

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: P550987

Luminaire Tested: **FCC-X-2-LD4-1STD-30-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: P550987
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-93-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

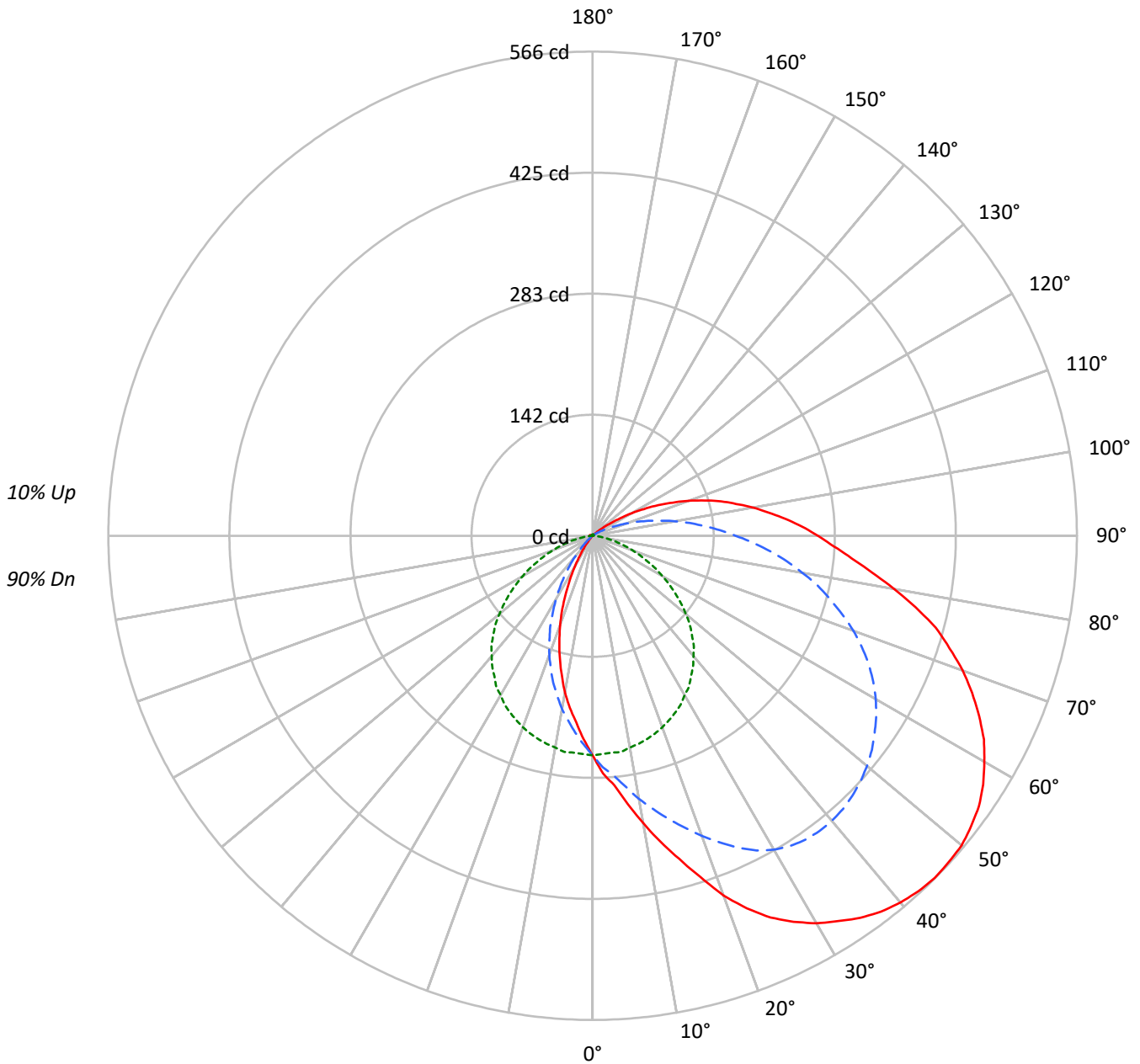
Lumens per Lamp: N/A
Luminaire Lumens: 1268.0 lumens
Efficiency: N/A
Efficacy: 75.9 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	2761	2761	2761
5°	3031	2720	2269
10°	3429	2687	1870
15°	3843	2652	1457
20°	4335	2610	1074
25°	4742	2560	705
30°	5045	2492	397
35°	5307	2420	175
40°	5540	2331	42
45°	5740	2219	0
50°	5908	2071	0
55°	6035	1884	0
60°	6099	1665	0
65°	6124	1418	0
70°	6104	1155	0
75°	6026	854	4
80°	5782	522	26
85°	5589	249	37



