

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: P551511

Luminaire Tested: **FCC-X-2-LD4-2LO-35-UNV-80-84-ED1D-90**

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: P551511
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-80-84-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

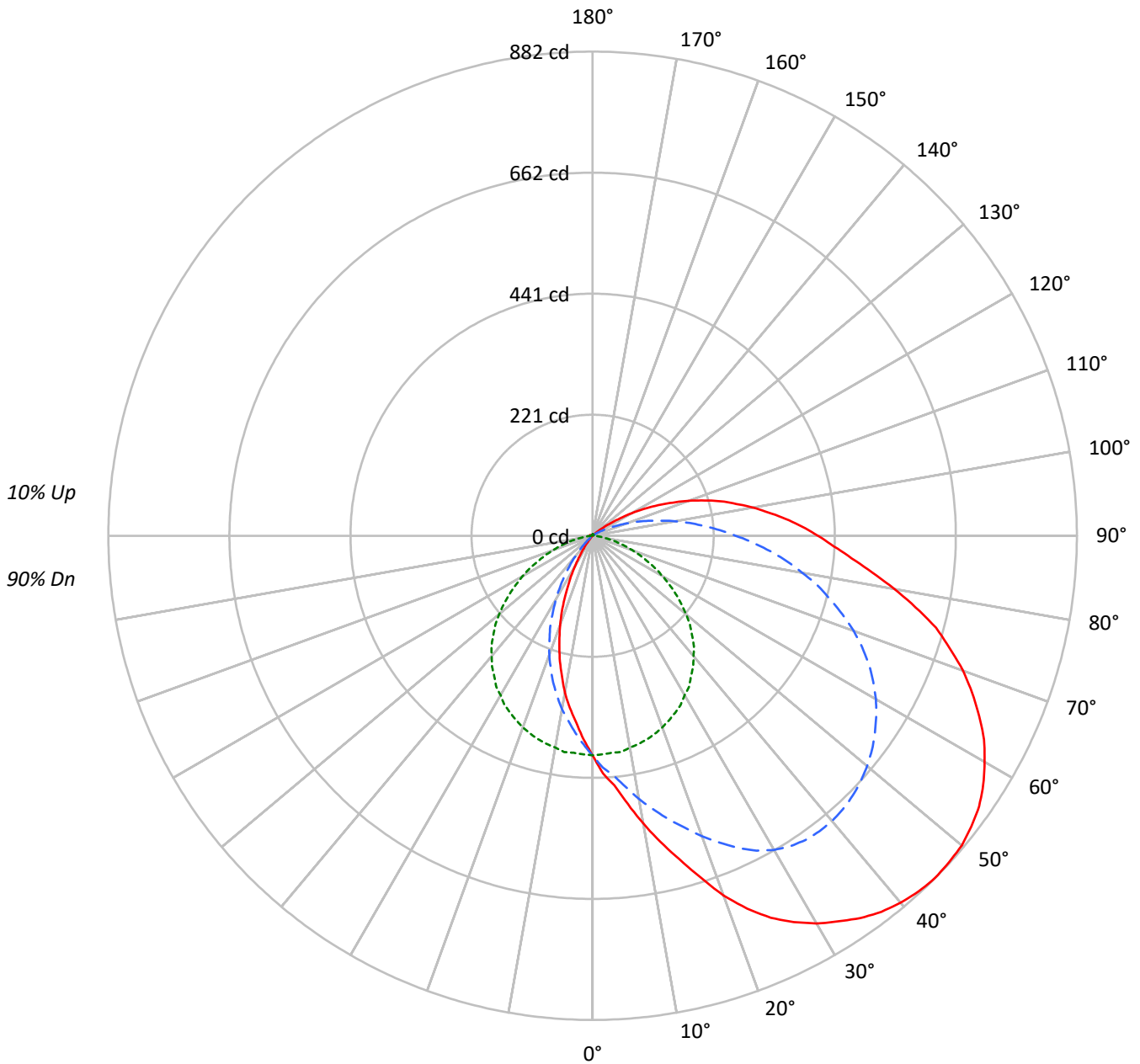
Lumens per Lamp: N/A
Luminaire Lumens: 1976.9 lumens
Efficiency: N/A
Efficacy: 84.1 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 23.5
Input Voltage (V): NR
Input Current (Ain): 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

