

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: P551176

Luminaire Tested: **FCC-X-2-LD4-1STD-50-UNV-93-84-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: P551176
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-50-UNV-93-84-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

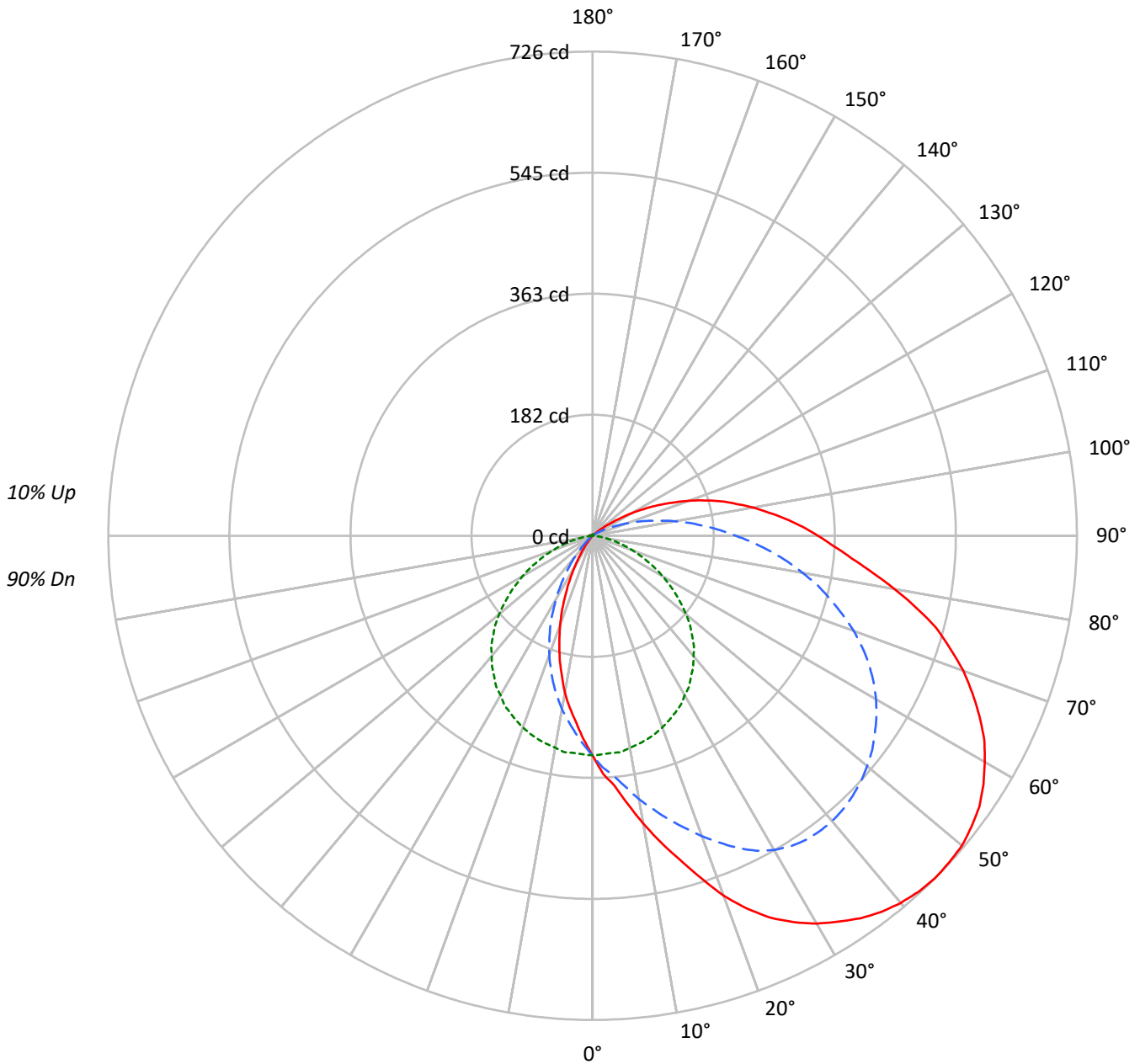
Lumens per Lamp: N/A
Luminaire Lumens: 1628.1 lumens
Efficiency: N/A
Efficacy: 97.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 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

