

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: P550611

Luminaire Tested: **FCC-X-2-LD4-1HI-40-UNV-93-96-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: P550611
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-93-96-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K,
AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

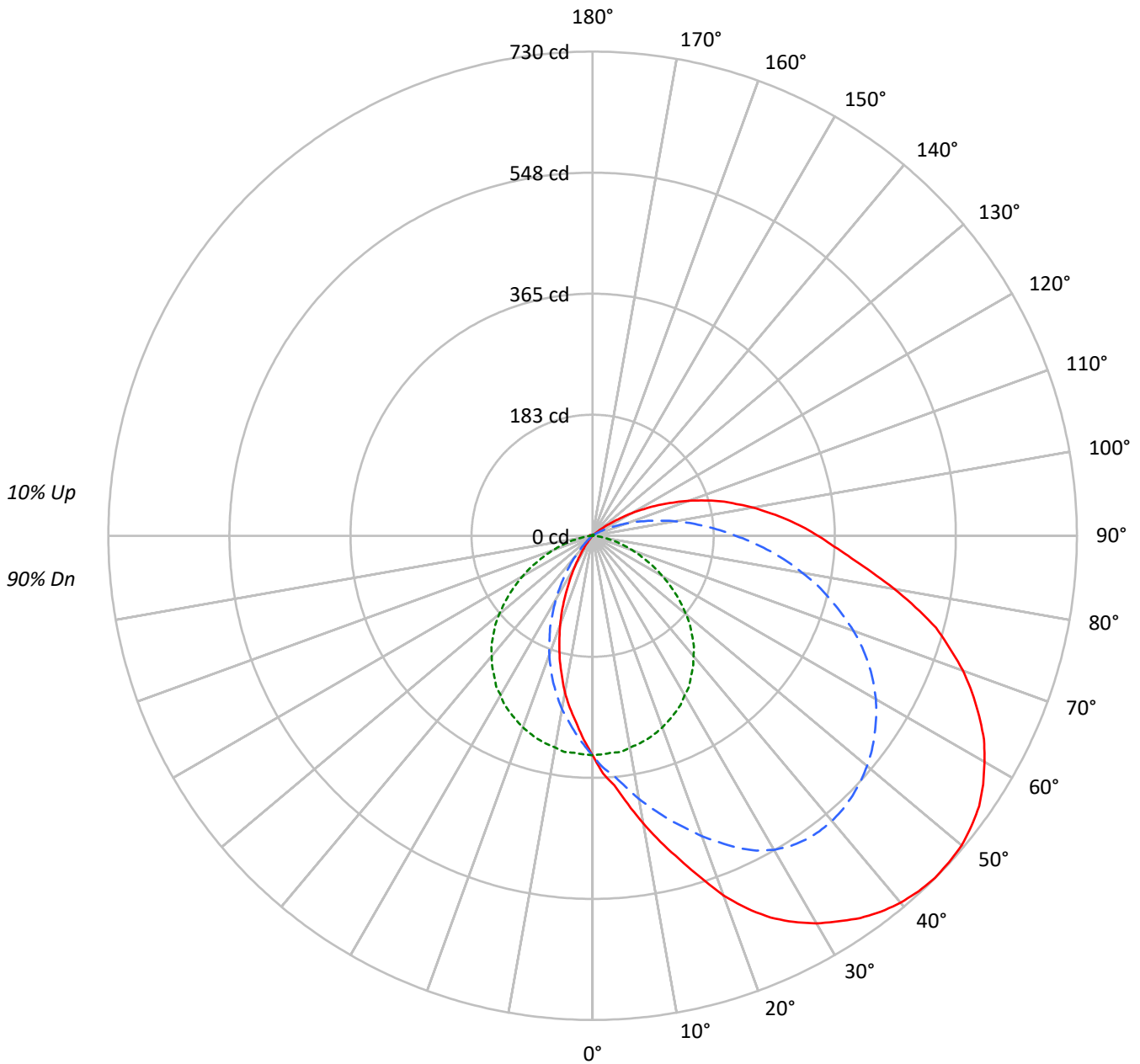
Lumens per Lamp: N/A
Luminaire Lumens: 1636.0 lumens
Efficiency: N/A
Efficacy: 75.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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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CATALOG NUMBER: FCC-X-2-LD4-1HI-40-UNV-93-96-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°	3562	3562	3562
5°	3910	3510	2929
10°	4425	3467	2414
15°	4959	3422	1881
20°	5593	3367	1385
25°	6119	3302	909
30°	6509	3216	512
35°	6848	3122	226
40°	7148	3008	54
45°	7405	2863	0
50°	7621	2673	0
55°	7786	2430	0
60°	7869	2148	0
65°	7902	1830	0
70°	7875	1492	0
75°	7775	1100	6
80°	7460	671	34
85°	7210	320	46



