

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: P551123

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-93-96-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: P551123
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-93-96-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 4000K,
AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

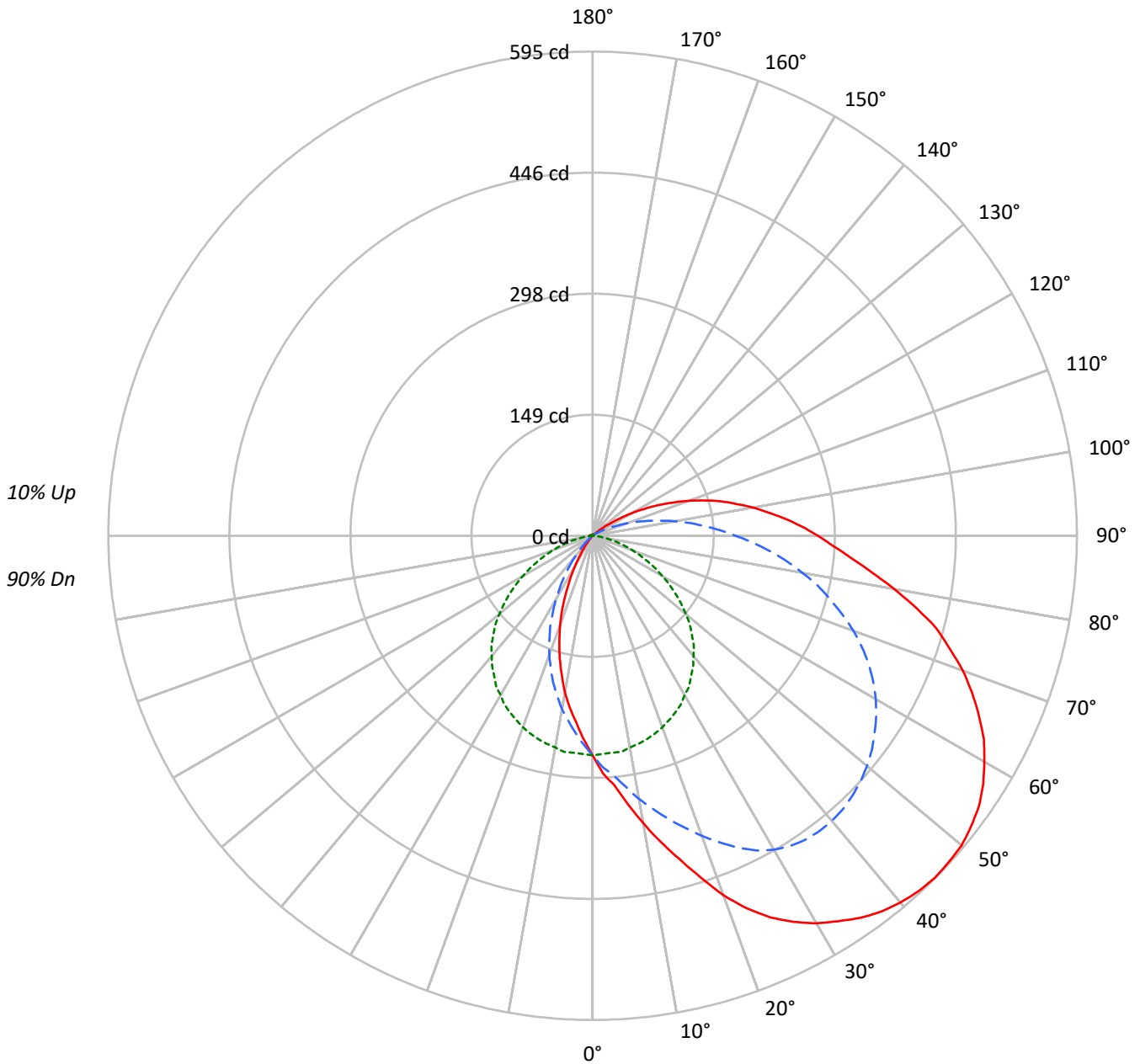
Lumens per Lamp: N/A
Luminaire Lumens: 1333.0 lumens
Efficiency: N/A
Efficacy: 79.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (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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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°	2902	2902	2902
5°	3186	2860	2386
10°	3605	2824	1967
15°	4040	2788	1532
20°	4557	2743	1128
25°	4985	2691	741
30°	5304	2620	418
35°	5580	2545	184
40°	5824	2451	45
45°	6034	2333	0
50°	6210	2177	0
55°	6345	1979	0
60°	6412	1750	0
65°	6438	1490	0
70°	6417	1216	0
75°	6335	896	4
80°	6078	548	27
85°	5874	264	39



