

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: P551580

Luminaire Tested: **FCC-X-2-LD4-2LO-40-UNV-80-86-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: P551580
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-LD4-2LO-40-UNV-80-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

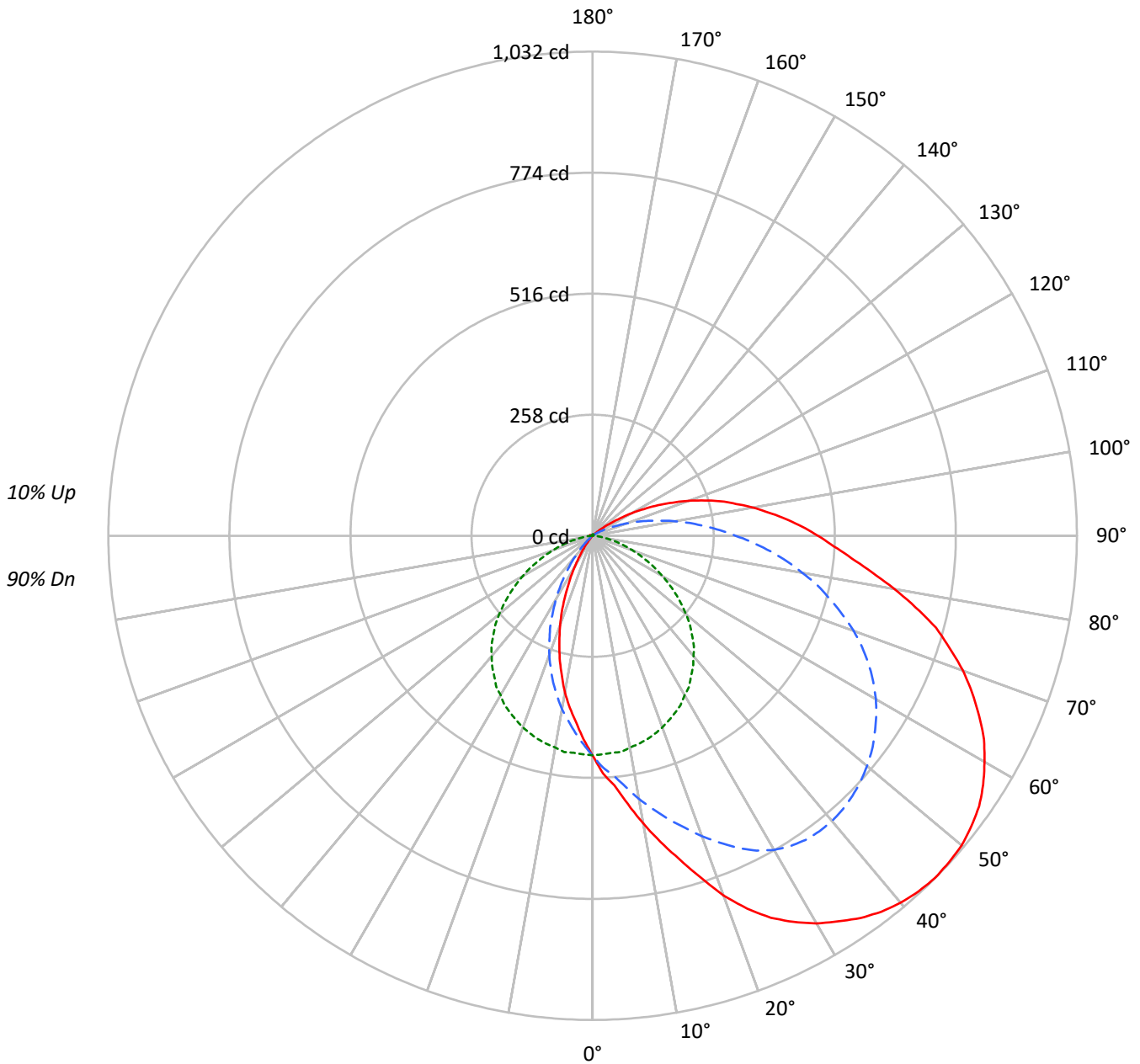
Lumens per Lamp: N/A
Luminaire Lumens: 2313.1 lumens
Efficiency: N/A
Efficacy: 98.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
Input Voltage (V): NR
Input Current (Ain): 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-LD4-2LO-40-UNV-80-86-ED1D

