

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: P551562

Luminaire Tested: **FCC-X-2-LD4-2LO-35-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: P551562
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-35-UNV-93-85-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

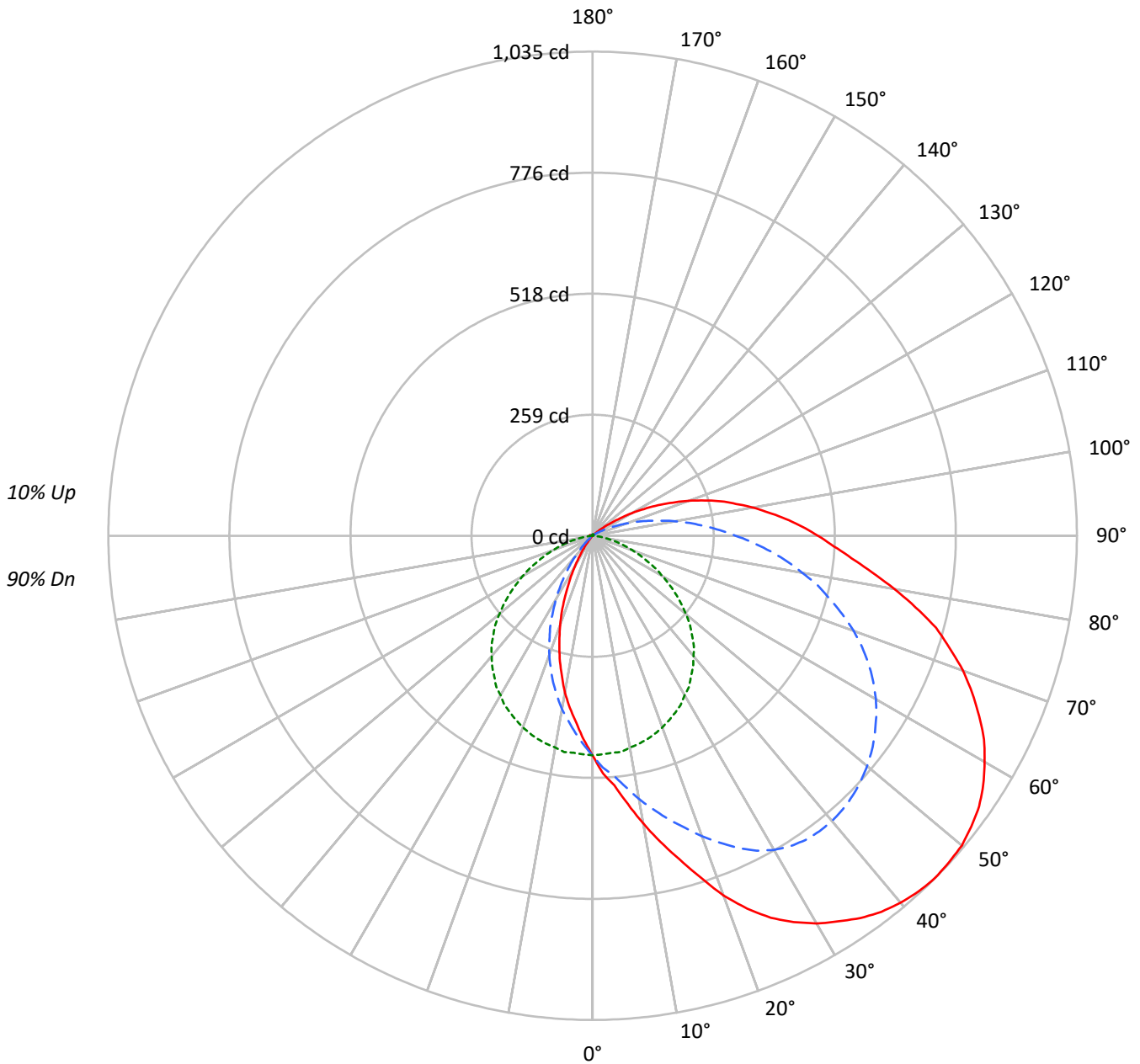
Lumens per Lamp: N/A
Luminaire Lumens: 2320.0 lumens
Efficiency: N/A
Efficacy: 98.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551562

