

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: P551492

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-82-96-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: P551492
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-82-96-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

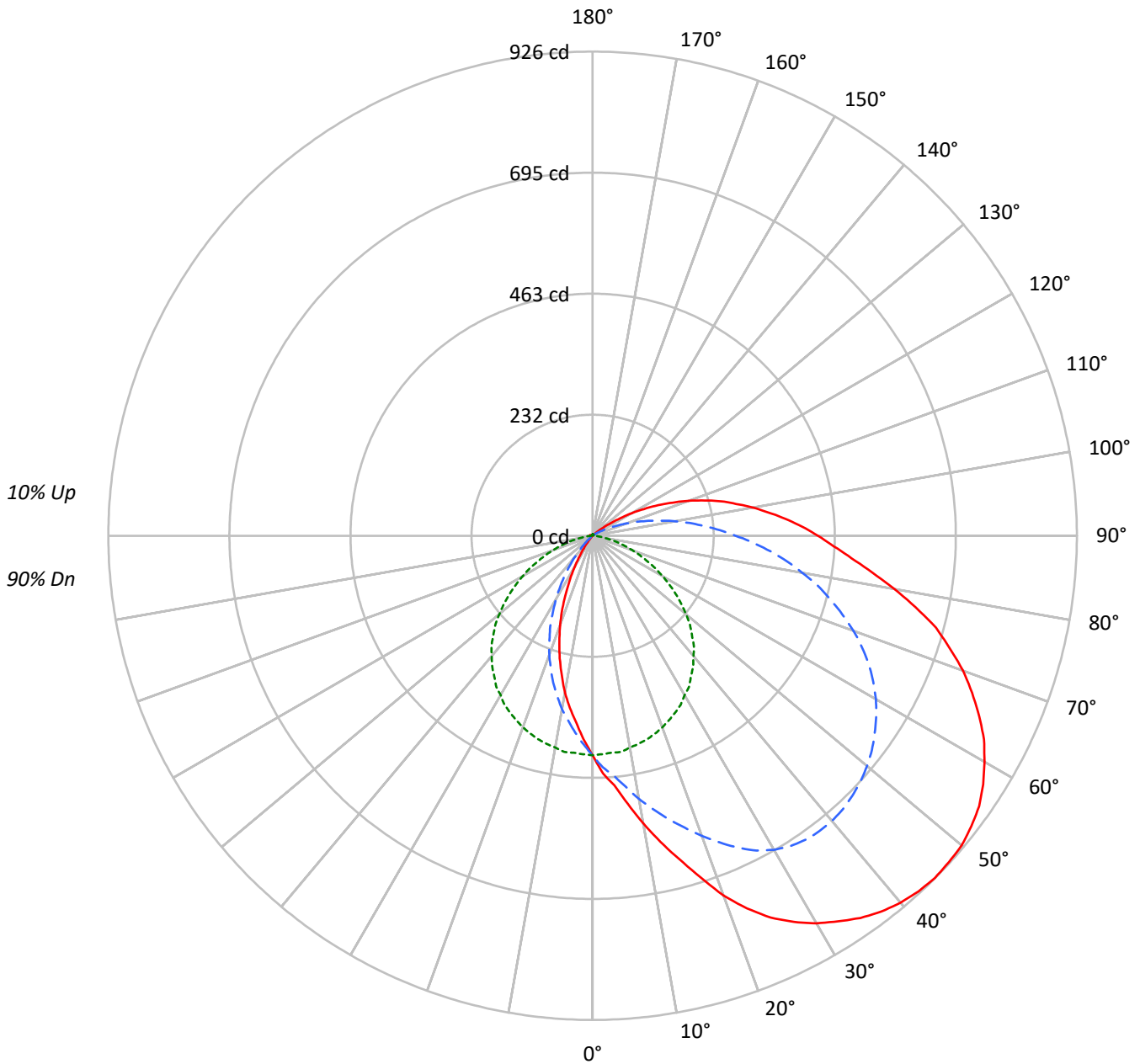
Lumens per Lamp: N/A
Luminaire Lumens: 2075.0 lumens
Efficiency: N/A
Efficacy: 88.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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: P551492

