

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: P550983

Luminaire Tested: **FCC-X-2-LD4-1STD-30-UNV-93-84-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: P550983
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-30-UNV-93-84-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

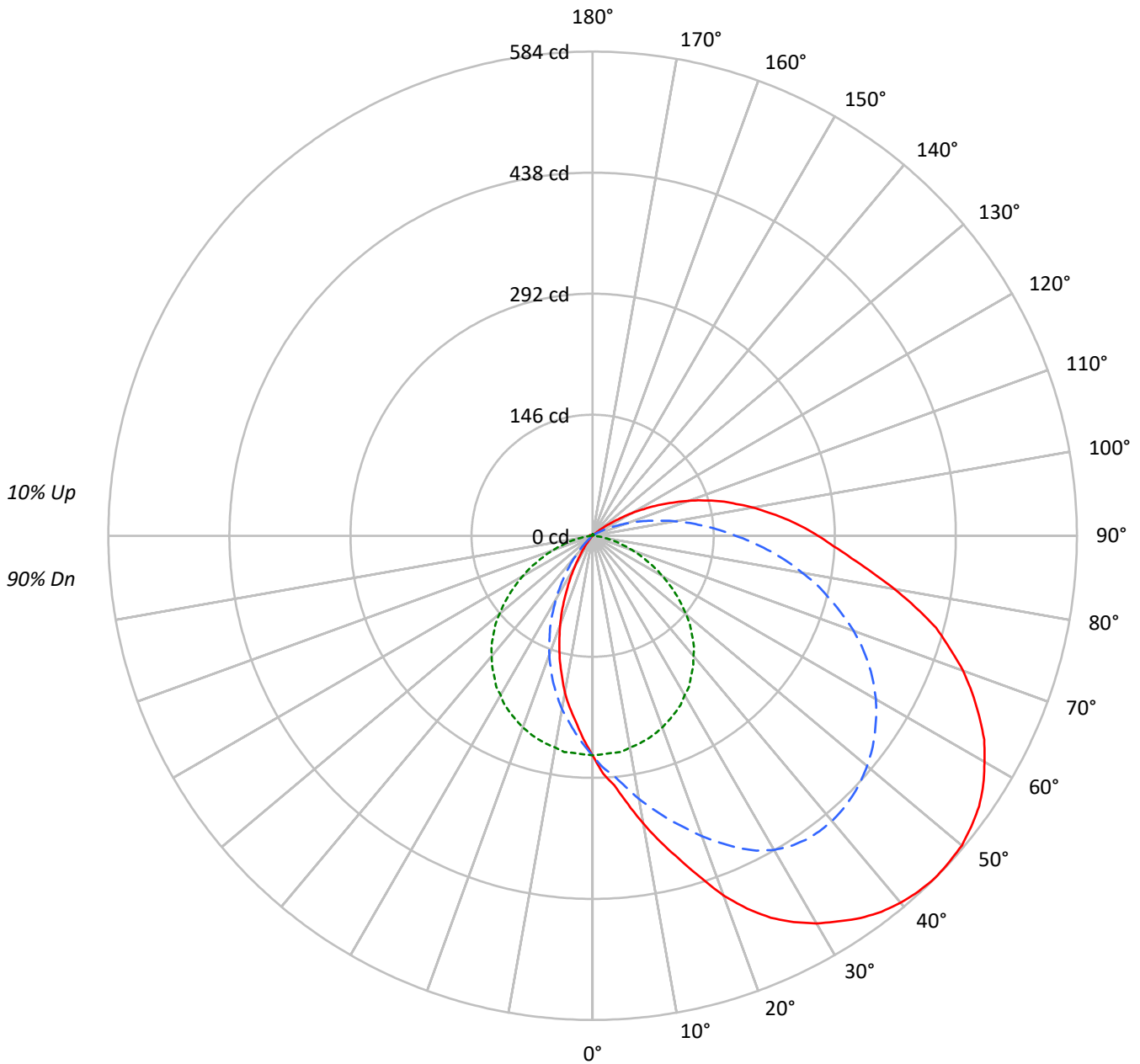
Lumens per Lamp: N/A
Luminaire Lumens: 1308.9 lumens
Efficiency: N/A
Efficacy: 78.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	2850	2850	2850
5°	3128	2809	2343
10°	3541	2774	1932
15°	3967	2739	1505
20°	4475	2694	1108
25°	4896	2642	728
30°	5208	2572	410
35°	5480	2499	181
40°	5719	2406	44
45°	5926	2291	0
50°	6099	2138	0
55°	6230	1944	0
60°	6296	1718	0
65°	6322	1464	0
70°	6302	1192	0
75°	6221	879	4
80°	5968	537	27
85°	5770	259	37



