

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: P551452

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-80-86-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: P551452
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-80-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

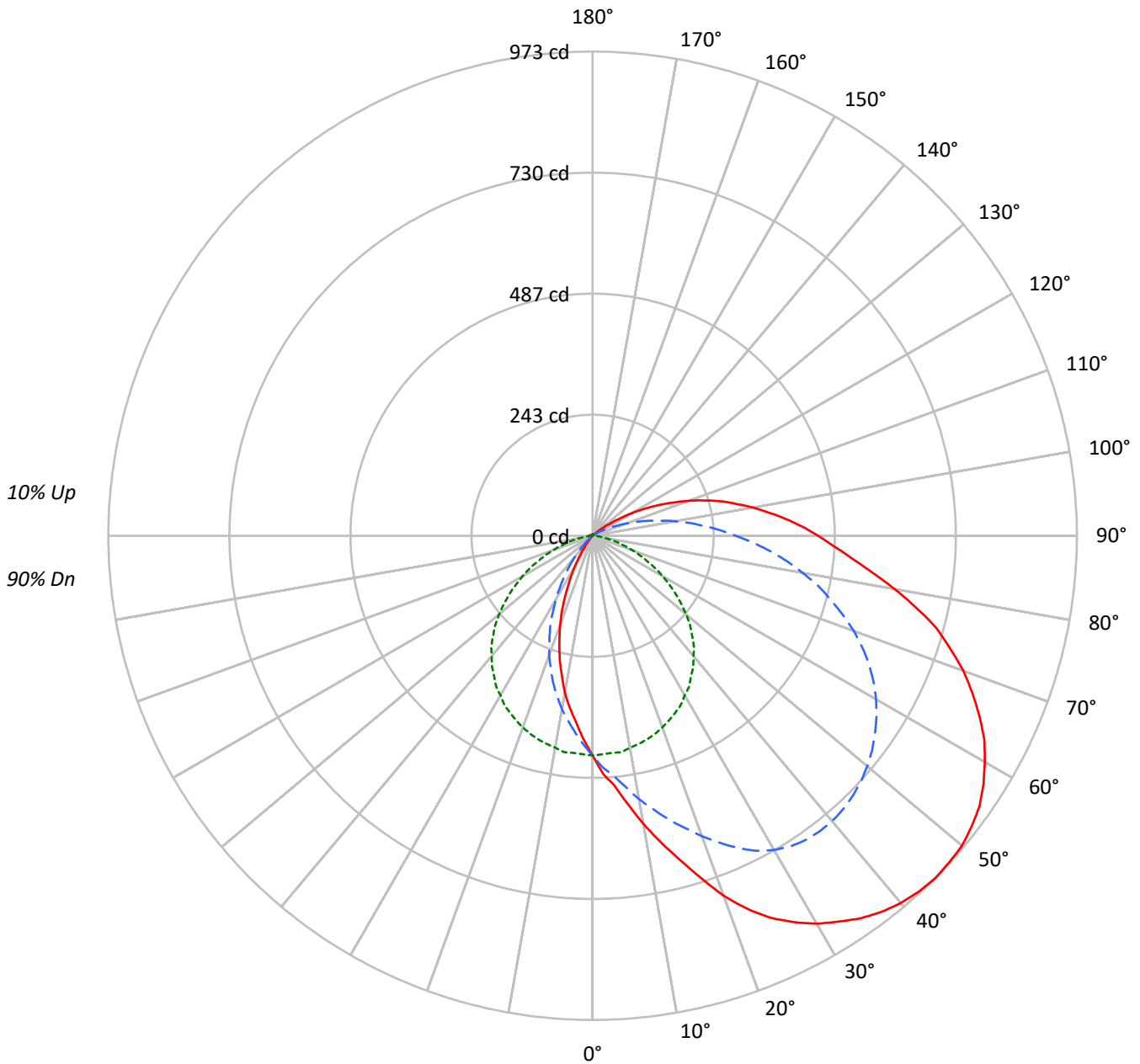
Lumens per Lamp: N/A
Luminaire Lumens: 2181.9 lumens
Efficiency: N/A
Efficacy: 92.8 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

