

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: P551521

Luminaire Tested: **FCC-X-2-LD4-2LO-35-UNV-80-94-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: P551521
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-35-UNV-80-94-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

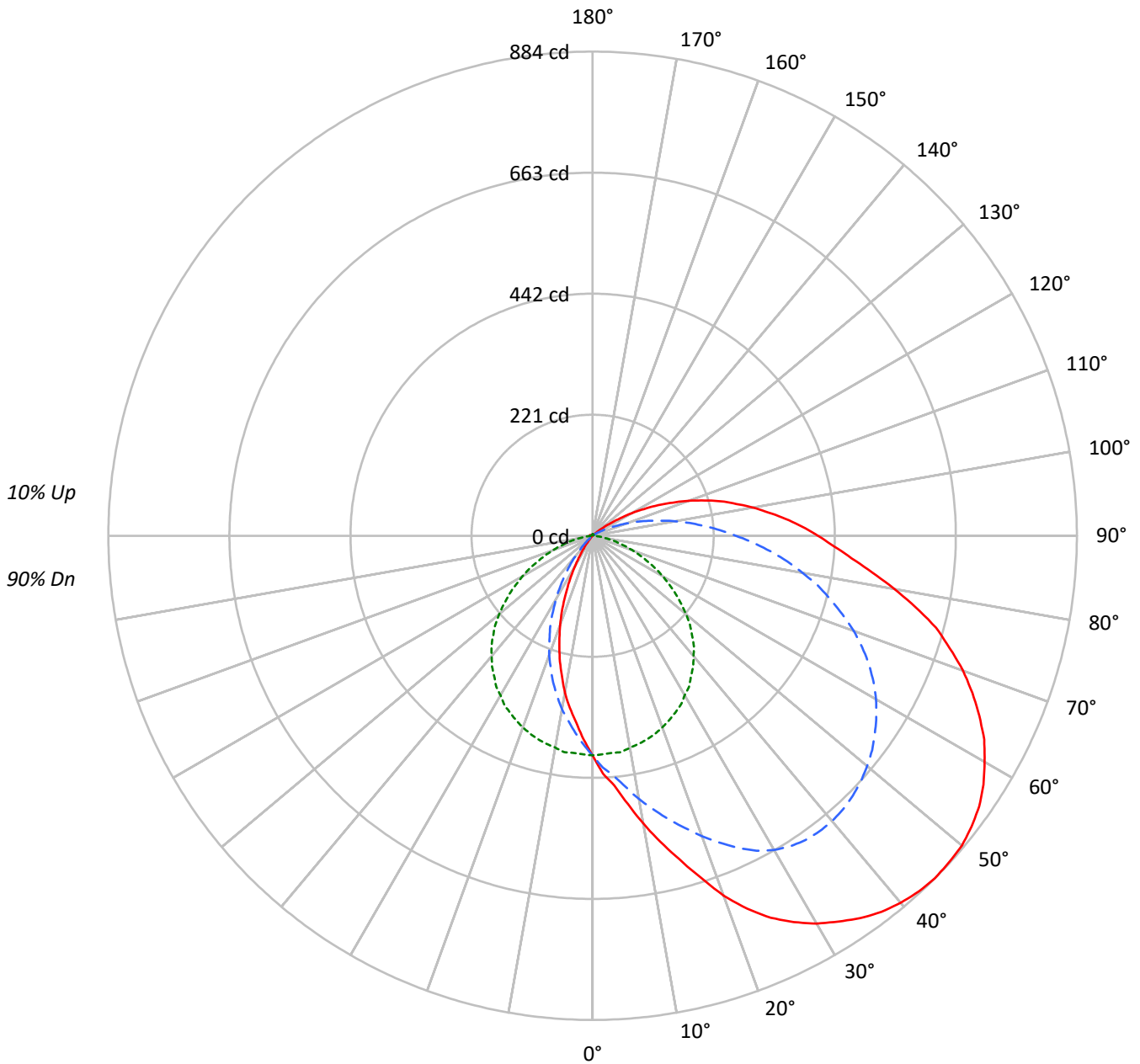
Lumens per Lamp: N/A
Luminaire Lumens: 1981.9 lumens
Efficiency: N/A
Efficacy: 84.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
Input Voltage (V): NR
Input Current (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°	4315	4315	4315
5°	4737	4252	3548
10°	5361	4200	2924
15°	6007	4147	2279
20°	6776	4079	1678
25°	7412	4001	1102
30°	7887	3896	621
35°	8296	3783	273
40°	8660	3644	65
45°	8971	3469	0
50°	9234	3238	0
55°	9433	2944	0
60°	9533	2603	0
65°	9572	2215	0
70°	9541	1806	0
75°	9419	1333	7
80°	9037	816	42
85°	8736	392	57



