

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: P551125

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-93-97-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: P551125
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-LD4-1STD-40-UNV-93-97-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K,
AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

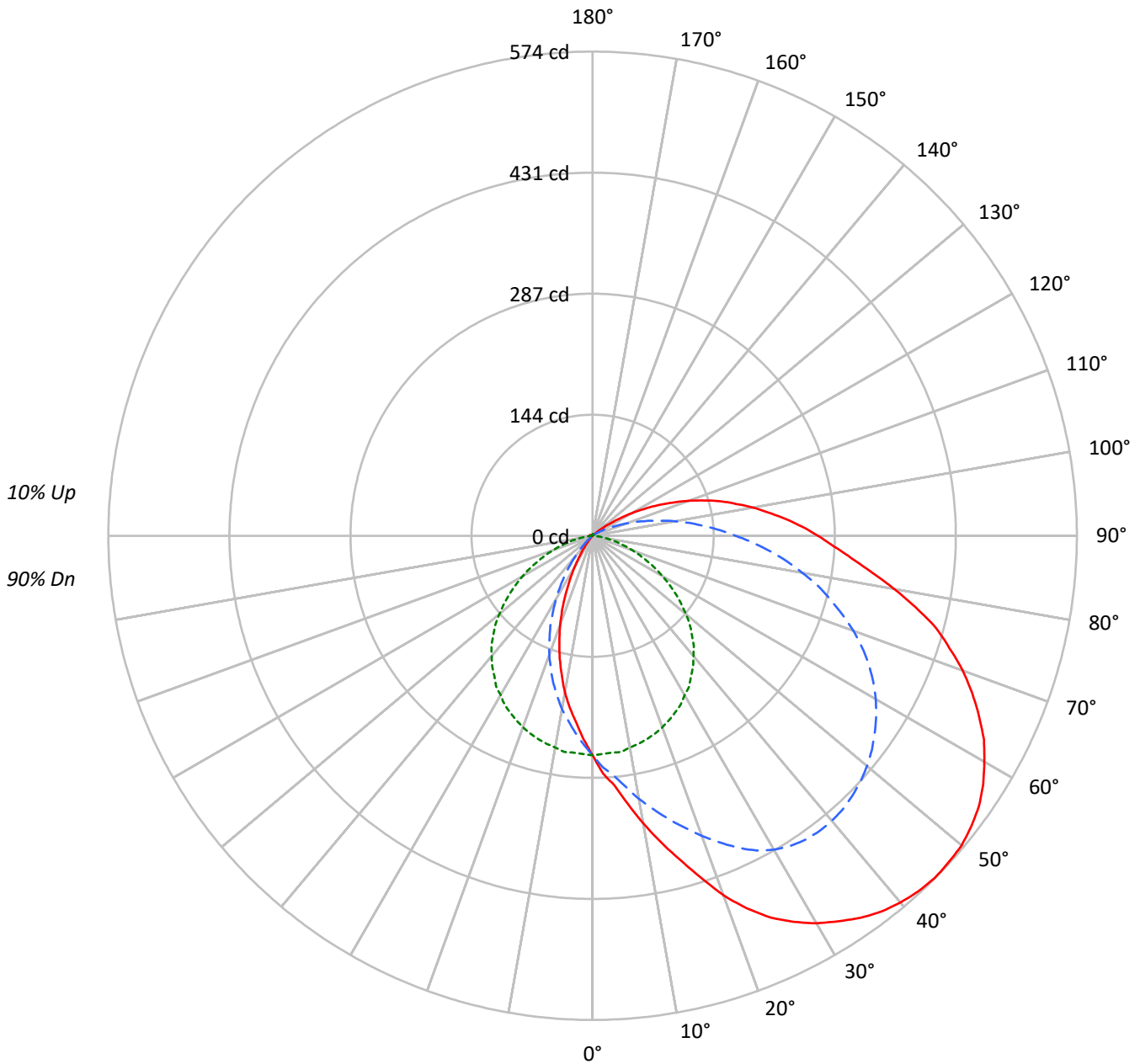
Lumens per Lamp: N/A
Luminaire Lumens: 1286.0 lumens
Efficiency: N/A
Efficacy: 77.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
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°	2800	2800	2800
5°	3074	2759	2302
10°	3478	2725	1897
15°	3898	2690	1478
20°	4396	2647	1088
25°	4810	2596	715
30°	5117	2527	403
35°	5383	2454	177
40°	5618	2364	43
45°	5821	2250	0
50°	5992	2100	0
55°	6120	1911	0
60°	6186	1688	0
65°	6211	1438	0
70°	6190	1171	0
75°	6112	865	4
80°	5865	530	27
85°	5668	254	37