TEST NUMBER: P551176

CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-93-84-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°	3545	3545	3545
5°	3891	3493	2914
10°	4403	3450	2402
15°	4934	3406	1872
20°	5566	3350	1378
25°	6089	3286	905
30°	6477	3200	510
35°	6814	3108	225
40°	7113	2992	54
45°	7369	2850	0
50°	7584	2660	0
55°	7748	2419	0
60°	7830	2138	0
65°	7862	1820	0
70°	7837	1483	0
75°	7737	1095	6
80°	7423	671	34
85°	7175	320	46



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.5	1.9
10°-20°	94.4	5.8
20°-30°	152.9	9.4
30°-40°	196.5	12.1
40°-50°	222.4	13.7
50°-60°	230.4	14.2
60°-70°	217.3	13.3
70°-80°	182.1	11.2
80°-90°	132.0	8.1
90°-100°	86.8	5.3
100°-110°	50.1	3.1
110°-120°	22.1	1.4
120°-130°	6.0	0.4
130°-140°	1.4	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.4	0.0
170°-180°	0.1	0.0
0°-30°	278.9	17.1
0°-40°	475.4	29.2
0°-60°	928.2	57.0
0°-90°	1459.6	89.7
90°-120°	159.0	9.8
90°-150°	167.3	10.3
90°-180°	168.0	10.3
0°-180°	1628.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	329	329	329	329	329	
5°	376	361	327	297	282	38
15°	502	440	316	228	190	145
25°	632	517	293	150	94	292
35°	700	557	257	73	23	439
45°	726	551	211	17	0	561
55°	708	517	152	0	0	632
65°	640	457	91	0	0	633
75°	533	369	39	0	0	559
85°	390	267	6	2	2	333
90°	338	215	2	2	3	185
95°	290	168	1	3	4	228
105°	200	87	1	2	3	211
115°	109	29	1	1	2	109
125°	32	4	2	1	2	32
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	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	329.3	329.3	329.3	329.3	329.3	329.3	329.3	329.3	329.3	329.3	329.3
2.5°	357.0	356.6	355.3	353.2	350.3	345.2	341.1	337.3	332.2	328.0	320.1
5°	375.9	373.8	372.1	370.0	363.3	358.7	351.1	342.7	334.8	326.8	310.8
7.5°	406.1	402.7	400.2	394.3	385.1	374.6	362.9	354.9	349.4	327.2	299.9
10°	438.4	435.4	430.4	419.9	408.6	393.5	376.7	357.8	341.1	322.6	290.3
12.5°	470.3	466.1	458.9	445.5	429.6	410.7	387.6	365.4	341.5	319.7	279.0
15°	502.1	497.5	490.0	473.6	452.6	427.9	399.8	371.7	343.6	315.9	267.2
17.5°	537.0	530.7	519.3	500.9	474.5	443.8	410.7	376.7	342.7	311.3	254.6
20°	574.3	565.5	553.3	528.6	497.5	461.4	421.6	381.7	342.3	305.8	240.4
22.5°	605.3	596.5	583.1	557.5	520.2	476.1	430.8	385.1	340.6	299.5	226.9
