

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: P550427

Luminaire Tested: **FCC-X-2-LD4-1HI-30-UNV-80-86-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: P550427
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-80-86-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC 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

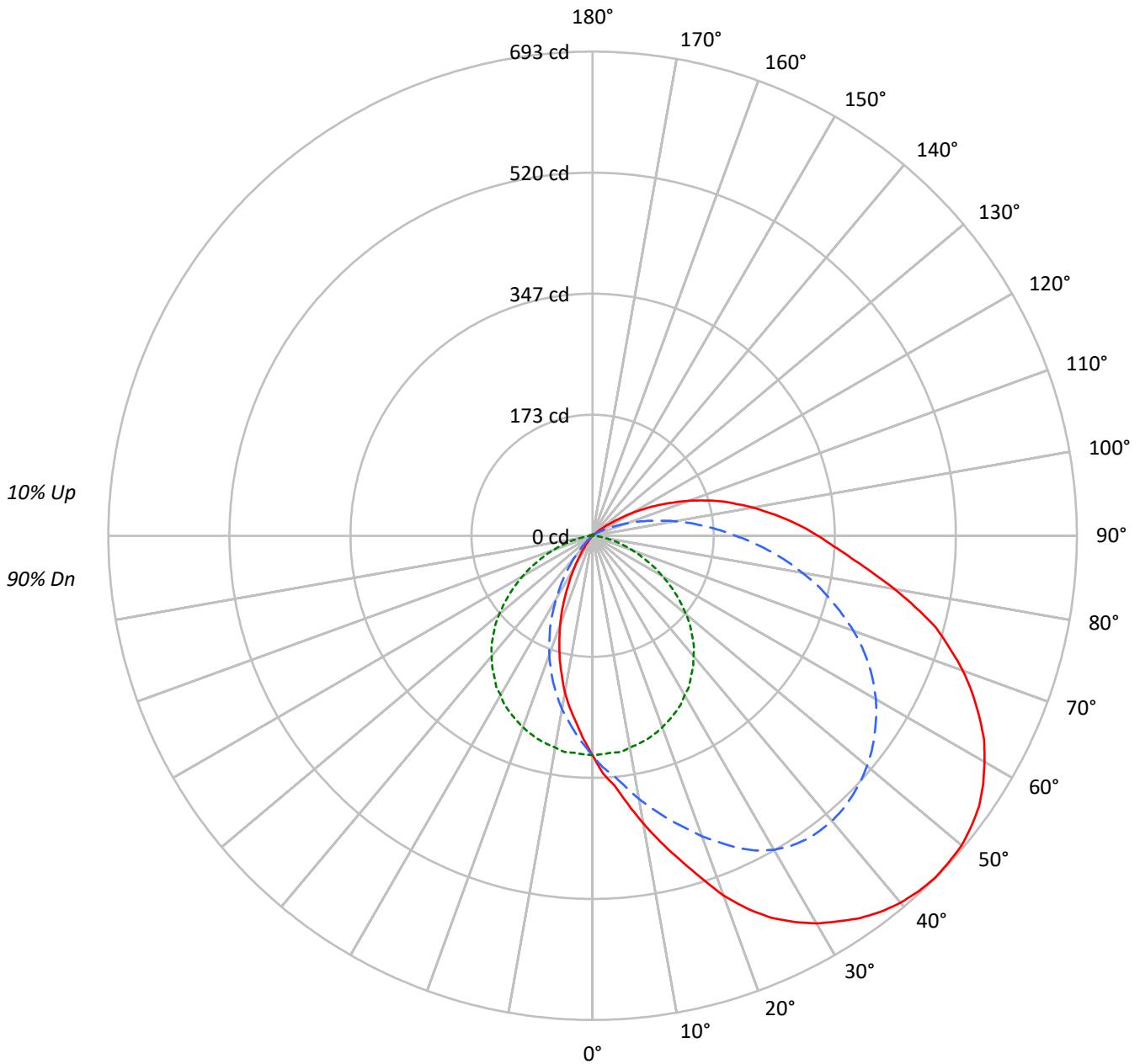
Lumens per Lamp: N/A
Luminaire Lumens: 1553.0 lumens
Efficiency: N/A
Efficacy: 71.6 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	3381	3381	3381
5°	3712	3331	2780
10°	4201	3291	2291
15°	4707	3249	1786
20°	5309	3196	1315
25°	5809	3134	863
30°	6179	3052	486
35°	6501	2964	214
40°	6785	2855	51
45°	7030	2718	0
50°	7235	2537	0
55°	7391	2307	0
60°	7470	2039	0
65°	7501	1735	0
70°	7475	1415	0
75°	7380	1044	6
80°	7082	638	32
85°	6845	305	44