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.4	1.9
10°-20°	75.9	5.8
20°-30°	123.0	9.4
30°-40°	158.0	12.1
40°-50°	178.8	13.7
50°-60°	185.3	14.2
60°-70°	174.7	13.3
70°-80°	146.4	11.2
80°-90°	106.1	8.1
90°-100°	69.8	5.3
100°-110°	40.3	3.1
110°-120°	17.8	1.4
120°-130°	4.8	0.4
130°-140°	1.1	0.1
140°-150°	0.7	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	224.3	17.1
0°-40°	382.3	29.2
0°-60°	746.3	57.0
0°-90°	1173.6	89.7
90°-120°	127.8	9.8
90°-150°	134.4	10.3
90°-180°	135.0	10.3
0°-180°	1308.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	265	265	265	265	265	
5°	302	290	263	238	226	30
15°	404	354	254	184	153	116
25°	508	415	235	121	76	235
35°	563	448	207	59	19	353
45°	584	443	169	14	0	451
55°	569	415	122	0	0	508
65°	514	368	73	0	0	509
75°	429	297	31	0	0	450
85°	314	215	5	1	2	268
90°	272	173	1	2	2	149
95°	233	135	1	2	3	183
105°	161	70	1	2	3	169
115°	87	23	1	1	2	88
125°	26	3	1	1	1	26
135°	1	1	2	1	1	2
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°	264.8	264.8	264.8	264.8	264.8	264.8	264.8	264.8	264.8	264.8	264.8
2.5°	287.0	286.7	285.7	284.0	281.6	277.6	274.2	271.2	267.1	263.8	257.4
5°	302.2	300.5	299.2	297.5	292.1	288.4	282.3	275.6	269.2	262.8	249.9
7.5°	326.5	323.8	321.8	317.1	309.6	301.2	291.8	285.4	281.0	263.1	241.2
10°	352.5	350.1	346.1	337.6	328.5	316.4	302.9	287.7	274.2	259.4	233.4
12.5°	378.1	374.7	369.0	358.2	345.4	330.2	311.7	293.8	274.6	257.0	224.3
15°	403.7	400.0	394.0	380.8	363.9	344.0	321.4	298.8	276.2	254.0	214.9
17.5°	431.7	426.7	417.6	402.7	381.5	356.9	330.2	302.9	275.6	250.3	204.7
20°	461.8	454.7	444.9	425.0	400.0	371.0	339.0	306.9	275.2	245.9	193.3
22.5°	486.7	479.6	468.8	448.3	418.3	382.8	346.4	309.6	273.9	240.8	182.5
25°	508.3	502.6	490.8	467.2	435.5	395.3	353.5	311.7	271.9	235.4	171.0
27.5°	525.2	519.8	506.6	482.3	450.0	406.4	358.9	312.7	269.2	230.0	159.2
30°	540.0	534.6	518.8	493.8	459.7	415.2	364.3	313.0	265.8	221.9	146.4
32.5°	551.5	546.4	530.2	503.6	466.5	421.3	367.3	312.7	261.4	216.2	132.6
