

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: P551188

Luminaire Tested: **FCC-X-2-LD4-1STD-50-UNV-93-96-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: P551188
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-93-96-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K,
AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

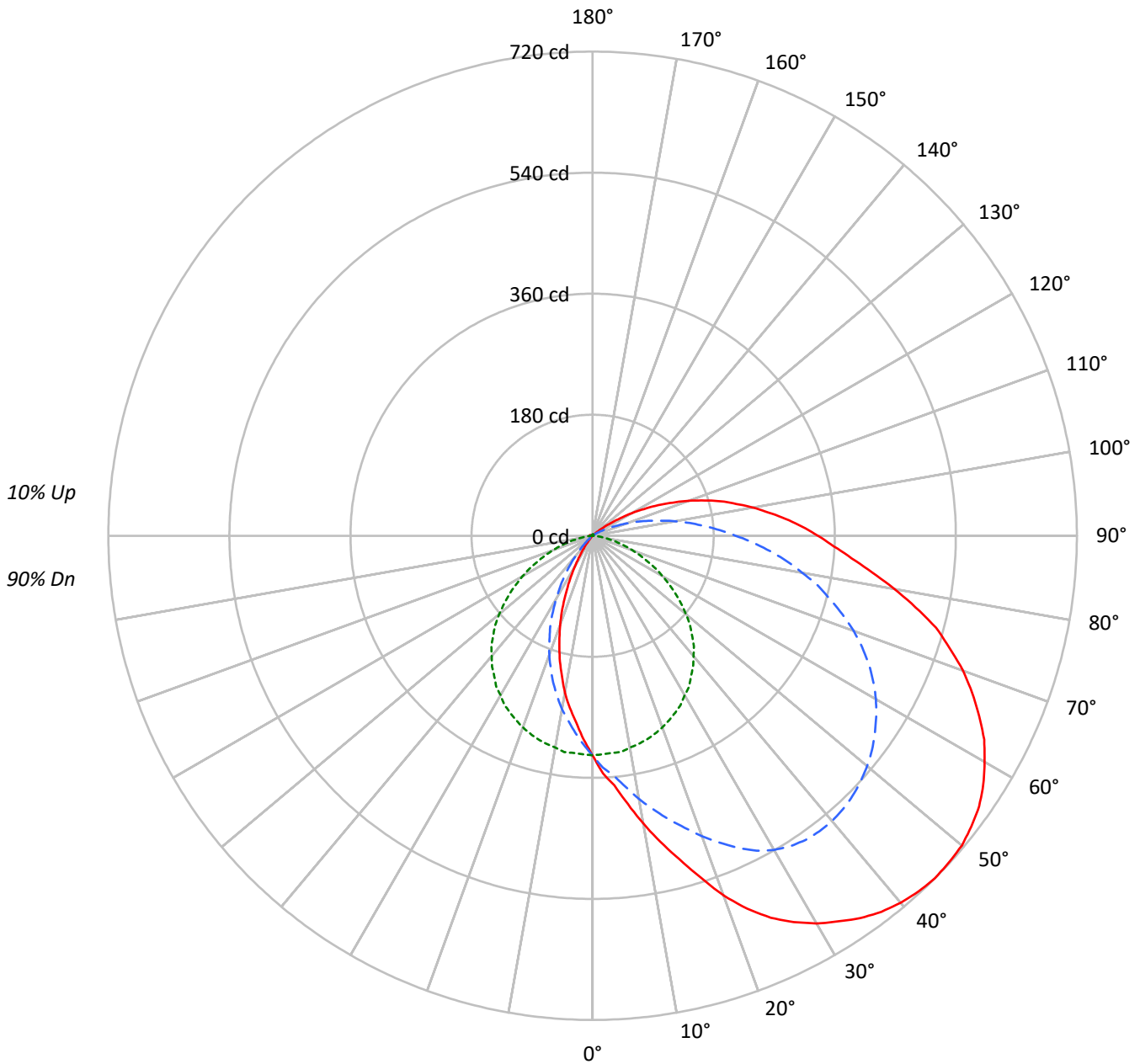
Lumens per Lamp: N/A
Luminaire Lumens: 1613.9 lumens
Efficiency: N/A
Efficacy: 96.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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				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°	3514	3514	3514
5°	3857	3463	2889
10°	4365	3420	2382
15°	4892	3377	1855
20°	5518	3322	1366
25°	6036	3258	898
30°	6422	3173	505
35°	6756	3080	223
40°	7052	2967	53
45°	7306	2825	0
50°	7519	2637	0
55°	7681	2398	0
60°	7763	2120	0
65°	7795	1804	0
70°	7769	1471	0
75°	7670	1086	6
80°	7360	664	34
85°	7114	315	46