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20
RC	80				70				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	93	93	93	90
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	76	73	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	5036	5036	5036
5°	5528	4963	4140
10°	6256	4901	3412
15°	7011	4839	2659
20°	7907	4760	1958
25°	8651	4669	1286
30°	9203	4547	724
35°	9681	4415	319
40°	10106	4253	76
45°	10470	4049	0
50°	10775	3779	0
55°	11009	3436	0
60°	11125	3037	0
65°	11171	2585	0
70°	11134	2108	0
75°	10992	1554	9
80°	10547	950	48
85°	10195	453	66



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.8	1.9
10°-20°	134.2	5.8
20°-30°	217.3	9.4
30°-40°	279.1	12.1
40°-50°	316.0	13.7
50°-60°	327.4	14.2
60°-70°	308.7	13.3
70°-80°	258.7	11.2
80°-90°	187.6	8.1
90°-100°	123.3	5.3
100°-110°	71.2	3.1
110°-120°	31.4	1.4
120°-130°	8.5	0.4
130°-140°	2.0	0.1
140°-150°	1.3	0.1
150°-160°	0.9	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	396.3	17.1
0°-40°	675.4	29.2
0°-60°	1318.8	57.0
0°-90°	2073.8	89.7
90°-120°	225.9	9.8
90°-150°	237.7	10.3
90°-180°	239.0	10.3
0°-180°	2313.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	468	468	468	468	468	
5°	534	513	464	421	400	54
15°	713	626	449	324	271	206
25°	898	734	416	213	134	415
35°	995	791	365	104	33	624
45°	1032	783	299	24	0	797
55°	1006	734	216	0	0	898
65°	909	650	129	0	0	899
75°	758	524	55	1	1	795
85°	554	380	9	2	4	473
90°	480	305	2	4	4	263
95°	412	238	1	4	5	324
105°	284	123	1	3	5	299
115°	154	41	2	2	3	155
125°	46	6	2	2	2	46
135°	2	2	3	2	2	4
145°	1	2	2	2	2	0
155°	1	2	2	2	1	0
165°	1	2	2	2	0	0
175°	1	2	3	2	1	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°	467.9	467.9	467.9	467.9	467.9	467.9	467.9	467.9	467.9	467.9	467.9
2.5°	507.2	506.6	504.8	501.8	497.7	490.5	484.6	479.2	472.0	466.1	454.8
5°	534.0	531.0	528.7	525.7	516.1	509.6	498.9	486.9	475.6	464.3	441.6
7.5°	576.9	572.2	568.6	560.2	547.1	532.2	515.5	504.2	496.5	464.9	426.1
10°	622.8	618.7	611.5	596.6	580.5	559.1	535.2	508.4	484.6	458.3	412.4
12.5°	668.1	662.2	652.0	633.0	610.3	583.5	550.7	519.1	485.1	454.2	396.3
15°	713.4	706.9	696.1	672.9	643.1	607.9	568.0	528.1	488.1	448.8	379.7
17.5°	762.9	753.9	737.9	711.6	674.1	630.6	583.5	535.2	486.9	442.2	361.8
20°	815.9	803.4	786.1	751.0	706.9	655.6	599.0	542.4	486.3	434.5	341.5
22.5°	860.0	847.5	828.4	792.1	739.0	676.5	612.1	547.1	484.0	425.5	322.4
25°	898.2	888.0	867.2	825.5	769.4	698.5	624.6	550.7	480.4	416.0	302.2
27.5°	928.0	918.4	895.2	852.3	795.1	718.2	634.1	552.5	475.6	406.5	281.3
30°	954.2	944.7	916.7	872.6	812.4	733.7	643.7	553.1	469.7	392.2	258.7
32.5°	974.5	965.5	936.9	889.8	824.3	744.4	649.1	552.5	461.9	382.0	234.2
35°	994.7	985.8	952.4	902.4	833.2	749.2	653.2	549.5	452.4	365.4	211.0
37.5°	1010.2	1000.1	966.1	910.7	837.4	750.4	652.6	545.3	442.2	351.6	187.7
40°	1021.0	1010.2	973.9	915.5	838.6	748.6	647.9	538.2	430.3	334.4	163.3
42.5°	1028.1	1016.2	977.4	922.6	836.2	743.8	640.7	529.3	417.2	319.5	140.1
45°	1031.7	1019.2	978.0	916.7	832.0	734.9	630.0	517.9	402.9	299.2	116.8
47.5°	1029.9	1016.2	975.1	910.1	824.3	725.3	618.1	504.2	385.6	281.3	94.8
50°	1026.9	1012.6	968.5	901.8	813.5	713.4	604.9	487.5	367.7	259.3	75.1
52.5°	1017.4	1003.1	961.4	889.8	801.0	699.7	587.1	470.2	348.7	237.8	57.2
55°	1005.5	992.3	948.8	879.1	784.9	683.0	570.4	451.8	330.2	215.8	41.1
57.5°	987.0	975.1	933.3	861.8	768.8	664.5	551.9	431.5	306.9	193.7	28.6
60°	964.3	952.4	911.9	842.2	750.4	643.7	531.6	410.6	286.1	171.6	17.9
62.5°	940.5	929.2	886.9	817.7	727.1	621.6	509.6	389.8	264.0	151.4	10.7
65°	908.9	898.2	860.0	788.5	701.5	597.8	485.1	364.8	241.4	128.7	6.0
