

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: P551498

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-93-85-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: P551498
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-LD4-2LO-30-UNV-93-85-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

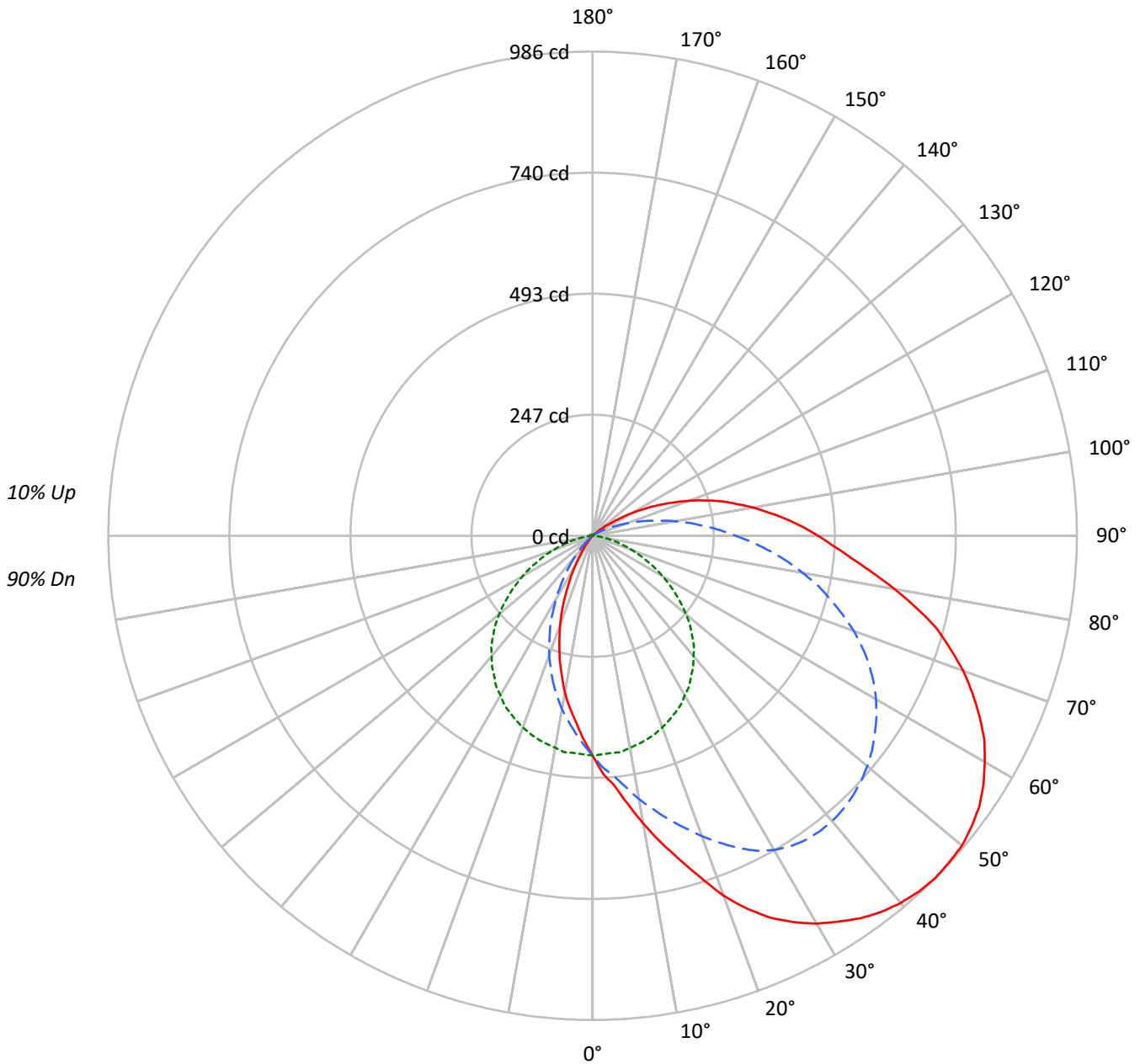
Lumens per Lamp: N/A
Luminaire Lumens: 2211.0 lumens
Efficiency: N/A
Efficacy: 94.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
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: P551498