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.6	1.9
10°-20°	73.6	5.8
20°-30°	119.1	9.4
30°-40°	153.0	12.1
40°-50°	173.2	13.7
50°-60°	179.5	14.2
60°-70°	169.3	13.3
70°-80°	141.8	11.2
80°-90°	102.8	8.1
90°-100°	67.6	5.3
100°-110°	39.0	3.1
110°-120°	17.2	1.4
120°-130°	4.7	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°	217.3	17.1
0°-40°	370.3	29.2
0°-60°	723.0	57.0
0°-90°	1136.9	89.7
90°-120°	123.8	9.8
90°-150°	130.3	10.3
90°-180°	131.0	10.3
0°-180°	1268.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	256	256	256	256	256	
5°	293	281	254	231	219	30
15°	391	343	246	178	148	113
25°	492	402	228	117	73	228
35°	545	434	200	57	18	342
45°	566	430	164	13	0	437
55°	551	402	118	0	0	492
65°	498	356	71	0	0	493
75°	415	287	30	0	0	436
85°	304	208	5	1	2	259
90°	263	167	1	2	2	144
95°	226	130	1	2	3	177
105°	156	67	1	2	3	164
115°	85	22	1	1	2	85
125°	25	3	1	1	1	25
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°	256.5	256.5	256.5	256.5	256.5	256.5	256.5	256.5	256.5	256.5	256.5
2.5°	278.1	277.7	276.7	275.1	272.8	268.9	265.6	262.7	258.8	255.5	249.3
5°	292.8	291.1	289.8	288.2	283.0	279.4	273.5	266.9	260.7	254.5	242.1
7.5°	316.3	313.7	311.7	307.1	299.9	291.8	282.6	276.4	272.2	254.9	233.6
10°	341.4	339.1	335.2	327.1	318.2	306.5	293.4	278.7	265.6	251.3	226.1
12.5°	366.3	363.0	357.4	347.0	334.6	319.9	301.9	284.6	266.0	249.0	217.3
15°	391.1	387.5	381.6	368.9	352.5	333.3	311.4	289.5	267.6	246.0	208.1
17.5°	418.2	413.3	404.5	390.1	369.5	345.7	319.9	293.4	266.9	242.4	198.3
20°	447.3	440.4	431.0	411.7	387.5	359.4	328.4	297.3	266.6	238.2	187.2
22.5°	471.5	464.6	454.2	434.2	405.1	370.8	335.6	299.9	265.3	233.3	176.8
25°	492.4	486.8	475.4	452.5	421.8	382.9	342.4	301.9	263.3	228.1	165.7
27.5°	508.7	503.5	490.8	467.2	435.9	393.7	347.6	302.9	260.7	222.8	154.2
30°	523.1	517.9	502.5	478.3	445.3	402.2	352.9	303.2	257.5	215.0	141.8
32.5°	534.2	529.3	513.6	487.8	451.9	408.1	355.8	302.9	253.2	209.4	128.4
35°	545.3	540.4	522.1	494.7	456.8	410.7	358.1	301.2	248.0	200.3	115.7
37.5°	553.8	548.3	529.6	499.2	459.1	411.4	357.8	299.0	242.4	192.8	102.9
40°	559.7	553.8	533.9	501.9	459.7	410.4	355.2	295.0	235.9	183.3	89.5
42.5°	563.6	557.1	535.8	505.8	458.4	407.8	351.2	290.1	228.7	175.1	76.8
45°	565.6	558.7	536.2	502.5	456.1	402.9	345.4	283.9	220.9	164.0	64.0
47.5°	564.6	557.1	534.5	498.9	451.9	397.6	338.8	276.4	211.4	154.2	52.0
50°	563.0	555.1	530.9	494.3	446.0	391.1	331.6	267.3	201.6	142.1	41.2
52.5°	557.7	549.9	527.0	487.8	439.1	383.6	321.8	257.8	191.1	130.4	31.4
55°	551.2	544.0	520.2	481.9	430.3	374.4	312.7	247.7	181.0	118.3	22.5
57.5°	541.1	534.5	511.7	472.5	421.5	364.3	302.6	236.6	168.3	106.2	15.7
60°	528.7	522.1	499.9	461.7	411.4	352.9	291.4	225.1	156.8	94.1	9.8
62.5°	515.6	509.4	486.2	448.3	398.6	340.8	279.4	213.7	144.7	83.0	5.9
65°	498.3	492.4	471.5	432.3	384.6	327.7	266.0	200.0	132.3	70.6	3.3
67.5°	480.0	474.7	453.5	417.6	368.2	313.3	252.2	186.6	119.3	59.8	1.6
70°	460.4	453.8	434.2	397.6	351.6	297.0	237.2	172.8	106.8	49.3	0.0
72.5°	437.5	432.6	413.6	379.0	332.3	279.7	221.9	157.8	93.1	39.2	0.3
75°	415.3	409.1	391.8	359.1	313.3	261.4	204.9	143.8	79.7	30.1	0.3
77.5°	386.5	384.6	368.2	336.5	295.4	243.7	186.2	126.8	67.0	21.6	0.3
80°	357.8	355.8	343.1	314.0	274.5	222.8	168.9	110.8	54.6	14.4	0.3