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-82-96-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°	4518	4518	4518
5°	4960	4452	3714
10°	5612	4397	3062
15°	6289	4341	2385
20°	7094	4271	1757
25°	7761	4188	1154
30°	8256	4078	650
35°	8686	3961	286
40°	9066	3815	69
45°	9392	3632	0
50°	9667	3390	0
55°	9875	3083	0
60°	9980	2725	0
65°	10022	2320	0
70°	9989	1890	0
75°	9862	1395	7
80°	9462	852	44
85°	9146	407	59



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.2	1.9
10°-20°	120.4	5.8
20°-30°	194.9	9.4
30°-40°	250.4	12.1
40°-50°	283.5	13.7
50°-60°	293.7	14.2
60°-70°	277.0	13.3
70°-80°	232.1	11.2
80°-90°	168.2	8.1
90°-100°	110.6	5.3
100°-110°	63.9	3.1
110°-120°	28.2	1.4
120°-130°	7.6	0.4
130°-140°	1.7	0.1
140°-150°	1.1	0.1
150°-160°	0.8	0.0
160°-170°	0.5	0.0
170°-180°	0.2	0.0
0°-30°	355.5	17.1
0°-40°	605.9	29.2
0°-60°	1183.1	57.0
0°-90°	1860.4	89.7
90°-120°	202.6	9.8
90°-150°	213.1	10.3
90°-180°	215.0	10.4
0°-180°	2075.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	420	420	420	420	420	
5°	479	460	416	378	359	48
15°	640	561	403	291	243	185
25°	806	658	373	191	120	372
35°	892	710	328	93	29	560
45°	926	703	268	21	0	715
55°	902	658	194	0	0	805
65°	815	583	116	0	0	807
75°	680	470	49	0	0	713
85°	497	341	8	2	3	425
90°	431	274	2	3	4	236
95°	370	214	1	4	5	290
105°	254	110	1	3	4	269
115°	138	37	2	2	3	139
125°	41	5	2	2	2	41
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	



