

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: P550678

Luminaire Tested: **FCC-X-2-LD4-1HI-50-UNV-93-97-ED1D**

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: P550678
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-50-UNV-93-97-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 5000K,
AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

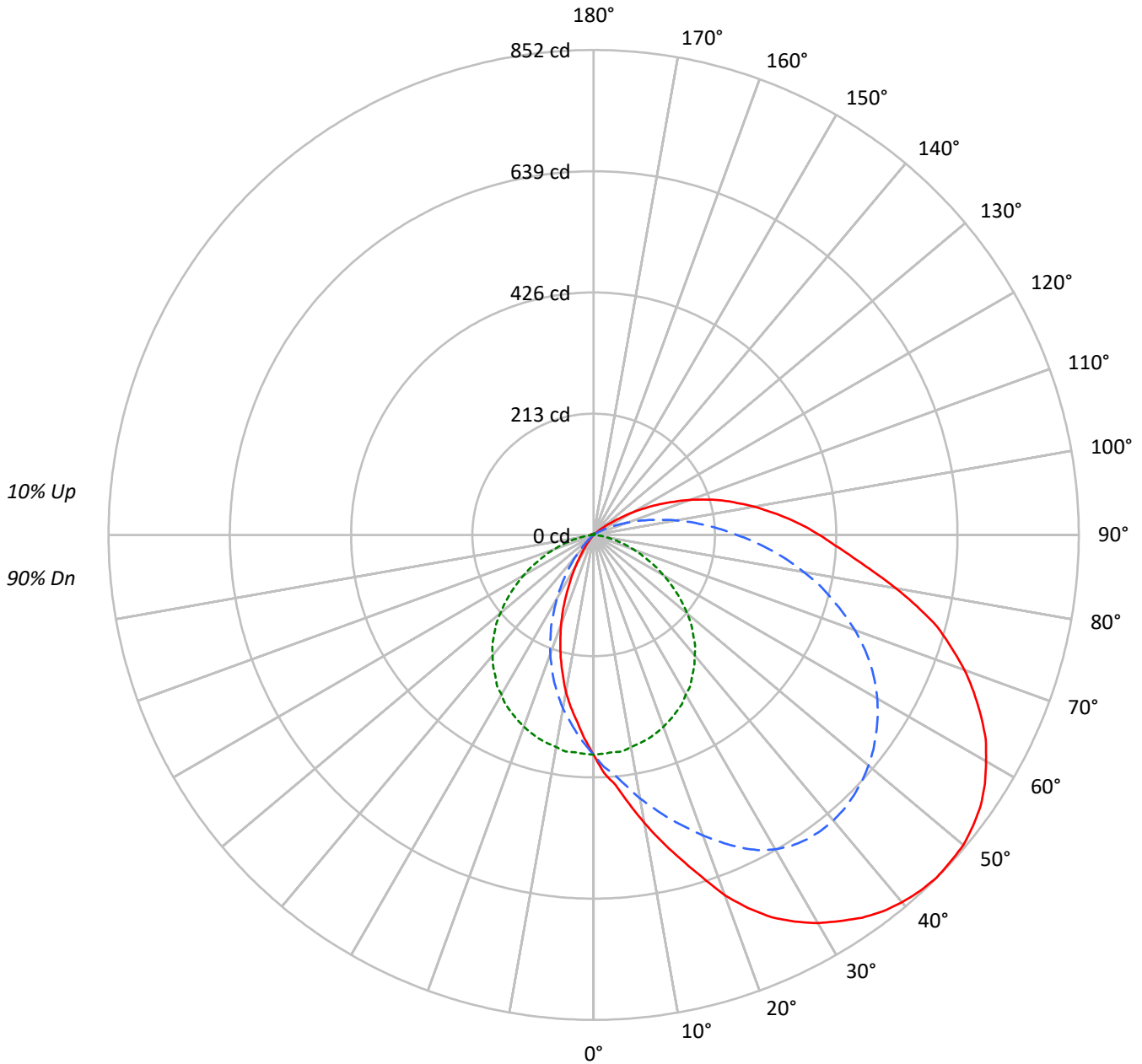
Lumens per Lamp: N/A
Luminaire Lumens: 1909.1 lumens
Efficiency: N/A
Efficacy: 88.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	4156	4156	4156
5°	4562	4096	3417
10°	5163	4046	2816
15°	5786	3994	2194
20°	6526	3929	1616
25°	7140	3853	1061
30°	7595	3752	598
35°	7991	3643	264
40°	8340	3510	63
45°	8641	3341	0
50°	8894	3119	0
55°	9085	2836	0
60°	9182	2508	0
65°	9221	2135	0
70°	9189	1741	0
75°	9072	1285	7
80°	8704	783	40
85°	8414	376	55