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.4	1.9
10°-20°	115.0	5.8
20°-30°	186.2	9.4
30°-40°	239.2	12.1
40°-50°	270.8	13.7
50°-60°	280.5	14.2
60°-70°	264.6	13.3
70°-80°	221.7	11.2
80°-90°	160.7	8.1
90°-100°	105.6	5.3
100°-110°	61.0	3.1
110°-120°	26.9	1.4
120°-130°	7.3	0.4
130°-140°	1.7	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°	339.6	17.1
0°-40°	578.8	29.2
0°-60°	1130.1	57.0
0°-90°	1777.0	89.7
90°-120°	193.5	9.8
90°-150°	203.5	10.3
90°-180°	205.0	10.3
0°-180°	1981.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	401	401	401	401	401	
5°	458	440	398	361	343	46
15°	611	536	385	278	232	176
25°	770	629	356	183	114	356
35°	852	678	313	89	28	535
45°	884	671	256	20	0	683
55°	862	629	185	0	0	769
65°	779	557	110	0	0	771
75°	649	449	47	0	0	681
85°	475	326	8	2	3	406
90°	412	261	2	3	4	226
95°	353	204	1	4	5	277
105°	243	106	1	3	4	257
115°	132	35	2	2	3	132
125°	39	5	2	2	2	39
135°	2	2	3	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	3	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°	400.9	400.9	400.9	400.9	400.9	400.9	400.9	400.9	400.9	400.9	400.9
2.5°	434.6	434.1	432.6	430.0	426.4	420.3	415.2	410.6	404.5	399.4	389.7
5°	457.6	455.0	453.0	450.5	442.3	436.7	427.5	417.3	407.6	397.8	378.4
7.5°	494.4	490.3	487.2	480.1	468.8	456.1	441.8	432.1	425.4	398.4	365.2
10°	533.7	530.1	524.0	511.2	497.4	479.1	458.6	435.6	415.2	392.7	353.4
12.5°	572.5	567.4	558.7	542.4	523.0	500.0	471.9	444.8	415.7	389.2	339.6
15°	611.3	605.7	596.5	576.6	551.1	520.9	486.7	452.5	418.3	384.6	325.3
17.5°	653.7	646.1	632.3	609.8	577.6	540.3	500.0	458.6	417.3	379.0	310.0
20°	699.2	688.4	673.6	643.5	605.7	561.8	513.3	464.8	416.7	372.3	292.6
22.5°	737.0	726.2	709.9	678.7	633.3	579.7	524.5	468.8	414.7	364.7	276.3
25°	769.6	761.0	743.1	707.3	659.3	598.6	535.2	471.9	411.6	356.5	258.9
27.5°	795.2	787.0	767.1	730.3	681.3	615.4	543.4	473.4	407.6	348.3	241.1
30°	817.7	809.5	785.5	747.7	696.1	628.7	551.6	473.9	402.4	336.1	221.7
32.5°	835.0	827.4	802.8	762.5	706.3	637.9	556.2	473.4	395.8	327.4	200.7
35°	852.4	844.7	816.1	773.2	714.0	642.0	559.7	470.9	387.6	313.1	180.8
37.5°	865.7	857.0	827.9	780.4	717.6	643.0	559.2	467.3	379.0	301.3	160.9
40°	874.9	865.7	834.5	784.5	718.6	641.5	555.1	461.2	368.7	286.5	139.9
42.5°	881.0	870.8	837.6	790.6	716.5	637.4	549.0	453.5	357.5	273.7	120.0
45°	884.0	873.3	838.1	785.5	713.0	629.7	539.8	443.8	345.2	256.4	100.1
47.5°	882.5	870.8	835.5	779.9	706.3	621.5	529.6	432.1	330.4	241.1	81.2
50°	880.0	867.7	829.9	772.7	697.1	611.3	518.4	417.8	315.1	222.2	64.4
52.5°	871.8	859.5	823.8	762.5	686.4	599.6	503.1	403.0	298.8	203.8	49.0
55°	861.6	850.3	813.1	753.3	672.6	585.3	488.8	387.1	282.9	184.9	35.2
57.5°	845.7	835.5	799.8	738.5	658.8	569.4	472.9	369.8	263.0	166.0	24.5
60°	826.3	816.1	781.4	721.6	643.0	551.6	455.6	351.9	245.1	147.1	15.3
62.5°	805.9	796.2	759.9	700.7	623.1	532.7	436.7	334.0	226.2	129.7	9.2
65°	778.8	769.6	737.0	675.7	601.1	512.2	415.7	312.6	206.8	110.3	5.1
67.5°	750.2	742.1	708.9	652.7	575.6	489.8	394.3	291.6	186.4	93.5	2.6
70°	719.6	709.4	678.7	621.5	549.5	464.2	370.8	270.2	167.0	77.1	0.0
72.5°	683.8	676.2	646.6	592.4	519.4	437.2	346.8	246.7	145.6	61.3	0.5
75°	649.1	639.4	612.3	561.3	489.8	408.6	320.2	224.7	124.6	47.0	0.5
77.5°	604.2	601.1	575.6	526.0	461.7	381.0	291.1	198.2	104.7	33.7	0.5
80°	559.2	556.2	536.3	490.8	429.0	348.3	264.0	173.1	85.3	22.5	0.5
82.5°	514.8	510.7	491.8	454.0	395.8	320.7	236.0	148.1	67.4	13.8	0.5
85°	475.0	469.9	449.4	414.7	361.6	289.6	206.8	123.6	50.1	7.7	1.0
87.5°	440.7	437.2	414.7	379.0	326.9	260.5	181.3	100.1	35.2	3.6	1.5
90°	411.6	404.0	384.1	346.3	294.2	228.3	154.2	80.2	23.5	2.0	2.0
92.5°	383.0	376.4	354.4	315.6	265.1	200.7	128.2	61.3	14.8	1.0	2.6
95°	353.4	346.3	324.8	289.1	235.4	172.6	105.2	44.9	8.2	1.0	2.6
97.5°	324.3	317.7	295.2	259.4	208.9	148.1	83.2	31.7	4.1	1.0	2.0
100°	297.2	289.6	269.1	233.4	182.3	123.6	64.4	20.4	2.6	1.0	2.0
102.5°	268.6	262.5	241.6	206.8	154.7	100.6	48.0	12.8	1.0	1.0	1.5
105°	243.1	235.4	215.0	179.3	131.8	79.2	33.7	7.7	1.0	1.0	1.5