TEST NUMBER: P551452

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-80-86-ED1D

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°	4751	4751	4751
5°	5215	4681	3906
10°	5902	4624	3219
15°	6614	4565	2509
20°	7459	4491	1847
25°	8160	4405	1213
30°	8682	4289	683
35°	9133	4165	301
40°	9533	4011	72
45°	9877	3818	0
50°	10166	3565	0
55°	10385	3240	0
60°	10495	2865	0
65°	10538	2438	0
70°	10503	1989	0
75°	10369	1466	9
80°	9950	896	45
85°	9617	427	63



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.3	1.9
10°-20°	126.6	5.8
20°-30°	205.0	9.4
30°-40°	263.3	12.1
40°-50°	298.1	13.7
50°-60°	308.8	14.2
60°-70°	291.2	13.3
70°-80°	244.1	11.2
80°-90°	176.9	8.1
90°-100°	116.3	5.3
100°-110°	67.2	3.1
110°-120°	29.6	1.4
120°-130°	8.0	0.4
130°-140°	1.8	0.1
140°-150°	1.2	0.1
150°-160°	0.8	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	373.9	17.1
0°-40°	637.2	29.2
0°-60°	1244.1	57.0
0°-90°	1956.3	89.7
90°-120°	213.1	9.8
90°-150°	224.1	10.3
90°-180°	226.0	10.4
0°-180°	2181.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	441	441	441	441	441	
5°	504	484	438	398	377	51
15°	673	590	423	306	255	194
25°	847	692	392	201	126	392
35°	938	746	345	98	31	589
45°	973	739	282	22	0	751
55°	948	692	204	0	0	847
65°	857	613	121	0	0	848
75°	715	494	52	1	1	750
85°	523	358	8	2	3	447
90°	453	288	2	3	4	248
95°	389	225	1	4	5	305
105°	268	116	1	3	4	282
115°	146	38	2	2	3	146
125°	43	5	2	2	2	43
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	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	441.4	441.4	441.4	441.4	441.4	441.4	441.4	441.4	441.4	441.4	441.4
2.5°	478.5	477.9	476.2	473.4	469.5	462.7	457.1	452.0	445.3	439.7	429.0
5°	503.8	501.0	498.7	495.9	486.9	480.7	470.6	459.4	448.7	438.0	416.6
7.5°	544.3	539.8	536.4	528.5	516.1	502.1	486.3	475.7	468.4	438.6	402.0
10°	587.6	583.6	576.9	562.8	547.6	527.4	504.9	479.6	457.1	432.4	389.1
12.5°	630.3	624.7	615.1	597.1	575.7	550.4	519.5	489.7	457.7	428.4	373.9
15°	673.0	666.8	656.7	634.8	606.7	573.5	535.8	498.2	460.5	423.4	358.2
17.5°	719.7	711.2	696.1	671.3	635.9	594.9	550.4	504.9	459.4	417.2	341.3
20°	769.7	757.9	741.6	708.4	666.8	618.5	565.1	511.6	458.8	409.9	322.2
22.5°	811.3	799.5	781.5	747.2	697.2	638.2	577.4	516.1	456.5	401.4	304.2