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.1	1.9
10°-20°	90.1	5.8
20°-30°	145.9	9.4
30°-40°	187.4	12.1
40°-50°	212.2	13.7
50°-60°	219.8	14.2
60°-70°	207.3	13.3
70°-80°	173.7	11.2
80°-90°	125.9	8.1
90°-100°	82.8	5.3
100°-110°	47.8	3.1
110°-120°	21.1	1.4
120°-130°	5.7	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°	266.1	17.1
0°-40°	453.5	29.2
0°-60°	885.5	57.0
0°-90°	1392.4	89.7
90°-120°	151.6	9.8
90°-150°	159.5	10.3
90°-180°	161.0	10.4
0°-180°	1553.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	314	314	314	314	314	
5°	359	344	312	283	268	36
15°	479	420	301	218	182	138
25°	603	493	279	143	90	279
35°	668	531	245	70	22	419
45°	693	526	201	16	0	535
55°	675	493	145	0	0	603
65°	610	436	86	0	0	604
75°	509	352	37	0	0	533
85°	372	255	6	2	2	318
90°	322	205	2	2	3	177
95°	277	160	1	3	4	217
105°	190	83	1	2	3	201
115°	104	27	1	1	2	104
125°	31	4	2	1	2	31
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°	314.1	314.1	314.1	314.1	314.1	314.1	314.1	314.1	314.1	314.1	314.1
2.5°	340.5	340.1	338.9	336.9	334.1	329.3	325.3	321.7	316.9	312.9	305.3
5°	358.6	356.6	355.0	353.0	346.5	342.1	334.9	326.9	319.3	311.7	296.5
7.5°	387.4	384.2	381.8	376.2	367.4	357.4	346.1	338.5	333.3	312.1	286.1
10°	418.2	415.4	410.6	400.6	389.8	375.4	359.4	341.3	325.3	307.7	276.9
12.5°	448.6	444.6	437.8	425.0	409.8	391.8	369.8	348.5	325.7	304.9	266.1
15°	479.0	474.6	467.4	451.8	431.8	408.2	381.4	354.6	327.7	301.3	254.9
17.5°	512.2	506.2	495.4	477.8	452.6	423.4	391.8	359.4	326.9	296.9	242.9
20°	547.8	539.4	527.8	504.2	474.6	440.2	402.2	364.2	326.5	291.7	229.3
22.5°	577.4	569.0	556.2	531.8	496.2	454.2	411.0	367.4	324.9	285.7	216.5
25°	603.1	596.3	582.2	554.2	516.6	469.0	419.4	369.8	322.5	279.3	202.9
27.5°	623.1	616.7	601.1	572.2	533.8	482.2	425.8	371.0	319.3	272.9	188.9
30°	640.7	634.3	615.5	585.9	545.4	492.6	432.2	371.4	315.3	263.3	173.7
32.5°	654.3	648.3	629.1	597.5	553.4	499.8	435.8	371.0	310.1	256.5	157.3
35°	667.9	661.9	639.5	605.9	559.4	503.0	438.6	369.0	303.7	245.3	141.7
37.5°	678.3	671.5	648.7	611.5	562.2	503.8	438.2	366.2	296.9	236.1	126.1
40°	685.5	678.3	653.9	614.7	563.0	502.6	435.0	361.4	288.9	224.5	109.6
42.5°	690.3	682.3	656.3	619.5	561.4	499.4	430.2	355.4	280.1	214.5	94.0
45°	692.7	684.3	656.7	615.5	558.6	493.4	423.0	347.7	270.5	200.9	78.4
47.5°	691.5	682.3	654.7	611.1	553.4	487.0	415.0	338.5	258.9	188.9	63.6
50°	689.5	679.9	650.3	605.5	546.2	479.0	406.2	327.3	246.9	174.1	50.4
52.5°	683.1	673.5	645.5	597.5	537.8	469.8	394.2	315.7	234.1	159.7	38.4
55°	675.1	666.3	637.1	590.3	527.0	458.6	383.0	303.3	221.7	144.9	27.6
57.5°	662.7	654.7	626.7	578.6	516.2	446.2	370.6	289.7	206.1	130.1	19.2
60°	647.5	639.5	612.3	565.4	503.8	432.2	357.0	275.7	192.1	115.2	12.0
62.5°	631.5	623.9	595.5	549.0	488.2	417.4	342.1	261.7	177.3	101.6	7.2
65°	610.3	603.1	577.4	529.4	471.0	401.4	325.7	244.9	162.1	86.4	4.0
67.5°	587.9	581.4	555.4	511.4	451.0	383.8	308.9	228.5	146.1	73.2	2.0
70°	563.8	555.8	531.8	487.0	430.6	363.8	290.5	211.7	130.9	60.4	0.0
72.5°	535.8	529.8	506.6	464.2	407.0	342.5	271.7	193.3	114.0	48.0	0.4
75°	508.6	501.0	479.8	439.8	383.8	320.1	250.9	176.1	97.6	36.8	0.4
77.5°	473.4	471.0	451.0	412.2	361.8	298.5	228.1	155.3	82.0	26.4	0.4