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.3	1.9
10°-20°	93.6	5.8
20°-30°	151.6	9.4
30°-40°	194.8	12.1
40°-50°	220.5	13.7
50°-60°	228.4	14.2
60°-70°	215.4	13.3
70°-80°	180.5	11.2
80°-90°	130.9	8.1
90°-100°	86.0	5.3
100°-110°	49.7	3.1
110°-120°	21.9	1.4
120°-130°	5.9	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°	276.5	17.1
0°-40°	471.3	29.2
0°-60°	920.2	57.0
0°-90°	1447.1	89.7
90°-120°	157.6	9.8
90°-150°	165.7	10.3
90°-180°	167.0	10.3
0°-180°	1613.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	326	326	326	326	326	
5°	373	358	324	294	279	38
15°	498	436	313	226	189	144
25°	627	512	290	149	93	290
35°	694	552	255	72	23	435
45°	720	547	209	17	0	556
55°	702	512	151	0	0	627
65°	634	453	90	0	0	627
75°	529	366	38	0	0	554
85°	387	265	6	2	2	330
90°	335	213	2	2	3	184
95°	288	166	1	3	4	226
105°	198	86	1	2	3	209
115°	108	28	1	1	2	108
125°	32	4	2	1	2	32
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°	326.5	326.5	326.5	326.5	326.5	326.5	326.5	326.5	326.5	326.5	326.5
2.5°	353.9	353.5	352.3	350.2	347.3	342.3	338.1	334.4	329.4	325.2	317.3
5°	372.6	370.6	368.9	366.8	360.2	355.6	348.1	339.8	331.9	324.0	308.2
7.5°	402.6	399.3	396.8	390.9	381.8	371.4	359.7	351.8	346.4	324.4	297.4
10°	434.6	431.7	426.7	416.3	405.1	390.1	373.5	354.8	338.1	319.8	287.8
12.5°	466.2	462.1	455.0	441.7	425.9	407.2	384.3	362.2	338.5	316.9	276.6
15°	497.8	493.2	485.8	469.5	448.7	424.2	396.3	368.5	340.6	313.2	264.9
17.5°	532.3	526.1	514.9	496.6	470.4	440.0	407.2	373.5	339.8	308.6	252.4
20°	569.4	560.6	548.6	524.0	493.2	457.5	418.0	378.5	339.4	303.2	238.3
22.5°	600.1	591.4	578.1	552.7	515.7	472.0	427.1	381.8	337.7	296.9	225.0
25°	626.7	619.7	605.1	576.0	536.9	487.4	435.9	384.3	335.2	290.3	210.9
27.5°	647.5	640.9	624.7	594.7	554.8	501.1	442.5	385.5	331.9	283.6	196.3
30°	665.8	659.2	639.6	608.9	566.9	512.0	449.2	385.9	327.7	273.7	180.5
32.5°	680.0	673.7	653.8	620.9	575.2	519.4	452.9	385.5	322.3	266.6	163.4
