

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: P550481

Luminaire Tested: **FCC-X-2-LD4-1HI-30-UNV-93-94-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: P550481
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-93-94-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K,
AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

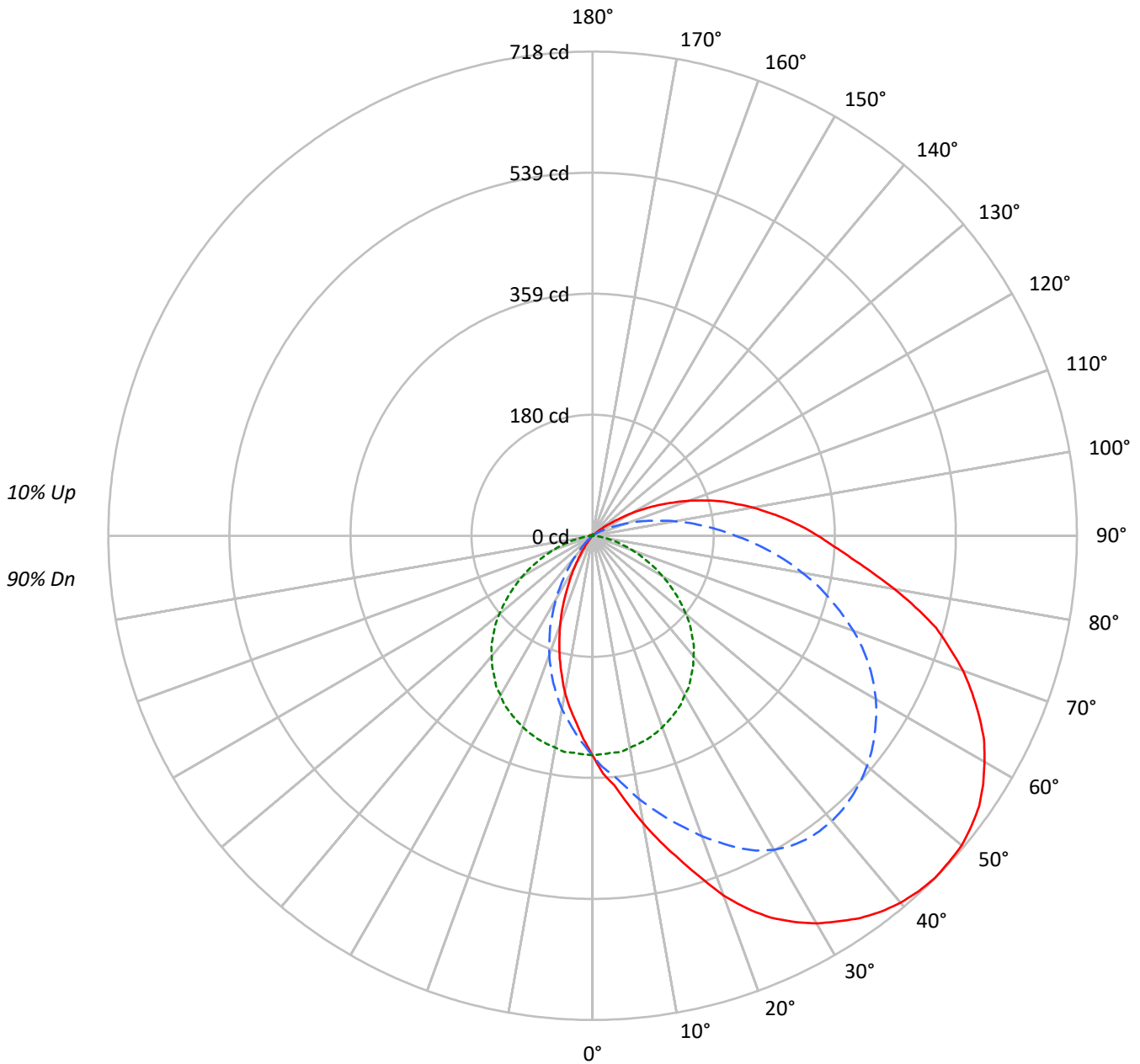
Lumens per Lamp: N/A
Luminaire Lumens: 1609.0 lumens
Efficiency: N/A
Efficacy: 74.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