80°	438.2	435.8	420.2	384.6	336.1	272.9	206.9	135.7	66.8	17.6	0.4
82.5°	403.4	400.2	385.4	355.8	310.1	251.3	184.9	116.0	52.8	10.8	0.4
85°	372.2	368.2	352.2	324.9	283.3	226.9	162.1	96.8	39.2	6.0	0.8
87.5°	345.3	342.5	324.9	296.9	256.1	204.1	142.1	78.4	27.6	2.8	1.2
90°	322.5	316.5	300.9	271.3	230.5	178.9	120.9	62.8	18.4	1.6	1.6
92.5°	300.1	294.9	277.7	247.3	207.7	157.3	100.4	48.0	11.6	0.8	2.0
95°	276.9	271.3	254.5	226.5	184.5	135.3	82.4	35.2	6.4	0.8	2.0
97.5°	254.1	248.9	231.3	203.3	163.7	116.0	65.2	24.8	3.2	0.8	1.6
100°	232.9	226.9	210.9	182.9	142.9	96.8	50.4	16.0	2.0	0.8	1.6
102.5°	210.5	205.7	189.3	162.1	121.3	78.8	37.6	10.0	0.8	0.8	1.2
105°	190.5	184.5	168.5	140.5	103.2	62.0	26.4	6.0	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°	124.1	119.3	105.2	81.6	52.4	24.4	7.2	1.2	1.2	1.2	1.2
115°	103.6	96.4	84.0	63.2	38.8	16.0	3.6	1.2	1.2	1.2	1.2
117.5°	82.8	76.8	68.0	48.0	25.6	10.4	2.0	1.2	1.2	1.2	1.2
120°	64.8	59.2	49.2	33.2	17.2	6.0	0.8	1.2	1.2	1.2	1.2
122.5°	46.4	42.0	33.2	21.6	10.4	2.8	1.2	1.2	1.6	1.6	1.2
125°	30.8	28.4	22.0	13.2	6.4	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	20.0	18.0	12.8	7.6	2.8	1.2	1.2	1.6	1.6	1.6	1.2
130°	11.2	10.0	7.6	4.4	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.4	6.0	4.0	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	2.0	2.0	1.6
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.6	2.0	2.0	2.0	1.6
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	1.6
142.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
145°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	1.6	1.6	1.6
147.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
150°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
152.5°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
155°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
157.5°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
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	2.0	2.0	2.0	2.0
172.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
175°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
177.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	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°	314.1	314.1	314.1
2.5°	298.9	293.3	291.7
5°	282.9	273.7	268.5
7.5°	266.9	254.5	248.5
10°	252.1	234.5	228.1
12.5°	234.5	214.1	204.1
15°	217.7	191.3	181.7
17.5°	198.9	169.3	158.1
20°	181.3	147.3	135.7
22.5°	161.3	125.7	112.8
25°	143.3	104.0	89.6
27.5°	123.3	82.0	69.6
30°	104.4	62.8	50.4
32.5°	86.4	46.0	34.8
35°	69.6	31.2	22.0
37.5°	53.6	19.2	11.2
40°	38.8	10.0	5.2
42.5°	26.0	4.8	2.8
45°	16.0	2.4	0.0
47.5°	9.2	0.0	0.0
50°	4.8	0.0	0.0
52.5°	2.0	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	2.0
82.5°	1.6	2.0	2.0
85°	1.6	2.0	2.4
87.5°	2.0	2.4	2.8
90°	2.4	2.8	2.8
92.5°	2.4	3.2	3.2
95°	2.8	3.2	3.6
97.5°	3.2	3.6	3.6
100°	2.8	3.6	4.0
102.5°	2.4	3.6	3.6
105°	2.0	2.8	3.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.6	2.0	2.0
115°	1.2	1.6	2.0
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°	168.1	163.3	147.3	120.9	84.4	47.2	17.6	3.2	0.8	1.2	1.2
110°	146.5	142.5	126.1	100.4	68.0	35.2	11.6	2.0	1.2	1.2	1.2





107.5°	1.6	2.4	2.8
110°	1.6	2.0	2.4



(END OF REPORT)