

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: P551028

Luminaire Tested: **FCC-X-2-LD4-1STD-35-UNV-81-96-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: P551028
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-LD4-1STD-35-UNV-81-96-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

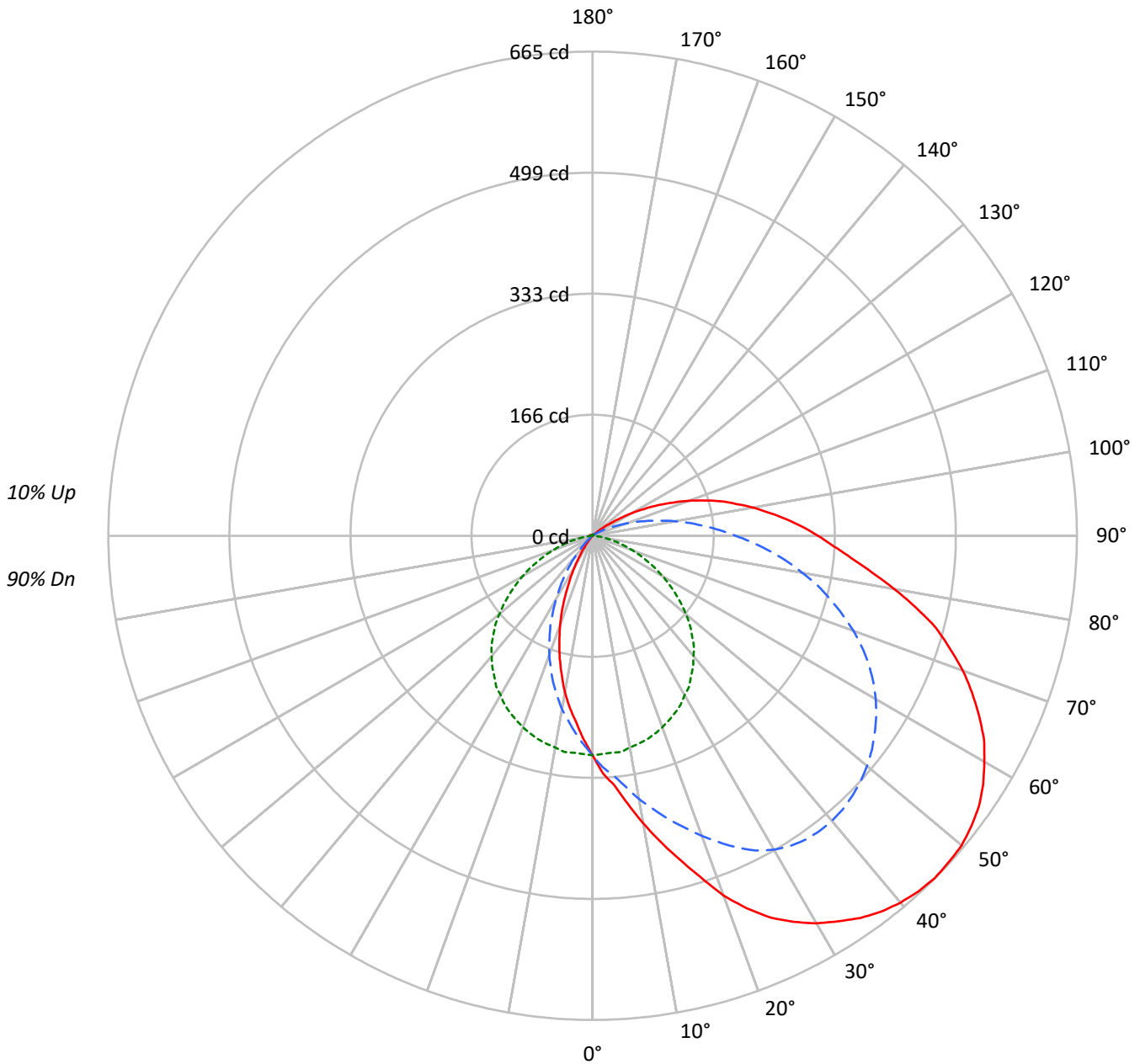
Lumens per Lamp: N/A
Luminaire Lumens: 1490.1 lumens
Efficiency: N/A
Efficacy: 89.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
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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CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-81-96-ED1D

