

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: P551052

Luminaire Tested: **FCC-X-2-LD4-1STD-35-UNV-93-86-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: P551052
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-93-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

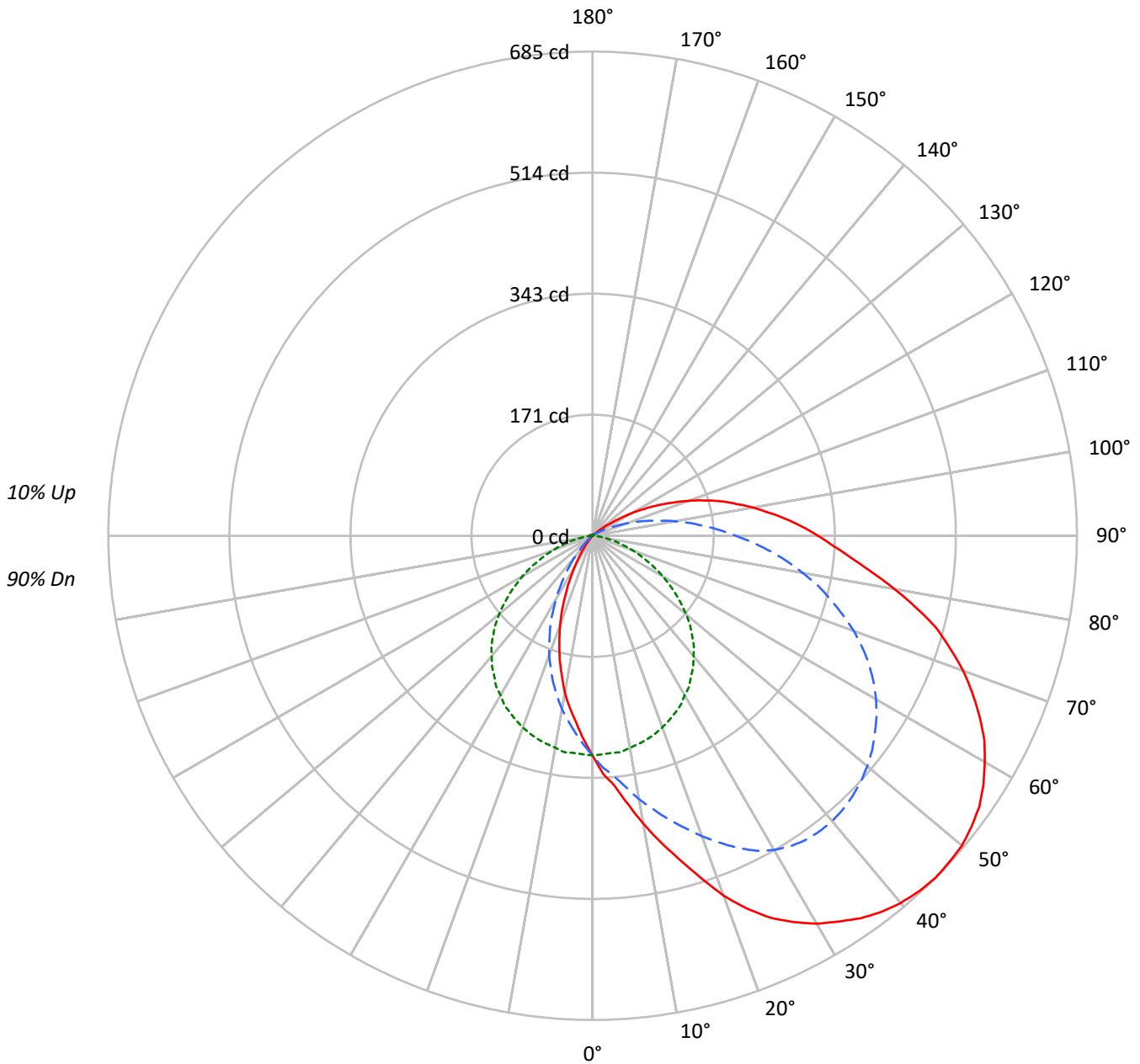
Lumens per Lamp: N/A
Luminaire Lumens: 1536.1 lumens
Efficiency: N/A
Efficacy: 92.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551052