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.9	1.9
10°-20°	74.6	5.8
20°-30°	120.8	9.4
30°-40°	155.2	12.1
40°-50°	175.7	13.7
50°-60°	182.0	14.2
60°-70°	171.7	13.3
70°-80°	143.9	11.2
80°-90°	104.3	8.1
90°-100°	68.5	5.3
100°-110°	39.6	3.1
110°-120°	17.5	1.4
120°-130°	4.7	0.4
130°-140°	1.1	0.1
140°-150°	0.7	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	220.3	17.1
0°-40°	375.5	29.2
0°-60°	733.2	57.0
0°-90°	1153.0	89.7
90°-120°	125.6	9.8
90°-150°	132.1	10.3
90°-180°	133.0	10.3
0°-180°	1286.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	260	260	260	260	260	
5°	297	285	258	234	222	30
15°	397	348	250	180	150	114
25°	499	408	231	119	74	231
35°	553	440	203	58	18	347
45°	574	436	166	13	0	443
55°	559	408	120	0	0	499
65°	505	361	72	0	0	500
75°	421	291	30	0	0	442
85°	308	211	5	1	2	263
90°	267	170	1	2	2	146
95°	229	132	1	2	3	180
105°	158	68	1	2	3	166
115°	86	23	1	1	2	86
125°	26	3	1	1	1	25
135°	1	1	2	1	1	2
145°	0	1	1	1	1	0
155°	1	1	1	1	0	0
165°	1	1	1	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°	260.1	260.1	260.1	260.1	260.1	260.1	260.1	260.1	260.1	260.1	260.1
2.5°	282.0	281.7	280.7	279.0	276.7	272.7	269.4	266.4	262.4	259.1	252.8
5°	296.9	295.3	293.9	292.3	287.0	283.3	277.4	270.7	264.4	258.1	245.5
7.5°	320.8	318.1	316.1	311.5	304.2	295.9	286.6	280.3	276.0	258.5	236.9
10°	346.3	344.0	340.0	331.7	322.8	310.8	297.6	282.7	269.4	254.8	229.3
12.5°	371.5	368.2	362.5	351.9	339.3	324.4	306.2	288.6	269.7	252.5	220.4
15°	396.7	393.0	387.0	374.1	357.6	338.0	315.8	293.6	271.4	249.5	211.1
17.5°	424.2	419.2	410.2	395.7	374.8	350.6	324.4	297.6	270.7	245.9	201.1
20°	453.6	446.7	437.1	417.5	393.0	364.5	333.0	301.5	270.4	241.6	189.9
22.5°	478.2	471.2	460.6	440.4	410.9	376.1	340.3	304.2	269.1	236.6	179.3
25°	499.4	493.7	482.1	459.0	427.8	388.4	347.3	306.2	267.1	231.3	168.0
27.5°	515.9	510.6	497.7	473.9	442.1	399.3	352.6	307.2	264.4	226.0	156.4
30°	530.5	525.2	509.6	485.1	451.7	407.9	357.9	307.5	261.1	218.0	143.8
32.5°	541.8	536.8	520.9	494.7	458.3	413.9	360.9	307.2	256.8	212.4	130.2