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	76	73	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	3244	3244	3244
5°	3561	3197	2667
10°	4030	3157	2198
15°	4517	3117	1713
20°	5094	3067	1262
25°	5573	3008	828
30°	5929	2928	467
35°	6237	2844	205
40°	6510	2739	49
45°	6745	2607	0
50°	6941	2434	0
55°	7091	2213	0
60°	7167	1957	0
65°	7196	1665	0
70°	7173	1359	0
75°	7081	1001	6
80°	6794	613	31
85°	6568	295	42



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.9	1.9
10°-20°	86.4	5.8
20°-30°	140.0	9.4
30°-40°	179.8	12.1
40°-50°	203.6	13.7
50°-60°	210.9	14.2
60°-70°	198.9	13.3
70°-80°	166.7	11.2
80°-90°	120.8	8.1
90°-100°	79.4	5.3
100°-110°	45.9	3.1
110°-120°	20.3	1.4
120°-130°	5.5	0.4
130°-140°	1.3	0.1
140°-150°	0.8	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	255.3	17.1
0°-40°	435.1	29.2
0°-60°	849.5	57.0
0°-90°	1335.9	89.7
90°-120°	145.5	9.8
90°-150°	153.1	10.3
90°-180°	154.0	10.3
0°-180°	1490.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	301	301	301	301	301	
5°	344	330	299	271	258	35
15°	460	403	289	209	174	133
25°	579	473	268	137	86	267
35°	641	510	235	67	21	402
45°	665	505	193	15	0	513
55°	648	473	139	0	0	578
65°	586	418	83	0	0	579
75°	488	338	35	0	0	512
85°	357	245	6	2	2	305
90°	310	196	2	2	3	170
95°	266	153	1	3	4	208
105°	183	79	1	2	3	193
115°	99	26	1	1	2	100
125°	30	4	2	1	2	30
135°	2	1	2	2	1	3
145°	0	1	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	1	2	1	0	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	301.4	301.4	301.4	301.4	301.4	301.4	301.4	301.4	301.4	301.4	301.4
2.5°	326.7	326.3	325.2	323.3	320.6	316.0	312.1	308.7	304.1	300.2	292.9
5°	344.0	342.1	340.6	338.6	332.5	328.3	321.4	313.7	306.4	299.1	284.5
7.5°	371.7	368.6	366.3	360.9	352.5	342.9	332.1	324.8	319.8	299.5	274.5
10°	401.2	398.5	393.9	384.3	374.0	360.1	344.8	327.5	312.1	295.2	265.7
12.5°	430.4	426.6	420.0	407.7	393.2	375.9	354.8	334.4	312.5	292.6	255.3
15°	459.6	455.4	448.4	433.5	414.3	391.6	365.9	340.2	314.4	289.1	244.6
17.5°	491.4	485.7	475.3	458.4	434.2	406.2	375.9	344.8	313.7	284.9	233.1
20°	525.6	517.5	506.4	483.8	455.4	422.3	385.9	349.4	313.3	279.9	220.0
22.5°	554.0	546.0	533.7	510.3	476.1	435.8	394.3	352.5	311.8	274.1	207.7