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CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-80-84-ED1D-90

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°	4304	4304	4304
5°	4725	4241	3538
10°	5348	4189	2917
15°	5993	4136	2273
20°	6759	4069	1674
25°	7394	3991	1099
30°	7866	3886	619
35°	8275	3773	273
40°	8637	3635	65
45°	8949	3460	0
50°	9210	3230	0
55°	9409	2936	0
60°	9510	2596	0
65°	9549	2209	0
70°	9517	1801	0
75°	9396	1330	7
80°	9014	813	40
85°	8714	386	57



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.3	1.9
10°-20°	114.7	5.8
20°-30°	185.7	9.4
30°-40°	238.6	12.1
40°-50°	270.1	13.7
50°-60°	279.8	14.2
60°-70°	263.9	13.3
70°-80°	221.1	11.2
80°-90°	160.3	8.1
90°-100°	105.4	5.3
100°-110°	60.8	3.1
110°-120°	26.8	1.4
120°-130°	7.3	0.4
130°-140°	1.6	0.1
140°-150°	1.1	0.1
150°-160°	0.8	0.0
160°-170°	0.4	0.0
170°-180°	0.2	0.0
0°-30°	338.7	17.1
0°-40°	577.3	29.2
0°-60°	1127.2	57.0
0°-90°	1772.5	89.7
90°-120°	193.0	9.8
90°-150°	203.0	10.3
90°-180°	204.0	10.3
0°-180°	1976.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	400	400	400	400	400	
5°	456	438	397	360	342	46
15°	610	535	384	277	231	176
25°	768	627	356	182	114	355
35°	850	676	312	89	28	533
45°	882	670	256	20	0	681
55°	859	627	184	0	0	767
65°	777	555	110	0	0	769
75°	648	448	47	0	0	679
85°	474	325	8	2	3	405
90°	411	261	2	3	4	225
95°	352	204	1	4	5	277
105°	242	105	1	2	4	256
115°	132	35	2	2	2	132
125°	39	5	2	2	2	39
135°	2	2	2	2	2	4
145°	0	2	2	2	2	0
155°	1	2	2	2	0	0
165°	1	2	2	2	0	0
175°	1	2	2	2	0	0
180°	2	2	2	2	2	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	399.9	399.9	399.9	399.9	399.9	399.9	399.9	399.9	399.9	399.9	399.9
2.5°	433.5	433.0	431.5	428.9	425.4	419.3	414.2	409.6	403.5	398.4	388.7
5°	456.4	453.9	451.9	449.3	441.2	435.6	426.4	416.2	406.5	396.8	377.5
7.5°	493.1	489.0	486.0	478.9	467.7	454.9	440.7	431.0	424.4	397.4	364.2
10°	532.4	528.8	522.7	509.9	496.2	477.8	457.5	434.5	414.2	391.7	352.5
12.5°	571.1	566.0	557.3	541.0	521.7	498.7	470.7	443.7	414.7	388.2	338.8
15°	609.8	604.2	595.0	575.1	549.7	519.6	485.5	451.4	417.2	383.6	324.5
17.5°	652.1	644.4	630.7	608.3	576.2	539.0	498.7	457.5	416.2	378.0	309.2
20°	697.4	686.7	671.9	641.9	604.2	560.4	512.0	463.6	415.7	371.4	291.9
22.5°	735.1	724.4	708.1	677.0	631.7	578.2	523.2	467.7	413.7	363.7	275.6