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-93-85-ED1D

Luminous Intensity Polar Plot





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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°	5052	5052	5052
5°	5545	4977	4152
10°	6275	4916	3423
15°	7032	4854	2667
20°	7931	4775	1964
25°	8677	4683	1290
30°	9231	4560	726
35°	9710	4428	320
40°	10136	4265	77
45°	10501	4061	0
50°	10808	3789	0
55°	11041	3446	0
60°	11159	3047	0
65°	11205	2593	0
70°	11167	2115	0
75°	11025	1560	9
80°	10579	954	48
85°	10226	458	66



TEST NUMBER: P551562

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-93-85-ED1D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.9	1.9
10°-20°	134.6	5.8
20°-30°	218.0	9.4
30°-40°	280.0	12.1
40°-50°	316.9	13.7
50°-60°	328.4	14.2
60°-70°	309.7	13.3
70°-80°	259.5	11.2
80°-90°	188.1	8.1
90°-100°	123.6	5.3
100°-110°	71.4	3.1
110°-120°	31.5	1.4
120°-130°	8.5	0.4
130°-140°	2.0	0.1
140°-150°	1.3	0.1
150°-160°	0.9	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	397.5	17.1
0°-40°	677.5	29.2
0°-60°	1322.8	57.0
0°-90°	2080.1	89.7
90°-120°	226.6	9.8
90°-150°	238.3	10.3
90°-180°	240.0	10.3
0°-180°	2320.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	469	469	469	469	469	
5°	536	514	466	423	401	54
15°	716	627	450	325	271	206
25°	901	736	417	214	134	416
35°	998	794	366	104	33	626
45°	1035	786	300	24	0	799
55°	1008	736	216	0	0	901
65°	912	652	129	0	0	902
75°	760	526	55	1	1	797
85°	556	381	9	2	4	475
90°	482	306	2	4	4	264
95°	414	239	1	4	5	325
105°	285	123	1	3	5	300
115°	155	41	2	2	3	155
125°	46	6	2	2	2	46
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: P551562