25°	847.3	837.8	818.1	778.7	725.9	659.0	589.2	519.5	453.2	392.5	285.1
27.5°	875.4	866.4	844.5	804.0	750.0	677.5	598.2	521.2	448.7	383.5	265.4
30°	900.2	891.2	864.7	823.1	766.3	692.1	607.2	521.8	443.1	370.0	244.0
32.5°	919.3	910.8	883.9	839.4	777.6	702.3	612.3	521.2	435.7	360.4	221.0
35°	938.4	930.0	898.5	851.2	786.0	706.7	616.2	518.4	426.7	344.7	199.0
37.5°	953.0	943.5	911.4	859.1	790.0	707.9	615.7	514.5	417.2	331.7	177.1
40°	963.1	953.0	918.7	863.6	791.1	706.2	611.2	507.7	405.9	315.4	154.1
42.5°	969.9	958.6	922.1	870.4	788.8	701.7	604.4	499.3	393.6	301.4	132.1
45°	973.3	961.4	922.7	864.7	784.9	693.3	594.3	488.6	380.1	282.2	110.2
47.5°	971.6	958.6	919.8	858.6	777.6	684.3	583.1	475.7	363.8	265.4	89.4
50°	968.8	955.3	913.7	850.7	767.5	673.0	570.7	459.9	346.9	244.6	70.8
52.5°	959.8	946.3	906.9	839.4	755.7	660.1	553.8	443.6	328.9	224.3	54.0
55°	948.5	936.1	895.1	829.3	740.5	644.3	538.1	426.2	311.5	203.5	38.8
57.5°	931.1	919.8	880.5	813.0	725.3	626.9	520.6	407.1	289.6	182.7	27.0
60°	909.7	898.5	860.2	794.5	707.9	607.2	501.5	387.4	269.9	161.9	16.9
62.5°	887.2	876.5	836.6	771.4	685.9	586.4	480.7	367.7	249.1	142.8	10.1
65°	857.4	847.3	811.3	743.9	661.8	563.9	457.7	344.1	227.7	121.4	5.6
67.5°	825.9	816.9	780.4	718.6	633.7	539.2	434.1	321.0	205.2	102.9	2.8
70°	792.2	781.0	747.2	684.3	605.0	511.1	408.2	297.4	183.9	84.9	0.0
72.5°	752.9	744.4	711.8	652.2	571.8	481.3	381.8	271.6	160.2	67.5	0.6
75°	714.6	703.9	674.1	617.9	539.2	449.8	352.5	247.4	137.2	51.7	0.6
77.5°	665.1	661.8	633.7	579.1	508.3	419.4	320.5	218.2	115.3	37.1	0.6
80°	615.7	612.3	590.4	540.3	472.3	383.5	290.7	190.6	93.9	24.7	0.6
82.5°	566.7	562.2	541.4	499.8	435.7	353.1	259.8	163.1	74.2	15.2	0.6
85°	522.9	517.3	494.8	456.5	398.1	318.8	227.7	136.1	55.1	8.4	1.1
87.5°	485.2	481.3	456.5	417.2	359.8	286.7	199.6	110.2	38.8	3.9	1.7
90°	453.2	444.7	422.8	381.2	323.9	251.3	169.8	88.3	25.9	2.2	2.2
92.5°	421.7	414.4	390.2	347.5	291.8	221.0	141.1	67.5	16.3	1.1	2.8
95°	389.1	381.2	357.6	318.2	259.2	190.0	115.8	49.5	9.0	1.1	2.8
97.5°	357.0	349.7	325.0	285.6	230.0	163.1	91.6	34.9	4.5	1.1	2.2
100°	327.2	318.8	296.3	256.9	200.7	136.1	70.8	22.5	2.8	1.1	2.2
102.5°	295.7	289.0	265.9	227.7	170.4	110.8	52.9	14.1	1.1	1.1	1.7
105°	267.6	259.2	236.7	197.3	145.1	87.1	37.1	8.4	1.1	1.1	1.7