35°	694.1	687.9	664.6	629.7	581.4	522.8	455.8	383.5	315.7	254.9	147.2
37.5°	704.9	697.9	674.2	635.5	584.3	523.6	455.4	380.5	308.6	245.4	131.0
40°	712.4	704.9	679.6	638.8	585.2	522.4	452.1	375.5	300.3	233.3	114.0
42.5°	717.4	709.1	682.1	643.8	583.5	519.0	447.1	369.3	291.1	222.9	97.7
45°	719.9	711.2	682.5	639.6	580.6	512.8	439.6	361.4	281.1	208.8	81.5
47.5°	718.7	709.1	680.4	635.1	575.2	506.1	431.3	351.8	269.1	196.3	66.1
50°	716.6	706.6	675.8	629.2	567.7	497.8	422.1	340.2	256.6	180.9	52.4
52.5°	709.9	699.9	670.8	620.9	559.0	488.3	409.7	328.1	243.3	165.9	39.9
55°	701.6	692.5	662.1	613.4	547.7	476.6	398.0	315.2	230.4	150.6	28.7
57.5°	688.7	680.4	651.3	601.4	536.5	463.7	385.1	301.1	214.2	135.2	20.0
60°	672.9	664.6	636.3	587.7	523.6	449.2	371.0	286.5	199.6	119.8	12.5
62.5°	656.3	648.4	618.8	570.6	507.4	433.8	355.6	272.0	184.2	105.6	7.5
65°	634.2	626.7	600.1	550.2	489.5	417.1	338.5	254.5	168.4	89.8	4.2
67.5°	610.9	604.3	577.3	531.5	468.7	398.8	321.1	237.5	151.8	76.1	2.1
70°	586.0	577.7	552.7	506.1	447.5	378.0	301.9	220.0	136.0	62.8	0.0
72.5°	556.9	550.6	526.5	482.4	423.0	356.0	282.4	200.9	118.5	49.9	0.4
75°	528.6	520.7	498.7	457.1	398.8	332.7	260.8	183.0	101.5	38.3	0.4
77.5°	492.0	489.5	468.7	428.4	376.0	310.3	237.1	161.4	85.3	27.4	0.4
80°	455.4	452.9	436.7	399.7	349.3	283.6	215.0	141.0	69.5	18.3	0.4
82.5°	419.2	415.9	400.5	369.7	322.3	261.2	192.1	120.6	54.9	11.2	0.4
85°	386.8	382.6	366.0	337.7	294.4	235.8	168.4	100.6	40.8	6.2	0.8
87.5°	358.9	356.0	337.7	308.6	266.2	212.1	147.6	81.5	28.7	2.9	1.2
90°	335.2	329.0	312.7	282.0	239.6	185.9	125.6	65.3	19.1	1.7	1.7
92.5°	311.9	306.5	288.6	257.0	215.8	163.4	104.4	49.9	12.1	0.8	2.1
95°	287.8	282.0	264.5	235.4	191.7	140.6	85.7	36.6	6.7	0.8	2.1
97.5°	264.1	258.7	240.4	211.3	170.1	120.6	67.8	25.8	3.3	0.8	1.7
100°	242.0	235.8	219.2	190.1	148.5	100.6	52.4	16.6	2.1	0.8	1.7
102.5°	218.8	213.8	196.7	168.4	126.0	81.9	39.1	10.4	0.8	0.8	1.2
105°	198.0	191.7	175.1	146.0	107.3	64.5	27.4	6.2	0.8	0.8	1.2