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-93-86-ED1D

Luminous Intensity Polar Plot





TEST NUMBER: P551052

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-93-86-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°	3344	3344	3344
5°	3671	3295	2750
10°	4154	3255	2266
15°	4656	3213	1766
20°	5251	3161	1301
25°	5745	3101	854
30°	6112	3019	481
35°	6429	2931	212
40°	6711	2823	50
45°	6953	2689	0
50°	7155	2510	0
55°	7310	2282	0
60°	7388	2017	0
65°	7419	1717	0
70°	7394	1401	0
75°	7300	1032	6
80°	7004	631	32
85°	6770	300	44



TEST NUMBER: P551052

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-93-86-ED1D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.8	1.9
10°-20°	89.1	5.8
20°-30°	144.3	9.4
30°-40°	185.4	12.1
40°-50°	209.8	13.7
50°-60°	217.4	14.2
60°-70°	205.0	13.3
70°-80°	171.8	11.2
80°-90°	124.6	8.1
90°-100°	81.9	5.3
100°-110°	47.3	3.1
110°-120°	20.9	1.4
120°-130°	5.7	0.4
130°-140°	1.3	0.1
140°-150°	0.9	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	263.2	17.1
0°-40°	448.5	29.2
0°-60°	875.8	57.0
0°-90°	1377.2	89.7
90°-120°	150.0	9.8
90°-150°	157.8	10.3
90°-180°	159.0	10.4
0°-180°	1536.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	311	311	311	311	311	
5°	355	341	308	280	266	36
15°	474	415	298	215	180	137
25°	596	487	276	142	89	276
35°	661	525	243	69	22	414
45°	685	520	199	16	0	529
55°	668	487	143	0	0	596
65°	604	431	86	0	0	597
75°	503	348	36	0	0	528
85°	368	252	6	2	2	314
90°	319	202	2	2	3	175
95°	274	158	1	3	4	215
105°	188	82	1	2	3	199
115°	102	27	1	1	2	103
125°	30	4	2	1	2	30
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: P551052