82.5°	329.3	326.7	314.6	290.5	253.2	205.2	151.0	94.8	43.1	8.8	0.3
85°	303.9	300.6	287.5	265.3	231.3	185.3	132.3	79.1	32.0	4.9	0.7
87.5°	282.0	279.7	265.3	242.4	209.1	166.6	116.0	64.0	22.5	2.3	1.0
90°	263.3	258.4	245.7	221.5	188.2	146.0	98.7	51.3	15.0	1.3	1.3
92.5°	245.1	240.8	226.8	201.9	169.6	128.4	82.0	39.2	9.5	0.7	1.6
95°	226.1	221.5	207.8	184.9	150.6	110.4	67.3	28.8	5.2	0.7	1.6
97.5°	207.5	203.2	188.9	166.0	133.6	94.8	53.3	20.3	2.6	0.7	1.3
100°	190.2	185.3	172.2	149.3	116.6	79.1	41.2	13.1	1.6	0.7	1.3
102.5°	171.9	167.9	154.5	132.3	99.0	64.4	30.7	8.2	0.7	0.7	1.0
105°	155.5	150.6	137.6	114.7	84.3	50.6	21.6	4.9	0.7	0.7	1.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	101.3	97.4	85.9	66.7	42.8	19.9	5.9	1.0	1.0	1.0	1.0
115°	84.6	78.7	68.6	51.6	31.7	13.1	2.9	1.0	1.0	1.0	1.0
117.5°	67.6	62.7	55.5	39.2	20.9	8.5	1.6	1.0	1.0	1.0	1.0
120°	52.9	48.4	40.2	27.1	14.0	4.9	0.7	1.0	1.0	1.0	1.0
122.5°	37.9	34.3	27.1	17.6	8.5	2.3	1.0	1.0	1.3	1.3	1.0
125°	25.2	23.2	18.0	10.8	5.2	1.0	1.0	1.0	1.3	1.3	1.0
127.5°	16.3	14.7	10.5	6.2	2.3	1.0	1.0	1.3	1.3	1.3	1.0
130°	9.1	8.2	6.2	3.6	1.0	1.0	1.0	1.3	1.3	1.3	1.0
132.5°	5.2	4.9	3.3	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	1.6	1.6	1.3
137.5°	0.3	0.3	0.7	0.7	1.0	1.0	1.3	1.6	1.6	1.6	1.3
140°	0.3	0.3	0.7	1.0	1.0	1.0	1.3	1.6	1.6	1.6	1.3
142.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.6	1.3	1.3
145°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.3	1.3	1.3
147.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.6	1.3	1.3
150°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.3
152.5°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.3
155°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.6
157.5°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.6
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	1.6	1.6	1.6	1.6
172.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.6
175°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.6
177.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.6	1.6	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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CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-93-86-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	256.5	256.5	256.5
2.5°	244.1	239.5	238.2
5°	231.0	223.5	219.2
7.5°	217.9	207.8	202.9
10°	205.8	191.5	186.2
12.5°	191.5	174.8	166.6
15°	177.7	156.2	148.3
17.5°	162.4	138.2	129.1
20°	148.0	120.2	110.8
22.5°	131.7	102.6	92.1
25°	117.0	85.0	73.2
27.5°	100.6	67.0	56.9
30°	85.3	51.3	41.2
32.5°	70.6	37.6	28.4
35°	56.9	25.5	18.0
37.5°	43.8	15.7	9.1
40°	31.7	8.2	4.2
42.5°	21.2	3.9	2.3
45°	13.1	2.0	0.0
47.5°	7.5	0.0	0.0
50°	3.9	0.0	0.0
52.5°	1.6	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	1.6
82.5°	1.3	1.6	1.6
85°	1.3	1.6	2.0
87.5°	1.6	2.0	2.3
90°	2.0	2.3	2.3
92.5°	2.0	2.6	2.6
95°	2.3	2.6	2.9
97.5°	2.6	2.9	2.9
100°	2.3	2.9	3.3
102.5°	2.0	2.9	2.9
105°	1.6	2.3	2.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.3	1.6	1.6
115°	1.0	1.3	1.6
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°	137.2	133.3	120.2	98.7	68.9	38.6	14.4	2.6	0.7	1.0	1.0
110°	119.6	116.3	102.9	82.0	55.5	28.8	9.5	1.6	1.0	1.0	1.0





107.5°	1.3	2.0	2.3
110°	1.3	1.6	2.0



(END OF REPORT)