25°	578.6	572.1	558.6	531.8	495.7	450.0	402.4	354.8	309.5	268.0	194.7
27.5°	597.8	591.6	576.7	549.0	512.2	462.6	408.5	355.9	306.4	261.8	181.2
30°	614.7	608.5	590.5	562.1	523.3	472.6	414.7	356.3	302.5	252.6	166.6
32.5°	627.7	622.0	603.6	573.2	531.0	479.5	418.1	355.9	297.6	246.1	150.9
35°	640.8	635.0	613.5	581.3	536.7	482.6	420.8	354.0	291.4	235.4	135.9
37.5°	650.8	644.2	622.4	586.7	539.4	483.4	420.4	351.3	284.9	226.5	120.9
40°	657.7	650.8	627.4	589.7	540.2	482.2	417.3	346.7	277.2	215.4	105.2
42.5°	662.3	654.6	629.7	594.3	538.7	479.2	412.7	340.9	268.8	205.8	90.2
45°	664.6	656.5	630.0	590.5	536.0	473.4	405.8	333.6	259.5	192.7	75.3
47.5°	663.4	654.6	628.1	586.3	531.0	467.3	398.1	324.8	248.4	181.2	61.0
50°	661.5	652.3	623.9	580.9	524.1	459.6	389.7	314.1	236.9	167.0	48.4
52.5°	655.4	646.2	619.3	573.2	516.0	450.7	378.2	302.9	224.6	153.2	36.9
55°	647.7	639.3	611.2	566.3	505.6	440.0	367.4	291.0	212.7	139.0	26.5
57.5°	635.8	628.1	601.2	555.2	495.3	428.1	355.5	278.0	197.7	124.8	18.4
60°	621.2	613.5	587.4	542.5	483.4	414.7	342.5	264.5	184.3	110.6	11.5
62.5°	605.9	598.6	571.3	526.8	468.4	400.4	328.3	251.1	170.1	97.5	6.9
65°	585.5	578.6	554.0	507.9	451.9	385.1	312.5	235.0	155.5	82.9	3.8
67.5°	564.0	557.9	532.9	490.7	432.7	368.2	296.4	219.2	140.1	70.3	1.9
70°	541.0	533.3	510.3	467.3	413.1	349.0	278.7	203.1	125.5	58.0	0.0
72.5°	514.1	508.3	486.1	445.4	390.5	328.7	260.7	185.4	109.4	46.1	0.4
75°	488.0	480.7	460.3	421.9	368.2	307.2	240.7	168.9	93.7	35.3	0.4
77.5°	454.2	451.9	432.7	395.5	347.1	286.4	218.8	149.0	78.7	25.3	0.4
80°	420.4	418.1	403.1	369.0	322.5	261.8	198.5	130.2	64.1	16.9	0.4
82.5°	387.0	383.9	369.7	341.3	297.6	241.1	177.4	111.3	50.7	10.4	0.4
85°	357.1	353.2	337.9	311.8	271.8	217.7	155.5	92.9	37.6	5.8	0.8
87.5°	331.3	328.7	311.8	284.9	245.7	195.8	136.3	75.3	26.5	2.7	1.2
90°	309.5	303.7	288.7	260.3	221.1	171.6	115.9	60.3	17.7	1.5	1.5
92.5°	288.0	283.0	266.5	237.3	199.3	150.9	96.4	46.1	11.1	0.8	1.9
95°	265.7	260.3	244.2	217.3	177.0	129.8	79.1	33.8	6.1	0.8	1.9
97.5°	243.8	238.8	221.9	195.0	157.0	111.3	62.6	23.8	3.1	0.8	1.5
100°	223.5	217.7	202.3	175.5	137.1	92.9	48.4	15.4	1.9	0.8	1.5
102.5°	202.0	197.3	181.6	155.5	116.3	75.6	36.1	9.6	0.8	0.8	1.2
105°	182.8	177.0	161.6	134.8	99.1	59.5	25.3	5.8	0.8	0.8	1.2