35°	563.0	557.9	539.0	510.7	471.5	424.0	369.7	311.0	256.0	206.8	119.4
37.5°	571.7	566.0	546.8	515.4	473.9	424.7	369.3	308.6	250.3	199.0	106.2
40°	577.8	571.7	551.1	518.1	474.6	423.6	366.6	304.6	243.5	189.2	92.4
42.5°	581.8	575.1	553.2	522.1	473.2	420.9	362.6	299.5	236.1	180.8	79.3
45°	583.9	576.8	553.5	518.8	470.9	415.9	356.5	293.1	228.0	169.3	66.1
47.5°	582.9	575.1	551.8	515.1	466.5	410.5	349.8	285.4	218.2	159.2	53.6
50°	581.2	573.1	548.1	510.3	460.4	403.7	342.4	275.9	208.1	146.7	42.5
52.5°	575.8	567.7	544.1	503.6	453.3	396.0	332.2	266.1	197.3	134.6	32.4
55°	569.0	561.6	537.0	497.5	444.2	386.5	322.8	255.7	186.9	122.1	23.3
57.5°	558.6	551.8	528.2	487.7	435.1	376.1	312.3	244.2	173.7	109.6	16.2
60°	545.7	539.0	516.1	476.6	424.7	364.3	300.9	232.4	161.9	97.1	10.1
62.5°	532.3	525.8	501.9	462.8	411.5	351.8	288.4	220.6	149.4	85.7	6.1
65°	514.4	508.3	486.7	446.2	397.0	338.3	274.6	206.4	136.6	72.9	3.4
67.5°	495.5	490.1	468.2	431.1	380.1	323.5	260.4	192.6	123.1	61.7	1.7
70°	475.3	468.5	448.3	410.5	362.9	306.6	244.9	178.4	110.3	50.9	0.0
72.5°	451.6	446.6	427.0	391.3	343.0	288.7	229.0	162.9	96.1	40.5	0.3
75°	428.7	422.3	404.4	370.7	323.5	269.8	211.5	148.4	82.3	31.0	0.3
77.5°	399.0	397.0	380.1	347.4	304.9	251.6	192.3	130.9	69.1	22.3	0.3
80°	369.3	367.3	354.2	324.1	283.3	230.0	174.4	114.3	56.3	14.8	0.3
82.5°	340.0	337.3	324.8	299.9	261.4	211.8	155.8	97.8	44.5	9.1	0.3
85°	313.7	310.3	296.8	273.9	238.8	191.2	136.6	81.6	33.1	5.1	0.7
87.5°	291.1	288.7	273.9	250.3	215.9	172.0	119.7	66.1	23.3	2.4	1.0
90°	271.9	266.8	253.6	228.7	194.3	150.8	101.9	53.0	15.5	1.3	1.3
92.5°	253.0	248.6	234.1	208.5	175.1	132.6	84.7	40.5	9.8	0.7	1.7
95°	233.4	228.7	214.5	190.9	155.5	114.0	69.5	29.7	5.4	0.7	1.7
97.5°	214.2	209.8	195.0	171.3	138.0	97.8	55.0	20.9	2.7	0.7	1.3
100°	196.3	191.2	177.8	154.1	120.4	81.6	42.5	13.5	1.7	0.7	1.3
102.5°	177.4	173.4	159.5	136.6	102.2	66.4	31.7	8.4	0.7	0.7	1.0
105°	160.6	155.5	142.0	118.4	87.0	52.3	22.3	5.1	0.7	0.7	1.0



