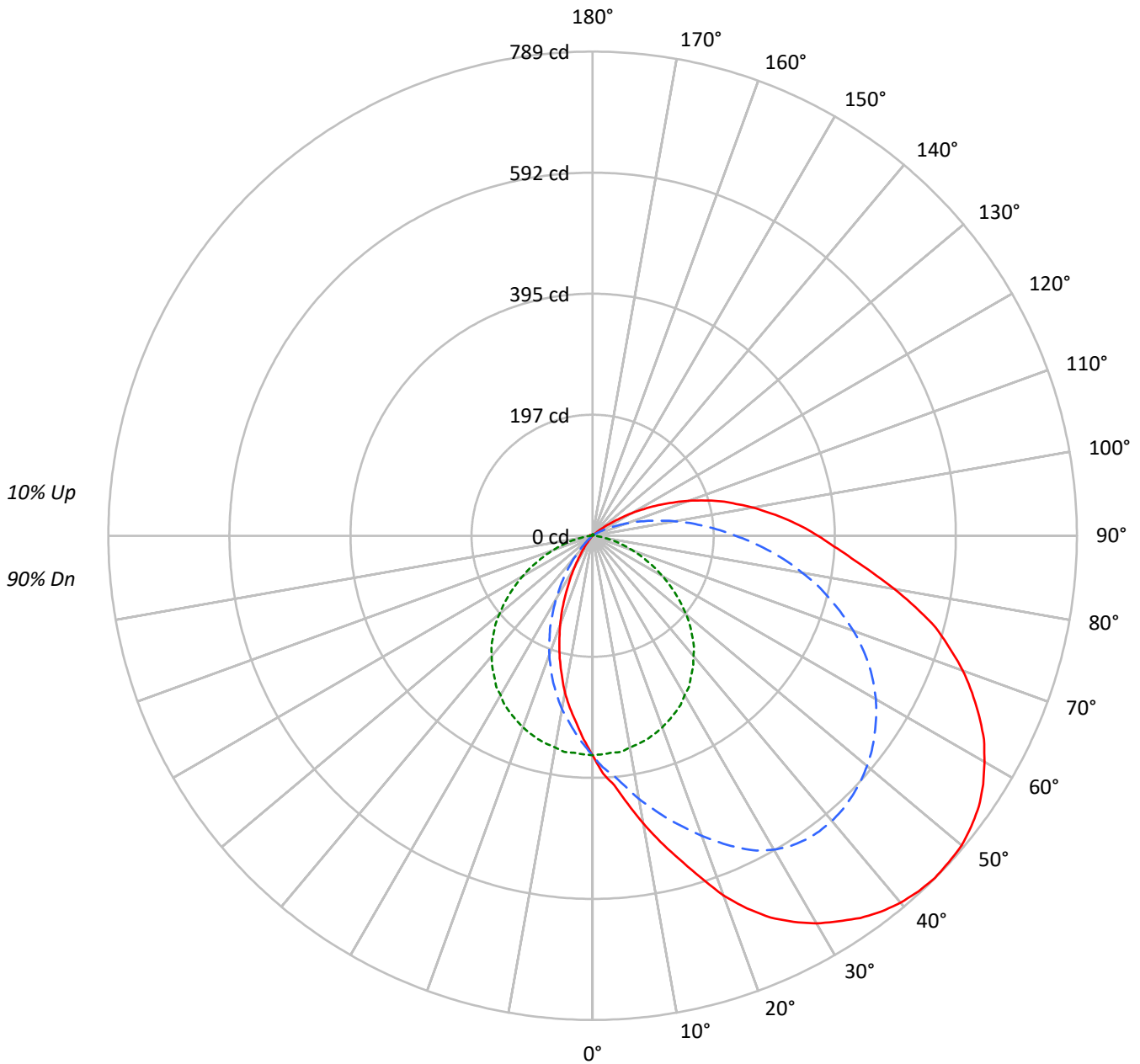
Lumens per Lamp: N/A
Luminaire Lumens: 1768.0 lumens
Efficiency: N/A
Efficacy: 75.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551488

