

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: P551117

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-93-87-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: P551117
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-93-87-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 90 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

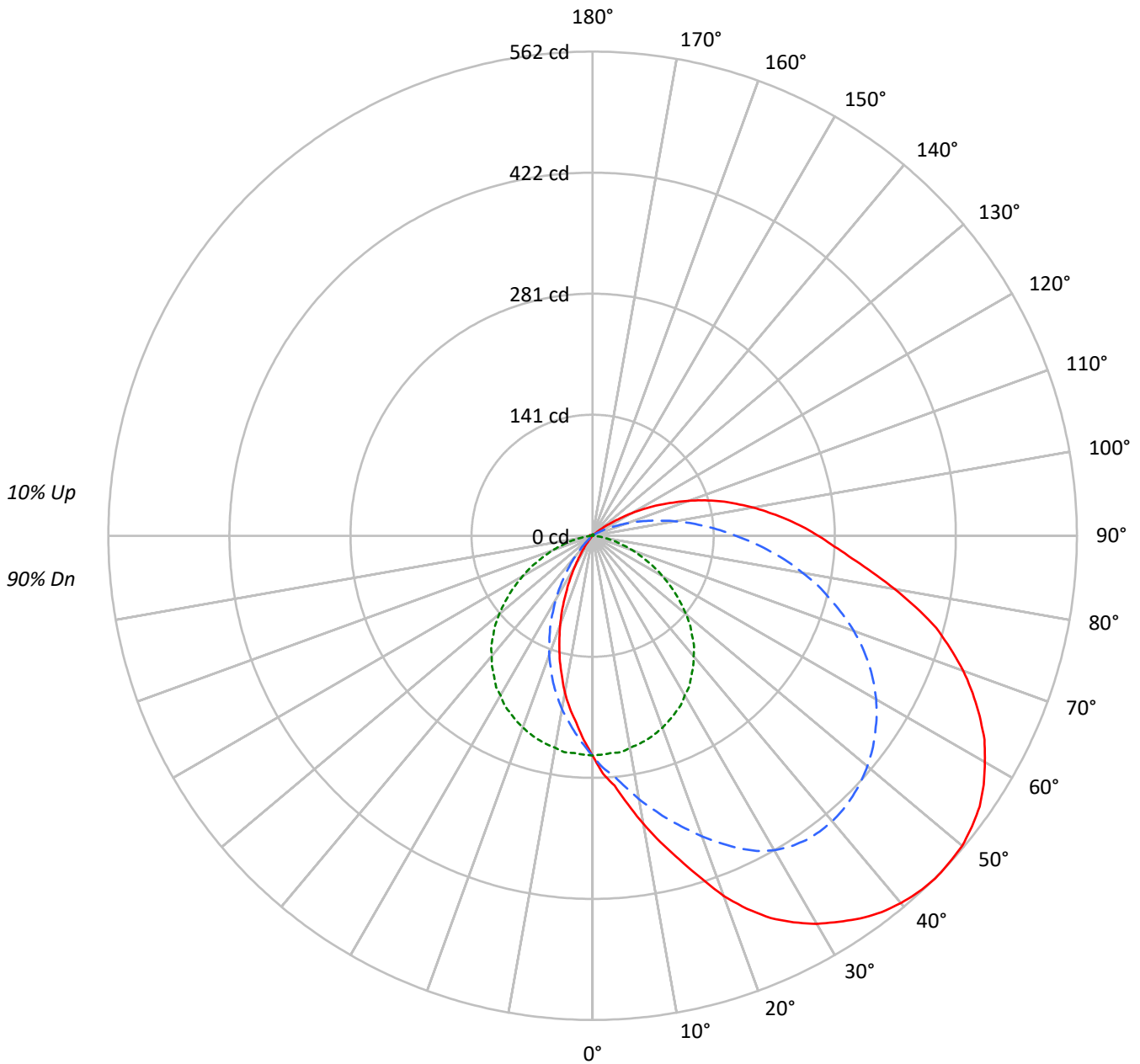
Lumens per Lamp: N/A
Luminaire Lumens: 1261.0 lumens
Efficiency: N/A
Efficacy: 75.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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°	2746	2746	2746
5°	3014	2705	2257
10°	3411	2672	1860
15°	3822	2638	1449
20°	4311	2596	1068
25°	4716	2545	701
30°	5017	2478	394
35°	5278	2407	174
40°	5509	2318	42
45°	5708	2207	0
50°	5875	2059	0
55°	6002	1873	0
60°	6065	1656	0
65°	6090	1410	0
70°	6070	1150	0
75°	5993	848	4
80°	5750	519	26
85°	5558	249	35