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.8	1.9
10°-20°	77.3	5.8
20°-30°	125.2	9.4
30°-40°	160.9	12.1
40°-50°	182.1	13.7
50°-60°	188.7	14.2
60°-70°	177.9	13.3
70°-80°	149.1	11.2
80°-90°	108.1	8.1
90°-100°	71.0	5.3
100°-110°	41.0	3.1
110°-120°	18.1	1.4
120°-130°	4.9	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°	228.4	17.1
0°-40°	389.3	29.2
0°-60°	760.0	57.0
0°-90°	1195.1	89.7
90°-120°	130.2	9.8
90°-150°	136.9	10.3
90°-180°	138.0	10.4
0°-180°	1333.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	270	270	270	270	270	
5°	308	296	268	243	230	31
15°	411	360	259	187	156	119
25°	518	423	240	123	77	239
35°	573	456	211	60	19	360
45°	595	452	172	14	0	459
55°	580	423	124	0	0	517
65°	524	374	74	0	0	518
75°	437	302	32	0	0	458
85°	319	219	5	1	2	273
90°	277	176	1	2	2	152
95°	238	137	1	2	3	186
105°	164	71	1	2	3	173
115°	89	24	1	1	2	89
125°	26	3	1	1	1	26
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°	269.6	269.6	269.6	269.6	269.6	269.6	269.6	269.6	269.6	269.6	269.6
2.5°	292.3	292.0	290.9	289.2	286.8	282.7	279.3	276.2	272.0	268.6	262.1
5°	307.8	306.0	304.7	303.0	297.5	293.7	287.5	280.6	274.1	267.6	254.5
7.5°	332.5	329.7	327.7	322.9	315.3	306.7	297.1	290.6	286.1	267.9	245.6
10°	358.9	356.5	352.4	343.8	334.6	322.2	308.4	293.0	279.3	264.1	237.7
12.5°	385.0	381.6	375.8	364.8	351.7	336.3	317.4	299.2	279.6	261.7	228.4
15°	411.1	407.4	401.2	387.8	370.6	350.4	327.3	304.3	281.3	258.6	218.8
17.5°	439.7	434.5	425.2	410.1	388.5	363.4	336.3	308.4	280.6	254.9	208.5
20°	470.2	463.0	453.1	432.8	407.4	377.8	345.2	312.6	280.3	250.4	196.8
22.5°	495.6	488.4	477.4	456.5	425.9	389.9	352.8	315.3	278.9	245.2	185.8
25°	517.6	511.8	499.8	475.7	443.4	402.6	360.0	317.4	276.8	239.8	174.1
27.5°	534.8	529.3	515.9	491.2	458.2	413.9	365.5	318.4	274.1	234.3	162.1
30°	549.9	544.4	528.3	502.9	468.2	422.8	371.0	318.8	270.7	226.0	149.1
32.5°	561.6	556.4	540.0	512.8	475.0	429.0	374.1	318.4	266.2	220.2	135.0
35°	573.3	568.1	548.9	520.0	480.2	431.8	376.5	316.7	260.7	210.6	121.6
37.5°	582.2	576.4	556.8	524.8	482.6	432.4	376.1	314.3	254.9	202.7	108.2
40°	588.4	582.2	561.3	527.6	483.3	431.4	373.4	310.2	248.0	192.7	94.1
42.5°	592.5	585.6	563.3	531.7	481.9	428.7	369.2	305.0	240.4	184.1	80.7
45°	594.6	587.4	563.7	528.3	479.5	423.5	363.1	298.5	232.2	172.4	67.3
47.5°	593.5	585.6	561.9	524.5	475.0	418.0	356.2	290.6	222.2	162.1	54.6
50°	591.8	583.6	558.2	519.7	468.9	411.1	348.6	281.0	211.9	149.4	43.3
52.5°	586.3	578.1	554.0	512.8	461.6	403.2	338.3	271.0	200.9	137.0	33.0
55°	579.5	571.9	546.8	506.6	452.4	393.6	328.7	260.4	190.3	124.3	23.7
57.5°	568.8	561.9	537.9	496.7	443.1	383.0	318.1	248.7	176.9	111.6	16.5
