

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: P551054

Luminaire Tested: **FCC-X-2-LD4-1STD-35-UNV-93-87-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: P551054
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-35-UNV-93-87-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

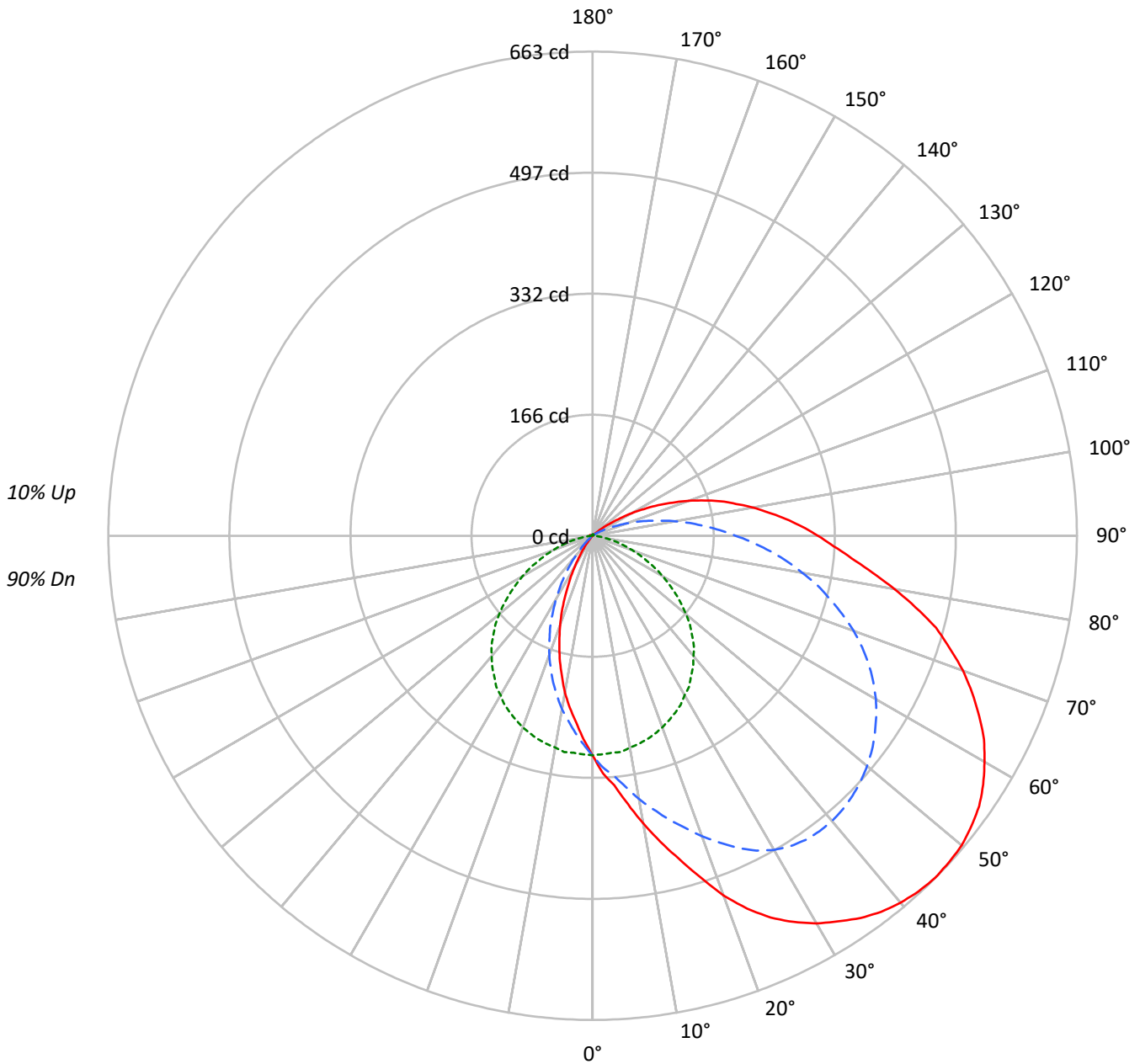
Lumens per Lamp: N/A
Luminaire Lumens: 1485.9 lumens
Efficiency: N/A
Efficacy: 89.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

