

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: P551569

Luminaire Tested: **FCC-X-2-LD4-2LO-35-UNV-93-94-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: P551569
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-93-94-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3500K,
AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

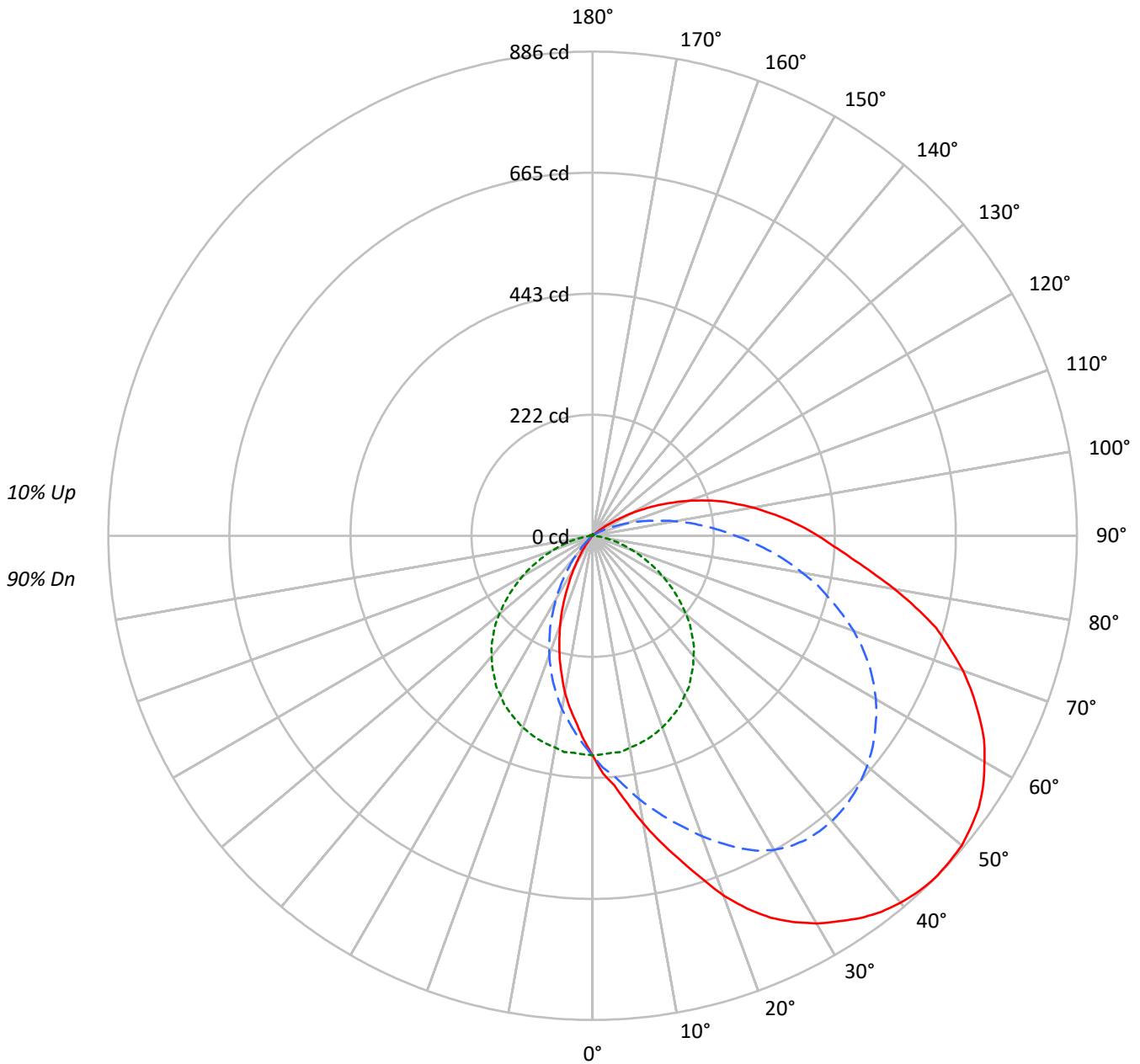
Lumens per Lamp: N/A
Luminaire Lumens: 1985.9 lumens
Efficiency: N/A
Efficacy: 84.5 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551569

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-93-94-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°	4324	4324	4324
5°	4746	4260	3555
10°	5372	4208	2930
15°	6020	4154	2283
20°	6790	4088	1681
25°	7428	4009	1104
30°	7902	3903	622
35°	8313	3790	273
40°	8677	3651	66
45°	8989	3476	0
50°	9252	3244	0
55°	9452	2951	0
60°	9552	2608	0
65°	9592	2219	0
70°	9559	1811	0
75°	9438	1336	7
80°	9056	816	42
85°	8753	392	57