25°	632.2	625.1	610.4	581.0	541.6	491.7	439.6	387.6	338.1	292.8	212.7
27.5°	653.2	646.4	630.1	599.9	559.6	505.5	446.3	388.9	334.8	286.1	198.0
30°	671.6	664.9	645.2	614.1	571.8	516.4	453.1	389.3	330.6	276.0	182.1
32.5°	685.9	679.6	659.4	626.3	580.2	524.0	456.8	388.9	325.1	268.9	164.9
35°	700.1	693.8	670.4	635.1	586.5	527.3	459.8	386.8	318.4	257.2	148.5
37.5°	711.0	703.9	680.0	641.0	589.4	528.1	459.3	383.8	311.3	247.5	132.1
40°	718.6	711.0	685.5	644.3	590.2	526.9	456.0	378.8	302.9	235.3	114.9
42.5°	723.6	715.2	688.0	649.4	588.6	523.5	451.0	372.5	293.6	224.9	98.6
45°	726.1	717.3	688.4	645.2	585.6	517.2	443.4	364.5	283.6	210.6	82.2
47.5°	724.9	715.2	686.3	640.6	580.2	510.5	435.0	354.9	271.4	198.0	66.7
50°	722.8	712.7	681.7	634.7	572.6	502.1	425.8	343.1	258.8	182.5	52.9
52.5°	716.1	706.0	676.6	626.3	563.8	492.5	413.2	331.0	245.4	167.4	40.3
55°	707.7	698.5	667.8	618.8	552.5	480.7	401.5	318.0	232.4	151.9	28.9
57.5°	694.7	686.3	656.9	606.6	541.2	467.7	388.5	303.7	216.0	136.3	20.1
60°	678.7	670.4	641.8	592.7	528.1	453.1	374.2	289.0	201.4	120.8	12.6
62.5°	662.0	654.0	624.2	575.6	511.8	437.5	358.7	274.4	185.8	106.6	7.6
65°	639.7	632.2	605.3	555.0	493.7	420.8	341.5	256.7	169.9	90.6	4.2
67.5°	616.2	609.5	582.3	536.1	472.8	402.3	323.9	239.5	153.1	76.8	2.1
70°	591.1	582.7	557.5	510.5	451.4	381.3	304.6	221.9	137.2	63.3	0.0
72.5°	561.7	555.4	531.1	486.6	426.6	359.1	284.8	202.6	119.6	50.3	0.4
75°	533.2	525.2	503.0	461.0	402.3	335.6	263.0	184.6	102.4	38.6	0.4
77.5°	496.3	493.7	472.8	432.1	379.2	312.9	239.1	162.8	86.0	27.7	0.4
80°	459.3	456.8	440.5	403.1	352.4	286.1	216.9	142.2	70.1	18.5	0.4
82.5°	422.9	419.5	404.0	372.9	325.1	263.4	193.8	121.7	55.4	11.3	0.4
85°	390.1	385.9	369.2	340.6	297.0	237.9	169.9	101.5	41.1	6.3	0.8
87.5°	362.0	359.1	340.6	311.3	268.5	213.9	148.9	82.2	28.9	2.9	1.3
90°	338.1	331.8	315.5	284.4	241.6	187.5	126.7	65.9	19.3	1.7	1.7
92.5°	314.6	309.2	291.1	259.2	217.7	164.9	105.3	50.3	12.2	0.8	2.1
95°	290.3	284.4	266.8	237.4	193.4	141.8	86.4	36.9	6.7	0.8	2.1
97.5°	266.4	260.9	242.5	213.1	171.6	121.7	68.4	26.0	3.4	0.8	1.7
100°	244.1	237.9	221.1	191.7	149.8	101.5	52.9	16.8	2.1	0.8	1.7
102.5°	220.7	215.6	198.4	169.9	127.1	82.6	39.4	10.5	0.8	0.8	1.3
105°	199.7	193.4	176.6	147.2	108.2	65.0	27.7	6.3	0.8	0.8	1.3