TEST NUMBER: P551054

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-93-87-ED1D

Luminous Intensity Polar Plot





TEST NUMBER: P551054

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-93-87-ED1D

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20
RC	80				70				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	93	93	93	90
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	76	73	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	3236	3236	3236
5°	3552	3188	2659
10°	4019	3149	2193
15°	4504	3109	1708
20°	5080	3058	1258
25°	5557	3000	826
30°	5912	2921	465
35°	6220	2836	205
40°	6492	2732	49
45°	6726	2601	0
50°	6922	2428	0
55°	7073	2207	0
60°	7147	1952	0
65°	7177	1661	0
70°	7153	1354	0
75°	7062	998	6
80°	6776	609	31
85°	6549	290	42



TEST NUMBER: P551054

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-93-87-ED1D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.8	1.9
10°-20°	86.2	5.8
20°-30°	139.6	9.4
30°-40°	179.3	12.1
40°-50°	203.0	13.7
50°-60°	210.3	14.2
60°-70°	198.4	13.3
70°-80°	166.2	11.2
80°-90°	120.5	8.1
90°-100°	79.2	5.3
100°-110°	45.7	3.1
110°-120°	20.2	1.4
120°-130°	5.4	0.4
130°-140°	1.2	0.1
140°-150°	0.8	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	254.6	17.1
0°-40°	433.9	29.2
0°-60°	847.3	57.0
0°-90°	1332.3	89.7
90°-120°	145.1	9.8
90°-150°	152.5	10.3
90°-180°	154.0	10.4
0°-180°	1485.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	301	301	301	301	301	
5°	343	330	298	271	257	35
15°	458	402	288	208	174	132
25°	577	472	267	137	86	267
35°	639	508	235	67	21	401
45°	663	503	192	15	0	512
55°	646	472	139	0	0	577
65°	584	417	83	0	0	578
75°	487	337	35	0	0	510
85°	356	244	6	2	2	304
90°	309	196	2	2	3	169
95°	265	153	1	3	3	208
105°	182	79	1	2	3	192
115°	99	26	1	1	2	99
125°	30	4	2	1	2	29
135°	2	1	2	2	1	3
145°	0	1	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	1	2	1	0	0
180°	1	1	1	1	1	