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.4	1.9
10°-20°	73.2	5.8
20°-30°	118.5	9.4
30°-40°	152.2	12.1
40°-50°	172.3	13.7
50°-60°	178.5	14.2
60°-70°	168.3	13.3
70°-80°	141.0	11.2
80°-90°	102.2	8.1
90°-100°	67.2	5.3
100°-110°	38.8	3.1
110°-120°	17.1	1.4
120°-130°	4.6	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°	216.1	17.1
0°-40°	368.2	29.2
0°-60°	719.0	57.0
0°-90°	1130.6	89.7
90°-120°	123.1	9.8
90°-150°	129.5	10.3
90°-180°	130.0	10.3
0°-180°	1261.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	255	255	255	255	255	
5°	291	280	253	230	218	29
15°	389	341	245	177	148	112
25°	490	400	227	116	73	226
35°	542	431	199	56	18	340
45°	562	427	163	13	0	434
55°	548	400	118	0	0	490
65°	496	354	70	0	0	490
75°	413	286	30	0	0	433
85°	302	207	5	1	2	258
90°	262	166	1	2	2	144
95°	225	130	1	2	3	176
105°	155	67	1	2	3	163
115°	84	22	1	1	2	84
125°	25	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°	255.1	255.1	255.1	255.1	255.1	255.1	255.1	255.1	255.1	255.1	255.1
2.5°	276.5	276.2	275.2	273.6	271.3	267.4	264.2	261.2	257.3	254.1	247.9
5°	291.1	289.5	288.2	286.6	281.4	277.8	272.0	265.5	259.3	253.1	240.8
7.5°	314.5	311.9	310.0	305.4	298.3	290.2	281.1	274.9	270.7	253.4	232.3
10°	339.6	337.3	333.4	325.3	316.5	304.8	291.8	277.2	264.2	249.9	224.9
12.5°	364.2	361.0	355.5	345.1	332.7	318.1	300.2	283.0	264.5	247.6	216.1
15°	388.9	385.4	379.5	366.8	350.6	331.4	309.7	287.9	266.1	244.7	207.0
17.5°	415.9	411.0	402.3	388.0	367.5	343.8	318.1	291.8	265.5	241.1	197.2
20°	444.8	438.0	428.6	409.4	385.4	357.4	326.6	295.7	265.1	236.9	186.2
22.5°	468.9	462.1	451.7	431.8	402.9	368.8	333.7	298.3	263.8	232.0	175.8
25°	489.7	484.1	472.8	450.0	419.5	380.8	340.5	300.2	261.9	226.8	164.7
27.5°	505.9	500.7	488.0	464.6	433.5	391.5	345.7	301.2	259.3	221.6	153.4
30°	520.2	515.0	499.7	475.7	442.9	400.0	350.9	301.5	256.0	213.8	141.0
32.5°	531.3	526.4	510.8	485.1	449.4	405.8	353.8	301.2	251.8	208.3	127.7
35°	542.3	537.4	519.2	491.9	454.3	408.4	356.1	299.6	246.6	199.2	115.0
37.5°	550.8	545.2	526.7	496.5	456.5	409.1	355.8	297.3	241.1	191.7	102.4
40°	556.6	550.8	530.9	499.1	457.2	408.1	353.2	293.4	234.6	182.3	89.0
42.5°	560.5	554.0	532.9	503.0	455.9	405.5	349.3	288.5	227.5	174.2	76.4
45°	562.5	555.6	533.2	499.7	453.6	400.6	343.5	282.4	219.7	163.1	63.7
47.5°	561.5	554.0	531.6	496.2	449.4	395.4	337.0	274.9	210.2	153.4	51.7
50°	559.9	552.1	528.0	491.6	443.5	388.9	329.8	265.8	200.5	141.3	40.9
52.5°	554.7	546.9	524.1	485.1	436.7	381.5	320.1	256.4	190.1	129.6	31.2
55°	548.2	541.0	517.3	479.3	427.9	372.4	311.0	246.3	180.0	117.6	22.4
57.5°	538.1	531.6	508.8	469.8	419.2	362.3	300.9	235.2	167.3	105.6	15.6
60°	525.7	519.2	497.1	459.1	409.1	350.9	289.8	223.9	156.0	93.6	9.7
62.5°	512.7	506.6	483.5	445.8	396.4	338.9	277.8	212.5	143.9	82.5	5.8
65°	495.5	489.7	468.9	429.9	382.4	325.9	264.5	198.9	131.6	70.2	3.2
67.5°	477.3	472.1	451.0	415.3	366.2	311.6	250.8	185.5	118.6	59.5	1.6
70°	457.8	451.3	431.8	395.4	349.6	295.4	235.9	171.9	106.3	49.1	0.0
72.5°	435.1	430.2	411.4	376.9	330.5	278.1	220.6	156.9	92.6	39.0	0.3
75°	413.0	406.8	389.6	357.1	311.6	259.9	203.7	143.0	79.3	29.9	0.3
77.5°	384.4	382.4	366.2	334.7	293.7	242.4	185.2	126.1	66.6	21.4	0.3
80°	355.8	353.8	341.2	312.3	272.9	221.6	168.0	110.2	54.3	14.3	0.3
82.5°	327.5	324.9	312.9	288.9	251.8	204.1	150.1	94.2	42.9	8.8	0.3
85°	302.2	298.9	285.9	263.8	230.1	184.2	131.6	78.6	31.8	4.9	0.6
87.5°	280.4	278.1	263.8	241.1	208.0	165.7	115.4	63.7	22.4	2.3	1.0
90°	261.9	257.0	244.3	220.3	187.2	145.2	98.1	51.0	14.9	1.3	1.3
92.5°	243.7	239.5	225.5	200.8	168.6	127.7	81.6	39.0	9.4	0.6	1.6
95°	224.9	220.3	206.7	183.9	149.8	109.8	66.9	28.6	5.2	0.6	1.6
97.5°	206.3	202.1	187.8	165.1	132.9	94.2	53.0	20.1	2.6	0.6	1.3
100°	189.1	184.2	171.2	148.5	116.0	78.6	40.9	13.0	1.6	0.6	1.3
102.5°	170.9	167.0	153.7	131.6	98.5	64.0	30.5	8.1	0.6	0.6	1.0
105°	154.7	149.8	136.8	114.1	83.8	50.4	21.4	4.9	0.6	0.6	1.0



