

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: P550601

Luminaire Tested: **FCC-X-2-LD4-1HI-40-UNV-93-85-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: P550601
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-40-UNV-93-85-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

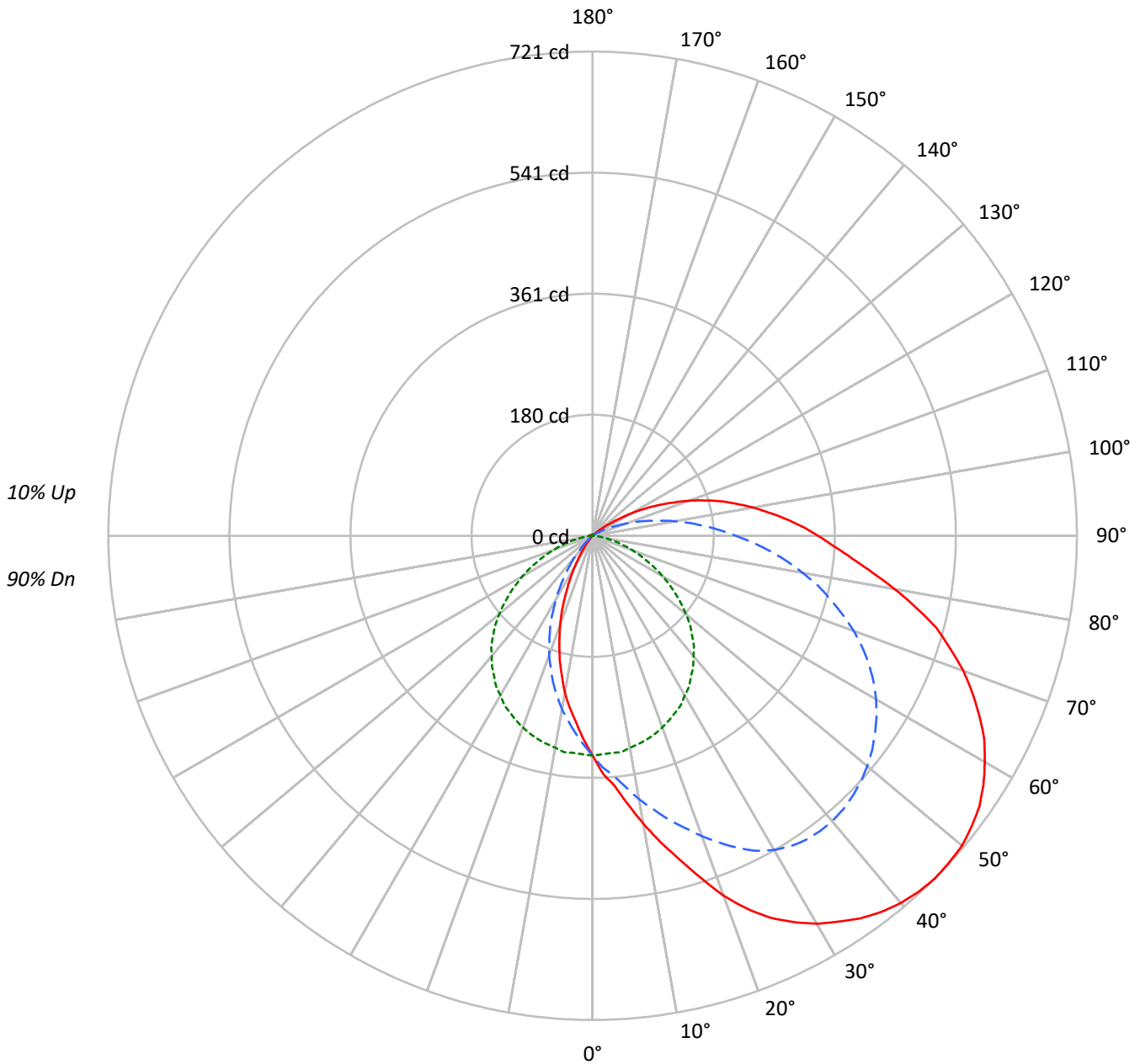
Lumens per Lamp: N/A
Luminaire Lumens: 1616.9 lumens
Efficiency: N/A
Efficacy: 74.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P550601