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-93-85-ED1D

Luminous Intensity Polar Plot





TEST NUMBER: P551498

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-93-85-ED1D

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°	4814	4814	4814
5°	5285	4743	3958
10°	5980	4685	3261
15°	6702	4626	2542
20°	7559	4550	1871
25°	8269	4463	1229
30°	8797	4346	693
35°	9255	4219	305
40°	9660	4064	73
45°	10008	3870	0
50°	10300	3612	0
55°	10522	3283	0
60°	10635	2904	0
65°	10678	2473	0
70°	10642	2015	0
75°	10507	1486	9
80°	10081	910	45
85°	9744	432	63



TEST NUMBER: P551498

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-93-85-ED1D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.8	1.9
10°-20°	128.3	5.8
20°-30°	207.7	9.4
30°-40°	266.8	12.1
40°-50°	302.1	13.7
50°-60°	312.9	14.2
60°-70°	295.1	13.3
70°-80°	247.3	11.2
80°-90°	179.3	8.1
90°-100°	117.8	5.3
100°-110°	68.0	3.1
110°-120°	30.0	1.4
120°-130°	8.1	0.4
130°-140°	1.9	0.1
140°-150°	1.2	0.1
150°-160°	0.9	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	378.8	17.1
0°-40°	645.7	29.2
0°-60°	1260.6	57.0
0°-90°	1982.3	89.7
90°-120°	215.9	9.8
90°-150°	227.1	10.3
90°-180°	229.0	10.4
0°-180°	2211.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	447	447	447	447	447	
5°	510	490	444	403	382	51
15°	682	598	429	310	259	197
25°	859	702	398	204	128	397
35°	951	756	349	99	31	596
45°	986	749	286	23	0	761
55°	961	702	206	0	0	858
65°	869	621	123	0	0	860
75°	724	501	52	1	1	759
85°	530	363	8	2	3	452
90°	459	291	2	3	4	252
95°	394	228	1	4	5	309
105°	271	118	1	3	5	286
115°	148	39	2	2	3	148
125°	44	5	2	2	2	44
135°	2	2	3	2	2	4
145°	1	2	2	2	2	0
155°	1	2	2	2	1	0
165°	1	2	2	2	0	0
175°	1	2	3	2	1	0
180°	2	2	2	2	2	