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.0	1.9
10°-20°	110.8	5.8
20°-30°	179.3	9.4
30°-40°	230.4	12.1
40°-50°	260.8	13.7
50°-60°	270.2	14.2
60°-70°	254.8	13.3
70°-80°	213.5	11.2
80°-90°	154.8	8.1
90°-100°	101.7	5.3
100°-110°	58.8	3.1
110°-120°	25.9	1.4
120°-130°	7.0	0.4
130°-140°	1.6	0.1
140°-150°	1.1	0.1
150°-160°	0.8	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	327.1	17.1
0°-40°	557.5	29.2
0°-60°	1088.4	57.0
0°-90°	1711.6	89.7
90°-120°	186.4	9.8
90°-150°	196.2	10.3
90°-180°	198.0	10.4
0°-180°	1909.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	386	386	386	386	386	
5°	441	423	383	348	330	44
15°	589	516	370	268	223	170
25°	741	606	343	176	110	343
35°	821	653	302	86	27	515
45°	852	647	247	20	0	657
55°	830	606	178	0	0	741
65°	750	536	106	0	0	742
75°	625	433	45	0	0	656
85°	458	314	7	2	3	391
90°	396	252	2	3	3	217
95°	340	197	1	3	4	267
105°	234	102	1	2	4	247
115°	127	34	2	2	2	128
125°	38	5	2	2	2	38
135°	2	2	2	2	2	4
145°	0	2	2	2	2	0
155°	1	2	2	2	0	0
165°	1	2	2	2	0	0
175°	1	2	2	2	0	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	386.1	386.1	386.1	386.1	386.1	386.1	386.1	386.1	386.1	386.1	386.1
2.5°	418.6	418.1	416.6	414.2	410.7	404.8	399.9	395.5	389.6	384.7	375.3
5°	440.7	438.3	436.3	433.9	426.0	420.6	411.7	401.9	392.5	383.2	364.5
7.5°	476.2	472.2	469.3	462.4	451.6	439.3	425.5	416.2	409.8	383.7	351.7
10°	514.0	510.6	504.7	492.4	479.1	461.4	441.7	419.6	399.9	378.3	340.4
12.5°	551.4	546.5	538.1	522.4	503.7	481.6	454.5	428.4	400.4	374.8	327.1
15°	588.8	583.4	574.5	555.4	530.8	501.7	468.8	435.8	402.9	370.4	313.3
17.5°	629.6	622.3	609.0	587.3	556.3	520.4	481.6	441.7	401.9	365.0	298.6
20°	673.4	663.1	648.8	619.8	583.4	541.1	494.4	447.6	401.4	358.6	281.9
22.5°	709.8	699.5	683.7	653.7	610.0	558.3	505.2	451.6	399.4	351.2	266.1
25°	741.3	732.9	715.7	681.3	635.0	576.5	515.5	454.5	396.5	343.3	249.4
27.5°	765.9	758.0	738.8	703.4	656.2	592.7	523.4	456.0	392.5	335.5	232.2
30°	787.5	779.7	756.5	720.1	670.5	605.5	531.3	456.5	387.6	323.7	213.5
32.5°	804.3	796.9	773.3	734.4	680.3	614.4	535.7	456.0	381.2	315.3	193.3
35°	821.0	813.6	786.1	744.7	687.7	618.3	539.1	453.5	373.4	301.5	174.1
37.5°	833.8	825.4	797.4	751.6	691.1	619.3	538.6	450.1	365.0	290.2	154.9
40°	842.6	833.8	803.8	755.6	692.1	617.8	534.7	444.2	355.2	276.0	134.8
42.5°	848.5	838.7	806.7	761.5	690.1	613.9	528.8	436.8	344.3	263.7	115.6
45°	851.5	841.2	807.2	756.5	686.7	606.5	519.9	427.5	332.5	246.9	96.4
47.5°	850.0	838.7	804.8	751.1	680.3	598.6	510.1	416.2	318.3	232.2	78.2
50°	847.6	835.7	799.3	744.3	671.4	588.8	499.3	402.4	303.5	214.0	62.0
52.5°	839.7	827.9	793.4	734.4	661.1	577.5	484.5	388.1	287.8	196.3	47.2
55°	829.8	819.0	783.1	725.6	647.8	563.7	470.8	372.9	272.5	178.1	33.9
57.5°	814.6	804.8	770.3	711.3	634.6	548.5	455.5	356.1	253.3	159.9	23.6
60°	795.9	786.1	752.6	695.1	619.3	531.3	438.8	338.9	236.1	141.7	14.8
62.5°	776.2	766.9	732.0	674.9	600.1	513.1	420.6	321.7	217.9	124.9	8.9
65°	750.2	741.3	709.8	650.8	579.0	493.4	400.4	301.0	199.2	106.3	4.9
67.5°	722.6	714.7	682.8	628.7	554.4	471.7	379.8	280.9	179.5	90.0	2.5
70°	693.1	683.3	653.7	598.6	529.3	447.1	357.1	260.2	160.9	74.3	0.0
72.5°	658.7	651.3	622.8	570.6	500.3	421.1	334.0	237.6	140.2	59.0	0.5
75°	625.2	615.9	589.8	540.6	471.7	393.5	308.4	216.4	120.0	45.3	0.5
77.5°	581.9	579.0	554.4	506.7	444.7	367.0	280.4	190.9	100.8	32.5	0.5
80°	538.6	535.7	516.5	472.7	413.2	335.5	254.3	166.8	82.1	21.6	0.5
82.5°	495.8	491.9	473.7	437.3	381.2	308.9	227.3	142.7	64.9	13.3	0.5
85°	457.5	452.6	432.9	399.4	348.3	278.9	199.2	119.0	48.2	7.4	1.0
87.5°	424.5	421.1	399.4	365.0	314.8	250.9	174.6	96.4	33.9	3.4	1.5
90°	396.5	389.1	369.9	333.5	283.3	219.9	148.6	77.2	22.6	2.0	2.0
92.5°	368.9	362.5	341.4	304.0	255.3	193.3	123.5	59.0	14.3	1.0	2.5
95°	340.4	333.5	312.9	278.4	226.8	166.3	101.3	43.3	7.9	1.0	2.5
97.5°	312.4	306.0	284.3	249.9	201.2	142.7	80.2	30.5	3.9	1.0	2.0
100°	286.3	278.9	259.2	224.8	175.6	119.0	62.0	19.7	2.5	1.0	2.0
102.5°	258.7	252.8	232.7	199.2	149.0	96.9	46.2	12.3	1.0	1.0	1.5
105°	234.1	226.8	207.1	172.7	126.9	76.2	32.5	7.4	1.0	1.0	1.5



