

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: P551179

Luminaire Tested: **FCC-X-2-LD4-1STD-50-UNV-93-86-ED1D-90**

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: P551179
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-93-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

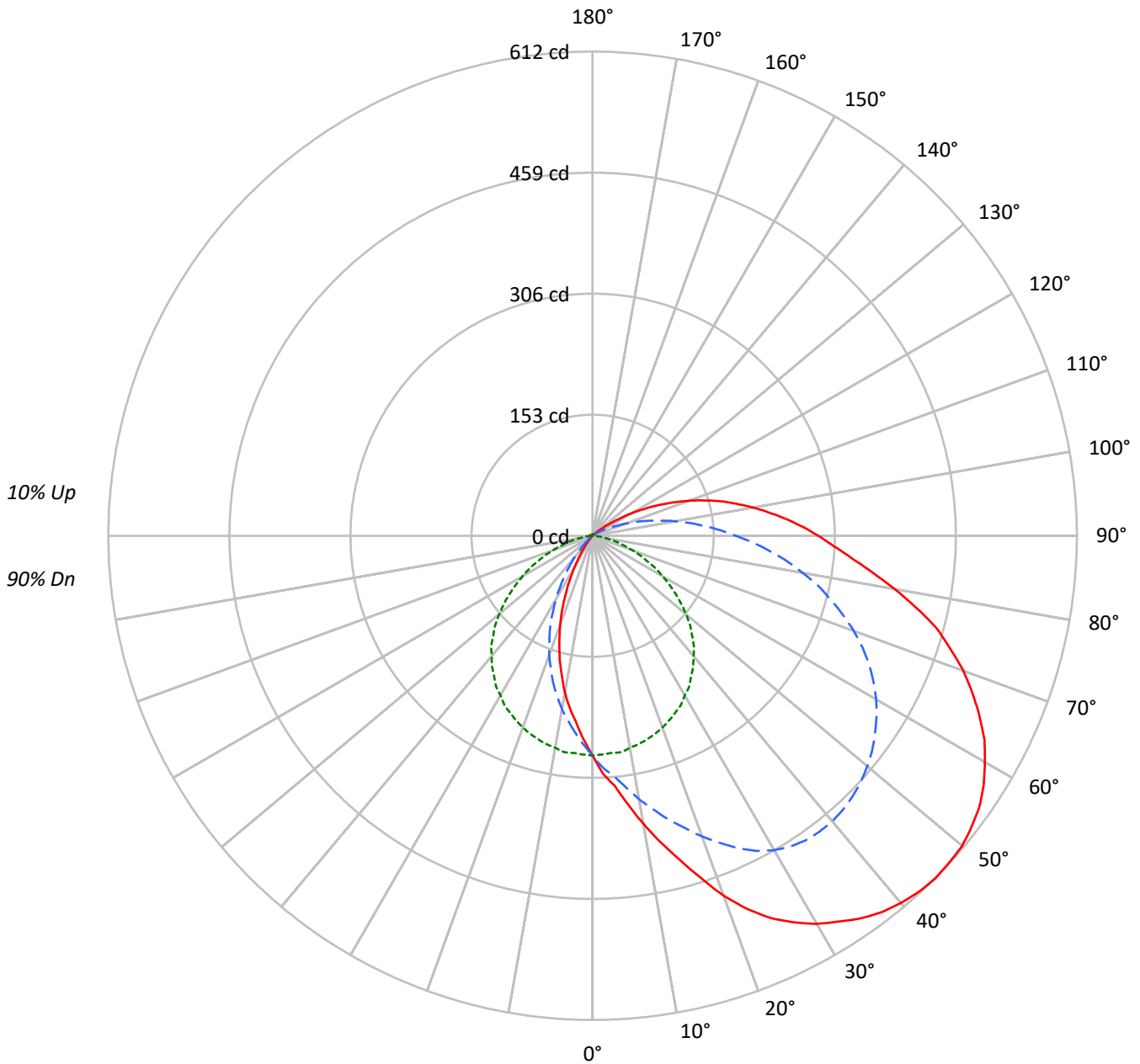
Lumens per Lamp: N/A
Luminaire Lumens: 1373.1 lumens
Efficiency: N/A
Efficacy: 82.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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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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°	2989	2989	2989
5°	3282	2946	2458
10°	3713	2910	2026
15°	4162	2872	1578
20°	4693	2826	1162
25°	5135	2771	763
30°	5463	2699	430
35°	5747	2621	190
40°	5998	2524	46
45°	6215	2403	0
50°	6397	2243	0
55°	6534	2040	0
60°	6604	1803	0
65°	6631	1535	0
70°	6609	1251	0
75°	6526	922	6
80°	6261	566	29
85°	6051	270	39