TEST NUMBER: P550481

CATALOG NUMBER: FCC-X-2-LD4-1HI-30-UNV-93-94-ED1D-90

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°	3504	3504	3504
5°	3846	3452	2880
10°	4352	3409	2373
15°	4877	3366	1849
20°	5501	3311	1362
25°	6018	3248	895
30°	6402	3162	503
35°	6735	3071	222
40°	7030	2958	53
45°	7283	2816	0
50°	7496	2629	0
55°	7657	2390	0
60°	7739	2113	0
65°	7771	1800	0
70°	7745	1466	0
75°	7647	1080	6
80°	7337	660	34
85°	7092	315	46



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.2	1.9
10°-20°	93.3	5.8
20°-30°	151.2	9.4
30°-40°	194.2	12.1
40°-50°	219.8	13.7
50°-60°	227.7	14.2
60°-70°	214.8	13.3
70°-80°	180.0	11.2
80°-90°	130.5	8.1
90°-100°	85.7	5.3
100°-110°	49.5	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°	275.7	17.1
0°-40°	469.9	29.2
0°-60°	917.4	57.0
0°-90°	1442.6	89.7
90°-120°	157.1	9.8
90°-150°	165.2	10.3
90°-180°	166.0	10.3
0°-180°	1609.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	326	326	326	326	326	
5°	372	357	323	293	278	37
15°	496	435	312	226	188	143
25°	625	511	289	148	93	289
35°	692	550	254	72	23	434
45°	718	545	208	17	0	554
55°	699	511	150	0	0	625
65°	632	452	90	0	0	626
75°	527	365	38	0	0	553
85°	386	264	6	2	2	329
90°	334	212	2	2	3	183
95°	287	166	1	3	4	225
105°	197	86	1	2	3	208
115°	107	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°	325.5	325.5	325.5	325.5	325.5	325.5	325.5	325.5	325.5	325.5	325.5
2.5°	352.8	352.4	351.2	349.1	346.2	341.2	337.1	333.3	328.4	324.2	316.3
5°	371.5	369.4	367.8	365.7	359.0	354.5	347.0	338.7	330.9	323.0	307.2
7.5°	401.3	398.0	395.5	389.7	380.6	370.2	358.6	350.8	345.4	323.4	296.4
10°	433.3	430.4	425.4	415.0	403.8	388.9	372.3	353.7	337.1	318.8	286.9
12.5°	464.8	460.6	453.6	440.3	424.6	405.9	383.1	361.1	337.5	315.9	275.7
15°	496.3	491.7	484.3	468.1	447.4	422.9	395.1	367.3	339.6	312.2	264.1
17.5°	530.7	524.5	513.3	495.0	468.9	438.6	405.9	372.3	338.7	307.6	251.7
20°	567.6	558.9	546.9	522.4	491.7	456.1	416.7	377.3	338.3	302.2	237.6
22.5°	598.3	589.6	576.3	551.0	514.1	470.6	425.8	380.6	336.7	296.0	224.3
25°	624.8	617.8	603.2	574.2	535.3	485.9	434.5	383.1	334.2	289.4	210.2
27.5°	645.5	638.9	622.7	592.9	553.1	499.6	441.1	384.3	330.9	282.8	195.7
30°	663.8	657.1	637.7	607.0	565.1	510.4	447.8	384.8	326.7	272.8	179.9
32.5°	677.9	671.7	651.8	619.0	573.4	517.8	451.5	384.3	321.3	265.8	162.9
35°	692.0	685.8	662.5	627.7	579.6	521.2	454.4	382.3	314.7	254.2	146.8
37.5°	702.7	695.7	672.1	633.5	582.5	522.0	454.0	379.4	307.6	244.6	130.6
40°	710.2	702.7	677.5	636.8	583.3	520.7	450.7	374.4	299.3	232.6	113.6
42.5°	715.2	706.9	679.9	641.8	581.7	517.4	445.7	368.2	290.2	222.2	97.4
45°	717.7	709.0	680.4	637.7	578.8	511.2	438.2	360.3	280.3	208.1	81.3
47.5°	716.4	706.9	678.3	633.1	573.4	504.6	429.9	350.8	268.2	195.7	65.9
