

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: P551184

Luminaire Tested: **FCC-X-2-LD4-1STD-50-UNV-93-88-ED1D**

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: P551184
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-93-88-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 5000K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

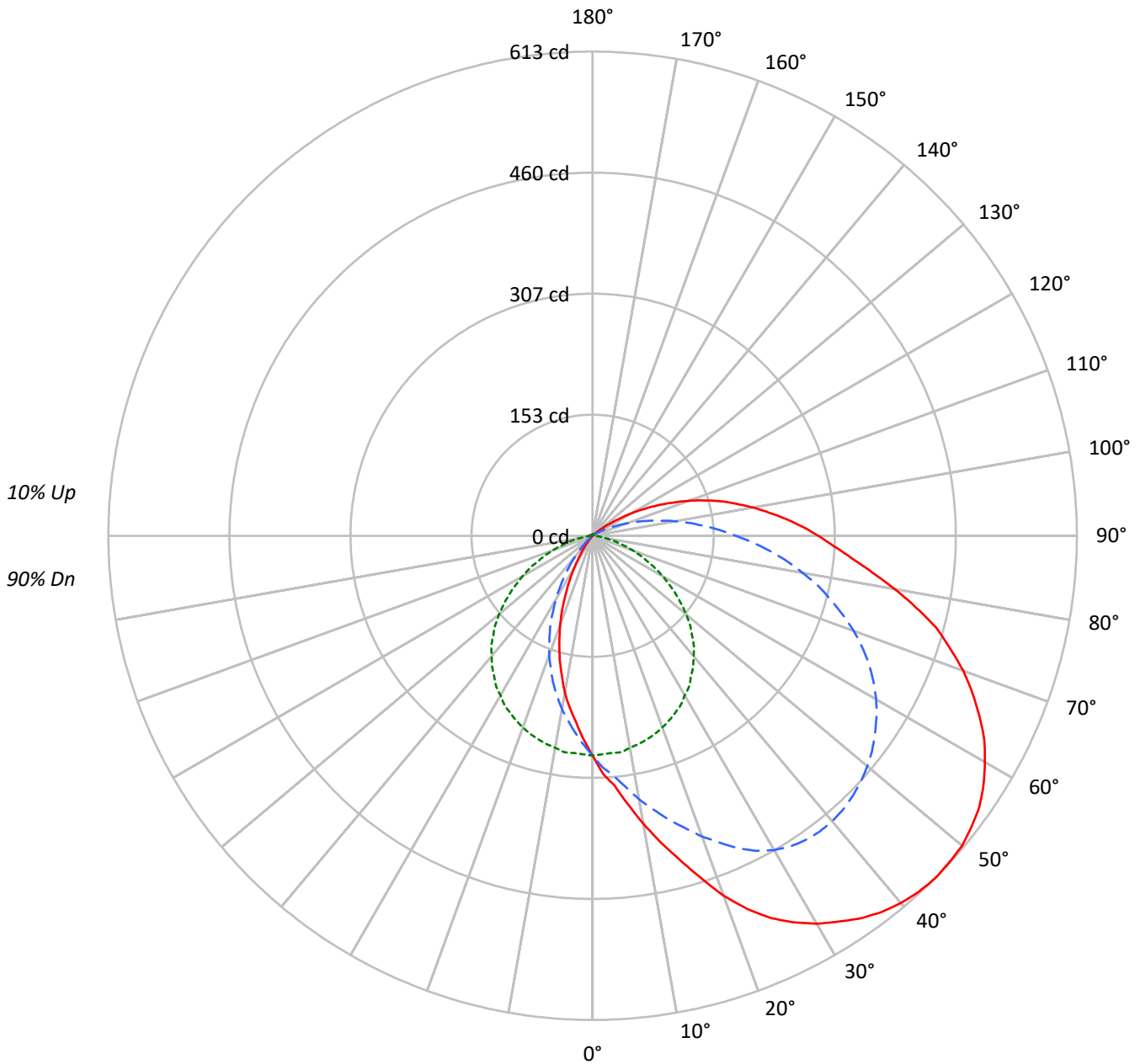
Lumens per Lamp: N/A
Luminaire Lumens: 1375.1 lumens
Efficiency: N/A
Efficacy: 82.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 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