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.7	1.9
10°-20°	94.9	5.8
20°-30°	153.7	9.4
30°-40°	197.4	12.1
40°-50°	223.5	13.7
50°-60°	231.5	14.2
60°-70°	218.4	13.3
70°-80°	183.0	11.2
80°-90°	132.7	8.1
90°-100°	87.2	5.3
100°-110°	50.4	3.1
110°-120°	22.2	1.4
120°-130°	6.0	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°	280.3	17.1
0°-40°	477.7	29.2
0°-60°	932.8	57.0
0°-90°	1466.8	89.7
90°-120°	159.8	9.8
90°-150°	168.1	10.3
90°-180°	169.0	10.3
0°-180°	1636.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	331	331	331	331	331	
5°	378	363	328	298	283	38
15°	505	442	317	229	191	146
25°	635	519	294	151	94	294
35°	704	560	258	73	23	441
45°	730	554	212	17	0	563
55°	711	519	153	0	0	635
65°	643	460	91	0	0	636
75°	536	371	39	0	0	562
85°	392	269	6	2	2	335
90°	340	216	2	2	3	186
95°	292	168	1	3	4	229
105°	201	87	1	2	3	212
115°	109	29	1	1	2	109
125°	32	4	2	1	2	32
135°	2	1	2	2	1	3
145°	0	2	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	2	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°	330.9	330.9	330.9	330.9	330.9	330.9	330.9	330.9	330.9	330.9	330.9
2.5°	358.7	358.3	357.1	355.0	352.0	346.9	342.7	338.9	333.9	329.7	321.6
5°	377.7	375.6	373.9	371.8	365.1	360.4	352.8	344.4	336.4	328.4	312.4
7.5°	408.1	404.7	402.2	396.3	387.0	376.5	364.6	356.6	351.2	328.8	301.4
10°	440.5	437.6	432.5	422.0	410.6	395.4	378.6	359.6	342.7	324.2	291.7
12.5°	472.6	468.4	461.2	447.7	431.7	412.7	389.5	367.2	343.1	321.2	280.3
15°	504.6	500.0	492.4	475.9	454.9	430.0	401.7	373.5	345.3	317.4	268.5
17.5°	539.6	533.3	521.9	503.3	476.8	446.0	412.7	378.6	344.4	312.8	255.9
20°	577.1	568.3	556.0	531.2	500.0	463.7	423.7	383.6	344.0	307.3	241.6
22.5°	608.3	599.5	586.0	560.3	522.7	478.5	432.9	387.0	342.3	301.0	228.1
25°	635.3	628.1	613.4	583.9	544.2	494.1	441.8	389.5	339.8	294.2	213.7
27.5°	656.4	649.6	633.2	602.8	562.4	508.0	448.5	390.8	336.4	287.5	199.0
30°	674.9	668.2	648.4	617.2	574.6	518.9	455.3	391.2	332.2	277.4	183.0
32.5°	689.2	682.9	662.7	629.4	583.0	526.5	459.1	390.8	326.7	270.2	165.7
