

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: P551189

Luminaire Tested: **FCC-X-2-LD4-1STD-50-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: P551189
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-50-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 5000K,
AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

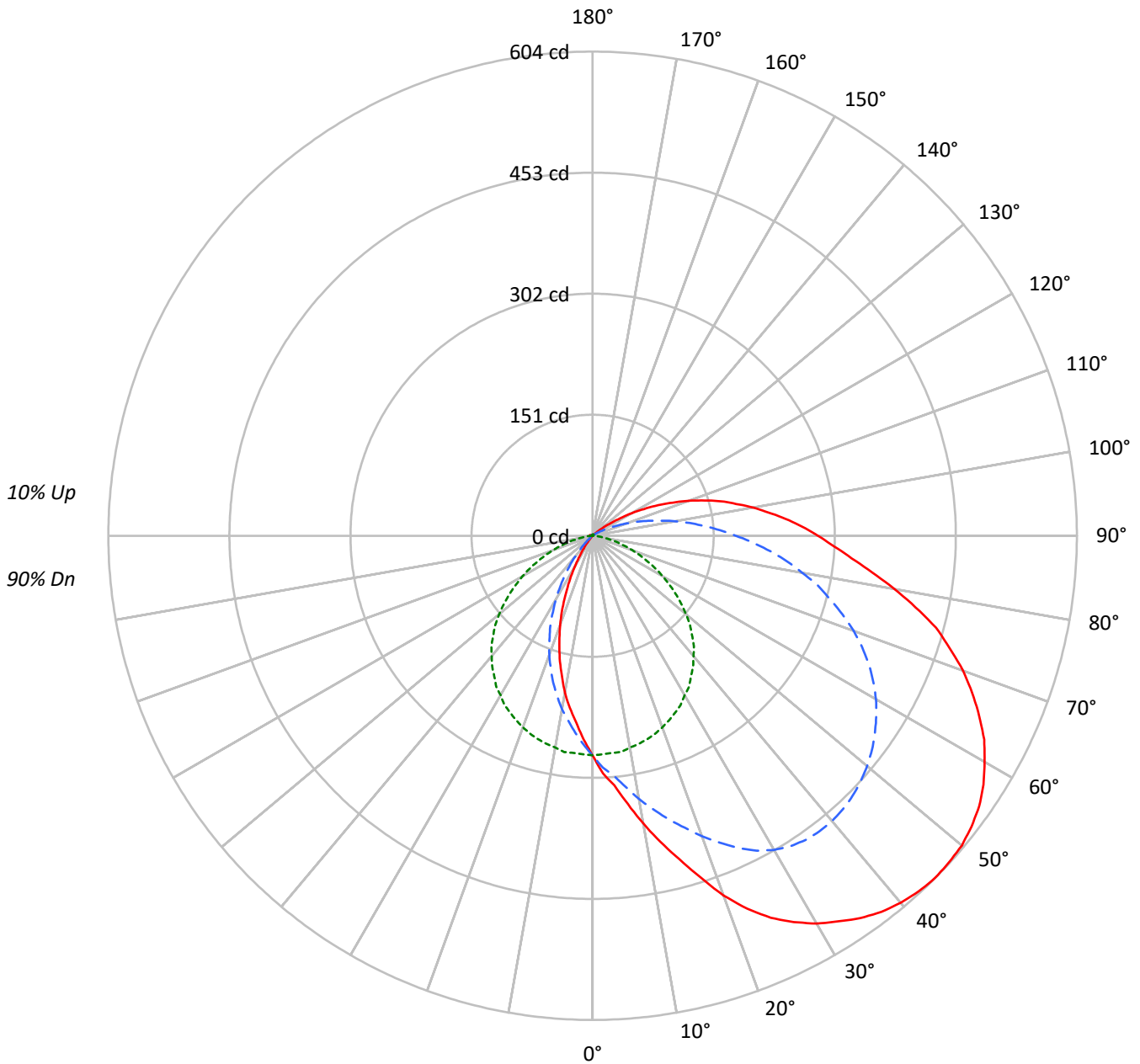
Lumens per Lamp: N/A
Luminaire Lumens: 1353.9 lumens
Efficiency: N/A
Efficacy: 81.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	2948	2948	2948
5°	3236	2905	2423
10°	3662	2869	1998
15°	4104	2833	1557
20°	4628	2786	1146
25°	5064	2733	753
30°	5388	2662	424
35°	5667	2585	187
40°	5916	2489	45
45°	6129	2369	0
50°	6307	2212	0
55°	6444	2011	0
60°	6512	1778	0
65°	6540	1514	0
70°	6518	1235	0
75°	6434	910	4
80°	6173	559	27
85°	5968	264	39