60°	555.8	548.9	525.5	485.3	432.4	371.0	306.4	236.7	164.9	98.9	10.3
62.5°	542.0	535.5	511.1	471.3	419.0	358.3	293.7	224.6	152.2	87.2	6.2
65°	523.8	517.6	495.6	454.4	404.3	344.5	279.6	210.2	139.1	74.2	3.4
67.5°	504.6	499.1	476.8	439.0	387.1	329.4	265.2	196.1	125.4	62.9	1.7
70°	484.0	477.1	456.5	418.0	369.6	312.2	249.4	181.7	112.3	51.9	0.0
72.5°	459.9	454.8	434.8	398.4	349.3	294.0	233.2	165.9	97.9	41.2	0.3
75°	436.6	430.0	411.8	377.5	329.4	274.8	215.4	151.1	83.8	31.6	0.3
77.5°	406.3	404.3	387.1	353.8	310.5	256.2	195.8	133.3	70.4	22.7	0.3
80°	376.1	374.1	360.7	330.1	288.5	234.3	177.6	116.4	57.4	15.1	0.3
82.5°	346.2	343.5	330.8	305.4	266.2	215.7	158.7	99.6	45.3	9.3	0.3
85°	319.4	316.0	302.3	278.9	243.2	194.8	139.1	83.1	33.7	5.2	0.7
87.5°	296.4	294.0	278.9	254.9	219.8	175.2	121.9	67.3	23.7	2.4	1.0
90°	276.8	271.7	258.3	232.9	197.8	153.5	103.7	53.9	15.8	1.4	1.4
92.5°	257.6	253.1	238.4	212.3	178.3	135.0	86.2	41.2	10.0	0.7	1.7
95°	237.7	232.9	218.5	194.4	158.3	116.1	70.8	30.2	5.5	0.7	1.7
97.5°	218.1	213.6	198.5	174.5	140.5	99.6	56.0	21.3	2.7	0.7	1.4
100°	199.9	194.8	181.0	157.0	122.6	83.1	43.3	13.7	1.7	0.7	1.4
102.5°	180.7	176.6	162.5	139.1	104.1	67.7	32.3	8.6	0.7	0.7	1.0
105°	163.5	158.3	144.6	120.6	88.6	53.2	22.7	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°	106.5	102.4	90.3	70.1	45.0	21.0	6.2	1.0	1.0	1.0	1.0
115°	89.0	82.8	72.1	54.3	33.3	13.7	3.1	1.0	1.0	1.0	1.0
117.5°	71.1	65.9	58.4	41.2	22.0	8.9	1.7	1.0	1.0	1.0	1.0
120°	55.6	50.8	42.2	28.5	14.8	5.2	0.7	1.0	1.0	1.0	1.0
122.5°	39.8	36.1	28.5	18.5	8.9	2.4	1.0	1.0	1.4	1.4	1.0
125°	26.4	24.4	18.9	11.3	5.5	1.0	1.0	1.0	1.4	1.4	1.0
127.5°	17.2	15.5	11.0	6.5	2.4	1.0	1.0	1.4	1.4	1.4	1.0
130°	9.6	8.6	6.5	3.8	1.0	1.0	1.0	1.4	1.4	1.4	1.0
132.5°	5.5	5.2	3.4	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°	269.6	269.6	269.6
2.5°	256.6	251.8	250.4
5°	242.8	234.9	230.5
7.5°	229.1	218.5	213.3
10°	216.4	201.3	195.8
12.5°	201.3	183.8	175.2
15°	186.9	164.2	155.9
17.5°	170.7	145.3	135.7
20°	155.6	126.4	116.4
22.5°	138.4	107.9	96.9
25°	123.0	89.3	76.9
27.5°	105.8	70.4	59.8
30°	89.6	53.9	43.3
32.5°	74.2	39.5	29.9
35°	59.8	26.8	18.9
37.5°	46.0	16.5	9.6
40°	33.3	8.6	4.5
42.5°	22.3	4.1	2.4
45°	13.7	2.1	0.0
47.5°	7.9	0.0	0.0
50°	4.1	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	2.7	2.7
95°	2.4	2.7	3.1
97.5°	2.7	3.1	3.1
100°	2.4	3.1	3.4
102.5°	2.1	3.1	3.1
105°	1.7	2.4	2.7



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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°	144.3	140.1	126.4	103.7	72.5	40.5	15.1	2.7	0.7	1.0	1.0
110°	125.7	122.3	108.2	86.2	58.4	30.2	10.0	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)