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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°	3521	3521	3521
5°	3864	3469	2894
10°	4373	3426	2386
15°	4901	3382	1859
20°	5528	3327	1368
25°	6047	3264	899
30°	6434	3179	506
35°	6768	3086	223
40°	7064	2972	53
45°	7319	2831	0
50°	7533	2641	0
55°	7696	2401	0
60°	7778	2124	0
65°	7810	1808	0
70°	7784	1474	0
75°	7685	1086	6
80°	7373	664	34
85°	7127	315	46



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.3	1.9
10°-20°	93.8	5.8
20°-30°	151.9	9.4
30°-40°	195.1	12.1
40°-50°	220.9	13.7
50°-60°	228.9	14.2
60°-70°	215.8	13.3
70°-80°	180.9	11.2
80°-90°	131.1	8.1
90°-100°	86.2	5.3
100°-110°	49.7	3.1
110°-120°	21.9	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°	277.0	17.1
0°-40°	472.2	29.2
0°-60°	921.9	57.0
0°-90°	1449.7	89.7
90°-120°	157.9	9.8
90°-150°	166.0	10.3
90°-180°	167.0	10.3
0°-180°	1616.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	327	327	327	327	327	
5°	373	358	325	295	280	38
15°	499	437	314	227	189	144
25°	628	513	291	149	93	290
35°	695	553	255	72	23	436
45°	721	548	209	17	0	557
55°	703	513	151	0	0	628
65°	635	454	90	0	0	629
75°	530	366	38	0	0	555
85°	388	266	6	2	2	331
90°	336	213	2	2	3	184
95°	288	166	1	3	4	226
105°	198	86	1	2	3	209
115°	108	29	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°	327.1	327.1	327.1	327.1	327.1	327.1	327.1	327.1	327.1	327.1	327.1
2.5°	354.6	354.2	352.9	350.8	347.9	342.9	338.7	335.0	330.0	325.8	317.9
5°	373.3	371.2	369.6	367.5	360.8	356.2	348.7	340.4	332.5	324.6	308.7
7.5°	403.3	400.0	397.5	391.7	382.5	372.1	360.4	352.5	347.1	325.0	297.9
10°	435.4	432.5	427.5	417.1	405.8	390.8	374.2	355.4	338.7	320.4	288.3
12.5°	467.1	462.9	455.8	442.5	426.7	407.9	385.0	362.9	339.2	317.5	277.1
15°	498.7	494.2	486.7	470.4	449.6	425.0	397.1	369.2	341.2	313.7	265.4
17.5°	533.3	527.1	515.8	497.5	471.2	440.8	407.9	374.2	340.4	309.2	252.9
20°	570.4	561.7	549.6	525.0	494.2	458.3	418.7	379.2	340.0	303.7	238.7
22.5°	601.2	592.5	579.2	553.7	516.7	472.9	427.9	382.5	338.3	297.5	225.4
25°	627.9	620.8	606.2	577.1	537.9	488.3	436.7	385.0	335.8	290.8	211.2
27.5°	648.7	642.1	625.8	595.8	555.8	502.1	443.3	386.2	332.5	284.2	196.7
30°	667.1	660.4	640.8	610.0	567.9	512.9	450.0	386.7	328.3	274.2	180.8
32.5°	681.2	675.0	655.0	622.1	576.2	520.4	453.7	386.2	322.9	267.1	163.7
35°	695.4	689.2	665.8	630.8	582.5	523.7	456.7	384.2	316.2	255.4	147.5
37.5°	706.2	699.2	675.4	636.7	585.4	524.6	456.2	381.2	309.2	245.8	131.2
40°	713.7	706.2	680.8	640.0	586.2	523.3	452.9	376.2	300.8	233.7	114.2
42.5°	718.7	710.4	683.3	645.0	584.6	520.0	447.9	370.0	291.7	223.3	97.9
45°	721.2	712.5	683.7	640.8	581.7	513.7	440.4	362.1	281.7	209.2	81.7
47.5°	720.0	710.4	681.7	636.2	576.2	507.1	432.1	352.5	269.6	196.7	66.2
50°	717.9	707.9	677.1	630.4	568.7	498.7	422.9	340.8	257.1	181.2	52.5
52.5°	711.2	701.2	672.1	622.1	560.0	489.2	410.4	328.7	243.7	166.2	40.0
55°	702.9	693.7	663.3	614.6	548.7	477.5	398.7	315.8	230.8	150.8	28.7
57.5°	690.0	681.7	652.5	602.5	537.5	464.6	385.8	301.7	214.6	135.4	20.0
60°	674.2	665.8	637.5	588.7	524.6	450.0	371.7	287.1	200.0	120.0	12.5
62.5°	657.5	649.6	620.0	571.7	508.3	434.6	356.2	272.5	184.6	105.8	7.5
65°	635.4	627.9	601.2	551.2	490.4	417.9	339.2	255.0	168.7	90.0	4.2
67.5°	612.1	605.4	578.3	532.5	469.6	399.6	321.7	237.9	152.1	76.2	2.1
70°	587.1	578.7	553.7	507.1	448.3	378.7	302.5	220.4	136.2	62.9	0.0
72.5°	557.9	551.7	527.5	483.3	423.7	356.7	282.9	201.2	118.7	50.0	0.4
75°	529.6	521.7	499.6	457.9	399.6	333.3	261.2	183.3	101.7	38.3	0.4
77.5°	492.9	490.4	469.6	429.2	376.7	310.8	237.5	161.7	85.4	27.5	0.4
80°	456.2	453.7	437.5	400.4	350.0	284.2	215.4	141.2	69.6	18.3	0.4
82.5°	420.0	416.7	401.2	370.4	322.9	261.7	192.5	120.8	55.0	11.2	0.4
85°	387.5	383.3	366.7	338.3	295.0	236.2	168.7	100.8	40.8	6.2	0.8
87.5°	359.6	356.7	338.3	309.2	266.7	212.5	147.9	81.7	28.7	2.9	1.2
90°	335.8	329.6	313.3	282.5	240.0	186.2	125.8	65.4	19.2	1.7	1.7
92.5°	312.5	307.1	289.2	257.5	216.2	163.7	104.6	50.0	12.1	0.8	2.1
95°	288.3	282.5	265.0	235.8	192.1	140.8	85.8	36.7	6.7	0.8	2.1
97.5°	264.6	259.2	240.8	211.7	170.4	120.8	67.9	25.8	3.3	0.8	1.7
100°	242.5	236.2	219.6	190.4	148.7	100.8	52.5	16.7	2.1	0.8	1.7
102.5°	219.2	214.2	197.1	168.7	126.2	82.1	39.2	10.4	0.8	0.8	1.2
105°	198.3	192.1	175.4	146.2	107.5	64.6	27.5	6.2	0.8	0.8	1.2