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-82-88-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°	3849	3849	3849
5°	4226	3793	3165
10°	4782	3746	2609
15°	5359	3698	2032
20°	6044	3639	1496
25°	6612	3569	982
30°	7035	3475	554
35°	7400	3375	244
40°	7725	3251	58
45°	8003	3095	0
50°	8237	2889	0
55°	8414	2626	0
60°	8504	2322	0
65°	8538	1976	0
70°	8510	1612	0
75°	8402	1188	7
80°	8063	725	37
85°	7793	346	50



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.3	1.9
10°-20°	102.6	5.8
20°-30°	166.1	9.4
30°-40°	213.4	12.1
40°-50°	241.5	13.7
50°-60°	250.2	14.2
60°-70°	236.0	13.3
70°-80°	197.8	11.2
80°-90°	143.4	8.1
90°-100°	94.2	5.3
100°-110°	54.4	3.1
110°-120°	24.0	1.4
120°-130°	6.5	0.4
130°-140°	1.5	0.1
140°-150°	1.0	0.1
150°-160°	0.7	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	302.9	17.1
0°-40°	516.3	29.2
0°-60°	1008.1	57.0
0°-90°	1585.2	89.7
90°-120°	172.6	9.8
90°-150°	181.6	10.3
90°-180°	183.0	10.4
0°-180°	1768.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	358	358	358	358	358	
5°	408	392	355	322	306	41
15°	545	478	343	248	207	157
25°	686	561	318	163	102	317
35°	760	605	279	79	25	477
45°	789	599	229	18	0	609
55°	768	561	165	0	0	686
65°	695	497	98	0	0	687
75°	579	401	42	0	0	607
85°	424	290	7	2	3	362
90°	367	233	2	3	3	201
95°	315	182	1	3	4	247
105°	217	94	1	2	4	229
115°	118	31	1	1	2	118
125°	35	4	2	1	2	35
135°	2	1	2	2	1	3
145°	0	2	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	2	2	1	0	0
180°	1	1	1	1	1	



