

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: P550477

Luminaire Tested: **FCC-X-2-LD4-1HI-30-UNV-93-87-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: P550477
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-93-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

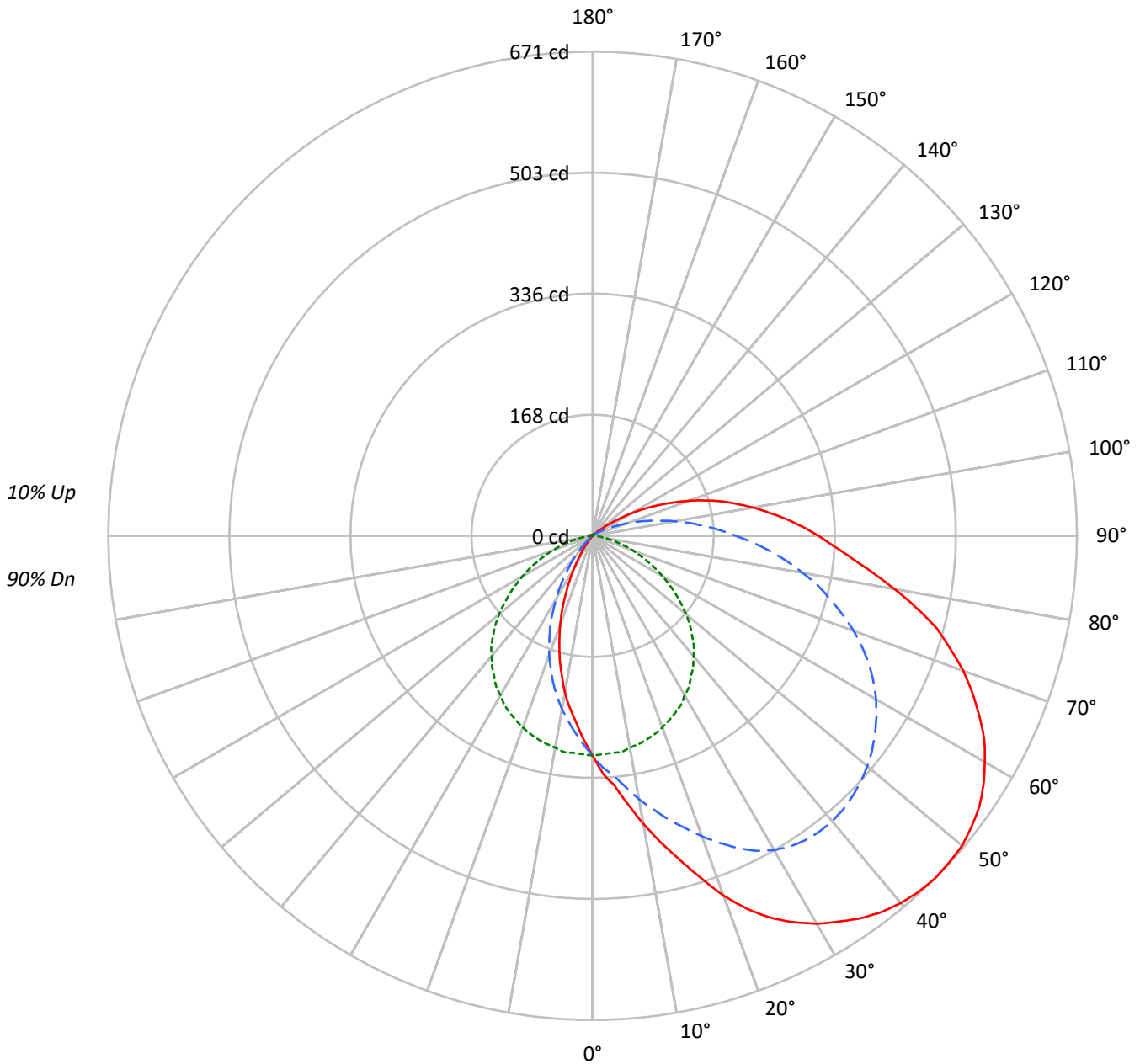
Lumens per Lamp: N/A
Luminaire Lumens: 1505.1 lumens
Efficiency: N/A
Efficacy: 69.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 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°	3277	3277	3277
5°	3597	3229	2694
10°	4071	3189	2220
15°	4562	3148	1731
20°	5145	3097	1274
25°	5628	3038	837
30°	5988	2958	472
35°	6299	2872	207
40°	6576	2767	49
45°	6813	2635	0
50°	7011	2459	0
55°	7162	2236	0
60°	7239	1977	0
65°	7269	1683	0
70°	7244	1373	0
75°	7152	1012	6
80°	6862	620	31
85°	6634	295	42