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-93-85-ED1D

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	469.3	469.3	469.3	469.3	469.3	469.3	469.3	469.3	469.3	469.3	469.3
2.5°	508.7	508.1	506.3	503.4	499.2	492.0	486.0	480.6	473.5	467.5	456.1
5°	535.6	532.6	530.3	527.3	517.7	511.1	500.4	488.4	477.1	465.7	443.0
7.5°	578.7	573.9	570.3	561.9	548.8	533.8	517.1	505.7	498.0	466.3	427.4
10°	624.7	620.5	613.4	598.4	582.3	560.7	536.8	509.9	486.0	459.7	413.7
12.5°	670.1	664.2	654.0	634.9	612.2	585.3	552.4	520.7	486.6	455.5	397.5
15°	715.6	709.0	698.2	674.9	645.0	609.8	569.7	529.7	489.6	450.2	380.8
17.5°	765.2	756.2	740.1	713.8	676.1	632.5	585.3	536.8	488.4	443.6	362.9
20°	818.4	805.8	788.5	753.2	709.0	657.6	600.8	544.0	487.8	435.8	342.5
22.5°	862.6	850.1	831.0	794.5	741.3	678.5	614.0	548.8	485.4	426.8	323.4
25°	900.9	890.7	869.8	828.0	771.8	700.6	626.5	552.4	481.8	417.3	303.1
27.5°	930.8	921.2	897.9	854.9	797.5	720.4	636.1	554.2	477.1	407.7	282.2
30°	957.1	947.5	919.4	875.2	814.8	735.9	645.6	554.8	471.1	393.4	259.4
32.5°	977.4	968.5	939.8	892.5	826.8	746.7	651.0	554.2	463.3	383.2	234.9
35°	997.7	988.8	955.3	905.1	835.7	751.4	655.2	551.2	453.7	366.5	211.6
37.5°	1013.3	1003.1	969.0	913.5	839.9	752.6	654.6	547.0	443.6	352.7	188.3
40°	1024.0	1013.3	976.8	918.2	841.1	750.8	649.8	539.8	431.6	335.4	163.8
42.5°	1031.2	1019.3	980.4	925.4	838.7	746.1	642.6	530.9	418.5	320.4	140.5
45°	1034.8	1022.3	981.0	919.4	834.5	737.1	631.9	519.5	404.1	300.1	117.2
47.5°	1033.0	1019.3	978.0	912.9	826.8	727.5	619.9	505.7	386.8	282.2	95.1
50°	1030.0	1015.7	971.4	904.5	816.0	715.6	606.8	489.0	368.8	260.0	75.3
52.5°	1020.5	1006.1	964.3	892.5	803.5	701.8	588.8	471.7	349.7	238.5	57.4
55°	1008.5	995.4	951.7	881.8	787.3	685.1	572.1	453.1	331.2	216.4	41.2
57.5°	990.0	978.0	936.2	864.4	771.2	666.6	553.6	432.8	307.9	194.3	28.7
60°	967.3	955.3	914.6	844.7	752.6	645.6	533.2	411.9	286.9	172.2	17.9
62.5°	943.3	932.0	889.5	820.2	729.3	623.5	511.1	391.0	264.8	151.8	10.8
65°	911.7	900.9	862.6	790.9	703.6	599.6	486.6	365.9	242.1	129.1	6.0
67.5°	878.2	868.6	829.8	764.0	673.7	573.3	461.5	341.3	218.2	109.4	3.0
70°	842.3	830.4	794.5	727.5	643.2	543.4	434.0	316.2	195.5	90.3	0.0
72.5°	800.5	791.5	756.8	693.5	608.0	511.7	405.9	288.7	170.4	71.7	0.6
75°	759.8	748.5	716.8	657.0	573.3	478.2	374.8	263.0	145.9	55.0	0.6
77.5°	707.2	703.6	673.7	615.7	540.4	446.0	340.8	232.0	122.6	39.5	0.6
80°	654.6	651.0	627.7	574.5	502.2	407.7	309.1	202.7	99.8	26.3	0.6
82.5°	602.6	597.8	575.7	531.5	463.3	375.4	276.2	173.4	78.9	16.1	0.6
85°	556.0	550.0	526.1	485.4	423.2	339.0	242.1	144.7	58.6	9.0	1.2
87.5°	515.9	511.7	485.4	443.6	382.6	304.9	212.2	117.2	41.2	4.2	1.8
90°	481.8	472.9	449.6	405.3	344.3	267.2	180.5	93.9	27.5	2.4	2.4
92.5°	448.4	440.6	414.9	369.4	310.3	234.9	150.1	71.7	17.3	1.2	3.0
95°	413.7	405.3	380.2	338.4	275.6	202.1	123.1	52.6	9.6	1.2	3.0
97.5°	379.6	371.8	345.5	303.7	244.5	173.4	97.4	37.1	4.8	1.2	2.4
100°	347.9	339.0	315.0	273.2	213.4	144.7	75.3	23.9	3.0	1.2	2.4
102.5°	314.4	307.3	282.8	242.1	181.1	117.8	56.2	14.9	1.2	1.2	1.8
105°	284.6	275.6	251.7	209.8	154.2	92.7	39.5	9.0	1.2	1.2	1.8



