

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: P551468

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-81-86-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: P551468
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-81-86-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC 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

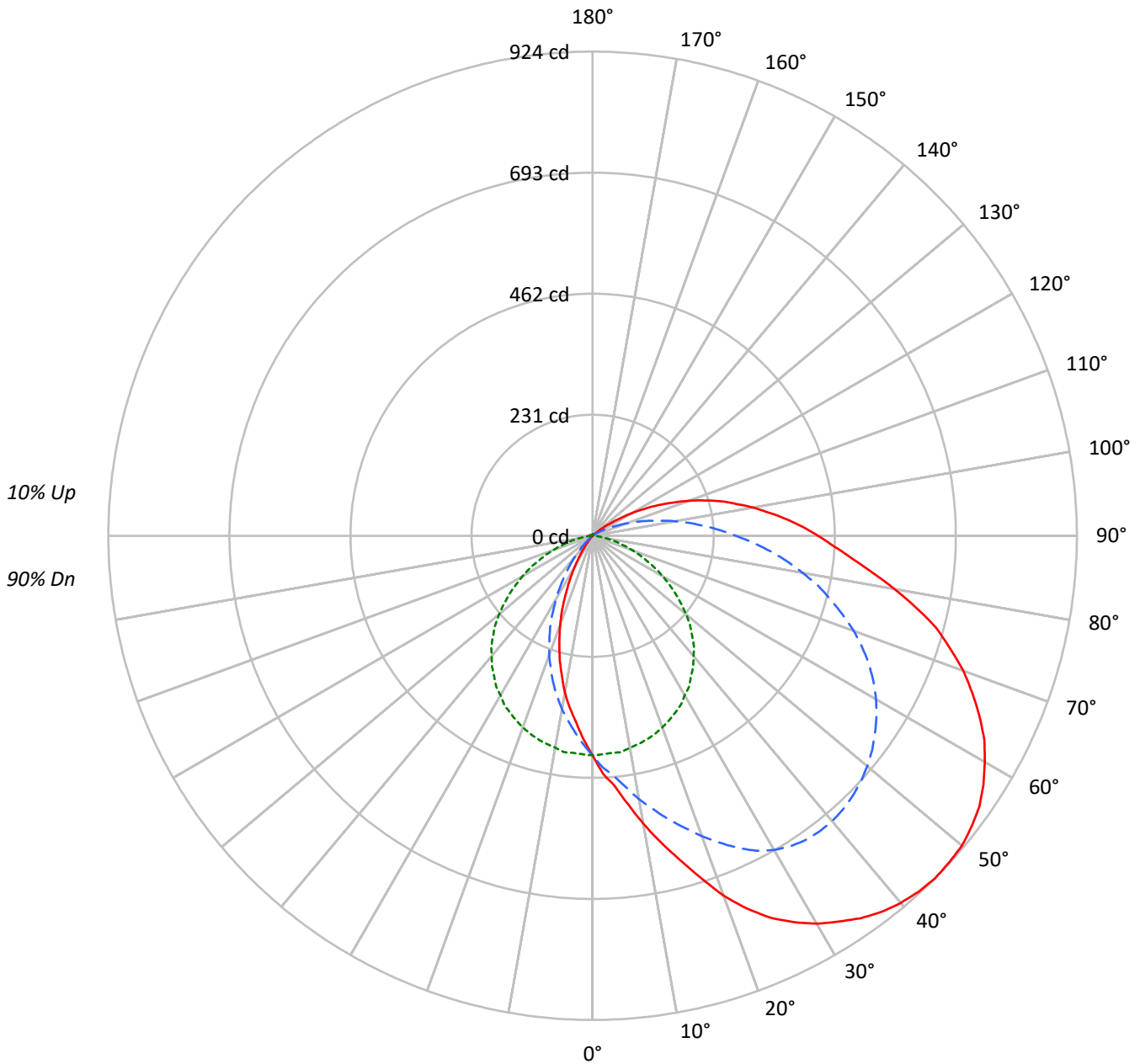
Lumens per Lamp: N/A
Luminaire Lumens: 2072.0 lumens
Efficiency: N/A
Efficacy: 88.2 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