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.2	1.9
10°-20°	87.3	5.8
20°-30°	141.4	9.4
30°-40°	181.6	12.1
40°-50°	205.6	13.7
50°-60°	213.0	14.2
60°-70°	200.9	13.3
70°-80°	168.4	11.2
80°-90°	122.0	8.1
90°-100°	80.2	5.3
100°-110°	46.3	3.1
110°-120°	20.5	1.4
120°-130°	5.6	0.4
130°-140°	1.3	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	257.9	17.1
0°-40°	439.5	29.2
0°-60°	858.1	57.0
0°-90°	1349.4	89.7
90°-120°	147.0	9.8
90°-150°	154.7	10.3
90°-180°	156.0	10.4
0°-180°	1505.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	304	304	304	304	304	
5°	348	334	302	274	260	35
15°	464	407	292	211	176	134
25°	584	478	271	139	87	270
35°	647	515	238	68	21	406
45°	671	510	195	16	0	518
55°	654	478	140	0	0	584
65°	591	423	84	0	0	585
75°	493	341	36	0	0	517
85°	361	247	6	2	2	308
90°	313	198	2	2	3	171
95°	268	155	1	3	4	211
105°	185	80	1	2	3	195
115°	100	27	1	1	2	101
125°	30	4	2	1	2	30
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°	304.4	304.4	304.4	304.4	304.4	304.4	304.4	304.4	304.4	304.4	304.4
2.5°	330.0	329.6	328.5	326.5	323.8	319.2	315.3	311.8	307.1	303.3	295.9
5°	347.5	345.5	344.0	342.0	335.8	331.6	324.6	316.8	309.5	302.1	287.4
7.5°	375.4	372.3	370.0	364.5	356.0	346.3	335.4	328.1	323.0	302.5	277.3
10°	405.3	402.5	397.9	388.2	377.7	363.8	348.2	330.8	315.3	298.2	268.4
12.5°	434.7	430.8	424.3	411.8	397.1	379.7	358.3	337.8	315.7	295.5	257.9
15°	464.2	459.9	453.0	437.8	418.4	395.6	369.6	343.6	317.6	292.0	247.0
17.5°	496.4	490.6	480.1	463.0	438.6	410.3	379.7	348.2	316.8	287.7	235.4
20°	530.9	522.8	511.5	488.6	459.9	426.6	389.7	352.9	316.4	282.7	222.2
22.5°	559.6	551.5	539.0	515.4	480.9	440.2	398.3	356.0	314.9	276.9	209.8
25°	584.4	577.8	564.3	537.1	500.7	454.5	406.4	358.3	312.6	270.7	196.6
27.5°	603.8	597.6	582.5	554.6	517.3	467.3	412.6	359.5	309.5	264.5	183.0
30°	620.9	614.7	596.4	567.7	528.6	477.4	418.8	359.9	305.6	255.2	168.3
32.5°	634.1	628.2	609.6	579.0	536.3	484.4	422.3	359.5	300.5	248.6	152.4
35°	647.2	641.4	619.7	587.1	542.1	487.5	425.0	357.6	294.3	237.7	137.3
37.5°	657.3	650.7	628.6	592.6	544.9	488.2	424.6	354.8	287.7	228.8	122.2
40°	664.3	657.3	633.7	595.7	545.6	487.1	421.5	350.2	280.0	217.6	106.3
42.5°	669.0	661.2	636.0	600.3	544.1	484.0	416.9	344.4	271.5	207.9	91.1
45°	671.3	663.1	636.4	596.4	541.4	478.2	409.9	337.0	262.2	194.7	76.0
47.5°	670.1	661.2	634.4	592.2	536.3	472.0	402.2	328.1	250.9	183.0	61.7
50°	668.2	658.9	630.2	586.7	529.4	464.2	393.6	317.2	239.3	168.7	48.9
52.5°	662.0	652.7	625.5	579.0	521.2	455.3	382.0	306.0	226.9	154.7	37.2
55°	654.2	645.7	617.4	572.0	510.7	444.4	371.1	294.0	214.8	140.4	26.8
57.5°	642.2	634.4	607.3	560.8	500.3	432.4	359.1	280.8	199.7	126.0	18.6
60°	627.5	619.7	593.3	548.0	488.2	418.8	345.9	267.2	186.1	111.7	11.6
62.5°	612.0	604.6	577.1	532.1	473.1	404.5	331.6	253.6	171.8	98.5	7.0
65°	591.4	584.4	559.6	513.1	456.4	389.0	315.7	237.3	157.1	83.8	3.9
67.5°	569.7	563.5	538.3	495.6	437.1	371.9	299.4	221.4	141.5	71.0	1.9
70°	546.4	538.7	515.4	472.0	417.3	352.5	281.5	205.1	126.8	58.6	0.0
72.5°	519.3	513.5	491.0	449.9	394.4	332.0	263.3	187.3	110.5	46.5	0.4
75°	492.9	485.5	465.0	426.2	371.9	310.2	243.2	170.6	94.6	35.7	0.4
77.5°	458.8	456.4	437.1	399.4	350.6	289.3	221.0	150.5	79.5	25.6	0.4
80°	424.6	422.3	407.2	372.7	325.8	264.5	200.5	131.5	64.8	17.1	0.4
82.5°	390.9	387.8	373.5	344.8	300.5	243.5	179.2	112.5	51.2	10.5	0.4
85°	360.7	356.8	341.3	314.9	274.6	219.9	157.1	93.8	38.0	5.8	0.8
87.5°	334.7	332.0	314.9	287.7	248.2	197.8	137.7	76.0	26.8	2.7	1.2