67.5°	875.5	866.0	827.3	761.7	671.7	571.6	460.1	340.3	217.5	109.1	3.0
70°	839.8	827.9	792.1	725.3	641.3	541.8	432.7	315.3	194.9	90.0	0.0
72.5°	798.1	789.1	754.5	691.4	606.1	510.2	404.7	287.9	169.9	71.5	0.6
75°	757.5	746.2	714.6	655.0	571.6	476.8	373.7	262.2	145.4	54.8	0.6
77.5°	705.1	701.5	671.7	613.9	538.8	444.6	339.7	231.3	122.2	39.3	0.6
80°	652.6	649.1	625.8	572.8	500.6	406.5	308.1	202.0	99.5	26.2	0.6
82.5°	600.8	596.0	574.0	529.8	461.9	374.3	275.4	172.8	78.7	16.1	0.6
85°	554.3	548.3	524.5	484.0	422.0	337.9	241.4	144.2	58.4	8.9	1.2
87.5°	514.4	510.2	484.0	442.2	381.4	304.0	211.6	116.8	41.1	4.2	1.8
90°	480.4	471.4	448.2	404.1	343.3	266.4	180.0	93.6	27.4	2.4	2.4
92.5°	447.0	439.3	413.6	368.3	309.3	234.2	149.6	71.5	17.3	1.2	3.0
95°	412.4	404.1	379.1	337.3	274.8	201.4	122.8	52.4	9.5	1.2	3.0
97.5°	378.5	370.7	344.5	302.8	243.8	172.8	97.1	37.0	4.8	1.2	2.4
100°	346.9	337.9	314.1	272.4	212.8	144.2	75.1	23.8	3.0	1.2	2.4
102.5°	313.5	306.3	281.9	241.4	180.6	117.4	56.0	14.9	1.2	1.2	1.8
105°	283.7	274.8	250.9	209.2	153.8	92.4	39.3	8.9	1.2	1.2	1.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	184.8	177.6	156.7	121.6	78.1	36.4	10.7	1.8	1.8	1.8	1.8
115°	154.4	143.6	125.2	94.2	57.8	23.8	5.4	1.8	1.8	1.8	1.8
117.5°	123.4	114.4	101.3	71.5	38.1	15.5	3.0	1.8	1.8	1.8	1.8
120°	96.6	88.2	73.3	49.5	25.6	8.9	1.2	1.8	1.8	1.8	1.8
122.5°	69.1	62.6	49.5	32.2	15.5	4.2	1.8	1.8	2.4	2.4	1.8
125°	45.9	42.3	32.8	19.7	9.5	1.8	1.8	1.8	2.4	2.4	1.8
127.5°	29.8	26.8	19.1	11.3	4.2	1.8	1.8	2.4	2.4	2.4	1.8
130°	16.7	14.9	11.3	6.6	1.8	1.8	1.8	2.4	2.4	2.4	1.8
132.5°	9.5	8.9	6.0	1.2	1.8	1.8	1.8	2.4	2.4	2.4	2.4
135°	2.4	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	2.4
137.5°	0.6	0.6	1.2	1.2	1.8	1.8	2.4	3.0	3.0	3.0	2.4
140°	0.6	0.6	1.2	1.8	1.8	1.8	2.4	3.0	3.0	3.0	2.4
142.5°	0.6	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	2.4	2.4
145°	0.6	1.2	1.2	1.8	1.8	2.4	2.4	3.0	2.4	2.4	2.4
147.5°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	2.4	2.4
150°	0.6	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	2.4
152.5°	0.6	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	2.4
155°	1.2	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	3.0
157.5°	1.2	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	3.0
160°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4	2.4
162.5°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4	2.4
165°	1.2	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4
167.5°	1.2	1.2	1.2	1.8	1.8	1.8	2.4	2.4	2.4	2.4	2.4
170°	1.2	1.2	1.2	1.8	1.8	1.8	2.4	3.0	3.0	3.0	3.0
172.5°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	3.0	3.0
175°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	3.0	3.0
177.5°	0.6	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	3.0	2.4
180°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	467.9	467.9	467.9
2.5°	445.2	436.9	434.5
5°	421.4	407.7	399.9
7.5°	397.5	379.1	370.1
10°	375.5	349.3	339.7
12.5°	349.3	318.9	304.0
15°	324.2	284.9	270.6
17.5°	296.2	252.1	235.4
20°	270.0	219.3	202.0
22.5°	240.2	187.1	168.1
25°	213.4	155.0	133.5
27.5°	183.6	122.2	103.7
30°	155.6	93.6	75.1
32.5°	128.7	68.5	51.9
35°	103.7	46.5	32.8
37.5°	79.9	28.6	16.7
40°	57.8	14.9	7.7
42.5°	38.7	7.2	4.2
45°	23.8	3.6	0.0
47.5°	13.7	0.0	0.0
50°	7.2	0.0	0.0
52.5°	3.0	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°	0.6	0.6	0.6
77.5°	0.6	1.2	1.8
80°	1.2	2.4	3.0
82.5°	2.4	3.0	3.0
85°	2.4	3.0	3.6
87.5°	3.0	3.6	4.2
90°	3.6	4.2	4.2
92.5°	3.6	4.8	4.8
95°	4.2	4.8	5.4
97.5°	4.8	5.4	5.4
100°	4.2	5.4	6.0
102.5°	3.6	5.4	5.4
105°	3.0	4.2	4.8