TEST NUMBER: P551184

CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-93-88-ED1D

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°	2993	2993	2993
5°	3287	2950	2461
10°	3718	2914	2029
15°	4168	2877	1581
20°	4700	2830	1164
25°	5142	2775	765
30°	5471	2702	430
35°	5755	2624	190
40°	6007	2528	46
45°	6224	2407	0
50°	6406	2246	0
55°	6544	2043	0
60°	6614	1805	0
65°	6641	1537	0
70°	6619	1253	0
75°	6534	925	6
80°	6270	566	29
85°	6060	270	39



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.6	1.9
10°-20°	79.8	5.8
20°-30°	129.2	9.4
30°-40°	165.9	12.1
40°-50°	187.8	13.7
50°-60°	194.6	14.2
60°-70°	183.5	13.3
70°-80°	153.8	11.2
80°-90°	111.5	8.1
90°-100°	73.3	5.3
100°-110°	42.3	3.1
110°-120°	18.7	1.4
120°-130°	5.1	0.4
130°-140°	1.2	0.1
140°-150°	0.8	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	235.6	17.1
0°-40°	401.5	29.2
0°-60°	784.0	57.0
0°-90°	1232.8	89.7
90°-120°	134.3	9.8
90°-150°	141.3	10.3
90°-180°	142.0	10.3
0°-180°	1375.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	278	278	278	278	278	
5°	318	305	276	250	238	32
15°	424	372	267	193	161	122
25°	534	436	247	127	79	247
35°	591	470	217	62	20	371
45°	613	466	178	14	0	473
55°	598	436	128	0	0	534
65°	540	386	76	0	0	535
75°	450	312	33	0	0	472
85°	330	226	5	1	2	281
90°	286	181	1	2	2	157
95°	245	142	1	2	3	192
105°	169	73	1	2	3	178
115°	92	24	1	1	2	92
125°	27	3	1	1	1	27
135°	1	1	2	1	1	3
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°	278.1	278.1	278.1	278.1	278.1	278.1	278.1	278.1	278.1	278.1	278.1
2.5°	301.5	301.2	300.1	298.3	295.8	291.6	288.1	284.9	280.6	277.1	270.3
5°	317.5	315.7	314.3	312.5	306.8	302.9	296.6	289.5	282.7	276.0	262.5
7.5°	343.0	340.1	338.0	333.0	325.3	316.4	306.5	299.7	295.1	276.4	253.3
10°	370.2	367.8	363.5	354.7	345.1	332.3	318.2	302.2	288.1	272.5	245.2
12.5°	397.2	393.6	387.6	376.3	362.8	346.9	327.4	308.6	288.4	270.0	235.6
15°	424.1	420.2	413.8	400.0	382.3	361.4	337.7	313.9	290.2	266.8	225.7
17.5°	453.5	448.2	438.6	423.0	400.7	374.9	346.9	318.2	289.5	262.9	215.1
20°	485.0	477.6	467.3	446.4	420.2	389.7	356.1	322.4	289.1	258.3	203.0
22.5°	511.3	503.8	492.5	470.9	439.3	402.1	363.9	325.3	287.7	253.0	191.7
25°	533.9	527.9	515.5	490.7	457.4	415.2	371.3	327.4	285.6	247.3	179.6