35°	703.6	697.3	673.7	638.2	589.3	529.9	462.0	388.7	320.0	258.4	149.2
37.5°	714.5	707.4	683.3	644.1	592.3	530.7	461.6	385.7	312.8	248.7	132.8
40°	722.1	714.5	688.8	647.5	593.1	529.5	458.2	380.7	304.4	236.5	115.5
42.5°	727.2	718.8	691.4	652.6	591.4	526.1	453.2	374.3	295.1	226.0	99.1
45°	729.7	720.9	691.8	648.4	588.5	519.8	445.6	366.3	285.0	211.6	82.6
47.5°	728.5	718.8	689.7	643.7	583.0	513.0	437.2	356.6	272.7	199.0	67.0
50°	726.3	716.2	685.0	637.8	575.4	504.6	427.9	344.8	260.1	183.4	53.1
52.5°	719.6	709.5	680.0	629.4	566.6	494.9	415.2	332.6	246.6	168.2	40.5
55°	711.2	701.9	671.1	621.8	555.2	483.1	403.4	319.5	233.5	152.6	29.1
57.5°	698.1	689.7	660.2	609.6	543.8	470.0	390.4	305.2	217.1	137.0	20.2
60°	682.1	673.7	645.0	595.7	530.7	455.3	376.0	290.5	202.3	121.4	12.6
62.5°	665.2	657.2	627.3	578.4	514.3	439.7	360.4	275.7	186.8	107.1	7.6
65°	642.9	635.3	608.3	557.7	496.2	422.8	343.1	258.0	170.7	91.1	4.2
67.5°	619.3	612.5	585.1	538.8	475.1	404.3	325.4	240.7	153.9	77.1	2.1
70°	594.0	585.5	560.3	513.0	453.6	383.2	306.1	223.0	137.8	63.7	0.0
72.5°	564.5	558.1	533.7	489.0	428.7	360.9	286.2	203.6	120.1	50.6	0.4
75°	535.8	527.8	505.4	463.3	404.3	337.2	264.3	185.5	102.9	38.8	0.4
77.5°	498.7	496.2	475.1	434.2	381.1	314.5	240.3	163.6	86.4	27.8	0.4
80°	461.6	459.1	442.6	405.1	354.1	287.5	217.9	142.9	70.4	18.5	0.4
82.5°	424.9	421.6	406.0	374.8	326.7	264.7	194.8	122.3	55.6	11.4	0.4
85°	392.0	387.8	371.0	342.3	298.5	239.0	170.7	102.0	41.3	6.3	0.8
87.5°	363.8	360.9	342.3	312.8	269.8	215.0	149.7	82.6	29.1	3.0	1.3
90°	339.8	333.5	317.0	285.8	242.8	188.4	127.3	66.2	19.4	1.7	1.7
92.5°	316.2	310.7	292.6	260.5	218.8	165.7	105.8	50.6	12.2	0.8	2.1
95°	291.7	285.8	268.1	238.6	194.3	142.5	86.8	37.1	6.7	0.8	2.1
97.5°	267.7	262.2	243.7	214.2	172.4	122.3	68.7	26.1	3.4	0.8	1.7
100°	245.3	239.0	222.2	192.7	150.5	102.0	53.1	16.9	2.1	0.8	1.7
102.5°	221.7	216.7	199.4	170.7	127.7	83.0	39.6	10.5	0.8	0.8	1.3
105°	200.7	194.3	177.5	148.0	108.8	65.3	27.8	6.3	0.8	0.8	1.3