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CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-81-86-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°	4511	4511	4511
5°	4952	4445	3709
10°	5604	4391	3057
15°	6280	4335	2382
20°	7083	4264	1754
25°	7749	4183	1152
30°	8244	4072	649
35°	8673	3955	286
40°	9053	3809	68
45°	9379	3626	0
50°	9653	3384	0
55°	9861	3078	0
60°	9967	2722	0
65°	10007	2316	0
70°	9974	1888	0
75°	9847	1392	7
80°	9448	852	44
85°	9132	407	59



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.1	1.9
10°-20°	120.2	5.8
20°-30°	194.7	9.4
30°-40°	250.0	12.1
40°-50°	283.1	13.7
50°-60°	293.3	14.2
60°-70°	276.6	13.3
70°-80°	231.8	11.2
80°-90°	168.0	8.1
90°-100°	110.4	5.3
100°-110°	63.8	3.1
110°-120°	28.1	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°	355.0	17.1
0°-40°	605.1	29.2
0°-60°	1181.4	57.0
0°-90°	1857.7	89.7
90°-120°	202.3	9.8
90°-150°	212.8	10.3
90°-180°	214.0	10.3
0°-180°	2072.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	419	419	419	419	419	
5°	478	459	416	378	358	48
15°	639	560	402	290	242	184
25°	805	658	373	191	120	372
35°	891	709	327	93	29	559
45°	924	702	268	21	0	714
55°	901	658	193	0	0	804
65°	814	582	115	0	0	806
75°	679	470	49	0	0	712
85°	496	340	8	2	3	424
90°	430	273	2	3	4	236
95°	370	213	1	4	5	290
105°	254	110	1	3	4	268
115°	138	37	2	2	3	138
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: P551468

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	419.1	419.1	419.1	419.1	419.1	419.1	419.1	419.1	419.1	419.1	419.1
2.5°	454.4	453.8	452.2	449.5	445.8	439.4	434.1	429.3	422.9	417.5	407.4
5°	478.4	475.7	473.6	470.9	462.4	456.5	446.9	436.2	426.1	415.9	395.6
7.5°	516.8	512.5	509.3	501.9	490.1	476.8	461.8	451.7	444.7	416.4	381.7
10°	557.9	554.2	547.8	534.4	520.0	500.8	479.4	455.4	434.1	410.6	369.5
12.5°	598.5	593.2	584.1	567.0	546.7	522.7	493.3	465.0	434.6	406.8	355.0
15°	639.1	633.2	623.6	602.8	576.1	544.6	508.8	473.0	437.3	402.0	340.1
17.5°	683.4	675.4	661.0	637.5	603.8	564.9	522.7	479.4	436.2	396.2	324.1
20°	730.9	719.7	704.2	672.7	633.2	587.3	536.6	485.9	435.7	389.2	305.9
22.5°	770.4	759.2	742.1	709.6	662.0	606.0	548.3	490.1	433.5	381.2	288.8
25°	804.6	795.5	776.8	739.5	689.3	625.7	559.5	493.3	430.3	372.7	270.7
27.5°	831.3	822.7	801.9	763.5	712.2	643.4	568.1	494.9	426.1	364.1	252.0
30°	854.8	846.2	821.1	781.6	727.7	657.2	576.6	495.5	420.7	351.3	231.7
32.5°	872.9	864.9	839.3	797.1	738.4	666.8	581.4	494.9	413.8	342.2	209.8
35°	891.1	883.1	853.2	808.3	746.4	671.1	585.2	492.3	405.2	327.3	189.0
37.5°	905.0	895.9	865.5	815.8	750.1	672.2	584.6	488.5	396.2	315.0	168.2
40°	914.6	905.0	872.4	820.1	751.2	670.6	580.4	482.1	385.5	299.5	146.3
42.5°	921.0	910.3	875.6	826.5	749.1	666.3	573.9	474.1	373.7	286.2	125.5
45°	924.2	913.0	876.1	821.1	745.3	658.3	564.3	464.0	360.9	268.0	104.6
47.5°	922.6	910.3	873.5	815.3	738.4	649.8	553.7	451.7	345.4	252.0	84.9
50°	919.9	907.1	867.6	807.8	728.8	639.1	541.9	436.7	329.4	232.2	67.3
52.5°	911.4	898.6	861.2	797.1	717.6	626.8	525.9	421.3	312.3	213.0	51.3
55°	900.7	889.0	850.0	787.5	703.2	611.9	510.9	404.7	295.8	193.3	36.8
57.5°	884.1	873.5	836.1	772.0	688.7	595.3	494.4	386.5	275.0	173.5	25.6
60°	863.9	853.2	816.9	754.4	672.2	576.6	476.2	367.9	256.3	153.8	16.0
62.5°	842.5	832.4	794.5	732.5	651.4	556.9	456.5	349.2	236.5	135.6	9.6
65°	814.2	804.6	770.4	706.4	628.4	535.5	434.6	326.8	216.2	115.3	5.3
67.5°	784.3	775.8	741.1	682.3	601.7	512.0	412.2	304.9	194.9	97.7	2.7
70°	752.3	741.6	709.6	649.8	574.5	485.3	387.6	282.4	174.6	80.6	0.0
72.5°	714.9	706.9	675.9	619.3	543.0	457.0	362.5	257.9	152.2	64.1	0.5
75°	678.6	668.4	640.2	586.8	512.0	427.1	334.8	234.9	130.3	49.1	0.5
77.5°	631.6	628.4	601.7	549.9	482.7	398.3	304.3	207.2	109.5	35.2	0.5
80°	584.6	581.4	560.6	513.1	448.5	364.1	276.0	181.0	89.2	23.5	0.5
82.5°	538.2	533.9	514.2	474.6	413.8	335.3	246.7	154.8	70.5	14.4	0.5
85°	496.5	491.2	469.8	433.5	378.0	302.7	216.2	129.2	52.3	8.0	1.1
87.5°	460.8	457.0	433.5	396.2	341.7	272.3	189.5	104.6	36.8	3.7	1.6
90°	430.3	422.3	401.5	362.0	307.5	238.7	161.2	83.8	24.6	2.1	2.1
92.5°	400.4	393.5	370.5	330.0	277.1	209.8	134.0	64.1	15.5	1.1	2.7
95°	369.5	362.0	339.6	302.2	246.1	180.5	110.0	47.0	8.5	1.1	2.7
97.5°	339.0	332.1	308.6	271.2	218.4	154.8	87.0	33.1	4.3	1.1	2.1
100°	310.7	302.7	281.4	244.0	190.6	129.2	67.3	21.4	2.7	1.1	2.1
102.5°	280.8	274.4	252.5	216.2	161.8	105.2	50.2	13.3	1.1	1.1	1.6
105°	254.1	246.1	224.8	187.4	137.7	82.8	35.2	8.0	1.1	1.1	1.6