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CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-93-97-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	152.5	146.6	129.4	100.3	64.4	30.0	8.9	1.5	1.5	1.5	1.5
115°	127.4	118.5	103.3	77.7	47.7	19.7	4.4	1.5	1.5	1.5	1.5
117.5°	101.8	94.4	83.6	59.0	31.5	12.8	2.5	1.5	1.5	1.5	1.5
120°	79.7	72.8	60.5	40.8	21.2	7.4	1.0	1.5	1.5	1.5	1.5
122.5°	57.1	51.6	40.8	26.6	12.8	3.4	1.5	1.5	2.0	2.0	1.5
125°	37.9	34.9	27.1	16.2	7.9	1.5	1.5	1.5	2.0	2.0	1.5
127.5°	24.6	22.1	15.7	9.3	3.4	1.5	1.5	2.0	2.0	2.0	1.5
130°	13.8	12.3	9.3	5.4	1.5	1.5	1.5	2.0	2.0	2.0	1.5
132.5°	7.9	7.4	4.9	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0
135°	2.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0
137.5°	0.5	0.5	1.0	1.0	1.5	1.5	2.0	2.5	2.5	2.5	2.0
140°	0.5	0.5	1.0	1.5	1.5	1.5	2.0	2.5	2.5	2.5	2.0
142.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0	2.0
145°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.0	2.0	2.0
147.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0	2.0
150°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.0
152.5°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.0
155°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.5
157.5°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.5
160°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
162.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
165°	1.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0
167.5°	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0	2.0
170°	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.5	2.5	2.5	2.5
172.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.5
175°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.5
177.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.0
180°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	386.1	386.1	386.1
2.5°	367.5	360.6	358.6
5°	347.8	336.5	330.1
7.5°	328.1	312.9	305.5
10°	309.9	288.3	280.4
12.5°	288.3	263.2	250.9
15°	267.6	235.1	223.3
17.5°	244.5	208.1	194.3
20°	222.8	181.0	166.8
22.5°	198.2	154.5	138.7
25°	176.1	127.9	110.2
27.5°	151.5	100.8	85.6
30°	128.4	77.2	62.0
32.5°	106.3	56.6	42.8
35°	85.6	38.4	27.1
37.5°	65.9	23.6	13.8
40°	47.7	12.3	6.4
42.5°	32.0	5.9	3.4
45°	19.7	3.0	0.0
47.5°	11.3	0.0	0.0
50°	5.9	0.0	0.0
52.5°	2.5	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°	0.5	0.5	0.5
77.5°	0.5	1.0	1.5
80°	1.0	2.0	2.5
82.5°	2.0	2.5	2.5
85°	2.0	2.5	3.0
87.5°	2.5	3.0	3.4
90°	3.0	3.4	3.4
92.5°	3.0	3.9	3.9
95°	3.4	3.9	4.4
97.5°	3.9	4.4	4.4
100°	3.4	4.4	4.9
102.5°	3.0	4.4	4.4
105°	2.5	3.4	3.9