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.2	1.9
10°-20°	78.6	5.8
20°-30°	127.2	9.4
30°-40°	163.4	12.1
40°-50°	185.0	13.7
50°-60°	191.6	14.2
60°-70°	180.7	13.3
70°-80°	151.4	11.2
80°-90°	109.8	8.1
90°-100°	72.2	5.3
100°-110°	41.7	3.1
110°-120°	18.4	1.4
120°-130°	5.0	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°	232.0	17.1
0°-40°	395.4	29.2
0°-60°	772.0	57.0
0°-90°	1214.0	89.7
90°-120°	132.2	9.8
90°-150°	139.0	10.3
90°-180°	140.0	10.3
0°-180°	1353.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	274	274	274	274	274	
5°	313	300	272	247	234	32
15°	418	366	263	190	158	120
25°	526	430	244	125	78	243
35°	582	463	214	61	19	365
45°	604	459	175	14	0	466
55°	589	430	126	0	0	526
65°	532	380	75	0	0	526
75°	443	307	32	0	0	465
85°	324	222	5	1	2	277
90°	281	178	1	2	2	154
95°	241	139	1	2	3	189
105°	166	72	1	2	3	175
115°	90	24	1	1	2	91
125°	27	3	1	1	1	27
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°	273.9	273.9	273.9	273.9	273.9	273.9	273.9	273.9	273.9	273.9	273.9
2.5°	296.9	296.6	295.5	293.8	291.3	287.1	283.7	280.5	276.3	272.8	266.2
5°	312.6	310.9	309.5	307.7	302.1	298.3	292.0	285.0	278.4	271.8	258.5
7.5°	337.7	334.9	332.8	328.0	320.3	311.6	301.8	295.2	290.6	272.1	249.5
10°	364.6	362.2	358.0	349.2	339.8	327.3	313.3	297.6	283.7	268.3	241.4
12.5°	391.1	387.6	381.7	370.5	357.3	341.6	322.4	303.9	284.0	265.9	232.0
15°	417.6	413.8	407.5	393.9	376.5	355.9	332.5	309.1	285.7	262.7	222.2
17.5°	446.6	441.4	431.9	416.6	394.6	369.1	341.6	313.3	285.0	258.9	211.8
20°	477.6	470.3	460.2	439.6	413.8	383.8	350.6	317.5	284.7	254.3	199.9
22.5°	503.5	496.1	485.0	463.7	432.6	396.0	358.3	320.3	283.3	249.1	188.8
25°	525.8	519.9	507.6	483.2	450.4	408.9	365.6	322.4	281.2	243.5	176.9
27.5°	543.2	537.6	524.0	498.9	465.4	420.4	371.2	323.4	278.4	237.9	164.7
30°	558.6	553.0	536.6	510.8	475.5	429.5	376.8	323.8	274.9	229.6	151.4
32.5°	570.4	565.2	548.5	520.9	482.5	435.8	379.9	323.4	270.4	223.6	137.1
