

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: P550471

Luminaire Tested: **FCC-X-2-LD4-1HI-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: P550471
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-LD4-1HI-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

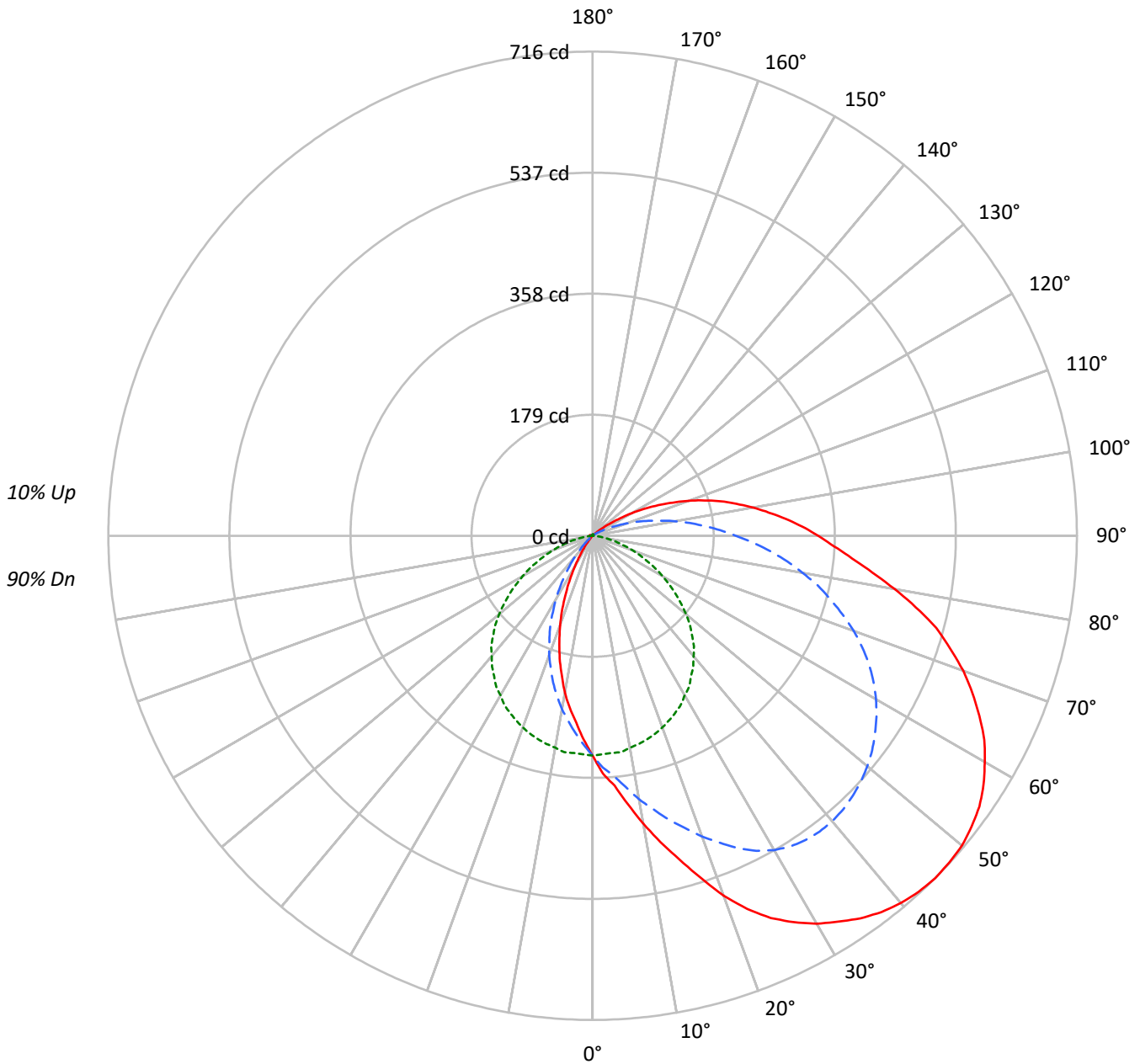
Lumens per Lamp: N/A
Luminaire Lumens: 1606.0 lumens
Efficiency: N/A
Efficacy: 74.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 21.7
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°	3497	3497	3497
5°	3839	3446	2875
10°	4344	3403	2369
15°	4868	3360	1847
20°	5490	3306	1360
25°	6006	3242	893
30°	6390	3157	502
35°	6722	3065	222
40°	7017	2953	53
45°	7269	2810	0
50°	7482	2623	0
55°	7643	2385	0
60°	7725	2109	0
65°	7757	1796	0
70°	7731	1464	0
75°	7633	1080	6
80°	7322	660	34
85°	7079	315	46



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.1	1.9
10°-20°	93.2	5.8
20°-30°	150.9	9.4
30°-40°	193.8	12.1
40°-50°	219.4	13.7
50°-60°	227.3	14.2
60°-70°	214.4	13.3
70°-80°	179.6	11.2
80°-90°	130.2	8.1
90°-100°	85.6	5.3
100°-110°	49.4	3.1
110°-120°	21.8	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°	275.2	17.1
0°-40°	469.0	29.2
0°-60°	915.7	57.0
0°-90°	1439.9	89.7
90°-120°	156.8	9.8
90°-150°	164.9	10.3
90°-180°	166.0	10.3
0°-180°	1606.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	325	325	325	325	325	
5°	371	356	322	293	278	37
15°	495	434	312	225	188	143
25°	624	510	289	148	93	288
35°	691	549	254	72	23	433
45°	716	544	208	17	0	553
55°	698	510	150	0	0	623
65°	631	451	89	0	0	624
75°	526	364	38	0	0	552
85°	385	264	6	2	2	329
90°	334	212	2	2	3	183
95°	286	165	1	3	4	225
105°	197	85	1	2	3	208
115°	107	28	1	1	2	107
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°	324.9	324.9	324.9	324.9	324.9	324.9	324.9	324.9	324.9	324.9	324.9
2.5°	352.2	351.8	350.5	348.4	345.5	340.6	336.4	332.7	327.8	323.6	315.8
5°	370.8	368.7	367.1	365.0	358.4	353.8	346.4	338.1	330.2	322.4	306.6
7.5°	400.6	397.3	394.8	389.0	379.9	369.5	358.0	350.1	344.7	322.8	295.9