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CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-93-87-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	100.7	96.8	85.5	66.3	42.6	19.8	5.8	1.0	1.0	1.0	1.0
115°	84.2	78.3	68.2	51.3	31.5	13.0	2.9	1.0	1.0	1.0	1.0
117.5°	67.3	62.4	55.2	39.0	20.8	8.4	1.6	1.0	1.0	1.0	1.0
120°	52.6	48.1	40.0	27.0	14.0	4.9	0.6	1.0	1.0	1.0	1.0
122.5°	37.7	34.1	27.0	17.5	8.4	2.3	1.0	1.0	1.3	1.3	1.0
125°	25.0	23.1	17.9	10.7	5.2	1.0	1.0	1.0	1.3	1.3	1.0
127.5°	16.2	14.6	10.4	6.2	2.3	1.0	1.0	1.3	1.3	1.3	1.0
130°	9.1	8.1	6.2	3.6	1.0	1.0	1.0	1.3	1.3	1.3	1.0
132.5°	5.2	4.9	3.2	0.6	1.0	1.0	1.0	1.3	1.3	1.3	1.3
135°	1.3	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.3
137.5°	0.3	0.3	0.6	0.6	1.0	1.0	1.3	1.6	1.6	1.6	1.3
140°	0.3	0.3	0.6	1.0	1.0	1.0	1.3	1.6	1.6	1.6	1.3
142.5°	0.3	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.3	1.3
145°	0.3	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.3	1.3	1.3
147.5°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.3	1.3
150°	0.3	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.3
152.5°	0.3	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.3
155°	0.6	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.6
157.5°	0.6	0.6	0.6	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.6
160°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
162.5°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
165°	0.6	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.3	1.3	1.3
167.5°	0.6	0.6	0.6	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3
170°	0.6	0.6	0.6	1.0	1.0	1.0	1.3	1.6	1.6	1.6	1.6
172.5°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.6
175°	0.6	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.6
177.5°	0.3	0.6	0.6	1.0	1.0	1.3	1.3	1.6	1.6	1.6	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°	255.1	255.1	255.1
2.5°	242.7	238.2	236.9
5°	229.7	222.3	218.0
7.5°	216.7	206.7	201.8
10°	204.7	190.4	185.2
12.5°	190.4	173.8	165.7
15°	176.8	155.3	147.5
17.5°	161.5	137.4	128.3
20°	147.2	119.6	110.2
22.5°	130.9	102.0	91.6
25°	116.3	84.5	72.8
27.5°	100.1	66.6	56.5
30°	84.8	51.0	40.9
32.5°	70.2	37.4	28.3
35°	56.5	25.3	17.9
37.5°	43.5	15.6	9.1
40°	31.5	8.1	4.2
42.5°	21.1	3.9	2.3
45°	13.0	1.9	0.0
47.5°	7.5	0.0	0.0
50°	3.9	0.0	0.0
52.5°	1.6	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°	0.3	0.3	0.3
77.5°	0.3	0.6	1.0
80°	0.6	1.3	1.6
82.5°	1.3	1.6	1.6
85°	1.3	1.6	1.9
87.5°	1.6	1.9	2.3
90°	1.9	2.3	2.3
92.5°	1.9	2.6	2.6
95°	2.3	2.6	2.9
97.5°	2.6	2.9	2.9
100°	2.3	2.9	3.2
102.5°	1.9	2.9	2.9
105°	1.6	2.3	2.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.3	1.6	1.6
115°	1.0	1.3	1.6
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	0.6
152.5°	1.0	0.6	0.6
155°	1.0	0.6	0.3
157.5°	1.3	0.6	0.3
160°	1.0	0.6	0.3
162.5°	1.0	0.6	0.3
165°	1.0	0.6	0.0
167.5°	1.0	0.6	0.3
170°	1.0	0.6	0.3
172.5°	1.0	0.6	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°	136.5	132.6	119.6	98.1	68.6	38.3	14.3	2.6	0.6	1.0	1.0
110°	118.9	115.7	102.4	81.6	55.2	28.6	9.4	1.6	1.0	1.0	1.0





107.5°	1.3	1.9	2.3
110°	1.3	1.6	1.9



(END OF REPORT)