TEST NUMBER: P551562

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-93-85-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	185.3	178.1	157.2	122.0	78.3	36.5	10.8	1.8	1.8	1.8	1.8
115°	154.8	144.1	125.5	94.5	58.0	23.9	5.4	1.8	1.8	1.8	1.8
117.5°	123.7	114.8	101.6	71.7	38.3	15.5	3.0	1.8	1.8	1.8	1.8
120°	96.8	88.5	73.5	49.6	25.7	9.0	1.2	1.8	1.8	1.8	1.8
122.5°	69.3	62.8	49.6	32.3	15.5	4.2	1.8	1.8	2.4	2.4	1.8
125°	46.0	42.4	32.9	19.7	9.6	1.8	1.8	1.8	2.4	2.4	1.8
127.5°	29.9	26.9	19.1	11.4	4.2	1.8	1.8	2.4	2.4	2.4	1.8
130°	16.7	14.9	11.4	6.6	1.8	1.8	1.8	2.4	2.4	2.4	1.8
132.5°	9.6	9.0	6.0	1.2	1.8	1.8	1.8	2.4	2.4	2.4	2.4
135°	2.4	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	2.4
137.5°	0.6	0.6	1.2	1.2	1.8	1.8	2.4	3.0	3.0	3.0	2.4
140°	0.6	0.6	1.2	1.8	1.8	1.8	2.4	3.0	3.0	3.0	2.4
142.5°	0.6	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	2.4	2.4
145°	0.6	1.2	1.2	1.8	1.8	2.4	2.4	3.0	2.4	2.4	2.4
147.5°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	2.4	2.4
150°	0.6	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	2.4
152.5°	0.6	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	2.4
155°	1.2	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	3.0
157.5°	1.2	1.2	1.2	1.8	2.4	2.4	2.4	3.0	2.4	2.4	3.0
160°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4	2.4
162.5°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4	2.4
165°	1.2	1.2	1.2	1.2	1.8	1.8	2.4	2.4	2.4	2.4	2.4
167.5°	1.2	1.2	1.2	1.8	1.8	1.8	2.4	2.4	2.4	2.4	2.4
170°	1.2	1.2	1.2	1.8	1.8	1.8	2.4	3.0	3.0	3.0	3.0
172.5°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	3.0	3.0
175°	1.2	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	3.0	3.0
177.5°	0.6	1.2	1.2	1.8	1.8	2.4	2.4	3.0	3.0	3.0	2.4
180°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8



TEST NUMBER: P551562

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-93-85-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	469.3	469.3	469.3
2.5°	446.6	438.2	435.8
5°	422.7	408.9	401.1
7.5°	398.7	380.2	371.2
10°	376.6	350.3	340.8
12.5°	350.3	319.8	304.9
15°	325.2	285.8	271.4
17.5°	297.1	252.9	236.1
20°	270.8	220.0	202.7
22.5°	240.9	187.7	168.6
25°	214.0	155.4	133.9
27.5°	184.1	122.6	104.0
30°	156.0	93.9	75.3
32.5°	129.1	68.7	52.0
35°	104.0	46.6	32.9
37.5°	80.1	28.7	16.7
40°	58.0	14.9	7.8
42.5°	38.9	7.2	4.2
45°	23.9	3.6	0.0
47.5°	13.7	0.0	0.0
50°	7.2	0.0	0.0
52.5°	3.0	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°	0.6	0.6	0.6
77.5°	0.6	1.2	1.8
80°	1.2	2.4	3.0
82.5°	2.4	3.0	3.0
85°	2.4	3.0	3.6
87.5°	3.0	3.6	4.2
90°	3.6	4.2	4.2
92.5°	3.6	4.8	4.8
95°	4.2	4.8	5.4
97.5°	4.8	5.4	5.4
100°	4.2	5.4	6.0
102.5°	3.6	5.4	5.4
105°	3.0	4.2	4.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.4	3.0	3.0
115°	1.8	2.4	3.0
117.5°	1.8	2.4	2.4
120°	1.8	1.8	2.4
122.5°	1.8	1.8	2.4
125°	1.8	1.8	2.4
127.5°	2.4	1.8	1.8
130°	1.8	1.8	1.8
132.5°	2.4	1.8	1.8
135°	2.4	1.8	1.8
137.5°	2.4	1.8	1.8
140°	2.4	1.8	1.8
142.5°	2.4	1.8	1.8
145°	1.8	1.8	1.8
147.5°	1.8	1.8	1.8
150°	1.8	1.8	1.2
152.5°	1.8	1.2	1.2
155°	1.8	1.2	0.6
157.5°	2.4	1.2	0.6
160°	1.8	1.2	0.6
162.5°	1.8	1.2	0.6
165°	1.8	1.2	0.0
167.5°	1.8	1.2	0.6
170°	1.8	1.2	0.6
172.5°	1.8	1.2	0.6
175°	1.8	0.6	0.6
177.5°	1.8	0.6	0.6
180°	1.8	1.8	1.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	251.1	243.9	220.0	180.5	126.1	70.5	26.3	4.8	1.2	1.8	1.8
110°	218.8	212.8	188.3	150.1	101.6	52.6	17.3	3.0	1.8	1.8	1.8





107.5°	2.4	3.6	4.2
110°	2.4	3.0	3.6



(END OF REPORT)