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-93-86-ED1D

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	310.7	310.7	310.7	310.7	310.7	310.7	310.7	310.7	310.7	310.7	310.7
2.5°	336.8	336.4	335.2	333.3	330.5	325.7	321.8	318.2	313.5	309.5	302.0
5°	354.6	352.6	351.1	349.1	342.8	338.4	331.3	323.4	315.8	308.3	293.3
7.5°	383.1	380.0	377.6	372.0	363.3	353.4	342.4	334.8	329.7	308.7	283.0
10°	413.6	410.8	406.1	396.2	385.5	371.3	355.4	337.6	321.8	304.4	273.9
12.5°	443.7	439.7	433.0	420.3	405.3	387.5	365.7	344.7	322.2	301.6	263.2
15°	473.8	469.4	462.3	446.8	427.1	403.7	377.2	350.7	324.2	298.0	252.1
17.5°	506.6	500.7	490.0	472.6	447.6	418.7	387.5	355.4	323.4	293.7	240.2
20°	541.8	533.5	522.0	498.7	469.4	435.4	397.8	360.2	323.0	288.5	226.8
22.5°	571.1	562.8	550.1	526.0	490.8	449.2	406.5	363.3	321.4	282.6	214.1
25°	596.5	589.7	575.9	548.2	511.0	463.9	414.8	365.7	319.0	276.3	200.7
27.5°	616.2	609.9	594.5	566.0	528.0	476.9	421.1	366.9	315.8	269.9	186.8
30°	633.7	627.3	608.7	579.4	539.5	487.2	427.5	367.3	311.9	260.4	171.8
32.5°	647.1	641.2	622.2	590.9	547.4	494.3	431.0	366.9	306.7	253.7	155.5
35°	660.6	654.6	632.5	599.2	553.3	497.5	433.8	364.9	300.4	242.6	140.1
37.5°	670.9	664.1	641.6	604.8	556.1	498.3	433.4	362.1	293.7	233.5	124.7
40°	678.0	670.9	646.7	607.9	556.9	497.1	430.2	357.4	285.8	222.0	108.4
42.5°	682.7	674.8	649.1	612.7	555.3	493.9	425.5	351.5	277.1	212.1	93.0
45°	685.1	676.8	649.5	608.7	552.5	488.0	418.4	343.9	267.6	198.7	77.6
47.5°	683.9	674.8	647.5	604.4	547.4	481.7	410.4	334.8	256.1	186.8	62.9
50°	681.9	672.4	643.2	598.8	540.3	473.8	401.7	323.8	244.2	172.2	49.9
52.5°	675.6	666.1	638.4	590.9	531.9	464.7	389.9	312.3	231.5	157.9	38.0
55°	667.7	659.0	630.1	583.8	521.3	453.6	378.8	300.0	219.3	143.3	27.3
57.5°	655.4	647.5	619.8	572.3	510.6	441.3	366.5	286.6	203.8	128.6	19.0
60°	640.4	632.5	605.6	559.3	498.3	427.5	353.0	272.7	190.0	114.0	11.9
62.5°	624.6	617.0	588.9	543.0	482.9	412.8	338.4	258.8	175.3	100.5	7.1
65°	603.6	596.5	571.1	523.6	465.8	397.0	322.2	242.2	160.3	85.5	4.0
67.5°	581.4	575.1	549.4	505.8	446.1	379.6	305.6	226.0	144.5	72.4	2.0
70°	557.7	549.8	526.0	481.7	425.9	359.8	287.3	209.4	129.4	59.8	0.0
72.5°	530.0	524.0	501.1	459.1	402.5	338.8	268.7	191.2	112.8	47.5	0.4
75°	503.1	495.5	474.6	435.0	379.6	316.6	248.2	174.1	96.6	36.4	0.4
77.5°	468.2	465.8	446.1	407.7	357.8	295.3	225.6	153.6	81.1	26.1	0.4
80°	433.4	431.0	415.6	380.4	332.5	269.9	204.6	134.2	66.1	17.4	0.4
82.5°	399.0	395.8	381.1	351.9	306.7	248.6	182.9	114.8	52.2	10.7	0.4
85°	368.1	364.1	348.3	321.4	280.2	224.4	160.3	95.8	38.8	5.9	0.8
87.5°	341.6	338.8	321.4	293.7	253.3	201.9	140.5	77.6	27.3	2.8	1.2
90°	319.0	313.1	297.6	268.3	228.0	176.9	119.5	62.1	18.2	1.6	1.6
92.5°	296.8	291.7	274.7	244.6	205.4	155.5	99.3	47.5	11.5	0.8	2.0
95°	273.9	268.3	251.7	224.0	182.5	133.8	81.5	34.8	6.3	0.8	2.0
97.5°	251.3	246.2	228.8	201.1	161.9	114.8	64.5	24.5	3.2	0.8	1.6
100°	230.4	224.4	208.6	180.9	141.3	95.8	49.9	15.8	2.0	0.8	1.6
102.5°	208.2	203.4	187.2	160.3	119.9	78.0	37.2	9.9	0.8	0.8	1.2
105°	188.4	182.5	166.6	138.9	102.1	61.3	26.1	5.9	0.8	0.8	1.2