TEST NUMBER: P551188

CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-93-96-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	128.9	123.9	109.4	84.8	54.5	25.4	7.5	1.2	1.2	1.2	1.2
115°	107.7	100.2	87.3	65.7	40.3	16.6	3.7	1.2	1.2	1.2	1.2
117.5°	86.1	79.9	70.7	49.9	26.6	10.8	2.1	1.2	1.2	1.2	1.2
120°	67.4	61.6	51.2	34.5	17.9	6.2	0.8	1.2	1.2	1.2	1.2
122.5°	48.2	43.7	34.5	22.5	10.8	2.9	1.2	1.2	1.7	1.7	1.2
125°	32.0	29.5	22.9	13.7	6.7	1.2	1.2	1.2	1.7	1.7	1.2
127.5°	20.8	18.7	13.3	7.9	2.9	1.2	1.2	1.7	1.7	1.7	1.2
130°	11.6	10.4	7.9	4.6	1.2	1.2	1.2	1.7	1.7	1.7	1.2
132.5°	6.7	6.2	4.2	0.8	1.2	1.2	1.2	1.7	1.7	1.7	1.7
135°	1.7	0.8	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	1.7
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.7	2.1	2.1	2.1	1.7
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.7	2.1	2.1	2.1	1.7
142.5°	0.4	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	1.7	1.7
145°	0.4	0.8	0.8	1.2	1.2	1.7	1.7	2.1	1.7	1.7	1.7
147.5°	0.8	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	1.7	1.7
150°	0.4	0.8	0.8	1.2	1.7	1.7	1.7	2.1	1.7	1.7	1.7
152.5°	0.4	0.8	0.8	1.2	1.7	1.7	1.7	2.1	1.7	1.7	1.7
155°	0.8	0.8	0.8	1.2	1.7	1.7	1.7	2.1	1.7	1.7	2.1
157.5°	0.8	0.8	0.8	1.2	1.7	1.7	1.7	2.1	1.7	1.7	2.1
160°	0.8	0.8	0.8	1.2	1.2	1.7	1.7	1.7	1.7	1.7	1.7
162.5°	0.8	0.8	0.8	1.2	1.2	1.7	1.7	1.7	1.7	1.7	1.7
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.7	1.7	1.7	1.7	1.7
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.7	1.7	1.7	1.7	1.7
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.7	2.1	2.1	2.1	2.1
172.5°	0.8	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	2.1	2.1
175°	0.8	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	2.1	2.1
177.5°	0.4	0.8	0.8	1.2	1.2	1.7	1.7	2.1	2.1	2.1	1.7
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°	326.5	326.5	326.5
2.5°	310.7	304.8	303.2
5°	294.0	284.5	279.1
7.5°	277.4	264.5	258.3
10°	262.0	243.7	237.1
12.5°	243.7	222.5	212.1
15°	226.2	198.8	188.8
17.5°	206.7	175.9	164.3
20°	188.4	153.0	141.0
22.5°	167.6	130.6	117.3
25°	148.9	108.1	93.2
27.5°	128.1	85.3	72.4
30°	108.5	65.3	52.4
32.5°	89.8	47.8	36.2
35°	72.4	32.4	22.9
37.5°	55.7	20.0	11.6
40°	40.3	10.4	5.4
42.5°	27.0	5.0	2.9
45°	16.6	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	1.2
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	3.3	3.3
95°	2.9	3.3	3.7
97.5°	3.3	3.7	3.7
100°	2.9	3.7	4.2
102.5°	2.5	3.7	3.7
105°	2.1	2.9	3.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.7	2.1	2.1
115°	1.2	1.7	2.1
117.5°	1.2	1.7	1.7
120°	1.2	1.2	1.7
122.5°	1.2	1.2	1.7
125°	1.2	1.2	1.7
127.5°	1.7	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.7	1.2	1.2
135°	1.7	1.2	1.2
137.5°	1.7	1.2	1.2
140°	1.7	1.2	1.2
142.5°	1.7	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°	1.7	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°	174.7	169.7	153.0	125.6	87.8	49.1	18.3	3.3	0.8	1.2	1.2
110°	152.2	148.1	131.0	104.4	70.7	36.6	12.1	2.1	1.2	1.2	1.2





107.5°	1.7	2.5	2.9
110°	1.7	2.1	2.5



(END OF REPORT)