27.5°	551.7	546.0	532.2	506.7	472.6	426.9	377.0	328.4	282.7	241.6	167.2
30°	567.2	561.6	544.9	518.7	482.9	436.1	382.6	328.8	279.2	233.1	153.8
32.5°	579.3	574.0	557.0	529.0	490.0	442.5	385.8	328.4	274.6	227.1	139.2
35°	591.3	586.0	566.2	536.4	495.3	445.4	388.3	326.7	268.9	217.2	125.4
37.5°	600.5	594.5	574.3	541.4	497.8	446.1	388.0	324.2	262.9	209.0	111.6
40°	606.9	600.5	578.9	544.2	498.5	445.0	385.1	319.9	255.8	198.8	97.1
42.5°	611.2	604.1	581.1	548.5	497.1	442.2	380.9	314.6	248.0	189.9	83.3
45°	613.3	605.9	581.4	544.9	494.6	436.9	374.5	307.9	239.5	177.9	69.4
47.5°	612.2	604.1	579.6	541.0	490.0	431.2	367.4	299.7	229.2	167.2	56.3
50°	610.5	602.0	575.7	536.1	483.6	424.1	359.6	289.8	218.6	154.1	44.6
52.5°	604.8	596.3	571.5	529.0	476.2	416.0	349.0	279.5	207.3	141.4	34.0
55°	597.7	589.9	564.1	522.6	466.6	406.0	339.1	268.6	196.3	128.3	24.4
57.5°	586.7	579.6	554.8	512.3	457.1	395.1	328.1	256.5	182.5	115.1	17.0
60°	573.3	566.2	542.1	500.6	446.1	382.6	316.0	244.1	170.1	102.0	10.6
62.5°	559.1	552.4	527.2	486.1	432.3	369.5	302.9	231.7	157.0	90.0	6.4
65°	540.3	533.9	511.3	468.7	417.0	355.4	288.4	216.8	143.5	76.5	3.5
67.5°	520.5	514.8	491.8	452.8	399.3	339.8	273.5	202.3	129.3	64.8	1.8
70°	499.2	492.1	470.9	431.2	381.2	322.1	257.2	187.4	115.9	53.5	0.0
72.5°	474.4	469.1	448.6	411.0	360.3	303.3	240.6	171.1	101.0	42.5	0.4
75°	450.3	443.6	424.8	389.4	339.8	283.4	222.1	155.9	86.5	32.6	0.4
77.5°	419.1	417.0	399.3	364.9	320.3	264.3	202.0	137.5	72.6	23.4	0.4
80°	388.0	385.8	372.0	340.5	297.6	241.6	183.2	120.1	59.2	15.6	0.4
82.5°	357.1	354.3	341.2	315.0	274.6	222.5	163.7	102.7	46.8	9.6	0.4
85°	329.5	326.0	311.8	287.7	250.8	200.9	143.5	85.7	34.7	5.3	0.7
87.5°	305.8	303.3	287.7	262.9	226.8	180.7	125.8	69.4	24.4	2.5	1.1
90°	285.6	280.3	266.4	240.2	204.1	158.4	107.0	55.6	16.3	1.4	1.4
92.5°	265.7	261.1	245.9	219.0	183.9	139.2	88.9	42.5	10.3	0.7	1.8
95°	245.2	240.2	225.3	200.5	163.3	119.8	73.0	31.2	5.7	0.7	1.8
97.5°	225.0	220.4	204.8	180.0	144.9	102.7	57.8	22.0	2.8	0.7	1.4
100°	206.2	200.9	186.7	161.9	126.5	85.7	44.6	14.2	1.8	0.7	1.4
102.5°	186.4	182.1	167.6	143.5	107.4	69.8	33.3	8.9	0.7	0.7	1.1
105°	168.6	163.3	149.2	124.4	91.4	54.9	23.4	5.3	0.7	0.7	1.1