10°	432.5	429.6	424.6	414.2	403.1	388.2	371.6	353.0	336.4	318.2	286.4
12.5°	463.9	459.8	452.7	439.5	423.8	405.1	382.4	360.4	336.9	315.3	275.2
15°	495.4	490.8	483.4	467.2	446.5	422.1	394.4	366.7	338.9	311.6	263.6
17.5°	529.7	523.5	512.3	494.1	468.0	437.8	405.1	371.6	338.1	307.1	251.2
20°	566.5	557.8	545.8	521.4	490.8	455.2	415.9	376.6	337.7	301.7	237.1
22.5°	597.2	588.5	575.2	550.0	513.1	469.7	425.0	379.9	336.0	295.5	223.9
25°	623.6	616.6	602.1	573.2	534.3	485.0	433.7	382.4	333.5	288.9	209.8
27.5°	644.3	637.7	621.6	591.8	552.0	498.7	440.3	383.6	330.2	282.2	195.3
30°	662.5	655.9	636.5	605.8	564.0	509.4	446.9	384.0	326.1	272.3	179.6
32.5°	676.6	670.4	650.5	617.8	572.3	516.9	450.7	383.6	320.7	265.3	162.6
35°	690.7	684.5	661.3	626.5	578.5	520.2	453.6	381.5	314.1	253.7	146.5
37.5°	701.4	694.4	670.8	632.3	581.4	521.0	453.1	378.7	307.1	244.2	130.4
40°	708.9	701.4	676.2	635.6	582.3	519.8	449.8	373.7	298.8	232.2	113.4
42.5°	713.9	705.6	678.7	640.6	580.6	516.5	444.9	367.5	289.7	221.8	97.2
45°	716.3	707.6	679.1	636.5	577.7	510.3	437.4	359.6	279.7	207.7	81.1
47.5°	715.1	705.6	677.0	631.9	572.3	503.6	429.1	350.1	267.7	195.3	65.8
50°	713.0	703.1	672.5	626.1	564.9	495.4	420.0	338.5	255.3	180.0	52.1
52.5°	706.4	696.5	667.5	617.8	556.2	485.8	407.6	326.5	242.1	165.1	39.7
55°	698.1	689.0	658.8	610.4	545.0	474.2	396.0	313.7	229.3	149.8	28.6
57.5°	685.3	677.0	648.1	598.4	533.8	461.4	383.2	299.6	213.1	134.5	19.9
60°	669.6	661.3	633.2	584.7	521.0	446.9	369.1	285.1	198.6	119.2	12.4
62.5°	653.0	645.2	615.8	567.8	504.9	431.6	353.8	270.6	183.3	105.1	7.4
65°	631.1	623.6	597.2	547.5	487.1	415.1	336.9	253.3	167.6	89.4	4.1
67.5°	607.9	601.3	574.4	528.9	466.4	396.9	319.5	236.3	151.0	75.7	2.1
70°	583.1	574.8	550.0	503.6	445.3	376.2	300.4	218.9	135.3	62.5	0.0
72.5°	554.1	547.9	523.9	480.0	420.9	354.2	281.0	199.9	117.9	49.7	0.4
75°	526.0	518.1	496.2	454.8	396.9	331.1	259.5	182.1	101.0	38.1	0.4
77.5°	489.6	487.1	466.4	426.2	374.1	308.7	235.9	160.6	84.8	27.3	0.4