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CATALOG NUMBER: FCC-X-2-LD4-2LO-40-UNV-80-86-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.4	3.0	3.0
115°	1.8	2.4	3.0
117.5°	1.8	2.4	2.4
120°	1.8	1.8	2.4
122.5°	1.8	1.8	2.4
125°	1.8	1.8	2.4
127.5°	2.4	1.8	1.8
130°	1.8	1.8	1.8
132.5°	2.4	1.8	1.8
135°	2.4	1.8	1.8
137.5°	2.4	1.8	1.8
140°	2.4	1.8	1.8
142.5°	2.4	1.8	1.8
145°	1.8	1.8	1.8
147.5°	1.8	1.8	1.8
150°	1.8	1.8	1.2
152.5°	1.8	1.2	1.2
155°	1.8	1.2	0.6
157.5°	2.4	1.2	0.6
160°	1.8	1.2	0.6
162.5°	1.8	1.2	0.6
165°	1.8	1.2	0.0
167.5°	1.8	1.2	0.6
170°	1.8	1.2	0.6
172.5°	1.8	1.2	0.6
175°	1.8	0.6	0.6
177.5°	1.8	0.6	0.6
180°	1.8	1.8	1.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	250.3	243.2	219.3	180.0	125.8	70.3	26.2	4.8	1.2	1.8	1.8
110°	218.1	212.2	187.7	149.6	101.3	52.4	17.3	3.0	1.8	1.8	1.8





107.5°	2.4	3.6	4.2
110°	2.4	3.0	3.6



(END OF REPORT)