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.5	1.9
10°-20°	115.2	5.8
20°-30°	186.6	9.4
30°-40°	239.7	12.1
40°-50°	271.3	13.7
50°-60°	281.1	14.2
60°-70°	265.1	13.3
70°-80°	222.2	11.2
80°-90°	161.0	8.1
90°-100°	105.8	5.3
100°-110°	61.1	3.1
110°-120°	27.0	1.4
120°-130°	7.3	0.4
130°-140°	1.7	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
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0°-30°	340.3	17.1
0°-40°	580.0	29.2
0°-60°	1132.4	57.0
0°-90°	1780.6	89.7
90°-120°	193.9	9.8
90°-150°	203.9	10.3
90°-180°	205.0	10.3
0°-180°	1985.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	402	402	402	402	402	
5°	458	440	399	362	343	46
15°	613	537	385	278	232	177
25°	771	630	357	183	115	356
35°	854	679	314	89	28	536
45°	886	673	257	20	0	684
55°	863	630	185	0	0	771
65°	780	558	110	0	0	772
75°	650	450	47	0	0	682
85°	476	326	8	2	3	406
90°	412	262	2	3	4	226
95°	354	204	1	4	5	278
105°	244	106	1	3	4	257
115°	132	35	2	2	3	133
125°	39	5	2	2	2	39
135°	2	2	3	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	3	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°	401.7	401.7	401.7	401.7	401.7	401.7	401.7	401.7	401.7	401.7	401.7
2.5°	435.5	435.0	433.4	430.9	427.3	421.2	416.0	411.4	405.3	400.2	390.5
5°	458.5	456.0	453.9	451.4	443.2	437.5	428.3	418.1	408.4	398.6	379.2
7.5°	495.4	491.3	488.2	481.0	469.8	457.0	442.7	432.9	426.3	399.2	365.9
10°	534.8	531.2	525.1	512.3	498.4	480.0	459.5	436.5	416.0	393.5	354.1
12.5°	573.7	568.5	559.8	543.5	524.0	501.0	472.9	445.7	416.6	389.9	340.3
15°	612.6	606.9	597.7	577.8	552.2	522.0	487.7	453.4	419.1	385.3	326.0
17.5°	655.0	647.4	633.5	611.0	578.8	541.4	501.0	459.5	418.1	379.7	310.6
20°	700.6	689.8	675.0	644.8	606.9	562.9	514.3	465.7	417.6	373.1	293.2
22.5°	738.4	727.7	711.3	680.1	634.6	580.8	525.6	469.8	415.5	365.4	276.9
25°	771.2	762.5	744.6	708.8	660.7	599.8	536.3	472.9	412.5	357.2	259.5
27.5°	796.8	788.6	768.6	731.8	682.7	616.7	544.5	474.4	408.4	349.0	241.5
30°	819.3	811.1	787.1	749.2	697.5	630.0	552.7	474.9	403.3	336.7	222.1
32.5°	836.7	829.0	804.5	764.0	707.7	639.2	557.3	474.4	396.6	328.0	201.1
35°	854.1	846.4	817.8	774.8	715.4	643.3	560.9	471.8	388.4	313.7	181.2
37.5°	867.4	858.7	829.5	781.9	719.0	644.3	560.4	468.2	379.7	301.9	161.2
40°	876.6	867.4	836.2	786.0	720.0	642.8	556.3	462.1	369.5	287.1	140.2
42.5°	882.8	872.5	839.3	792.2	718.0	638.7	550.1	454.4	358.2	274.3	120.3
45°	885.8	875.1	839.8	787.1	714.4	631.0	540.9	444.7	345.9	256.9	100.3
47.5°	884.3	872.5	837.2	781.4	707.7	622.8	530.7	432.9	331.1	241.5	81.4
50°	881.7	869.5	831.6	774.3	698.5	612.6	519.4	418.6	315.7	222.6	64.5
52.5°	873.5	861.3	825.4	764.0	687.8	600.8	504.1	403.8	299.4	204.2	49.1
55°	863.3	852.1	814.7	754.8	674.0	586.5	489.7	387.9	283.5	185.3	35.3
57.5°	847.5	837.2	801.4	740.0	660.2	570.6	473.9	370.5	263.5	166.3	24.6
60°	828.0	817.8	783.0	723.1	644.3	552.7	456.5	352.6	245.6	147.4	15.4
62.5°	807.5	797.8	761.5	702.1	624.3	533.8	437.5	334.7	226.7	130.0	9.2
65°	780.4	771.2	738.4	677.0	602.3	513.3	416.6	313.2	207.3	110.5	5.1
67.5°	751.8	743.6	710.3	654.0	576.7	490.8	395.1	292.2	186.8	93.6	2.6
70°	721.0	710.8	680.1	622.8	550.6	465.2	371.5	270.7	167.3	77.3	0.0
72.5°	685.2	677.6	647.9	593.6	520.4	438.1	347.5	247.2	145.8	61.4	0.5
75°	650.4	640.7	613.6	562.4	490.8	409.4	320.9	225.2	124.9	47.1	0.5
77.5°	605.4	602.3	576.7	527.1	462.6	381.8	291.7	198.6	104.9	33.8	0.5
80°	560.4	557.3	537.3	491.8	429.9	349.0	264.6	173.5	85.5	22.5	0.5
82.5°	515.8	511.7	492.8	454.9	396.6	321.4	236.4	148.4	67.6	13.8	0.5
85°	475.9	470.8	450.3	415.5	362.3	290.2	207.3	123.8	50.2	7.7	1.0
87.5°	441.6	438.1	415.5	379.7	327.5	261.0	181.7	100.3	35.3	3.6	1.5
90°	412.5	404.8	384.8	347.0	294.8	228.8	154.5	80.3	23.5	2.0	2.0
92.5°	383.8	377.2	355.2	316.3	265.6	201.1	128.4	61.4	14.8	1.0	2.6
95°	354.1	347.0	325.5	289.6	235.9	173.0	105.4	45.0	8.2	1.0	2.6
97.5°	325.0	318.3	295.8	260.0	209.3	148.4	83.4	31.7	4.1	1.0	2.0
100°	297.8	290.2	269.7	233.9	182.7	123.8	64.5	20.5	2.6	1.0	2.0
102.5°	269.2	263.0	242.1	207.3	155.1	100.8	48.1	12.8	1.0	1.0	1.5
105°	243.6	235.9	215.4	179.6	132.0	79.3	33.8	7.7	1.0	1.0	1.5