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.6	1.9
10°-20°	79.7	5.8
20°-30°	129.0	9.4
30°-40°	165.7	12.1
40°-50°	187.6	13.7
50°-60°	194.3	14.2
60°-70°	183.3	13.3
70°-80°	153.6	11.2
80°-90°	111.3	8.1
90°-100°	73.2	5.3
100°-110°	42.3	3.1
110°-120°	18.7	1.4
120°-130°	5.1	0.4
130°-140°	1.2	0.1
140°-150°	0.8	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	235.2	17.1
0°-40°	400.9	29.2
0°-60°	782.8	57.0
0°-90°	1231.0	89.7
90°-120°	134.1	9.8
90°-150°	141.1	10.3
90°-180°	142.0	10.3
0°-180°	1373.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	278	278	278	278	278	
5°	317	304	276	250	237	32
15°	424	371	266	192	161	122
25°	533	436	247	127	79	246
35°	590	470	217	62	20	370
45°	612	465	178	14	0	473
55°	597	436	128	0	0	533
65°	540	386	76	0	0	534
75°	450	311	32	0	0	472
85°	329	226	5	1	2	281
90°	285	181	1	2	2	156
95°	245	141	1	2	3	192
105°	168	73	1	2	3	178
115°	92	24	1	1	2	92
125°	27	3	1	1	1	27
135°	1	1	2	1	1	3
145°	0	1	1	1	1	0
155°	1	1	1	1	0	0
165°	1	1	1	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°	277.7	277.7	277.7	277.7	277.7	277.7	277.7	277.7	277.7	277.7	277.7
2.5°	301.1	300.7	299.7	297.9	295.4	291.2	287.6	284.4	280.2	276.7	269.9
5°	317.0	315.2	313.8	312.0	306.4	302.5	296.1	289.0	282.3	275.6	262.2
7.5°	342.5	339.6	337.5	332.6	324.8	315.9	306.0	299.3	294.7	276.0	253.0
10°	369.7	367.2	363.0	354.1	344.6	331.9	317.7	301.8	287.6	272.1	244.8
12.5°	396.6	393.1	387.0	375.7	362.3	346.4	326.9	308.2	288.0	269.6	235.3
15°	423.5	419.6	413.2	399.4	381.7	360.9	337.2	313.5	289.8	266.4	225.4
17.5°	452.9	447.5	438.0	422.4	400.1	374.3	346.4	317.7	289.0	262.5	214.8
20°	484.3	476.9	466.6	445.8	419.6	389.2	355.6	321.9	288.7	257.9	202.7
22.5°	510.5	503.1	491.8	470.2	438.7	401.6	363.3	324.8	287.3	252.6	191.4
25°	533.2	527.1	514.8	490.0	456.7	414.6	370.8	326.9	285.2	246.9	179.4
27.5°	550.9	545.2	531.4	505.9	472.0	426.3	376.4	328.0	282.3	241.3	167.0
30°	566.4	560.8	544.1	517.9	482.2	435.5	382.1	328.3	278.8	232.8	153.5
32.5°	578.4	573.1	556.2	528.2	489.3	441.9	385.3	328.0	274.2	226.8	139.0