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CATALOG NUMBER: FCC-X-2-LD4-1HI-40-UNV-93-85-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	129.2	124.2	109.6	85.0	54.6	25.4	7.5	1.2	1.2	1.2	1.2
115°	107.9	100.4	87.5	65.8	40.4	16.7	3.7	1.2	1.2	1.2	1.2
117.5°	86.2	80.0	70.8	50.0	26.7	10.8	2.1	1.2	1.2	1.2	1.2
120°	67.5	61.7	51.2	34.6	17.9	6.2	0.8	1.2	1.2	1.2	1.2
122.5°	48.3	43.7	34.6	22.5	10.8	2.9	1.2	1.2	1.7	1.7	1.2
125°	32.1	29.6	22.9	13.7	6.7	1.2	1.2	1.2	1.7	1.7	1.2
127.5°	20.8	18.7	13.3	7.9	2.9	1.2	1.2	1.7	1.7	1.7	1.2
130°	11.7	10.4	7.9	4.6	1.2	1.2	1.2	1.7	1.7	1.7	1.2
132.5°	6.7	6.2	4.2	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°	327.1	327.1	327.1
2.5°	311.2	305.4	303.7
5°	294.6	285.0	279.6
7.5°	277.9	265.0	258.7
10°	262.5	244.2	237.5
12.5°	244.2	222.9	212.5
15°	226.7	199.2	189.2
17.5°	207.1	176.2	164.6
20°	188.7	153.3	141.2
22.5°	167.9	130.8	117.5
25°	149.2	108.3	93.3
27.5°	128.3	85.4	72.5
30°	108.7	65.4	52.5
32.5°	90.0	47.9	36.2
35°	72.5	32.5	22.9
37.5°	55.8	20.0	11.7
40°	40.4	10.4	5.4
42.5°	27.1	5.0	2.9
45°	16.7	2.5	0.0
47.5°	9.6	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	4.2
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°	175.0	170.0	153.3	125.8	87.9	49.2	18.3	3.3	0.8	1.2	1.2
110°	152.5	148.3	131.2	104.6	70.8	36.7	12.1	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)