TEST NUMBER: P551468

CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-81-86-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	165.5	159.1	140.4	108.9	69.9	32.6	9.6	1.6	1.6	1.6	1.6
115°	138.3	128.7	112.1	84.4	51.8	21.4	4.8	1.6	1.6	1.6	1.6
117.5°	110.5	102.5	90.8	64.1	34.2	13.9	2.7	1.6	1.6	1.6	1.6
120°	86.5	79.0	65.7	44.3	23.0	8.0	1.1	1.6	1.6	1.6	1.6
122.5°	61.9	56.1	44.3	28.8	13.9	3.7	1.6	1.6	2.1	2.1	1.6
125°	41.1	37.9	29.4	17.6	8.5	1.6	1.6	1.6	2.1	2.1	1.6
127.5°	26.7	24.0	17.1	10.1	3.7	1.6	1.6	2.1	2.1	2.1	1.6
130°	14.9	13.3	10.1	5.9	1.6	1.6	1.6	2.1	2.1	2.1	1.6
132.5°	8.5	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



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CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-81-86-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	419.1	419.1	419.1
2.5°	398.8	391.4	389.2
5°	377.5	365.2	358.3
7.5°	356.1	339.6	331.6
10°	336.4	312.9	304.3
12.5°	312.9	285.6	272.3
15°	290.4	255.2	242.4
17.5°	265.4	225.8	210.9
20°	241.9	196.5	181.0
22.5°	215.2	167.6	150.6
25°	191.1	138.8	119.6
27.5°	164.4	109.5	92.9
30°	139.3	83.8	67.3
32.5°	115.3	61.4	46.4
35°	92.9	41.6	29.4
37.5°	71.5	25.6	14.9
40°	51.8	13.3	6.9
42.5°	34.7	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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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°	224.2	217.8	196.5	161.2	112.7	63.0	23.5	4.3	1.1	1.6	1.6
110°	195.4	190.1	168.2	134.0	90.8	47.0	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)