35°	590.5	585.2	565.4	535.6	494.6	444.7	387.8	326.2	268.5	216.9	125.2
37.5°	599.7	593.7	573.5	540.6	497.1	445.4	387.4	323.7	262.5	208.7	111.4
40°	606.0	599.7	578.1	543.4	497.8	444.4	384.6	319.5	255.4	198.5	96.9
42.5°	610.3	603.2	580.2	547.7	496.4	441.5	380.3	314.2	247.7	189.6	83.1
45°	612.4	605.0	580.6	544.1	493.9	436.2	374.0	307.4	239.2	177.6	69.3
47.5°	611.3	603.2	578.8	540.2	489.3	430.6	366.9	299.3	228.9	167.0	56.3
50°	609.6	601.1	574.9	535.3	482.9	423.5	359.1	289.4	218.3	153.9	44.6
52.5°	603.9	595.4	570.7	528.2	475.5	415.3	348.5	279.1	207.0	141.2	34.0
55°	596.8	589.1	563.2	521.8	465.9	405.4	338.6	268.2	196.0	128.1	24.4
57.5°	585.9	578.8	554.0	511.6	456.4	394.5	327.6	256.1	182.2	115.0	17.0
60°	572.4	565.4	541.3	499.9	445.4	382.1	315.6	243.8	169.8	101.9	10.6
62.5°	558.3	551.6	526.4	485.4	431.6	369.0	302.5	231.4	156.7	89.9	6.4
65°	539.5	533.2	510.5	468.1	416.4	354.9	288.0	216.5	143.3	76.4	3.5
67.5°	519.7	514.1	491.1	452.1	398.7	339.3	273.1	202.0	129.1	64.7	1.8
70°	498.5	491.4	470.2	430.6	380.7	321.6	256.9	187.2	115.7	53.4	0.0
72.5°	473.7	468.4	447.9	410.4	359.8	302.8	240.2	170.9	100.8	42.5	0.4
75°	449.7	442.9	424.2	388.8	339.3	283.0	221.8	155.7	86.3	32.5	0.4
77.5°	418.5	416.4	398.7	364.4	319.8	263.9	201.7	137.3	72.5	23.4	0.4
80°	387.4	385.3	371.5	340.0	297.2	241.3	182.9	119.9	59.1	15.6	0.4
82.5°	356.6	353.8	340.7	314.5	274.2	222.2	163.5	102.6	46.7	9.6	0.4
85°	329.0	325.5	311.3	287.3	250.5	200.6	143.3	85.6	34.7	5.3	0.7
87.5°	305.3	302.8	287.3	262.5	226.4	180.4	125.6	69.3	24.4	2.5	1.1
90°	285.2	279.8	266.0	239.9	203.8	158.1	106.8	55.5	16.3	1.4	1.4
92.5°	265.3	260.7	245.5	218.6	183.6	139.0	88.8	42.5	10.3	0.7	1.8
95°	244.8	239.9	225.0	200.2	163.1	119.6	72.9	31.1	5.7	0.7	1.8
97.5°	224.7	220.1	204.5	179.7	144.7	102.6	57.7	21.9	2.8	0.7	1.4
100°	205.9	200.6	186.4	161.7	126.3	85.6	44.6	14.2	1.8	0.7	1.4
102.5°	186.1	181.8	167.3	143.3	107.2	69.7	33.3	8.8	0.7	0.7	1.1
105°	168.4	163.1	148.9	124.2	91.3	54.8	23.4	5.3	0.7	0.7	1.1