TEST NUMBER: P551054

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-93-87-ED1D

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	300.6	300.6	300.6	300.6	300.6	300.6	300.6	300.6	300.6	300.6	300.6
2.5°	325.9	325.5	324.3	322.4	319.7	315.1	311.3	307.9	303.3	299.4	292.2
5°	343.1	341.2	339.6	337.7	331.6	327.4	320.5	312.8	305.6	298.3	283.7
7.5°	370.7	367.6	365.3	359.9	351.5	341.9	331.2	323.9	319.0	298.7	273.8
10°	400.1	397.5	392.9	383.3	373.0	359.2	343.9	326.6	311.3	294.5	265.0
12.5°	429.2	425.4	418.9	406.6	392.1	374.9	353.8	333.5	311.7	291.8	254.6
15°	458.3	454.1	447.2	432.3	413.2	390.6	364.9	339.3	313.6	288.3	243.9
17.5°	490.1	484.4	474.0	457.2	433.1	405.1	374.9	343.9	312.8	284.1	232.4
20°	524.2	516.2	505.1	482.5	454.1	421.2	384.8	348.4	312.5	279.1	219.4
22.5°	552.5	544.5	532.2	508.9	474.8	434.6	393.2	351.5	310.9	273.4	207.2
25°	577.0	570.5	557.1	530.3	494.3	448.8	401.3	353.8	308.6	267.3	194.1
27.5°	596.2	590.1	575.1	547.6	510.8	461.4	407.4	355.0	305.6	261.1	180.7
30°	613.0	606.9	588.9	560.6	521.9	471.4	413.5	355.3	301.7	252.0	166.2
32.5°	626.1	620.3	601.9	571.7	529.6	478.3	417.0	355.0	296.8	245.4	150.5
35°	639.1	633.3	611.9	579.7	535.3	481.3	419.7	353.0	290.6	234.7	135.5
37.5°	649.0	642.5	620.7	585.1	538.0	482.1	419.3	350.4	284.1	225.9	120.6
40°	655.9	649.0	625.7	588.1	538.8	480.9	416.2	345.8	276.5	214.8	104.9
42.5°	660.5	652.9	628.0	592.7	537.2	477.9	411.6	340.0	268.0	205.2	90.0
45°	662.8	654.8	628.4	588.9	534.5	472.1	404.7	332.7	258.8	192.2	75.0
47.5°	661.7	652.9	626.4	584.7	529.6	466.0	397.1	323.9	247.7	180.7	60.9
50°	659.7	650.6	622.2	579.3	522.7	458.3	388.7	313.2	236.3	166.6	48.2
52.5°	653.6	644.4	617.6	571.7	514.6	449.5	377.2	302.1	224.0	152.8	36.8
55°	646.0	637.5	609.6	564.8	504.3	438.8	366.4	290.2	212.1	138.6	26.4
57.5°	634.1	626.4	599.6	553.7	494.0	426.9	354.6	277.2	197.2	124.4	18.4
60°	619.5	611.9	585.8	541.0	482.1	413.5	341.6	263.8	183.8	110.3	11.5
62.5°	604.2	597.0	569.8	525.3	467.1	399.4	327.4	250.4	169.6	97.3	6.9
65°	583.9	577.0	552.5	506.6	450.7	384.1	311.7	234.3	155.1	82.7	3.8
67.5°	562.5	556.4	531.5	489.4	431.5	367.2	295.6	218.6	139.8	70.1	1.9
70°	539.5	531.9	508.9	466.0	412.0	348.1	278.0	202.6	125.2	57.8	0.0
72.5°	512.7	507.0	484.8	444.2	389.4	327.8	260.0	184.9	109.1	45.9	0.4
75°	486.7	479.4	459.1	420.8	367.2	306.3	240.1	168.5	93.4	35.2	0.4
77.5°	453.0	450.7	431.5	394.4	346.1	285.6	218.3	148.6	78.5	25.3	0.4
80°	419.3	417.0	402.1	368.0	321.6	261.1	198.0	129.8	63.9	16.8	0.4
82.5°	386.0	382.9	368.7	340.4	296.8	240.5	176.9	111.0	50.5	10.3	0.4
85°	356.1	352.3	337.0	310.9	271.1	217.1	155.1	92.7	37.5	5.7	0.8
87.5°	330.4	327.8	310.9	284.1	245.1	195.3	135.9	75.0	26.4	2.7	1.1
90°	308.6	302.9	287.9	259.6	220.6	171.2	115.6	60.1	17.6	1.5	1.5
92.5°	287.2	282.2	265.7	236.6	198.7	150.5	96.1	45.9	11.1	0.8	1.9
95°	265.0	259.6	243.5	216.7	176.5	129.4	78.9	33.7	6.1	0.8	1.9
97.5°	243.1	238.2	221.3	194.5	156.6	111.0	62.4	23.7	3.1	0.8	1.5
100°	222.9	217.1	201.8	175.0	136.7	92.7	48.2	15.3	1.9	0.8	1.5
102.5°	201.4	196.8	181.1	155.1	116.0	75.4	36.0	9.6	0.8	0.8	1.1
105°	182.3	176.5	161.2	134.4	98.8	59.4	25.3	5.7	0.8	0.8	1.1