TEST NUMBER: P551498

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-93-85-ED1D

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	447.2	447.2	447.2	447.2	447.2	447.2	447.2	447.2	447.2	447.2	447.2
2.5°	484.8	484.3	482.6	479.7	475.7	468.9	463.2	458.1	451.2	445.5	434.7
5°	510.5	507.6	505.3	502.5	493.4	487.1	476.9	465.5	454.6	443.8	422.2
7.5°	551.5	546.9	543.5	535.5	523.0	508.8	492.8	482.0	474.6	444.4	407.4
10°	595.4	591.4	584.5	570.3	554.9	534.4	511.6	486.0	463.2	438.1	394.2
12.5°	638.7	633.0	623.3	605.0	583.4	557.8	526.4	496.2	463.8	434.1	378.9
15°	682.0	675.7	665.4	643.2	614.7	581.1	542.9	504.8	466.6	429.0	362.9
17.5°	729.2	720.7	705.3	680.2	644.4	602.8	557.8	511.6	465.5	422.7	345.8
20°	780.0	768.0	751.5	717.9	675.7	626.7	572.6	518.4	464.9	415.3	326.5
22.5°	822.1	810.1	791.9	757.2	706.5	646.6	585.1	523.0	462.6	406.8	308.2
25°	858.6	848.9	828.9	789.1	735.5	667.7	597.1	526.4	459.2	397.7	288.8
27.5°	887.1	877.9	855.7	814.7	760.0	686.5	606.2	528.1	454.6	388.6	268.9
30°	912.1	903.0	876.2	834.1	776.5	701.3	615.3	528.7	448.9	374.9	247.3
32.5°	931.5	923.0	895.6	850.6	787.9	711.6	620.4	528.1	441.5	365.2	223.9
35°	950.9	942.3	910.4	862.6	796.5	716.1	624.4	525.3	432.4	349.2	201.7
37.5°	965.7	956.0	923.5	870.5	800.5	717.3	623.8	521.3	422.7	336.1	179.5
40°	975.9	965.7	930.9	875.1	801.6	715.6	619.3	514.5	411.3	319.6	156.1
42.5°	982.8	971.4	934.3	881.9	799.3	711.0	612.5	505.9	398.8	305.4	133.9
45°	986.2	974.2	934.9	876.2	795.3	702.5	602.2	495.1	385.1	286.0	111.7
47.5°	984.5	971.4	932.1	870.0	787.9	693.4	590.8	482.0	368.6	268.9	90.6
50°	981.6	968.0	925.8	862.0	777.7	682.0	578.3	466.0	351.5	247.8	71.8
52.5°	972.5	958.8	919.0	850.6	765.7	668.9	561.2	449.5	333.3	227.3	54.7
55°	961.1	948.6	907.0	840.3	750.3	652.9	545.2	431.8	315.6	206.2	39.3
57.5°	943.5	932.1	892.2	823.8	734.9	635.2	527.6	412.5	293.4	185.2	27.3
60°	921.8	910.4	871.7	805.0	717.3	615.3	508.2	392.5	273.5	164.1	17.1
62.5°	899.0	888.2	847.7	781.7	695.1	594.2	487.1	372.6	252.4	144.7	10.3
65°	868.8	858.6	822.1	753.7	670.6	571.4	463.8	348.7	230.7	123.1	5.7
67.5°	836.9	827.8	790.8	728.1	642.1	546.4	439.8	325.3	207.9	104.3	2.8
70°	802.7	791.3	757.2	693.4	613.0	517.9	413.6	301.4	186.3	86.0	0.0
72.5°	762.9	754.3	721.3	660.9	579.4	487.7	386.8	275.2	162.4	68.4	0.6
75°	724.1	713.3	683.1	626.1	546.4	455.8	357.2	250.7	139.0	52.4	0.6
77.5°	674.0	670.6	642.1	586.8	515.0	425.0	324.7	221.1	116.8	37.6	0.6
80°	623.8	620.4	598.2	547.5	478.6	388.6	294.5	193.1	95.1	25.1	0.6
82.5°	574.3	569.7	548.6	506.5	441.5	357.8	263.2	165.2	75.2	15.4	0.6
85°	529.8	524.1	501.4	462.6	403.4	323.0	230.7	137.9	55.8	8.5	1.1
87.5°	491.7	487.7	462.6	422.7	364.6	290.6	202.3	111.7	39.3	4.0	1.7
90°	459.2	450.7	428.4	386.3	328.2	254.7	172.1	89.4	26.2	2.3	2.3
92.5°	427.3	419.9	395.4	352.1	295.7	223.9	143.0	68.4	16.5	1.1	2.8
95°	394.2	386.3	362.3	322.5	262.6	192.6	117.4	50.1	9.1	1.1	2.8
97.5°	361.8	354.4	329.3	289.4	233.0	165.2	92.9	35.3	4.6	1.1	2.3
100°	331.6	323.0	300.2	260.4	203.4	137.9	71.8	22.8	2.8	1.1	2.3
102.5°	299.7	292.8	269.5	230.7	172.6	112.2	53.6	14.2	1.1	1.1	1.7
105°	271.2	262.6	239.9	200.0	147.0	88.3	37.6	8.5	1.1	1.1	1.7