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	130.7	125.6	110.9	86.0	55.2	25.7	7.6	1.3	1.3	1.3	1.3
115°	109.2	101.6	88.5	66.6	40.9	16.9	3.8	1.3	1.3	1.3	1.3
117.5°	87.3	80.9	71.7	50.6	27.0	11.0	2.1	1.3	1.3	1.3	1.3
120°	68.3	62.4	51.9	35.0	18.1	6.3	0.8	1.3	1.3	1.3	1.3
122.5°	48.9	44.3	35.0	22.8	11.0	3.0	1.3	1.3	1.7	1.7	1.3
125°	32.5	29.9	23.2	13.9	6.7	1.3	1.3	1.3	1.7	1.7	1.3
127.5°	21.1	19.0	13.5	8.0	3.0	1.3	1.3	1.7	1.7	1.7	1.3
130°	11.8	10.5	8.0	4.6	1.3	1.3	1.3	1.7	1.7	1.7	1.3
132.5°	6.7	6.3	4.2	0.8	1.3	1.3	1.3	1.7	1.7	1.7	1.7
135°	1.7	0.8	0.8	0.8	1.3	1.3	1.7	1.7	2.1	2.1	1.7
137.5°	0.4	0.4	0.8	0.8	1.3	1.3	1.7	2.1	2.1	2.1	1.7
140°	0.4	0.4	0.8	1.3	1.3	1.3	1.7	2.1	2.1	2.1	1.7
142.5°	0.4	0.8	0.8	1.3	1.3	1.7	1.7	2.1	2.1	1.7	1.7
145°	0.4	0.8	0.8	1.3	1.3	1.7	1.7	2.1	1.7	1.7	1.7
147.5°	0.8	0.8	0.8	1.3	1.3	1.7	1.7	2.1	2.1	1.7	1.7
150°	0.4	0.8	0.8	1.3	1.7	1.7	1.7	2.1	1.7	1.7	1.7
152.5°	0.4	0.8	0.8	1.3	1.7	1.7	1.7	2.1	1.7	1.7	1.7
155°	0.8	0.8	0.8	1.3	1.7	1.7	1.7	2.1	1.7	1.7	2.1
157.5°	0.8	0.8	0.8	1.3	1.7	1.7	1.7	2.1	1.7	1.7	2.1
160°	0.8	0.8	0.8	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7
162.5°	0.8	0.8	0.8	1.3	1.3	1.7	1.7	1.7	1.7	1.7	1.7
165°	0.8	0.8	0.8	0.8	1.3	1.3	1.7	1.7	1.7	1.7	1.7
167.5°	0.8	0.8	0.8	1.3	1.3	1.3	1.7	1.7	1.7	1.7	1.7
170°	0.8	0.8	0.8	1.3	1.3	1.3	1.7	2.1	2.1	2.1	2.1
172.5°	0.8	0.8	0.8	1.3	1.3	1.7	1.7	2.1	2.1	2.1	2.1
175°	0.8	0.8	0.8	1.3	1.3	1.7	1.7	2.1	2.1	2.1	2.1
177.5°	0.4	0.8	0.8	1.3	1.3	1.7	1.7	2.1	2.1	2.1	1.7
180°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	330.9	330.9	330.9
2.5°	314.9	309.0	307.3
5°	298.0	288.3	282.9
7.5°	281.2	268.1	261.8
10°	265.6	247.0	240.3
12.5°	247.0	225.5	215.0
15°	229.3	201.5	191.4
17.5°	209.5	178.3	166.5
20°	191.0	155.1	142.9
22.5°	169.9	132.4	118.9
25°	150.9	109.6	94.4
27.5°	129.8	86.4	73.4
30°	110.0	66.2	53.1
32.5°	91.1	48.5	36.7
35°	73.4	32.9	23.2
37.5°	56.5	20.2	11.8
40°	40.9	10.5	5.5
42.5°	27.4	5.1	3.0
45°	16.9	2.5	0.0
47.5°	9.7	0.0	0.0
50°	5.1	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	1.3
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	3.0
90°	2.5	3.0	3.0
92.5°	2.5	3.4	3.4
95°	3.0	3.4	3.8
97.5°	3.4	3.8	3.8
100°	3.0	3.8	4.2
102.5°	2.5	3.8	3.8
105°	2.1	3.0	3.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.7	2.1	2.1
115°	1.3	1.7	2.1
117.5°	1.3	1.7	1.7
120°	1.3	1.3	1.7
122.5°	1.3	1.3	1.7
125°	1.3	1.3	1.7
127.5°	1.7	1.3	1.3
130°	1.3	1.3	1.3
132.5°	1.7	1.3	1.3
135°	1.7	1.3	1.3
137.5°	1.7	1.3	1.3
140°	1.7	1.3	1.3
142.5°	1.7	1.3	1.3
145°	1.3	1.3	1.3
147.5°	1.3	1.3	1.3
150°	1.3	1.3	0.8
152.5°	1.3	0.8	0.8
155°	1.3	0.8	0.4
157.5°	1.7	0.8	0.4
160°	1.3	0.8	0.4
162.5°	1.3	0.8	0.4
165°	1.3	0.8	0.0
167.5°	1.3	0.8	0.4
170°	1.3	0.8	0.4
172.5°	1.3	0.8	0.4
175°	1.3	0.4	0.4
177.5°	1.3	0.4	0.4
180°	1.3	1.3	1.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







107.5°	177.1	172.0	155.1	127.3	88.9	49.7	18.5	3.4	0.8	1.3	1.3
110°	154.3	150.1	132.8	105.8	71.7	37.1	12.2	2.1	1.3	1.3	1.3





107.5°	1.7	2.5	3.0
110°	1.7	2.1	2.5



(END OF REPORT)