35°	582.3	577.1	557.5	528.2	487.8	438.6	382.4	321.7	264.8	213.9	123.5
37.5°	591.4	585.4	565.6	533.1	490.2	439.3	382.0	319.2	258.9	205.8	109.9
40°	597.7	591.4	570.1	535.9	490.9	438.2	379.2	315.1	251.9	195.7	95.6
42.5°	601.8	594.9	572.2	540.1	489.5	435.4	375.1	309.8	244.2	187.0	82.0
45°	603.9	596.6	572.5	536.6	487.1	430.2	368.8	303.2	235.9	175.1	68.4
47.5°	602.9	594.9	570.8	532.8	482.5	424.6	361.8	295.2	225.7	164.7	55.5
50°	601.1	592.8	567.0	527.9	476.2	417.6	354.1	285.4	215.3	151.8	44.0
52.5°	595.6	587.2	562.8	520.9	468.9	409.6	343.7	275.3	204.1	139.2	33.5
55°	588.6	580.9	555.4	514.6	459.5	399.8	333.9	264.5	193.3	126.3	24.1
57.5°	577.8	570.8	546.4	504.5	450.1	389.0	323.1	252.6	179.7	113.4	16.7
60°	564.5	557.5	533.8	493.0	439.3	376.8	311.2	240.4	167.5	100.5	10.5
62.5°	550.6	543.9	519.2	478.7	425.7	363.9	298.3	228.2	154.6	88.6	6.3
65°	532.1	525.8	503.5	461.6	410.6	349.9	284.0	213.5	141.3	75.4	3.5
67.5°	512.5	506.9	484.3	445.9	393.2	334.6	269.3	199.2	127.3	63.8	1.7
70°	491.6	484.6	463.7	424.6	375.4	317.1	253.3	184.6	114.1	52.7	0.0
72.5°	467.2	461.9	441.7	404.7	354.8	298.7	236.9	168.5	99.4	41.9	0.3
75°	443.4	436.8	418.3	383.4	334.6	279.1	218.8	153.5	85.1	32.1	0.3
77.5°	412.7	410.6	393.2	359.4	315.4	260.3	198.9	135.4	71.5	23.0	0.3
80°	382.0	379.9	366.3	335.3	293.1	237.9	180.4	118.3	58.3	15.4	0.3
82.5°	351.7	348.9	336.0	310.2	270.4	219.1	161.2	101.2	46.1	9.4	0.3
85°	324.5	321.0	307.0	283.3	247.0	197.8	141.3	84.4	34.2	5.2	0.7
87.5°	301.1	298.7	283.3	258.9	223.3	177.9	123.9	68.4	24.1	2.4	1.0
90°	281.2	276.0	262.4	236.6	201.0	156.0	105.4	54.8	16.0	1.4	1.4
92.5°	261.7	257.1	242.1	215.6	181.1	137.1	87.6	41.9	10.1	0.7	1.7
95°	241.4	236.6	221.9	197.5	160.8	117.9	71.9	30.7	5.6	0.7	1.7
97.5°	221.5	217.0	201.7	177.2	142.7	101.2	56.9	21.6	2.8	0.7	1.4
100°	203.1	197.8	183.9	159.4	124.6	84.4	44.0	14.0	1.7	0.7	1.4
102.5°	183.5	179.3	165.0	141.3	105.7	68.7	32.8	8.7	0.7	0.7	1.0
105°	166.1	160.8	146.9	122.5	90.0	54.1	23.0	5.2	0.7	0.7	1.0