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CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-93-84-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	104.6	100.5	88.7	68.8	44.2	20.6	6.1	1.0	1.0	1.0	1.0
115°	87.4	81.3	70.8	53.3	32.7	13.5	3.0	1.0	1.0	1.0	1.0
117.5°	69.8	64.8	57.3	40.5	21.6	8.8	1.7	1.0	1.0	1.0	1.0
120°	54.6	49.9	41.5	28.0	14.5	5.1	0.7	1.0	1.0	1.0	1.0
122.5°	39.1	35.4	28.0	18.2	8.8	2.4	1.0	1.0	1.3	1.3	1.0
125°	26.0	23.9	18.6	11.1	5.4	1.0	1.0	1.0	1.3	1.3	1.0
127.5°	16.9	15.2	10.8	6.4	2.4	1.0	1.0	1.3	1.3	1.3	1.0
130°	9.4	8.4	6.4	3.7	1.0	1.0	1.0	1.3	1.3	1.3	1.0
132.5°	5.4	5.1	3.4	0.7	1.0	1.0	1.0	1.3	1.3	1.3	1.3
135°	1.3	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3
137.5°	0.3	0.3	0.7	0.7	1.0	1.0	1.3	1.7	1.7	1.7	1.3
140°	0.3	0.3	0.7	1.0	1.0	1.0	1.3	1.7	1.7	1.7	1.3
142.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3	1.3
145°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.3	1.3	1.3
147.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3	1.3
150°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.3
152.5°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.3
155°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.7
157.5°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.7
160°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
162.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
165°	0.7	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3
167.5°	0.7	0.7	0.7	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3
170°	0.7	0.7	0.7	1.0	1.0	1.0	1.3	1.7	1.7	1.7	1.7
172.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.7
175°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.7
177.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.3
180°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	264.8	264.8	264.8
2.5°	252.0	247.2	245.9
5°	238.5	230.7	226.3
7.5°	225.0	214.5	209.5
10°	212.5	197.7	192.3
12.5°	197.7	180.5	172.0
15°	183.5	161.2	153.1
17.5°	167.6	142.7	133.2
20°	152.8	124.1	114.3
22.5°	135.9	105.9	95.1
25°	120.8	87.7	75.6
27.5°	103.9	69.1	58.7
30°	88.0	53.0	42.5
32.5°	72.9	38.8	29.3
35°	58.7	26.3	18.6
37.5°	45.2	16.2	9.4
40°	32.7	8.4	4.4
42.5°	21.9	4.0	2.4
45°	13.5	2.0	0.0
47.5°	7.8	0.0	0.0
50°	4.0	0.0	0.0
52.5°	1.7	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°	0.3	0.3	0.3
77.5°	0.3	0.7	1.0
80°	0.7	1.3	1.7
82.5°	1.3	1.7	1.7
85°	1.3	1.7	2.0
87.5°	1.7	2.0	2.4
90°	2.0	2.4	2.4
92.5°	2.0	2.7	2.7
95°	2.4	2.7	3.0
97.5°	2.7	3.0	3.0
100°	2.4	3.0	3.4
102.5°	2.0	3.0	3.0
105°	1.7	2.4	2.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.3	1.7	1.7
115°	1.0	1.3	1.7
117.5°	1.0	1.3	1.3
120°	1.0	1.0	1.3
122.5°	1.0	1.0	1.3
125°	1.0	1.0	1.3
127.5°	1.3	1.0	1.0
130°	1.0	1.0	1.0
132.5°	1.3	1.0	1.0
135°	1.3	1.0	1.0
137.5°	1.3	1.0	1.0
140°	1.3	1.0	1.0
142.5°	1.3	1.0	1.0
145°	1.0	1.0	1.0
147.5°	1.0	1.0	1.0
150°	1.0	1.0	0.7
152.5°	1.0	0.7	0.7
155°	1.0	0.7	0.3
157.5°	1.3	0.7	0.3
160°	1.0	0.7	0.3
162.5°	1.0	0.7	0.3
165°	1.0	0.7	0.0
167.5°	1.0	0.7	0.3
170°	1.0	0.7	0.3
172.5°	1.0	0.7	0.3
175°	1.0	0.3	0.3
177.5°	1.0	0.3	0.3
180°	1.0	1.0	1.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	141.7	137.6	124.1	101.9	71.2	39.8	14.8	2.7	0.7	1.0	1.0
110°	123.5	120.1	106.2	84.7	57.3	29.7	9.8	1.7	1.0	1.0	1.0





107.5°	1.3	2.0	2.4
110°	1.3	1.7	2.0



(END OF REPORT)