TEST NUMBER: P551054

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-93-87-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	118.7	114.1	100.7	78.1	50.2	23.4	6.9	1.1	1.1	1.1	1.1
115°	99.2	92.3	80.4	60.5	37.1	15.3	3.4	1.1	1.1	1.1	1.1
117.5°	79.3	73.5	65.1	45.9	24.5	10.0	1.9	1.1	1.1	1.1	1.1
120°	62.0	56.7	47.1	31.8	16.5	5.7	0.8	1.1	1.1	1.1	1.1
122.5°	44.4	40.2	31.8	20.7	10.0	2.7	1.1	1.1	1.5	1.5	1.1
125°	29.5	27.2	21.1	12.6	6.1	1.1	1.1	1.1	1.5	1.5	1.1
127.5°	19.1	17.2	12.3	7.3	2.7	1.1	1.1	1.5	1.5	1.5	1.1
130°	10.7	9.6	7.3	4.2	1.1	1.1	1.1	1.5	1.5	1.5	1.1
132.5°	6.1	5.7	3.8	0.8	1.1	1.1	1.1	1.5	1.5	1.5	1.5
135°	1.5	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5
137.5°	0.4	0.4	0.8	0.8	1.1	1.1	1.5	1.9	1.9	1.9	1.5
140°	0.4	0.4	0.8	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.5
142.5°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
145°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.5	1.5	1.5
147.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.5	1.5
150°	0.4	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
152.5°	0.4	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.5
155°	0.8	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
157.5°	0.8	0.8	0.8	1.1	1.5	1.5	1.5	1.9	1.5	1.5	1.9
160°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.8	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.5	1.5	1.5
167.5°	0.8	0.8	0.8	1.1	1.1	1.1	1.5	1.5	1.5	1.5	1.5
170°	0.8	0.8	0.8	1.1	1.1	1.1	1.5	1.9	1.9	1.9	1.9
172.5°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
175°	0.8	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.9
177.5°	0.4	0.8	0.8	1.1	1.1	1.5	1.5	1.9	1.9	1.9	1.5
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



TEST NUMBER: P551054

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-93-87-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	300.6	300.6	300.6
2.5°	286.0	280.7	279.1
5°	270.7	261.9	256.9
7.5°	255.4	243.5	237.8
10°	241.2	224.4	218.3
12.5°	224.4	204.9	195.3
15°	208.3	183.0	173.8
17.5°	190.3	162.0	151.2
20°	173.5	140.9	129.8
22.5°	154.3	120.2	108.0
25°	137.1	99.6	85.8
27.5°	117.9	78.5	66.6
30°	99.9	60.1	48.2
32.5°	82.7	44.0	33.3
35°	66.6	29.9	21.1
37.5°	51.3	18.4	10.7
40°	37.1	9.6	5.0
42.5°	24.9	4.6	2.7
45°	15.3	2.3	0.0
47.5°	8.8	0.0	0.0
50°	4.6	0.0	0.0
52.5°	1.9	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	0.8	1.1
80°	0.8	1.5	1.9
82.5°	1.5	1.9	1.9
85°	1.5	1.9	2.3
87.5°	1.9	2.3	2.7
90°	2.3	2.7	2.7
92.5°	2.3	3.1	3.1
95°	2.7	3.1	3.4
97.5°	3.1	3.4	3.4
100°	2.7	3.4	3.8
102.5°	2.3	3.4	3.4
105°	1.9	2.7	3.1



TEST NUMBER: P551054

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-93-87-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.5	1.9	1.9
115°	1.1	1.5	1.9
117.5°	1.1	1.5	1.5
120°	1.1	1.1	1.5
122.5°	1.1	1.1	1.5
125°	1.1	1.1	1.5
127.5°	1.5	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.5	1.1	1.1
135°	1.5	1.1	1.1
137.5°	1.5	1.1	1.1
140°	1.5	1.1	1.1
142.5°	1.5	1.1	1.1
145°	1.1	1.1	1.1
147.5°	1.1	1.1	1.1
150°	1.1	1.1	0.8
152.5°	1.1	0.8	0.8
155°	1.1	0.8	0.4
157.5°	1.5	0.8	0.4
160°	1.1	0.8	0.4
162.5°	1.1	0.8	0.4
165°	1.1	0.8	0.0
167.5°	1.1	0.8	0.4
170°	1.1	0.8	0.4
172.5°	1.1	0.8	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°	160.8	156.2	140.9	115.6	80.8	45.2	16.8	3.1	0.8	1.1	1.1
110°	140.1	136.3	120.6	96.1	65.1	33.7	11.1	1.9	1.1	1.1	1.1





107.5°	1.5	2.3	2.7
110°	1.5	1.9	2.3



(END OF REPORT)