35°	553.1	548.1	529.5	501.7	463.3	416.5	363.2	305.5	251.5	203.1	117.3
37.5°	561.7	556.0	537.2	506.3	465.6	417.2	362.9	303.2	245.9	195.5	104.4
40°	567.6	561.7	541.5	509.0	466.2	416.2	360.2	299.2	239.3	185.9	90.8
42.5°	571.6	565.0	543.4	513.0	464.9	413.6	356.2	294.3	232.0	177.6	77.9
45°	573.6	566.6	543.8	509.6	462.6	408.6	350.3	288.0	224.0	166.3	64.9
47.5°	572.6	565.0	542.1	506.0	458.3	403.3	343.6	280.3	214.4	156.4	52.7
50°	571.0	563.0	538.5	501.4	452.3	396.7	336.3	271.1	204.5	144.1	41.8
52.5°	565.7	557.7	534.5	494.7	445.4	389.0	326.4	261.5	193.9	132.2	31.8
55°	559.0	551.7	527.5	488.8	436.4	379.8	317.1	251.2	183.6	120.0	22.9
57.5°	548.8	542.1	518.9	479.2	427.5	369.5	306.9	239.9	170.7	107.7	15.9
60°	536.2	529.5	507.0	468.2	417.2	357.9	295.6	228.3	159.1	95.4	9.9
62.5°	522.9	516.6	493.1	454.6	404.3	345.6	283.3	216.7	146.8	84.2	6.0
65°	505.3	499.4	478.2	438.4	390.0	332.4	269.7	202.8	134.2	71.6	3.3
67.5°	486.8	481.5	459.9	423.5	373.5	317.8	255.8	189.2	121.0	60.6	1.7
70°	466.9	460.3	440.4	403.3	356.6	301.2	240.6	175.3	108.4	50.0	0.0
72.5°	443.7	438.7	419.5	384.4	337.0	283.7	225.0	160.1	94.4	39.8	0.3
75°	421.2	414.9	397.3	364.2	317.8	265.1	207.8	145.8	80.9	30.5	0.3
77.5°	392.0	390.0	373.5	341.3	299.6	247.2	188.9	128.6	67.9	21.9	0.3
80°	362.9	360.9	347.9	318.4	278.4	226.0	171.3	112.3	55.3	14.6	0.3
82.5°	334.0	331.4	319.1	294.6	256.8	208.1	153.1	96.1	43.7	8.9	0.3
85°	308.2	304.9	291.6	269.1	234.6	187.9	134.2	80.2	32.5	5.0	0.7
87.5°	286.0	283.7	269.1	245.9	212.1	169.0	117.6	64.9	22.9	2.3	1.0
90°	267.1	262.1	249.2	224.7	190.9	148.1	100.1	52.0	15.2	1.3	1.3
92.5°	248.5	244.2	230.0	204.8	172.0	130.2	83.2	39.8	9.6	0.7	1.7
95°	229.3	224.7	210.8	187.6	152.8	112.0	68.3	29.2	5.3	0.7	1.7
97.5°	210.4	206.1	191.5	168.3	135.5	96.1	54.0	20.5	2.7	0.7	1.3
100°	192.9	187.9	174.6	151.4	118.3	80.2	41.8	13.3	1.7	0.7	1.3
102.5°	174.3	170.3	156.7	134.2	100.4	65.3	31.1	8.3	0.7	0.7	1.0
105°	157.7	152.8	139.5	116.3	85.5	51.4	21.9	5.0	0.7	0.7	1.0