50°	714.4	704.4	673.7	627.3	565.9	496.3	420.8	339.1	255.8	180.4	52.2
52.5°	707.7	697.8	668.8	619.0	557.2	486.7	408.4	327.1	242.5	165.4	39.8
55°	699.4	690.3	660.0	611.5	546.0	475.1	396.8	314.3	229.7	150.1	28.6
57.5°	686.6	678.3	649.3	599.5	534.8	462.3	383.9	300.2	213.5	134.7	19.9
60°	670.8	662.5	634.3	585.8	522.0	447.8	369.8	285.7	199.0	119.4	12.4
62.5°	654.2	646.4	616.9	568.8	505.8	432.4	354.5	271.1	183.7	105.3	7.5
65°	632.3	624.8	598.3	548.5	488.0	415.8	337.5	253.7	167.9	89.6	4.1
67.5°	609.0	602.4	575.5	529.9	467.3	397.6	320.1	236.7	151.3	75.9	2.1
70°	584.2	575.9	551.0	504.6	446.1	376.9	301.0	219.3	135.6	62.6	0.0
72.5°	555.2	548.9	524.9	480.9	421.6	354.9	281.5	200.3	118.2	49.8	0.4
75°	527.0	519.1	497.1	455.6	397.6	331.7	260.0	182.4	101.2	38.1	0.4
77.5°	490.5	488.0	467.3	427.0	374.8	309.3	236.3	160.9	85.0	27.4	0.4
80°	454.0	451.5	435.3	398.4	348.3	282.8	214.3	140.5	69.2	18.2	0.4
82.5°	417.9	414.6	399.3	368.6	321.3	260.4	191.5	120.2	54.7	11.2	0.4
85°	385.6	381.4	364.8	336.7	293.5	235.1	167.9	100.3	40.6	6.2	0.8
87.5°	357.8	354.9	336.7	307.6	265.3	211.4	147.2	81.3	28.6	2.9	1.2
90°	334.2	327.9	311.8	281.1	238.8	185.3	125.2	65.1	19.1	1.7	1.7
92.5°	311.0	305.6	287.7	256.2	215.2	162.9	104.1	49.8	12.0	0.8	2.1
95°	286.9	281.1	263.7	234.7	191.1	140.1	85.4	36.5	6.6	0.8	2.1
97.5°	263.3	257.9	239.6	210.6	169.6	120.2	67.6	25.7	3.3	0.8	1.7
100°	241.3	235.1	218.5	189.5	148.0	100.3	52.2	16.6	2.1	0.8	1.7
102.5°	218.1	213.1	196.1	167.9	125.6	81.7	39.0	10.4	0.8	0.8	1.2
105°	197.4	191.1	174.5	145.5	107.0	64.3	27.4	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°	128.5	123.6	109.0	84.6	54.3	25.3	7.5	1.2	1.2	1.2	1.2
115°	107.4	99.9	87.1	65.5	40.2	16.6	3.7	1.2	1.2	1.2	1.2
117.5°	85.8	79.6	70.5	49.8	26.5	10.8	2.1	1.2	1.2	1.2	1.2
120°	67.2	61.4	51.0	34.4	17.8	6.2	0.8	1.2	1.2	1.2	1.2
122.5°	48.1	43.5	34.4	22.4	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	18.7	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°	6.6	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



TEST NUMBER: P550481

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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	325.5	325.5	325.5
2.5°	309.7	303.9	302.2
5°	293.1	283.6	278.2
7.5°	276.5	263.7	257.5
10°	261.2	243.0	236.3
12.5°	243.0	221.8	211.4
15°	225.5	198.2	188.2
17.5°	206.1	175.4	163.8
20°	187.8	152.6	140.5
22.5°	167.1	130.2	116.9
25°	148.4	107.8	92.9
27.5°	127.7	85.0	72.1
30°	108.2	65.1	52.2
32.5°	89.6	47.7	36.1
35°	72.1	32.3	22.8
37.5°	55.6	19.9	11.6
40°	40.2	10.4	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°	174.1	169.2	152.6	125.2	87.5	48.9	18.2	3.3	0.8	1.2	1.2
110°	151.7	147.6	130.6	104.1	70.5	36.5	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)