TEST NUMBER: P551452

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-80-86-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	174.3	167.6	147.9	114.7	73.7	34.3	10.1	1.7	1.7	1.7	1.7
115°	145.6	135.5	118.1	88.8	54.5	22.5	5.1	1.7	1.7	1.7	1.7
117.5°	116.4	108.0	95.6	67.5	36.0	14.6	2.8	1.7	1.7	1.7	1.7
120°	91.1	83.2	69.2	46.7	24.2	8.4	1.1	1.7	1.7	1.7	1.7
122.5°	65.2	59.0	46.7	30.4	14.6	3.9	1.7	1.7	2.2	2.2	1.7
125°	43.3	39.9	30.9	18.6	9.0	1.7	1.7	1.7	2.2	2.2	1.7
127.5°	28.1	25.3	18.0	10.7	3.9	1.7	1.7	2.2	2.2	2.2	1.7
130°	15.7	14.1	10.7	6.2	1.7	1.7	1.7	2.2	2.2	2.2	1.7
132.5°	9.0	8.4	5.6	1.1	1.7	1.7	1.7	2.2	2.2	2.2	2.2
135°	2.2	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.2
137.5°	0.6	0.6	1.1	1.1	1.7	1.7	2.2	2.8	2.8	2.8	2.2
140°	0.6	0.6	1.1	1.7	1.7	1.7	2.2	2.8	2.8	2.8	2.2
142.5°	0.6	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.2	2.2
145°	0.6	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.2	2.2	2.2
147.5°	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.2	2.2
150°	0.6	1.1	1.1	1.7	2.2	2.2	2.2	2.8	2.2	2.2	2.2
152.5°	0.6	1.1	1.1	1.7	2.2	2.2	2.2	2.8	2.2	2.2	2.2
155°	1.1	1.1	1.1	1.7	2.2	2.2	2.2	2.8	2.2	2.2	2.8
157.5°	1.1	1.1	1.1	1.7	2.2	2.2	2.2	2.8	2.2	2.2	2.8
160°	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.2	2.2	2.2	2.2
162.5°	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.2	2.2	2.2	2.2
165°	1.1	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.2	2.2	2.2
167.5°	1.1	1.1	1.1	1.7	1.7	1.7	2.2	2.2	2.2	2.2	2.2
170°	1.1	1.1	1.1	1.7	1.7	1.7	2.2	2.8	2.8	2.8	2.8
172.5°	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.8	2.8
175°	1.1	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.8	2.8
177.5°	0.6	1.1	1.1	1.7	1.7	2.2	2.2	2.8	2.8	2.8	2.2
180°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7



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CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-80-86-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	441.4	441.4	441.4
2.5°	420.0	412.1	409.9
5°	397.5	384.6	377.3
7.5°	375.0	357.6	349.2
10°	354.2	329.5	320.5
12.5°	329.5	300.8	286.7
15°	305.9	268.8	255.3
17.5°	279.4	237.8	222.1
20°	254.7	206.9	190.6
22.5°	226.6	176.5	158.6
25°	201.3	146.2	125.9
27.5°	173.2	115.3	97.8
30°	146.7	88.3	70.8
32.5°	121.4	64.7	48.9
35°	97.8	43.9	30.9
37.5°	75.3	27.0	15.7
40°	54.5	14.1	7.3
42.5°	36.5	6.7	3.9
45°	22.5	3.4	0.0
47.5°	12.9	0.0	0.0
50°	6.7	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	2.2	2.8
82.5°	2.2	2.8	2.8
85°	2.2	2.8	3.4
87.5°	2.8	3.4	3.9
90°	3.4	3.9	3.9
92.5°	3.4	4.5	4.5
95°	3.9	4.5	5.1
97.5°	4.5	5.1	5.1
100°	3.9	5.1	5.6
102.5°	3.4	5.1	5.1
105°	2.8	3.9	4.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.2	2.8	2.8
115°	1.7	2.2	2.8
117.5°	1.7	2.2	2.2
120°	1.7	1.7	2.2
122.5°	1.7	1.7	2.2
125°	1.7	1.7	2.2
127.5°	2.2	1.7	1.7
130°	1.7	1.7	1.7
132.5°	2.2	1.7	1.7
135°	2.2	1.7	1.7
137.5°	2.2	1.7	1.7
140°	2.2	1.7	1.7
142.5°	2.2	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°	2.2	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°	236.1	229.4	206.9	169.8	118.6	66.3	24.7	4.5	1.1	1.7	1.7
110°	205.8	200.2	177.1	141.1	95.6	49.5	16.3	2.8	1.7	1.7	1.7





107.5°	2.2	3.4	3.9
110°	2.2	2.8	3.4



(END OF REPORT)