TEST NUMBER: P551052

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-93-86-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	122.7	117.9	104.1	80.7	51.8	24.1	7.1	1.2	1.2	1.2	1.2
115°	102.5	95.4	83.1	62.5	38.4	15.8	3.6	1.2	1.2	1.2	1.2
117.5°	81.9	76.0	67.3	47.5	25.3	10.3	2.0	1.2	1.2	1.2	1.2
120°	64.1	58.6	48.7	32.9	17.0	5.9	0.8	1.2	1.2	1.2	1.2
122.5°	45.9	41.6	32.9	21.4	10.3	2.8	1.2	1.2	1.6	1.6	1.2
125°	30.5	28.1	21.8	13.1	6.3	1.2	1.2	1.2	1.6	1.6	1.2
127.5°	19.8	17.8	12.7	7.5	2.8	1.2	1.2	1.6	1.6	1.6	1.2
130°	11.1	9.9	7.5	4.4	1.2	1.2	1.2	1.6	1.6	1.6	1.2
132.5°	6.3	5.9	4.0	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6
135°	1.6	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.6	2.0	2.0	2.0	1.6
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	1.6
142.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
145°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	1.6	1.6	1.6
147.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	1.6	1.6
150°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
152.5°	0.4	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	1.6
155°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
157.5°	0.8	0.8	0.8	1.2	1.6	1.6	1.6	2.0	1.6	1.6	2.0
160°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
162.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.6
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.6	1.6	1.6	1.6	1.6
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	1.6	1.6	1.6	1.6
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.6	2.0	2.0	2.0	2.0
172.5°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
175°	0.8	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	2.0
177.5°	0.4	0.8	0.8	1.2	1.2	1.6	1.6	2.0	2.0	2.0	1.6
180°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2



TEST NUMBER: P551052

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-93-86-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	310.7	310.7	310.7
2.5°	295.7	290.1	288.5
5°	279.8	270.7	265.6
7.5°	264.0	251.7	245.8
10°	249.3	231.9	225.6
12.5°	231.9	211.7	201.9
15°	215.3	189.2	179.7
17.5°	196.7	167.4	156.3
20°	179.3	145.7	134.2
22.5°	159.5	124.3	111.6
25°	141.7	102.9	88.7
27.5°	121.9	81.1	68.9
30°	103.3	62.1	49.9
32.5°	85.5	45.5	34.4
35°	68.9	30.9	21.8
37.5°	53.0	19.0	11.1
40°	38.4	9.9	5.1
42.5°	25.7	4.7	2.8
45°	15.8	2.4	0.0
47.5°	9.1	0.0	0.0
50°	4.7	0.0	0.0
52.5°	2.0	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	1.2
80°	0.8	1.6	2.0
82.5°	1.6	2.0	2.0
85°	1.6	2.0	2.4
87.5°	2.0	2.4	2.8
90°	2.4	2.8	2.8
92.5°	2.4	3.2	3.2
95°	2.8	3.2	3.6
97.5°	3.2	3.6	3.6
100°	2.8	3.6	4.0
102.5°	2.4	3.6	3.6
105°	2.0	2.8	3.2



TEST NUMBER: P551052

CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-93-86-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.6	2.0	2.0
115°	1.2	1.6	2.0
117.5°	1.2	1.6	1.6
120°	1.2	1.2	1.6
122.5°	1.2	1.2	1.6
125°	1.2	1.2	1.6
127.5°	1.6	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.6	1.2	1.2
135°	1.6	1.2	1.2
137.5°	1.6	1.2	1.2
140°	1.6	1.2	1.2
142.5°	1.6	1.2	1.2
145°	1.2	1.2	1.2
147.5°	1.2	1.2	1.2
150°	1.2	1.2	0.8
152.5°	1.2	0.8	0.8
155°	1.2	0.8	0.4
157.5°	1.6	0.8	0.4
160°	1.2	0.8	0.4
162.5°	1.2	0.8	0.4
165°	1.2	0.8	0.0
167.5°	1.2	0.8	0.4
170°	1.2	0.8	0.4
172.5°	1.2	0.8	0.4
175°	1.2	0.4	0.4
177.5°	1.2	0.4	0.4
180°	1.2	1.2	1.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	166.2	161.5	145.7	119.5	83.5	46.7	17.4	3.2	0.8	1.2	1.2
110°	144.9	140.9	124.7	99.3	67.3	34.8	11.5	2.0	1.2	1.2	1.2





107.5°	1.6	2.4	2.8
110°	1.6	2.0	2.4



(END OF REPORT)