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CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-93-84-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	130.0	125.0	110.3	85.6	55.0	25.6	7.6	1.3	1.3	1.3	1.3
115°	108.6	101.1	88.1	66.3	40.7	16.8	3.8	1.3	1.3	1.3	1.3
117.5°	86.8	80.5	71.3	50.3	26.8	10.9	2.1	1.3	1.3	1.3	1.3
120°	68.0	62.1	51.6	34.8	18.0	6.3	0.8	1.3	1.3	1.3	1.3
122.5°	48.7	44.0	34.8	22.7	10.9	2.9	1.3	1.3	1.7	1.7	1.3
125°	32.3	29.8	23.1	13.8	6.7	1.3	1.3	1.3	1.7	1.7	1.3
127.5°	21.0	18.9	13.4	8.0	2.9	1.3	1.3	1.7	1.7	1.7	1.3
130°	11.7	10.5	8.0	4.6	1.3	1.3	1.3	1.7	1.7	1.7	1.3
132.5°	6.7	6.3	4.2	0.8	1.3	1.3	1.3	1.7	1.7	1.7	1.7
135°	1.7	0.8	0.8	0.8	1.3	1.3	1.7	1.7	2.1	2.1	1.7
137.5°	0.4	0.4	0.8	0.8	1.3	1.3	1.7	2.1	2.1	2.1	1.7
140°	0.4	0.4	0.8	1.3	1.3	1.3	1.7	2.1	2.1	2.1	1.7
142.5°	0.4	0.8	0.8	1.3	1.3	1.7	1.7	2.1	2.1	1.7	1.7
145°	0.4	0.8	0.8	1.3	1.3	1.7	1.7	2.1	1.7	1.7	1.7
147.5°	0.8	0.8	0.8	1.3	1.3	1.7	1.7	2.1	2.1	1.7	1.7
150°	0.4	0.8	0.8	1.3	1.7	1.7	1.7	2.1	1.7	1.7	1.7
152.5°	0.4	0.8	0.8	1.3	1.7	1.7	1.7	2.1	1.7	1.7	1.7
155°	0.8	0.8	0.8	1.3	1.7	1.7	1.7	2.1	1.7	1.7	2.1
157.5°	0.8	0.8	0.8	1.3	1.7	1.7	1.7	2.1	1.7	1.7	2.1
160°	0.8	0.8	0.8	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7
162.5°	0.8	0.8	0.8	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7
165°	0.8	0.8	0.8	0.8	1.3	1.3	1.7	1.7	1.7	1.7	1.7
167.5°	0.8	0.8	0.8	1.3	1.3	1.3	1.7	1.7	1.7	1.7	1.7
170°	0.8	0.8	0.8	1.3	1.3	1.3	1.7	2.1	2.1	2.1	2.1
172.5°	0.8	0.8	0.8	1.3	1.3	1.7	1.7	2.1	2.1	2.1	2.1
175°	0.8	0.8	0.8	1.3	1.3	1.7	1.7	2.1	2.1	2.1	2.1
177.5°	0.4	0.8	0.8	1.3	1.3	1.7	1.7	2.1	2.1	2.1	1.7
180°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	329.3	329.3	329.3
2.5°	313.4	307.5	305.8
5°	296.6	286.9	281.5
7.5°	279.8	266.8	260.5
10°	264.3	245.8	239.1
12.5°	245.8	224.4	213.9
15°	228.2	200.5	190.5
17.5°	208.5	177.4	165.7
20°	190.0	154.4	142.2
22.5°	169.1	131.7	118.3
25°	150.2	109.1	94.0
27.5°	129.2	86.0	73.0
30°	109.5	65.9	52.9
32.5°	90.6	48.2	36.5
35°	73.0	32.7	23.1
37.5°	56.2	20.1	11.7
40°	40.7	10.5	5.5
42.5°	27.3	5.0	2.9
45°	16.8	2.5	0.0
47.5°	9.6	0.0	0.0
50°	5.0	0.0	0.0
52.5°	2.1	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	1.3
80°	0.8	1.7	2.1
82.5°	1.7	2.1	2.1
85°	1.7	2.1	2.5
87.5°	2.1	2.5	2.9
90°	2.5	2.9	2.9
92.5°	2.5	3.4	3.4
95°	2.9	3.4	3.8
97.5°	3.4	3.8	3.8
100°	2.9	3.8	4.2
102.5°	2.5	3.8	3.8
105°	2.1	2.9	3.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.7	2.1	2.1
115°	1.3	1.7	2.1
117.5°	1.3	1.7	1.7
120°	1.3	1.3	1.7
122.5°	1.3	1.3	1.7
125°	1.3	1.3	1.7
127.5°	1.7	1.3	1.3
130°	1.3	1.3	1.3
132.5°	1.7	1.3	1.3
135°	1.7	1.3	1.3
137.5°	1.7	1.3	1.3
140°	1.7	1.3	1.3
142.5°	1.7	1.3	1.3
145°	1.3	1.3	1.3
147.5°	1.3	1.3	1.3
150°	1.3	1.3	0.8
152.5°	1.3	0.8	0.8
155°	1.3	0.8	0.4
157.5°	1.7	0.8	0.4
160°	1.3	0.8	0.4
162.5°	1.3	0.8	0.4
165°	1.3	0.8	0.0
167.5°	1.3	0.8	0.4
170°	1.3	0.8	0.4
172.5°	1.3	0.8	0.4
175°	1.3	0.4	0.4
177.5°	1.3	0.4	0.4
180°	1.3	1.3	1.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	176.2	171.2	154.4	126.7	88.5	49.5	18.5	3.4	0.8	1.3	1.3
110°	153.5	149.3	132.1	105.3	71.3	36.9	12.2	2.1	1.3	1.3	1.3





107.5°	1.7	2.5	2.9
110°	1.7	2.1	2.5



(END OF REPORT)