25°	767.7	759.0	741.2	705.6	657.7	597.0	533.9	470.7	410.6	355.6	258.3
27.5°	793.2	785.0	765.2	728.5	679.6	613.9	542.0	472.2	406.5	347.4	240.4
30°	815.6	807.4	783.5	745.8	694.3	627.1	550.2	472.7	401.4	335.2	221.1
32.5°	832.9	825.3	800.8	760.6	704.5	636.3	554.8	472.2	394.8	326.5	200.2
35°	850.2	842.6	814.1	771.3	712.2	640.3	558.3	469.7	386.7	312.3	180.3
37.5°	863.5	854.8	825.8	778.4	715.7	641.4	557.8	466.1	378.0	300.6	160.5
40°	872.6	863.5	832.4	782.5	716.8	639.8	553.7	460.0	367.8	285.8	139.6
42.5°	878.8	868.6	835.5	788.6	714.7	635.8	547.6	452.4	356.6	273.1	119.7
45°	881.8	871.1	836.0	783.5	711.2	628.1	538.5	442.7	344.4	255.7	99.8
47.5°	880.3	868.6	833.4	777.9	704.5	620.0	528.3	431.0	329.6	240.4	81.0
50°	877.7	865.5	827.8	770.8	695.4	609.8	517.1	416.7	314.3	221.6	64.2
52.5°	869.6	857.4	821.7	760.6	684.7	598.1	501.8	401.9	298.0	203.3	48.9
55°	859.4	848.2	811.0	751.4	670.9	583.8	487.5	386.1	282.2	184.4	35.2
57.5°	843.6	833.4	797.8	736.6	657.2	568.0	471.7	368.8	262.4	165.6	24.5
60°	824.3	814.1	779.4	719.8	641.4	550.2	454.4	351.0	244.5	146.7	15.3
62.5°	803.9	794.2	758.0	698.9	621.5	531.3	435.6	333.2	225.7	129.4	9.2
65°	776.9	767.7	735.1	674.0	599.6	511.0	414.7	311.8	206.3	110.0	5.1
67.5°	748.3	740.2	707.1	651.0	574.1	488.5	393.3	290.9	185.9	93.2	2.5
70°	717.8	707.6	677.0	620.0	548.1	463.1	369.8	269.5	166.6	76.9	0.0
72.5°	682.1	674.5	644.9	590.9	518.1	436.1	345.9	246.1	145.2	61.1	0.5
75°	647.5	637.8	610.8	559.9	488.5	407.5	319.4	224.1	124.3	46.9	0.5
77.5°	602.7	599.6	574.1	524.7	460.5	380.0	290.4	197.7	104.4	33.6	0.5
80°	557.8	554.8	534.9	489.6	427.9	347.4	263.4	172.7	85.1	22.4	0.5
82.5°	513.5	509.4	490.6	452.9	394.8	319.9	235.4	147.7	67.2	13.8	0.5
85°	473.8	468.7	448.3	413.7	360.7	288.8	206.3	123.3	49.9	7.6	1.0
87.5°	439.6	436.1	413.7	378.0	326.0	259.8	180.8	99.8	35.2	3.6	1.5
90°	410.6	403.0	383.1	345.4	293.4	227.7	153.8	80.0	23.4	2.0	2.0
92.5°	382.1	375.4	353.5	314.8	264.4	200.2	127.9	61.1	14.8	1.0	2.5
95°	352.5	345.4	324.0	288.3	234.8	172.2	104.9	44.8	8.2	1.0	2.5
97.5°	323.5	316.9	294.4	258.8	208.4	147.7	83.0	31.6	4.1	1.0	2.0
100°	296.5	288.8	268.5	232.8	181.9	123.3	64.2	20.4	2.5	1.0	2.0
102.5°	268.0	261.8	241.0	206.3	154.4	100.4	47.9	12.7	1.0	1.0	1.5
105°	242.5	234.8	214.5	178.8	131.4	79.0	33.6	7.6	1.0	1.0	1.5