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CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-93-97-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	102.7	98.7	87.2	67.6	43.4	20.2	6.0	1.0	1.0	1.0	1.0
115°	85.8	79.9	69.6	52.4	32.1	13.3	3.0	1.0	1.0	1.0	1.0
117.5°	68.6	63.6	56.3	39.8	21.2	8.6	1.7	1.0	1.0	1.0	1.0
120°	53.7	49.0	40.8	27.5	14.2	5.0	0.7	1.0	1.0	1.0	1.0
122.5°	38.4	34.8	27.5	17.9	8.6	2.3	1.0	1.0	1.3	1.3	1.0
125°	25.5	23.5	18.2	10.9	5.3	1.0	1.0	1.0	1.3	1.3	1.0
127.5°	16.6	14.9	10.6	6.3	2.3	1.0	1.0	1.3	1.3	1.3	1.0
130°	9.3	8.3	6.3	3.6	1.0	1.0	1.0	1.3	1.3	1.3	1.0
132.5°	5.3	5.0	3.3	0.7	1.0	1.0	1.0	1.3	1.3	1.3	1.3
135°	1.3	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3
137.5°	0.3	0.3	0.7	0.7	1.0	1.0	1.3	1.7	1.7	1.7	1.3
140°	0.3	0.3	0.7	1.0	1.0	1.0	1.3	1.7	1.7	1.7	1.3
142.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3	1.3
145°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.3	1.3	1.3
147.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.3	1.3
150°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.3
152.5°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.3
155°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.7
157.5°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.7	1.3	1.3	1.7
160°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
162.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
165°	0.7	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3
167.5°	0.7	0.7	0.7	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3
170°	0.7	0.7	0.7	1.0	1.0	1.0	1.3	1.7	1.7	1.7	1.7
172.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.7
175°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.7
177.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.7	1.7	1.7	1.3
180°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	260.1	260.1	260.1
2.5°	247.5	242.9	241.6
5°	234.3	226.7	222.4
7.5°	221.0	210.8	205.8
10°	208.8	194.2	188.9
12.5°	194.2	177.3	169.0
15°	180.3	158.4	150.4
17.5°	164.7	140.2	130.9
20°	150.1	121.9	112.3
22.5°	133.5	104.1	93.4
25°	118.6	86.2	74.2
27.5°	102.1	67.9	57.7
30°	86.5	52.0	41.8
32.5°	71.6	38.1	28.8
35°	57.7	25.8	18.2
37.5°	44.4	15.9	9.3
40°	32.1	8.3	4.3
42.5°	21.5	4.0	2.3
45°	13.3	2.0	0.0
47.5°	7.6	0.0	0.0
50°	4.0	0.0	0.0
52.5°	1.7	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°	0.3	0.3	0.3
77.5°	0.3	0.7	1.0
80°	0.7	1.3	1.7
82.5°	1.3	1.7	1.7
85°	1.3	1.7	2.0
87.5°	1.7	2.0	2.3
90°	2.0	2.3	2.3
92.5°	2.0	2.7	2.7
95°	2.3	2.7	3.0
97.5°	2.7	3.0	3.0
100°	2.3	3.0	3.3
102.5°	2.0	3.0	3.0
105°	1.7	2.3	2.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.3	1.7	1.7
115°	1.0	1.3	1.7
117.5°	1.0	1.3	1.3
120°	1.0	1.0	1.3
122.5°	1.0	1.0	1.3
125°	1.0	1.0	1.3
127.5°	1.3	1.0	1.0
130°	1.0	1.0	1.0
132.5°	1.3	1.0	1.0
135°	1.3	1.0	1.0
137.5°	1.3	1.0	1.0
140°	1.3	1.0	1.0
142.5°	1.3	1.0	1.0
145°	1.0	1.0	1.0
147.5°	1.0	1.0	1.0
150°	1.0	1.0	0.7
152.5°	1.0	0.7	0.7
155°	1.0	0.7	0.3
157.5°	1.3	0.7	0.3
160°	1.0	0.7	0.3
162.5°	1.0	0.7	0.3
165°	1.0	0.7	0.0
167.5°	1.0	0.7	0.3
170°	1.0	0.7	0.3
172.5°	1.0	0.7	0.3
175°	1.0	0.3	0.3
177.5°	1.0	0.3	0.3
180°	1.0	1.0	1.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	139.2	135.2	121.9	100.1	69.9	39.1	14.6	2.7	0.7	1.0	1.0
110°	121.3	118.0	104.4	83.2	56.3	29.2	9.6	1.7	1.0	1.0	1.0





107.5°	1.3	2.0	2.3
110°	1.3	1.7	2.0



(END OF REPORT)