TEST NUMBER: P551488

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	357.6	357.6	357.6	357.6	357.6	357.6	357.6	357.6	357.6	357.6	357.6
2.5°	387.7	387.2	385.9	383.6	380.4	374.9	370.4	366.3	360.8	356.3	347.6
5°	408.2	405.9	404.1	401.8	394.5	389.5	381.3	372.2	363.5	354.9	337.6
7.5°	441.0	437.3	434.6	428.2	418.2	406.8	394.1	385.4	379.5	355.3	325.7
10°	476.1	472.9	467.4	456.0	443.7	427.3	409.1	388.6	370.4	350.3	315.3
12.5°	510.7	506.1	498.4	483.8	466.5	446.0	420.9	396.8	370.8	347.1	303.0
15°	545.3	540.3	532.1	514.3	491.6	464.7	434.2	403.6	373.1	343.0	290.2
17.5°	583.1	576.3	564.0	544.0	515.3	482.0	446.0	409.1	372.2	338.0	276.5
20°	623.7	614.1	600.9	574.0	540.3	501.1	457.8	414.6	371.7	332.1	261.0
22.5°	657.4	647.8	633.2	605.5	564.9	517.1	467.9	418.2	369.9	325.3	246.5
25°	686.5	678.8	662.9	631.0	588.1	533.9	477.4	420.9	367.2	318.0	231.0
27.5°	709.3	702.0	684.3	651.5	607.7	549.0	484.7	422.3	363.5	310.7	215.0
30°	729.4	722.1	700.7	667.0	620.9	560.8	492.0	422.8	359.0	299.8	197.7
32.5°	744.9	738.0	716.2	680.2	630.1	569.0	496.1	422.3	353.1	292.0	179.0
35°	760.3	753.5	728.0	689.7	636.9	572.7	499.3	420.0	345.8	279.3	161.3
37.5°	772.2	764.4	738.5	696.1	640.1	573.6	498.9	416.8	338.0	268.8	143.5
40°	780.4	772.2	744.4	699.8	641.0	572.2	495.2	411.4	328.9	255.6	124.8
42.5°	785.9	776.8	747.1	705.2	639.2	568.6	489.7	404.5	318.9	244.2	107.1
45°	788.6	779.0	747.6	700.7	636.0	561.7	481.5	395.9	308.0	228.7	89.3
47.5°	787.2	776.8	745.3	695.7	630.1	554.4	472.4	385.4	294.8	215.0	72.4
50°	785.0	774.0	740.3	689.3	621.9	545.3	462.4	372.7	281.1	198.2	57.4
52.5°	777.7	766.7	734.8	680.2	612.3	534.8	448.7	359.4	266.5	181.8	43.7
55°	768.5	758.5	725.3	672.0	600.0	522.1	436.0	345.3	252.4	164.9	31.4
57.5°	754.4	745.3	713.4	658.8	587.7	508.0	421.9	329.8	234.6	148.1	21.9
60°	737.1	728.0	697.0	643.7	573.6	492.0	406.4	313.9	218.7	131.2	13.7
62.5°	718.9	710.2	677.9	625.0	555.8	475.2	389.5	297.9	201.8	115.7	8.2
65°	694.7	686.5	657.4	602.7	536.2	456.9	370.8	278.8	184.5	98.4	4.6
67.5°	669.2	661.9	632.3	582.2	513.4	436.9	351.7	260.1	166.3	83.4	2.3
70°	641.9	632.8	605.5	554.4	490.2	414.1	330.7	241.0	149.0	68.8	0.0
72.5°	610.0	603.2	576.8	528.5	463.3	390.0	309.3	220.0	129.8	54.7	0.5
75°	579.0	570.4	546.2	500.7	436.9	364.5	285.6	200.5	111.2	41.9	0.5
77.5°	538.9	536.2	513.4	469.2	411.8	339.9	259.7	176.8	93.4	30.1	0.5
80°	498.9	496.1	478.4	437.8	382.7	310.7	235.5	154.4	76.1	20.0	0.5
82.5°	459.2	455.6	438.7	405.0	353.1	286.1	210.5	132.1	60.1	12.3	0.5
85°	423.7	419.1	400.9	369.9	322.5	258.3	184.5	110.2	44.6	6.8	0.9
87.5°	393.2	390.0	369.9	338.0	291.6	232.3	161.7	89.3	31.4	3.2	1.4
90°	367.2	360.4	342.6	308.9	262.4	203.6	137.6	71.5	21.0	1.8	1.8
92.5°	341.7	335.8	316.2	281.5	236.4	179.0	114.3	54.7	13.2	0.9	2.3
95°	315.3	308.9	289.7	257.9	210.0	154.0	93.8	40.1	7.3	0.9	2.3
97.5°	289.3	283.4	263.3	231.4	186.3	132.1	74.3	28.2	3.6	0.9	1.8
100°	265.1	258.3	240.1	208.2	162.6	110.2	57.4	18.2	2.3	0.9	1.8
102.5°	239.6	234.2	215.5	184.5	138.0	89.7	42.8	11.4	0.9	0.9	1.4
105°	216.9	210.0	191.8	159.9	117.5	70.6	30.1	6.8	0.9	0.9	1.4