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CATALOG NUMBER: FCC-X-2-LD4-1HI-50-UNV-93-97-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.0	2.5	2.5
115°	1.5	2.0	2.5
117.5°	1.5	2.0	2.0
120°	1.5	1.5	2.0
122.5°	1.5	1.5	2.0
125°	1.5	1.5	2.0
127.5°	2.0	1.5	1.5
130°	1.5	1.5	1.5
132.5°	2.0	1.5	1.5
135°	2.0	1.5	1.5
137.5°	2.0	1.5	1.5
140°	2.0	1.5	1.5
142.5°	2.0	1.5	1.5
145°	1.5	1.5	1.5
147.5°	1.5	1.5	1.5
150°	1.5	1.5	1.0
152.5°	1.5	1.0	1.0
155°	1.5	1.0	0.5
157.5°	2.0	1.0	0.5
160°	1.5	1.0	0.5
162.5°	1.5	1.0	0.5
165°	1.5	1.0	0.0
167.5°	1.5	1.0	0.5
170°	1.5	1.0	0.5
172.5°	1.5	1.0	0.5
175°	1.5	0.5	0.5
177.5°	1.5	0.5	0.5
180°	1.5	1.5	1.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	206.6	200.7	181.0	148.6	103.8	58.0	21.6	3.9	1.0	1.5	1.5
110°	180.0	175.1	154.9	123.5	83.6	43.3	14.3	2.5	1.5	1.5	1.5





107.5°	2.0	3.0	3.4
110°	2.0	2.5	3.0



(END OF REPORT)