TEST NUMBER: P551511

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-80-84-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	157.9	151.8	134.0	103.9	66.7	31.1	9.2	1.5	1.5	1.5	1.5
115°	131.9	122.8	107.0	80.5	49.4	20.4	4.6	1.5	1.5	1.5	1.5
117.5°	105.5	97.8	86.6	61.1	32.6	13.2	2.5	1.5	1.5	1.5	1.5
120°	82.5	75.4	62.7	42.3	21.9	7.6	1.0	1.5	1.5	1.5	1.5
122.5°	59.1	53.5	42.3	27.5	13.2	3.6	1.5	1.5	2.0	2.0	1.5
125°	39.2	36.2	28.0	16.8	8.2	1.5	1.5	1.5	2.0	2.0	1.5
127.5°	25.5	22.9	16.3	9.7	3.6	1.5	1.5	2.0	2.0	2.0	1.5
130°	14.3	12.7	9.7	5.6	1.5	1.5	1.5	2.0	2.0	2.0	1.5
132.5°	8.2	7.6	5.1	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0
135°	2.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0
137.5°	0.5	0.5	1.0	1.0	1.5	1.5	2.0	2.5	2.5	2.5	2.0
140°	0.5	0.5	1.0	1.5	1.5	1.5	2.0	2.5	2.5	2.5	2.0
142.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0	2.0
145°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.0	2.0	2.0
147.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.0	2.0
150°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.0
152.5°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.0
155°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.5
157.5°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.5
160°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
162.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0	2.0
165°	1.0	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.0	2.0	2.0
167.5°	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.0	2.0	2.0	2.0
170°	1.0	1.0	1.0	1.5	1.5	1.5	2.0	2.5	2.5	2.5	2.5
172.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.5
175°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.5
177.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.5	2.5	2.5	2.0
180°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5



TEST NUMBER: P551511

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-80-84-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	399.9	399.9	399.9
2.5°	380.5	373.4	371.4
5°	360.2	348.4	341.8
7.5°	339.8	324.0	316.4
10°	320.9	298.5	290.4
12.5°	298.5	272.5	259.8
15°	277.1	243.5	231.3
17.5°	253.2	215.5	201.2
20°	230.8	187.5	172.7
22.5°	205.3	160.0	143.7
25°	182.4	132.5	114.1
27.5°	156.9	104.4	88.6
30°	133.0	80.0	64.2
32.5°	110.0	58.6	44.3
35°	88.6	39.7	28.0
37.5°	68.3	24.5	14.3
40°	49.4	12.7	6.6
42.5°	33.1	6.1	3.6
45°	20.4	3.1	0.0
47.5°	11.7	0.0	0.0
50°	6.1	0.0	0.0
52.5°	2.5	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°	0.5	0.5	0.5
77.5°	0.5	1.0	1.5
80°	1.0	2.0	2.5
82.5°	2.0	2.5	2.5
85°	2.0	2.5	3.1
87.5°	2.5	3.1	3.6
90°	3.1	3.6	3.6
92.5°	3.1	4.1	4.1
95°	3.6	4.1	4.6
97.5°	4.1	4.6	4.6
100°	3.6	4.6	5.1
102.5°	3.1	4.6	4.6
105°	2.5	3.6	4.1



TEST NUMBER: P551511

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-80-84-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.0	2.5	2.5
115°	1.5	2.0	2.5
117.5°	1.5	2.0	2.0
120°	1.5	1.5	2.0
122.5°	1.5	1.5	2.0
125°	1.5	1.5	2.0
127.5°	2.0	1.5	1.5
130°	1.5	1.5	1.5
132.5°	2.0	1.5	1.5
135°	2.0	1.5	1.5
137.5°	2.0	1.5	1.5
140°	2.0	1.5	1.5
142.5°	2.0	1.5	1.5
145°	1.5	1.5	1.5
147.5°	1.5	1.5	1.5
150°	1.5	1.5	1.0
152.5°	1.5	1.0	1.0
155°	1.5	1.0	0.5
157.5°	2.0	1.0	0.5
160°	1.5	1.0	0.5
162.5°	1.5	1.0	0.5
165°	1.5	1.0	0.0
167.5°	1.5	1.0	0.5
170°	1.5	1.0	0.5
172.5°	1.5	1.0	0.5
175°	1.5	0.5	0.5
177.5°	1.5	0.5	0.5
180°	1.5	1.5	1.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	214.0	207.8	187.5	153.8	107.5	60.1	22.4	4.1	1.0	1.5	1.5
110°	186.5	181.4	160.5	127.9	86.6	44.8	14.8	2.5	1.5	1.5	1.5





107.5°	2.0	3.1	3.6
110°	2.0	2.5	3.1



(END OF REPORT)