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CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-80-94-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	158.3	152.2	134.3	104.2	66.9	31.2	9.2	1.5	1.5	1.5	1.5
115°	132.3	123.1	107.3	80.7	49.5	20.4	4.6	1.5	1.5	1.5	1.5
117.5°	105.7	98.1	86.8	61.3	32.7	13.3	2.6	1.5	1.5	1.5	1.5
120°	82.7	75.6	62.8	42.4	22.0	7.7	1.0	1.5	1.5	1.5	1.5
122.5°	59.2	53.6	42.4	27.6	13.3	3.6	1.5	1.5	2.0	2.0	1.5
125°	39.3	36.3	28.1	16.9	8.2	1.5	1.5	1.5	2.0	2.0	1.5
127.5°	25.5	23.0	16.3	9.7	3.6	1.5	1.5	2.0	2.0	2.0	1.5
130°	14.3	12.8	9.7	5.6	1.5	1.5	1.5	2.0	2.0	2.0	1.5
132.5°	8.2	7.7	5.1	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	2.6	2.6	2.0
137.5°	0.5	0.5	1.0	1.0	1.5	1.5	2.0	2.6	2.6	2.6	2.0
140°	0.5	0.5	1.0	1.5	1.5	1.5	2.0	2.6	2.6	2.6	2.0
142.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.6	2.6	2.0	2.0
145°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.6	2.0	2.0	2.0
147.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.6	2.6	2.0	2.0
150°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.6	2.0	2.0	2.0
152.5°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.6	2.0	2.0	2.0
155°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.6	2.0	2.0	2.6
157.5°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.6	2.0	2.0	2.6
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	2.6	2.6	2.6	2.6
172.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.6	2.6	2.6	2.6
175°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.6	2.6	2.6	2.6
177.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.6	2.6	2.6	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°	400.9	400.9	400.9
2.5°	381.5	374.4	372.3
5°	361.1	349.3	342.7
7.5°	340.6	324.8	317.2
10°	321.8	299.3	291.1
12.5°	299.3	273.2	260.5
15°	277.8	244.1	231.9
17.5°	253.8	216.0	201.7
20°	231.4	187.9	173.1
22.5°	205.8	160.4	144.0
25°	182.8	132.8	114.4
27.5°	157.3	104.7	88.9
30°	133.3	80.2	64.4
32.5°	110.3	58.7	44.4
35°	88.9	39.8	28.1
37.5°	68.4	24.5	14.3
40°	49.5	12.8	6.6
42.5°	33.2	6.1	3.6
45°	20.4	3.1	0.0
47.5°	11.7	0.0	0.0
50°	6.1	0.0	0.0
52.5°	2.6	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	2.6
82.5°	2.0	2.6	2.6
85°	2.0	2.6	3.1
87.5°	2.6	3.1	3.6
90°	3.1	3.6	3.6
92.5°	3.1	4.1	4.1
95°	3.6	4.1	4.6
97.5°	4.1	4.6	4.6
100°	3.6	4.6	5.1
102.5°	3.1	4.6	4.6
105°	2.6	3.6	4.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.0	2.6	2.6
115°	1.5	2.0	2.6
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°	214.5	208.4	187.9	154.2	107.8	60.3	22.5	4.1	1.0	1.5	1.5
110°	186.9	181.8	160.9	128.2	86.8	44.9	14.8	2.6	1.5	1.5	1.5





107.5°	2.0	3.1	3.6
110°	2.0	2.6	3.1



(END OF REPORT)