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CATALOG NUMBER: FCC-X-2-LD4-1STD-50-UNV-93-88-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	109.8	105.6	93.2	72.3	46.4	21.6	6.4	1.1	1.1	1.1	1.1
115°	91.8	85.4	74.4	56.0	34.4	14.2	3.2	1.1	1.1	1.1	1.1
117.5°	73.3	68.0	60.2	42.5	22.7	9.2	1.8	1.1	1.1	1.1	1.1
120°	57.4	52.4	43.6	29.4	15.2	5.3	0.7	1.1	1.1	1.1	1.1
122.5°	41.1	37.2	29.4	19.1	9.2	2.5	1.1	1.1	1.4	1.4	1.1
125°	27.3	25.2	19.5	11.7	5.7	1.1	1.1	1.1	1.4	1.4	1.1
127.5°	17.7	15.9	11.3	6.7	2.5	1.1	1.1	1.4	1.4	1.4	1.1
130°	9.9	8.9	6.7	3.9	1.1	1.1	1.1	1.4	1.4	1.4	1.1
132.5°	5.7	5.3	3.5	0.7	1.1	1.1	1.1	1.4	1.4	1.4	1.4
135°	1.4	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4
137.5°	0.4	0.4	0.7	0.7	1.1	1.1	1.4	1.8	1.8	1.8	1.4
140°	0.4	0.4	0.7	1.1	1.1	1.1	1.4	1.8	1.8	1.8	1.4
142.5°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4	1.4
145°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.4	1.4	1.4
147.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.4	1.4
150°	0.4	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.4
152.5°	0.4	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.4
155°	0.7	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.8
157.5°	0.7	0.7	0.7	1.1	1.4	1.4	1.4	1.8	1.4	1.4	1.8
160°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4	1.4
162.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4	1.4
165°	0.7	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.4	1.4	1.4
167.5°	0.7	0.7	0.7	1.1	1.1	1.1	1.4	1.4	1.4	1.4	1.4
170°	0.7	0.7	0.7	1.1	1.1	1.1	1.4	1.8	1.8	1.8	1.8
172.5°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.8
175°	0.7	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.8
177.5°	0.4	0.7	0.7	1.1	1.1	1.4	1.4	1.8	1.8	1.8	1.4
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	278.1	278.1	278.1
2.5°	264.7	259.7	258.3
5°	250.5	242.3	237.7
7.5°	236.3	225.3	220.0
10°	223.2	207.6	202.0
12.5°	207.6	189.6	180.7
15°	192.7	169.4	160.9
17.5°	176.1	149.9	140.0
20°	160.5	130.4	120.1
22.5°	142.8	111.3	99.9
25°	126.8	92.1	79.4
27.5°	109.1	72.6	61.6
30°	92.5	55.6	44.6
32.5°	76.5	40.7	30.8
35°	61.6	27.6	19.5
37.5°	47.5	17.0	9.9
40°	34.4	8.9	4.6
42.5°	23.0	4.3	2.5
45°	14.2	2.1	0.0
47.5°	8.1	0.0	0.0
50°	4.3	0.0	0.0
52.5°	1.8	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°	0.4	0.4	0.4
77.5°	0.4	0.7	1.1
80°	0.7	1.4	1.8
82.5°	1.4	1.8	1.8
85°	1.4	1.8	2.1
87.5°	1.8	2.1	2.5
90°	2.1	2.5	2.5
92.5°	2.1	2.8	2.8
95°	2.5	2.8	3.2
97.5°	2.8	3.2	3.2
100°	2.5	3.2	3.5
102.5°	2.1	3.2	3.2
105°	1.8	2.5	2.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.4	1.8	1.8
115°	1.1	1.4	1.8
117.5°	1.1	1.4	1.4
120°	1.1	1.1	1.4
122.5°	1.1	1.1	1.4
125°	1.1	1.1	1.4
127.5°	1.4	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.4	1.1	1.1
135°	1.4	1.1	1.1
137.5°	1.4	1.1	1.1
140°	1.4	1.1	1.1
142.5°	1.4	1.1	1.1
145°	1.1	1.1	1.1
147.5°	1.1	1.1	1.1
150°	1.1	1.1	0.7
152.5°	1.1	0.7	0.7
155°	1.1	0.7	0.4
157.5°	1.4	0.7	0.4
160°	1.1	0.7	0.4
162.5°	1.1	0.7	0.4
165°	1.1	0.7	0.0
167.5°	1.1	0.7	0.4
170°	1.1	0.7	0.4
172.5°	1.1	0.7	0.4
175°	1.1	0.4	0.4
177.5°	1.1	0.4	0.4
180°	1.1	1.1	1.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	148.8	144.6	130.4	107.0	74.8	41.8	15.6	2.8	0.7	1.1	1.1
110°	129.7	126.1	111.6	88.9	60.2	31.2	10.3	1.8	1.1	1.1	1.1





107.5°	1.4	2.1	2.5
110°	1.4	1.8	2.1



(END OF REPORT)