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	108.2	104.0	91.8	71.2	45.7	21.3	6.3	1.0	1.0	1.0	1.0
115°	90.4	84.1	73.3	55.1	33.8	14.0	3.1	1.0	1.0	1.0	1.0
117.5°	72.2	67.0	59.3	41.9	22.3	9.1	1.7	1.0	1.0	1.0	1.0
120°	56.5	51.6	42.9	29.0	15.0	5.2	0.7	1.0	1.0	1.0	1.0
122.5°	40.5	36.6	29.0	18.8	9.1	2.4	1.0	1.0	1.4	1.4	1.0
125°	26.9	24.8	19.2	11.5	5.6	1.0	1.0	1.0	1.4	1.4	1.0
127.5°	17.4	15.7	11.2	6.6	2.4	1.0	1.0	1.4	1.4	1.4	1.0
130°	9.8	8.7	6.6	3.8	1.0	1.0	1.0	1.4	1.4	1.4	1.0
132.5°	5.6	5.2	3.5	0.7	1.0	1.0	1.0	1.4	1.4	1.4	1.4
135°	1.4	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.4
137.5°	0.3	0.3	0.7	0.7	1.0	1.0	1.4	1.7	1.7	1.7	1.4
140°	0.3	0.3	0.7	1.0	1.0	1.0	1.4	1.7	1.7	1.7	1.4
142.5°	0.3	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.4	1.4
145°	0.3	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.4	1.4	1.4
147.5°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.4	1.4
150°	0.3	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.4
152.5°	0.3	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.4
155°	0.7	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.7
157.5°	0.7	0.7	0.7	1.0	1.4	1.4	1.4	1.7	1.4	1.4	1.7
160°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.4	1.4	1.4	1.4
162.5°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.4	1.4	1.4	1.4
165°	0.7	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.4	1.4	1.4
167.5°	0.7	0.7	0.7	1.0	1.0	1.0	1.4	1.4	1.4	1.4	1.4
170°	0.7	0.7	0.7	1.0	1.0	1.0	1.4	1.7	1.7	1.7	1.7
172.5°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.7	1.7
175°	0.7	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.7	1.7
177.5°	0.3	0.7	0.7	1.0	1.0	1.4	1.4	1.7	1.7	1.7	1.4
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°	273.9	273.9	273.9
2.5°	260.6	255.7	254.3
5°	246.7	238.6	234.1
7.5°	232.7	221.9	216.7
10°	219.8	204.5	198.9
12.5°	204.5	186.7	177.9
15°	189.8	166.8	158.4
17.5°	173.4	147.6	137.8
20°	158.0	128.4	118.3
22.5°	140.6	109.6	98.4
25°	124.9	90.7	78.2
27.5°	107.5	71.5	60.7
30°	91.1	54.8	44.0
32.5°	75.4	40.1	30.4
35°	60.7	27.2	19.2
37.5°	46.8	16.7	9.8
40°	33.8	8.7	4.5
42.5°	22.7	4.2	2.4
45°	14.0	2.1	0.0
47.5°	8.0	0.0	0.0
50°	4.2	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	1.4	1.7
82.5°	1.4	1.7	1.7
85°	1.4	1.7	2.1
87.5°	1.7	2.1	2.4
90°	2.1	2.4	2.4
92.5°	2.1	2.8	2.8
95°	2.4	2.8	3.1
97.5°	2.8	3.1	3.1
100°	2.4	3.1	3.5
102.5°	2.1	3.1	3.1
105°	1.7	2.4	2.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.4	1.7	1.7
115°	1.0	1.4	1.7
117.5°	1.0	1.4	1.4
120°	1.0	1.0	1.4
122.5°	1.0	1.0	1.4
125°	1.0	1.0	1.4
127.5°	1.4	1.0	1.0
130°	1.0	1.0	1.0
132.5°	1.4	1.0	1.0
135°	1.4	1.0	1.0
137.5°	1.4	1.0	1.0
140°	1.4	1.0	1.0
142.5°	1.4	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°	1.4	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°	146.5	142.3	128.4	105.4	73.6	41.2	15.4	2.8	0.7	1.0	1.0
110°	127.7	124.2	109.9	87.6	59.3	30.7	10.1	1.7	1.0	1.0	1.0





107.5°	1.4	2.1	2.4
110°	1.4	1.7	2.1



(END OF REPORT)