TEST NUMBER: P551492

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	419.7	419.7	419.7	419.7	419.7	419.7	419.7	419.7	419.7	419.7	419.7
2.5°	455.0	454.5	452.9	450.2	446.5	440.0	434.7	429.9	423.5	418.1	408.0
5°	479.1	476.4	474.3	471.6	463.0	457.2	447.5	436.8	426.7	416.5	396.2
7.5°	517.6	513.3	510.1	502.6	490.8	477.5	462.5	452.3	445.4	417.0	382.3
10°	558.7	555.0	548.6	535.2	520.8	501.5	480.1	456.1	434.7	411.2	370.0
12.5°	599.4	594.0	584.9	567.8	547.5	523.5	494.0	465.7	435.2	407.4	355.6
15°	640.0	634.1	624.5	603.7	576.9	545.4	509.5	473.7	437.9	402.6	340.6
17.5°	684.4	676.4	661.9	638.4	604.7	565.7	523.5	480.1	436.8	396.7	324.5
20°	732.0	720.7	705.2	673.7	634.1	588.1	537.4	486.6	436.3	389.8	306.4
22.5°	771.5	760.3	743.2	710.6	663.0	606.9	549.1	490.8	434.2	381.8	289.3
25°	805.8	796.7	778.0	740.5	690.3	626.6	560.3	494.0	431.0	373.2	271.1
27.5°	832.5	823.9	803.1	764.6	713.3	644.3	568.9	495.6	426.7	364.7	252.4
30°	856.0	847.5	822.3	782.8	728.8	658.2	577.5	496.2	421.3	351.8	232.1
32.5°	874.2	866.2	840.5	798.3	739.5	667.8	582.3	495.6	414.4	342.7	210.1
35°	892.4	884.4	854.4	809.5	747.5	672.1	586.0	493.0	405.8	327.8	189.3
37.5°	906.3	897.2	866.7	817.0	751.2	673.2	585.5	489.2	396.7	315.5	168.4
40°	915.9	906.3	873.7	821.3	752.3	671.6	581.2	482.8	386.0	300.0	146.5
42.5°	922.3	911.6	876.9	827.7	750.2	667.3	574.8	474.8	374.3	286.6	125.6
45°	925.5	914.3	877.4	822.3	746.4	659.3	565.2	464.6	361.4	268.4	104.8
47.5°	923.9	911.6	874.7	816.5	739.5	650.7	554.5	452.3	345.9	252.4	85.0
50°	921.3	908.4	868.9	809.0	729.8	640.0	542.7	437.4	329.9	232.6	67.4
52.5°	912.7	899.9	862.4	798.3	718.6	627.7	526.7	421.9	312.8	213.3	51.3
55°	902.0	890.2	851.2	788.7	704.2	612.7	511.7	405.3	296.2	193.6	36.9
57.5°	885.4	874.7	837.3	773.1	689.7	596.2	495.1	387.1	275.4	173.8	25.7
60°	865.1	854.4	818.1	755.5	673.2	577.5	476.9	368.4	256.6	154.0	16.0
62.5°	843.7	833.6	795.6	733.6	652.3	557.7	457.2	349.7	236.9	135.8	9.6
65°	815.4	805.8	771.5	707.4	629.3	536.3	435.2	327.2	216.5	115.5	5.3
67.5°	785.4	776.9	742.1	683.3	602.6	512.8	412.8	305.3	195.2	97.8	2.7
70°	753.4	742.7	710.6	650.7	575.3	486.0	388.2	282.8	174.8	80.7	0.0
72.5°	715.9	707.9	676.9	620.2	543.8	457.7	363.0	258.2	152.4	64.2	0.5
75°	679.6	669.4	641.1	587.6	512.8	427.7	335.2	235.3	130.5	49.2	0.5
77.5°	632.5	629.3	602.6	550.7	483.3	398.9	304.8	207.5	109.6	35.3	0.5
80°	585.5	582.3	561.4	513.8	449.1	364.7	276.4	181.3	89.3	23.5	0.5
82.5°	539.0	534.7	514.9	475.3	414.4	335.8	247.0	155.1	70.6	14.4	0.5
85°	497.3	491.9	470.5	434.2	378.6	303.2	216.5	129.4	52.4	8.0	1.1
87.5°	461.4	457.7	434.2	396.7	342.2	272.7	189.8	104.8	36.9	3.7	1.6
90°	431.0	422.9	402.1	362.5	308.0	239.0	161.5	83.9	24.6	2.1	2.1
92.5°	401.0	394.1	371.1	330.4	277.5	210.1	134.2	64.2	15.5	1.1	2.7
95°	370.0	362.5	340.1	302.6	246.5	180.7	110.1	47.1	8.6	1.1	2.7
97.5°	339.5	332.6	309.0	271.6	218.7	155.1	87.2	33.2	4.3	1.1	2.1
100°	311.2	303.2	281.8	244.3	190.9	129.4	67.4	21.4	2.7	1.1	2.1
102.5°	281.2	274.8	252.9	216.5	162.0	105.3	50.3	13.4	1.1	1.1	1.6
105°	254.5	246.5	225.1	187.7	137.9	82.9	35.3	8.0	1.1	1.1	1.6



TEST NUMBER: P551492

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-82-96-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	165.8	159.3	140.6	109.1	70.0	32.6	9.6	1.6	1.6	1.6	1.6
115°	138.5	128.9	112.3	84.5	51.9	21.4	4.8	1.6	1.6	1.6	1.6
117.5°	110.7	102.7	90.9	64.2	34.2	13.9	2.7	1.6	1.6	1.6	1.6
120°	86.6	79.1	65.8	44.4	23.0	8.0	1.1	1.6	1.6	1.6	1.6
122.5°	62.0	56.1	44.4	28.9	13.9	3.7	1.6	1.6	2.1	2.1	1.6
125°	41.2	38.0	29.4	17.6	8.6	1.6	1.6	1.6	2.1	2.1	1.6
127.5°	26.7	24.1	17.1	10.2	3.7	1.6	1.6	2.1	2.1	2.1	1.6
130°	15.0	13.4	10.2	5.9	1.6	1.6	1.6	2.1	2.1	2.1	1.6
132.5°	8.6	8.0	5.3	1.1	1.6	1.6	1.6	2.1	2.1	2.1	2.1
135°	2.1	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.7	2.7	2.1
137.5°	0.5	0.5	1.1	1.1	1.6	1.6	2.1	2.7	2.7	2.7	2.1
140°	0.5	0.5	1.1	1.6	1.6	1.6	2.1	2.7	2.7	2.7	2.1
142.5°	0.5	1.1	1.1	1.6	1.6	2.1	2.1	2.7	2.7	2.1	2.1
145°	0.5	1.1	1.1	1.6	1.6	2.1	2.1	2.7	2.1	2.1	2.1
147.5°	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.7	2.7	2.1	2.1
150°	0.5	1.1	1.1	1.6	2.1	2.1	2.1	2.7	2.1	2.1	2.1
152.5°	0.5	1.1	1.1	1.6	2.1	2.1	2.1	2.7	2.1	2.1	2.1
155°	1.1	1.1	1.1	1.6	2.1	2.1	2.1	2.7	2.1	2.1	2.7
157.5°	1.1	1.1	1.1	1.6	2.1	2.1	2.1	2.7	2.1	2.1	2.7
160°	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.1	2.1	2.1	2.1
162.5°	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.1	2.1	2.1	2.1
165°	1.1	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.1	2.1	2.1
167.5°	1.1	1.1	1.1	1.6	1.6	1.6	2.1	2.1	2.1	2.1	2.1
170°	1.1	1.1	1.1	1.6	1.6	1.6	2.1	2.7	2.7	2.7	2.7
172.5°	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.7	2.7	2.7	2.7
175°	1.1	1.1	1.1	1.6	1.6	2.1	2.1	2.7	2.7	2.7	2.7
177.5°	0.5	1.1	1.1	1.6	1.6	2.1	2.1	2.7	2.7	2.7	2.1
180°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6