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CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-81-96-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	119.0	114.4	101.0	78.3	50.3	23.4	6.9	1.2	1.2	1.2	1.2
115°	99.4	92.5	80.6	60.7	37.2	15.4	3.5	1.2	1.2	1.2	1.2
117.5°	79.5	73.7	65.3	46.1	24.6	10.0	1.9	1.2	1.2	1.2	1.2
120°	62.2	56.8	47.2	31.9	16.5	5.8	0.8	1.2	1.2	1.2	1.2
122.5°	44.5	40.3	31.9	20.7	10.0	2.7	1.2	1.2	1.5	1.5	1.2
125°	29.6	27.3	21.1	12.7	6.1	1.2	1.2	1.2	1.5	1.5	1.2
127.5°	19.2	17.3	12.3	7.3	2.7	1.2	1.2	1.5	1.5	1.5	1.2
130°	10.8	9.6	7.3	4.2	1.2	1.2	1.2	1.5	1.5	1.5	1.2
132.5°	6.1	5.8	3.8	0.8	1.2	1.2	1.2	1.5	1.5	1.5	1.5
135°	1.5	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.5
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.5	1.9	1.9	1.9	1.5
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.5	1.9	1.9	1.9	1.5
142.5°	0.4	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.5	1.5
145°	0.4	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.5	1.5	1.5
147.5°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.5	1.5
150°	0.4	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.5
152.5°	0.4	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.5
155°	0.8	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.9
157.5°	0.8	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.9
160°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.5	1.5	1.5
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.5	1.5	1.5	1.5	1.5
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.5	1.9	1.9	1.9	1.9
172.5°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.9	1.9
175°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.9	1.9
177.5°	0.4	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.9	1.5
180°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	301.4	301.4	301.4
2.5°	286.8	281.4	279.9
5°	271.4	262.6	257.6
7.5°	256.1	244.2	238.4
10°	241.9	225.0	218.8
12.5°	225.0	205.4	195.8
15°	208.9	183.5	174.3
17.5°	190.8	162.4	151.7
20°	173.9	141.3	130.2
22.5°	154.7	120.6	108.3
25°	137.4	99.8	86.0
27.5°	118.3	78.7	66.8
30°	100.2	60.3	48.4
32.5°	82.9	44.2	33.4
35°	66.8	29.9	21.1
37.5°	51.4	18.4	10.8
40°	37.2	9.6	5.0
42.5°	25.0	4.6	2.7
45°	15.4	2.3	0.0
47.5°	8.8	0.0	0.0
50°	4.6	0.0	0.0
52.5°	1.9	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°	0.4	0.4	0.4
77.5°	0.4	0.8	1.2
80°	0.8	1.5	1.9
82.5°	1.5	1.9	1.9
85°	1.5	1.9	2.3
87.5°	1.9	2.3	2.7
90°	2.3	2.7	2.7
92.5°	2.3	3.1	3.1
95°	2.7	3.1	3.5
97.5°	3.1	3.5	3.5
100°	2.7	3.5	3.8
102.5°	2.3	3.5	3.5
105°	1.9	2.7	3.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.5	1.9	1.9
115°	1.2	1.5	1.9
117.5°	1.2	1.5	1.5
120°	1.2	1.2	1.5
122.5°	1.2	1.2	1.5
125°	1.2	1.2	1.5
127.5°	1.5	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.5	1.2	1.2
135°	1.5	1.2	1.2
137.5°	1.5	1.2	1.2
140°	1.5	1.2	1.2
142.5°	1.5	1.2	1.2
145°	1.2	1.2	1.2
147.5°	1.2	1.2	1.2
150°	1.2	1.2	0.8
152.5°	1.2	0.8	0.8
155°	1.2	0.8	0.4
157.5°	1.5	0.8	0.4
160°	1.2	0.8	0.4
162.5°	1.2	0.8	0.4
165°	1.2	0.8	0.0
167.5°	1.2	0.8	0.4
170°	1.2	0.8	0.4
172.5°	1.2	0.8	0.4
175°	1.2	0.4	0.4
177.5°	1.2	0.4	0.4
180°	1.2	1.2	1.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	161.3	156.6	141.3	115.9	81.0	45.3	16.9	3.1	0.8	1.2	1.2
110°	140.5	136.7	120.9	96.4	65.3	33.8	11.1	1.9	1.2	1.2	1.2





107.5°	1.5	2.3	2.7
110°	1.5	1.9	2.3



(END OF REPORT)