90°	312.6	306.8	291.6	262.9	223.4	173.3	117.1	60.9	17.8	1.6	1.6
92.5°	290.9	285.8	269.1	239.7	201.3	152.4	97.3	46.5	11.2	0.8	1.9
95°	268.4	262.9	246.6	219.5	178.8	131.1	79.9	34.1	6.2	0.8	1.9
97.5°	246.3	241.2	224.2	197.0	158.6	112.5	63.2	24.0	3.1	0.8	1.6
100°	225.7	219.9	204.4	177.2	138.4	93.8	48.9	15.5	1.9	0.8	1.6
102.5°	204.0	199.3	183.4	157.1	117.5	76.4	36.5	9.7	0.8	0.8	1.2
105°	184.6	178.8	163.3	136.1	100.1	60.1	25.6	5.8	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°	120.2	115.6	102.0	79.1	50.8	23.7	7.0	1.2	1.2	1.2	1.2
115°	100.4	93.5	81.4	61.3	37.6	15.5	3.5	1.2	1.2	1.2	1.2
117.5°	80.3	74.5	65.9	46.5	24.8	10.1	1.9	1.2	1.2	1.2	1.2
120°	62.8	57.4	47.7	32.2	16.7	5.8	0.8	1.2	1.2	1.2	1.2
122.5°	45.0	40.7	32.2	20.9	10.1	2.7	1.2	1.2	1.6	1.6	1.2
125°	29.9	27.5	21.3	12.8	6.2	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	19.4	17.5	12.4	7.4	2.7	1.2	1.2	1.6	1.6	1.6	1.2
130°	10.9	9.7	7.4	4.3	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.2	5.8	3.9	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6
135°	1.6	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.9	1.9	1.6
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.6	1.9	1.9	1.9	1.6
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.6	1.9	1.9	1.9	1.6
142.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	1.9	1.9	1.6	1.6
145°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	1.9	1.6	1.6	1.6
147.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.9	1.9	1.6	1.6
150°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	1.9	1.6	1.6	1.6
152.5°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	1.9	1.6	1.6	1.6
155°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	1.9	1.6	1.6	1.9
157.5°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	1.9	1.6	1.6	1.9
160°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
162.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6	1.6
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	1.9	1.9	1.9	1.9
172.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.9	1.9	1.9	1.9
175°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.9	1.9	1.9	1.9
177.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	1.9	1.9	1.9	1.6
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°	304.4	304.4	304.4
2.5°	289.7	284.3	282.7
5°	274.2	265.3	260.2
7.5°	258.7	246.6	240.8
10°	244.3	227.3	221.0
12.5°	227.3	207.5	197.8
15°	211.0	185.4	176.1
17.5°	192.7	164.0	153.2
20°	175.7	142.7	131.5
22.5°	156.3	121.8	109.4
25°	138.8	100.8	86.9
27.5°	119.4	79.5	67.5
30°	101.2	60.9	48.9
32.5°	83.8	44.6	33.7
35°	67.5	30.2	21.3
37.5°	52.0	18.6	10.9
40°	37.6	9.7	5.0
42.5°	25.2	4.7	2.7
45°	15.5	2.3	0.0
47.5°	8.9	0.0	0.0
50°	4.7	0.0	0.0
52.5°	1.9	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	1.6	1.9
82.5°	1.6	1.9	1.9
85°	1.6	1.9	2.3
87.5°	1.9	2.3	2.7
90°	2.3	2.7	2.7
92.5°	2.3	3.1	3.1
95°	2.7	3.1	3.5
97.5°	3.1	3.5	3.5
100°	2.7	3.5	3.9
102.5°	2.3	3.5	3.5
105°	1.9	2.7	3.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.6	1.9	1.9
115°	1.2	1.6	1.9
117.5°	1.2	1.6	1.6
120°	1.2	1.2	1.6
122.5°	1.2	1.2	1.6
125°	1.2	1.2	1.6
127.5°	1.6	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.6	1.2	1.2
135°	1.6	1.2	1.2
137.5°	1.6	1.2	1.2
140°	1.6	1.2	1.2
142.5°	1.6	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°	1.6	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°	162.9	158.2	142.7	117.1	81.8	45.8	17.1	3.1	0.8	1.2	1.2
110°	141.9	138.1	122.2	97.3	65.9	34.1	11.2	1.9	1.2	1.2	1.2





107.5°	1.6	2.3	2.7
110°	1.6	1.9	2.3



(END OF REPORT)