80°	453.1	450.7	434.5	397.7	347.6	282.2	213.9	140.3	69.1	18.2	0.4
82.5°	417.1	413.8	398.5	367.9	320.7	259.9	191.2	120.0	54.6	11.2	0.4
85°	384.9	380.7	364.2	336.0	293.0	234.6	167.6	100.1	40.6	6.2	0.8
87.5°	357.1	354.2	336.0	307.1	264.9	211.1	146.9	81.1	28.6	2.9	1.2
90°	333.5	327.3	311.2	280.6	238.4	185.0	125.0	65.0	19.0	1.7	1.7
92.5°	310.4	305.0	287.2	255.7	214.8	162.6	103.9	49.7	12.0	0.8	2.1
95°	286.4	280.6	263.2	234.2	190.8	139.9	85.2	36.4	6.6	0.8	2.1
97.5°	262.8	257.4	239.2	210.2	169.3	120.0	67.5	25.7	3.3	0.8	1.7
100°	240.8	234.6	218.1	189.1	147.7	100.1	52.1	16.6	2.1	0.8	1.7
102.5°	217.7	212.7	195.7	167.6	125.4	81.5	38.9	10.3	0.8	0.8	1.2
105°	197.0	190.8	174.2	145.3	106.8	64.1	27.3	6.2	0.8	0.8	1.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	128.3	123.3	108.8	84.4	54.2	25.2	7.4	1.2	1.2	1.2	1.2
115°	107.2	99.7	86.9	65.4	40.1	16.6	3.7	1.2	1.2	1.2	1.2
117.5°	85.7	79.5	70.4	49.7	26.5	10.8	2.1	1.2	1.2	1.2	1.2
120°	67.0	61.2	50.9	34.3	17.8	6.2	0.8	1.2	1.2	1.2	1.2
122.5°	48.0	43.5	34.3	22.3	10.8	2.9	1.2	1.2	1.7	1.7	1.2
125°	31.9	29.4	22.8	13.7	6.6	1.2	1.2	1.2	1.7	1.7	1.2
127.5°	20.7	18.6	13.2	7.9	2.9	1.2	1.2	1.7	1.7	1.7	1.2
130°	11.6	10.3	7.9	4.6	1.2	1.2	1.2	1.7	1.7	1.7	1.2
132.5°	6.6	6.2	4.1	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°	324.9	324.9	324.9
2.5°	309.1	303.3	301.7
5°	292.6	283.1	277.7
7.5°	276.0	263.2	257.0
10°	260.7	242.5	235.9
12.5°	242.5	221.4	211.1
15°	225.1	197.8	187.9
17.5°	205.7	175.0	163.5
20°	187.5	152.3	140.3
22.5°	166.8	129.9	116.7
25°	148.2	107.6	92.7
27.5°	127.5	84.8	72.0
30°	108.0	65.0	52.1
32.5°	89.4	47.6	36.0
35°	72.0	32.3	22.8
37.5°	55.5	19.9	11.6
40°	40.1	10.3	5.4
42.5°	26.9	5.0	2.9
45°	16.6	2.5	0.0
47.5°	9.5	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	4.1
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°	173.8	168.8	152.3	125.0	87.3	48.8	18.2	3.3	0.8	1.2	1.2
110°	151.5	147.3	130.4	103.9	70.4	36.4	12.0	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)