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CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-93-86-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	109.7	105.4	93.0	72.2	46.3	21.6	6.4	1.1	1.1	1.1	1.1
115°	91.6	85.3	74.3	55.9	34.3	14.2	3.2	1.1	1.1	1.1	1.1
117.5°	73.2	67.9	60.1	42.5	22.6	9.2	1.8	1.1	1.1	1.1	1.1
120°	57.3	52.4	43.5	29.4	15.2	5.3	0.7	1.1	1.1	1.1	1.1
122.5°	41.0	37.1	29.4	19.1	9.2	2.5	1.1	1.1	1.4	1.4	1.1
125°	27.2	25.1	19.5	11.7	5.7	1.1	1.1	1.1	1.4	1.4	1.1
127.5°	17.7	15.9	11.3	6.7	2.5	1.1	1.1	1.4	1.4	1.4	1.1
130°	9.9	8.8	6.7	3.9	1.1	1.1	1.1	1.4	1.4	1.4	1.1
132.5°	5.7	5.3	3.5	0.7	1.1	1.1	1.1	1.4	1.4	1.4	1.4
135°	1.4	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4
137.5°	0.4	0.4	0.7	0.7	1.1	1.1	1.4	1.8	1.8	1.8	1.4
140°	0.4	0.4	0.7	1.1	1.1	1.1	1.4	1.8	1.8	1.8	1.4
142.5°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4	1.4
145°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.4	1.4	1.4
147.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4	1.4
150°	0.4	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.4
152.5°	0.4	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.4
155°	0.7	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.8
157.5°	0.7	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.8
160°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4	1.4
162.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4	1.4
165°	0.7	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4
167.5°	0.7	0.7	0.7	1.1	1.1	1.1	1.4	1.4	1.4	1.4	1.4
170°	0.7	0.7	0.7	1.1	1.1	1.1	1.4	1.8	1.8	1.8	1.8
172.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.8
175°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.8
177.5°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.4
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	277.7	277.7	277.7
2.5°	264.3	259.3	257.9
5°	250.1	242.0	237.4
7.5°	236.0	225.0	219.7
10°	222.9	207.3	201.7
12.5°	207.3	189.3	180.4
15°	192.5	169.1	160.6
17.5°	175.8	149.7	139.7
20°	160.3	130.2	119.9
22.5°	142.6	111.1	99.8
25°	126.7	92.0	79.2
27.5°	109.0	72.5	61.6
30°	92.3	55.5	44.6
32.5°	76.4	40.7	30.8
35°	61.6	27.6	19.5
37.5°	47.4	17.0	9.9
40°	34.3	8.8	4.6
42.5°	23.0	4.2	2.5
45°	14.2	2.1	0.0
47.5°	8.1	0.0	0.0
50°	4.2	0.0	0.0
52.5°	1.8	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°	0.4	0.4	0.4
77.5°	0.4	0.7	1.1
80°	0.7	1.4	1.8
82.5°	1.4	1.8	1.8
85°	1.4	1.8	2.1
87.5°	1.8	2.1	2.5
90°	2.1	2.5	2.5
92.5°	2.1	2.8	2.8
95°	2.5	2.8	3.2
97.5°	2.8	3.2	3.2
100°	2.5	3.2	3.5
102.5°	2.1	3.2	3.2
105°	1.8	2.5	2.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.4	1.8	1.8
115°	1.1	1.4	1.8
117.5°	1.1	1.4	1.4
120°	1.1	1.1	1.4
122.5°	1.1	1.1	1.4
125°	1.1	1.1	1.4
127.5°	1.4	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.4	1.1	1.1
135°	1.4	1.1	1.1
137.5°	1.4	1.1	1.1
140°	1.4	1.1	1.1
142.5°	1.4	1.1	1.1
145°	1.1	1.1	1.1
147.5°	1.1	1.1	1.1
150°	1.1	1.1	0.7
152.5°	1.1	0.7	0.7
155°	1.1	0.7	0.4
157.5°	1.4	0.7	0.4
160°	1.1	0.7	0.4
162.5°	1.1	0.7	0.4
165°	1.1	0.7	0.0
167.5°	1.1	0.7	0.4
170°	1.1	0.7	0.4
172.5°	1.1	0.7	0.4
175°	1.1	0.4	0.4
177.5°	1.1	0.4	0.4
180°	1.1	1.1	1.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	148.6	144.3	130.2	106.8	74.6	41.7	15.6	2.8	0.7	1.1	1.1
110°	129.5	125.9	111.4	88.8	60.1	31.1	10.3	1.8	1.1	1.1	1.1





107.5°	1.4	2.1	2.5
110°	1.4	1.8	2.1



(END OF REPORT)