TEST NUMBER: P551498

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-93-85-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	176.6	169.8	149.8	116.2	74.6	34.8	10.3	1.7	1.7	1.7	1.7
115°	147.6	137.3	119.6	90.0	55.3	22.8	5.1	1.7	1.7	1.7	1.7
117.5°	117.9	109.4	96.9	68.4	36.5	14.8	2.8	1.7	1.7	1.7	1.7
120°	92.3	84.3	70.1	47.3	24.5	8.5	1.1	1.7	1.7	1.7	1.7
122.5°	66.1	59.8	47.3	30.8	14.8	4.0	1.7	1.7	2.3	2.3	1.7
125°	43.9	40.5	31.3	18.8	9.1	1.7	1.7	1.7	2.3	2.3	1.7
127.5°	28.5	25.6	18.2	10.8	4.0	1.7	1.7	2.3	2.3	2.3	1.7
130°	16.0	14.2	10.8	6.3	1.7	1.7	1.7	2.3	2.3	2.3	1.7
132.5°	9.1	8.5	5.7	1.1	1.7	1.7	1.7	2.3	2.3	2.3	2.3
135°	2.3	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.3
137.5°	0.6	0.6	1.1	1.1	1.7	1.7	2.3	2.8	2.8	2.8	2.3
140°	0.6	0.6	1.1	1.7	1.7	1.7	2.3	2.8	2.8	2.8	2.3
142.5°	0.6	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.3	2.3
145°	0.6	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.3	2.3	2.3
147.5°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.3	2.3
150°	0.6	1.1	1.1	1.7	2.3	2.3	2.3	2.8	2.3	2.3	2.3
152.5°	0.6	1.1	1.1	1.7	2.3	2.3	2.3	2.8	2.3	2.3	2.3
155°	1.1	1.1	1.1	1.7	2.3	2.3	2.3	2.8	2.3	2.3	2.8
157.5°	1.1	1.1	1.1	1.7	2.3	2.3	2.3	2.8	2.3	2.3	2.8
160°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
162.5°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.3	2.3	2.3	2.3
165°	1.1	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.3	2.3	2.3
167.5°	1.1	1.1	1.1	1.7	1.7	1.7	2.3	2.3	2.3	2.3	2.3
170°	1.1	1.1	1.1	1.7	1.7	1.7	2.3	2.8	2.8	2.8	2.8
172.5°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.8	2.8
175°	1.1	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.8	2.8
177.5°	0.6	1.1	1.1	1.7	1.7	2.3	2.3	2.8	2.8	2.8	2.3
180°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7



TEST NUMBER: P551498

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-93-85-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	447.2	447.2	447.2
2.5°	425.6	417.6	415.3
5°	402.8	389.7	382.3
7.5°	380.0	362.3	353.8
10°	358.9	333.9	324.7
12.5°	333.9	304.8	290.6
15°	309.9	272.3	258.7
17.5°	283.2	241.0	225.0
20°	258.1	209.7	193.1
22.5°	229.6	178.9	160.7
25°	204.0	148.1	127.6
27.5°	175.5	116.8	99.1
30°	148.7	89.4	71.8
32.5°	123.1	65.5	49.6
35°	99.1	44.4	31.3
37.5°	76.3	27.3	16.0
40°	55.3	14.2	7.4
42.5°	37.0	6.8	4.0
45°	22.8	3.4	0.0
47.5°	13.1	0.0	0.0
50°	6.8	0.0	0.0
52.5°	2.8	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°	0.6	0.6	0.6
77.5°	0.6	1.1	1.7
80°	1.1	2.3	2.8
82.5°	2.3	2.8	2.8
85°	2.3	2.8	3.4
87.5°	2.8	3.4	4.0
90°	3.4	4.0	4.0
92.5°	3.4	4.6	4.6
95°	4.0	4.6	5.1
97.5°	4.6	5.1	5.1
100°	4.0	5.1	5.7
102.5°	3.4	5.1	5.1
105°	2.8	4.0	4.6



TEST NUMBER: P551498

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-93-85-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.3	2.8	2.8
115°	1.7	2.3	2.8
117.5°	1.7	2.3	2.3
120°	1.7	1.7	2.3
122.5°	1.7	1.7	2.3
125°	1.7	1.7	2.3
127.5°	2.3	1.7	1.7
130°	1.7	1.7	1.7
132.5°	2.3	1.7	1.7
135°	2.3	1.7	1.7
137.5°	2.3	1.7	1.7
140°	2.3	1.7	1.7
142.5°	2.3	1.7	1.7
145°	1.7	1.7	1.7
147.5°	1.7	1.7	1.7
150°	1.7	1.7	1.1
152.5°	1.7	1.1	1.1
155°	1.7	1.1	0.6
157.5°	2.3	1.1	0.6
160°	1.7	1.1	0.6
162.5°	1.7	1.1	0.6
165°	1.7	1.1	0.0
167.5°	1.7	1.1	0.6
170°	1.7	1.1	0.6
172.5°	1.7	1.1	0.6
175°	1.7	0.6	0.6
177.5°	1.7	0.6	0.6
180°	1.7	1.7	1.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	239.3	232.4	209.7	172.1	120.2	67.2	25.1	4.6	1.1	1.7	1.7
110°	208.5	202.8	179.5	143.0	96.9	50.1	16.5	2.8	1.7	1.7	1.7





107.5°	2.3	3.4	4.0
110°	2.3	2.8	3.4



(END OF REPORT)