TEST NUMBER: P551492

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-82-96-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	419.7	419.7	419.7
2.5°	399.4	391.9	389.8
5°	378.0	365.7	358.8
7.5°	356.6	340.1	332.0
10°	336.8	313.3	304.8
12.5°	313.3	286.1	272.7
15°	290.9	255.6	242.7
17.5°	265.7	226.2	211.2
20°	242.2	196.8	181.3
22.5°	215.5	167.9	150.8
25°	191.4	139.0	119.8
27.5°	164.7	109.6	93.0
30°	139.6	83.9	67.4
32.5°	115.5	61.5	46.5
35°	93.0	41.7	29.4
37.5°	71.6	25.7	15.0
40°	51.9	13.4	7.0
42.5°	34.8	6.4	3.7
45°	21.4	3.2	0.0
47.5°	12.3	0.0	0.0
50°	6.4	0.0	0.0
52.5°	2.7	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	1.1	1.6
80°	1.1	2.1	2.7
82.5°	2.1	2.7	2.7
85°	2.1	2.7	3.2
87.5°	2.7	3.2	3.7
90°	3.2	3.7	3.7
92.5°	3.2	4.3	4.3
95°	3.7	4.3	4.8
97.5°	4.3	4.8	4.8
100°	3.7	4.8	5.3
102.5°	3.2	4.8	4.8
105°	2.7	3.7	4.3



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CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-82-96-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	2.1	2.7	2.7
115°	1.6	2.1	2.7
117.5°	1.6	2.1	2.1
120°	1.6	1.6	2.1
122.5°	1.6	1.6	2.1
125°	1.6	1.6	2.1
127.5°	2.1	1.6	1.6
130°	1.6	1.6	1.6
132.5°	2.1	1.6	1.6
135°	2.1	1.6	1.6
137.5°	2.1	1.6	1.6
140°	2.1	1.6	1.6
142.5°	2.1	1.6	1.6
145°	1.6	1.6	1.6
147.5°	1.6	1.6	1.6
150°	1.6	1.6	1.1
152.5°	1.6	1.1	1.1
155°	1.6	1.1	0.5
157.5°	2.1	1.1	0.5
160°	1.6	1.1	0.5
162.5°	1.6	1.1	0.5
165°	1.6	1.1	0.0
167.5°	1.6	1.1	0.5
170°	1.6	1.1	0.5
172.5°	1.6	1.1	0.5
175°	1.6	0.5	0.5
177.5°	1.6	0.5	0.5
180°	1.6	1.6	1.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	224.6	218.1	196.8	161.5	112.8	63.1	23.5	4.3	1.1	1.6	1.6
110°	195.7	190.3	168.4	134.2	90.9	47.1	15.5	2.7	1.6	1.6	1.6





107.5°	2.1	3.2	3.7
110°	2.1	2.7	3.2



(END OF REPORT)