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CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-82-88-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	141.2	135.8	119.8	92.9	59.7	27.8	8.2	1.4	1.4	1.4	1.4
115°	118.0	109.8	95.7	72.0	44.2	18.2	4.1	1.4	1.4	1.4	1.4
117.5°	94.3	87.5	77.4	54.7	29.2	11.8	2.3	1.4	1.4	1.4	1.4
120°	73.8	67.4	56.0	37.8	19.6	6.8	0.9	1.4	1.4	1.4	1.4
122.5°	52.8	47.8	37.8	24.6	11.8	3.2	1.4	1.4	1.8	1.8	1.4
125°	35.1	32.3	25.1	15.0	7.3	1.4	1.4	1.4	1.8	1.8	1.4
127.5°	22.8	20.5	14.6	8.7	3.2	1.4	1.4	1.8	1.8	1.8	1.4
130°	12.8	11.4	8.7	5.0	1.4	1.4	1.4	1.8	1.8	1.8	1.4
132.5°	7.3	6.8	4.6	0.9	1.4	1.4	1.4	1.8	1.8	1.8	1.8
135°	1.8	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	1.8
137.5°	0.5	0.5	0.9	0.9	1.4	1.4	1.8	2.3	2.3	2.3	1.8
140°	0.5	0.5	0.9	1.4	1.4	1.4	1.8	2.3	2.3	2.3	1.8
142.5°	0.5	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	1.8	1.8
145°	0.5	0.9	0.9	1.4	1.4	1.8	1.8	2.3	1.8	1.8	1.8
147.5°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	1.8	1.8
150°	0.5	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	1.8
152.5°	0.5	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	1.8
155°	0.9	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	2.3
157.5°	0.9	0.9	0.9	1.4	1.8	1.8	1.8	2.3	1.8	1.8	2.3
160°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.8	1.8
162.5°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.8	1.8
165°	0.9	0.9	0.9	0.9	1.4	1.4	1.8	1.8	1.8	1.8	1.8
167.5°	0.9	0.9	0.9	1.4	1.4	1.4	1.8	1.8	1.8	1.8	1.8
170°	0.9	0.9	0.9	1.4	1.4	1.4	1.8	2.3	2.3	2.3	2.3
172.5°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	2.3	2.3
175°	0.9	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	2.3	2.3
177.5°	0.5	0.9	0.9	1.4	1.4	1.8	1.8	2.3	2.3	2.3	1.8
180°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4



TEST NUMBER: P551488

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-82-88-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	357.6	357.6	357.6
2.5°	340.3	333.9	332.1
5°	322.1	311.6	305.7
7.5°	303.9	289.7	282.9
10°	287.0	267.0	259.7
12.5°	267.0	243.7	232.3
15°	247.8	217.8	206.8
17.5°	226.4	192.7	180.0
20°	206.4	167.7	154.4
22.5°	183.6	143.0	128.5
25°	163.1	118.4	102.0
27.5°	140.3	93.4	79.3
30°	118.9	71.5	57.4
32.5°	98.4	52.4	39.6
35°	79.3	35.5	25.1
37.5°	61.0	21.9	12.8
40°	44.2	11.4	5.9
42.5°	29.6	5.5	3.2
45°	18.2	2.7	0.0
47.5°	10.5	0.0	0.0
50°	5.5	0.0	0.0
52.5°	2.3	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°	0.5	0.5	0.5
77.5°	0.5	0.9	1.4
80°	0.9	1.8	2.3
82.5°	1.8	2.3	2.3
85°	1.8	2.3	2.7
87.5°	2.3	2.7	3.2
90°	2.7	3.2	3.2
92.5°	2.7	3.6	3.6
95°	3.2	3.6	4.1
97.5°	3.6	4.1	4.1
100°	3.2	4.1	4.6
102.5°	2.7	4.1	4.1
105°	2.3	3.2	3.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.8	2.3	2.3
115°	1.4	1.8	2.3
117.5°	1.4	1.8	1.8
120°	1.4	1.4	1.8
122.5°	1.4	1.4	1.8
125°	1.4	1.4	1.8
127.5°	1.8	1.4	1.4
130°	1.4	1.4	1.4
132.5°	1.8	1.4	1.4
135°	1.8	1.4	1.4
137.5°	1.8	1.4	1.4
140°	1.8	1.4	1.4
142.5°	1.8	1.4	1.4
145°	1.4	1.4	1.4
147.5°	1.4	1.4	1.4
150°	1.4	1.4	0.9
152.5°	1.4	0.9	0.9
155°	1.4	0.9	0.5
157.5°	1.8	0.9	0.5
160°	1.4	0.9	0.5
162.5°	1.4	0.9	0.5
165°	1.4	0.9	0.0
167.5°	1.4	0.9	0.5
170°	1.4	0.9	0.5
172.5°	1.4	0.9	0.5
175°	1.4	0.5	0.5
177.5°	1.4	0.5	0.5
180°	1.4	1.4	1.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	191.3	185.9	167.7	137.6	96.1	53.8	20.0	3.6	0.9	1.4	1.4
110°	166.7	162.2	143.5	114.3	77.4	40.1	13.2	2.3	1.4	1.4	1.4





107.5°	1.8	2.7	3.2
110°	1.8	2.3	2.7



(END OF REPORT)