TEST NUMBER: P551569

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-93-94-ED1D-90

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	158.6	152.5	134.6	104.4	67.0	31.2	9.2	1.5	1.5	1.5	1.5
115°	132.5	123.3	107.5	80.9	49.6	20.5	4.6	1.5	1.5	1.5	1.5
117.5°	105.9	98.3	87.0	61.4	32.8	13.3	2.6	1.5	1.5	1.5	1.5
120°	82.9	75.7	62.9	42.5	22.0	7.7	1.0	1.5	1.5	1.5	1.5
122.5°	59.4	53.7	42.5	27.6	13.3	3.6	1.5	1.5	2.0	2.0	1.5
125°	39.4	36.3	28.1	16.9	8.2	1.5	1.5	1.5	2.0	2.0	1.5
127.5°	25.6	23.0	16.4	9.7	3.6	1.5	1.5	2.0	2.0	2.0	1.5
130°	14.3	12.8	9.7	5.6	1.5	1.5	1.5	2.0	2.0	2.0	1.5
132.5°	8.2	7.7	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	2.6	2.6	2.0
137.5°	0.5	0.5	1.0	1.0	1.5	1.5	2.0	2.6	2.6	2.6	2.0
140°	0.5	0.5	1.0	1.5	1.5	1.5	2.0	2.6	2.6	2.6	2.0
142.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.6	2.6	2.0	2.0
145°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.6	2.0	2.0	2.0
147.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.6	2.6	2.0	2.0
150°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.6	2.0	2.0	2.0
152.5°	0.5	1.0	1.0	1.5	2.0	2.0	2.0	2.6	2.0	2.0	2.0
155°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.6	2.0	2.0	2.6
157.5°	1.0	1.0	1.0	1.5	2.0	2.0	2.0	2.6	2.0	2.0	2.6
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	2.6	2.6	2.6	2.6
172.5°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.6	2.6	2.6	2.6
175°	1.0	1.0	1.0	1.5	1.5	2.0	2.0	2.6	2.6	2.6	2.6
177.5°	0.5	1.0	1.0	1.5	1.5	2.0	2.0	2.6	2.6	2.6	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



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	401.7	401.7	401.7
2.5°	382.3	375.1	373.1
5°	361.8	350.0	343.4
7.5°	341.3	325.5	317.8
10°	322.4	299.9	291.7
12.5°	299.9	273.8	261.0
15°	278.4	244.6	232.3
17.5°	254.3	216.5	202.1
20°	231.8	188.3	173.5
22.5°	206.2	160.7	144.3
25°	183.2	133.1	114.6
27.5°	157.6	104.9	89.0
30°	133.6	80.3	64.5
32.5°	110.5	58.9	44.5
35°	89.0	39.9	28.1
37.5°	68.6	24.6	14.3
40°	49.6	12.8	6.7
42.5°	33.3	6.1	3.6
45°	20.5	3.1	0.0
47.5°	11.8	0.0	0.0
50°	6.1	0.0	0.0
52.5°	2.6	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	2.6
82.5°	2.0	2.6	2.6
85°	2.0	2.6	3.1
87.5°	2.6	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°	2.6	3.6	4.1



TEST NUMBER: P551569

CATALOG NUMBER: FCC-X-2-LD4-2LO-35-UNV-93-94-ED1D-90

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.0	2.6	2.6
115°	1.5	2.0	2.6
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°	214.9	208.8	188.3	154.5	108.0	60.4	22.5	4.1	1.0	1.5	1.5
110°	187.3	182.2	161.2	128.4	87.0	45.0	14.8	2.6	1.5	1.5	1.5





107.5°	2.0	3.1	3.6
110°	2.0	2.6	3.1



(END OF REPORT)