

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: P551464

Luminaire Tested: **FCC-X-2-LD4-2LO-30-UNV-81-84-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: P551464
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-81-84-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

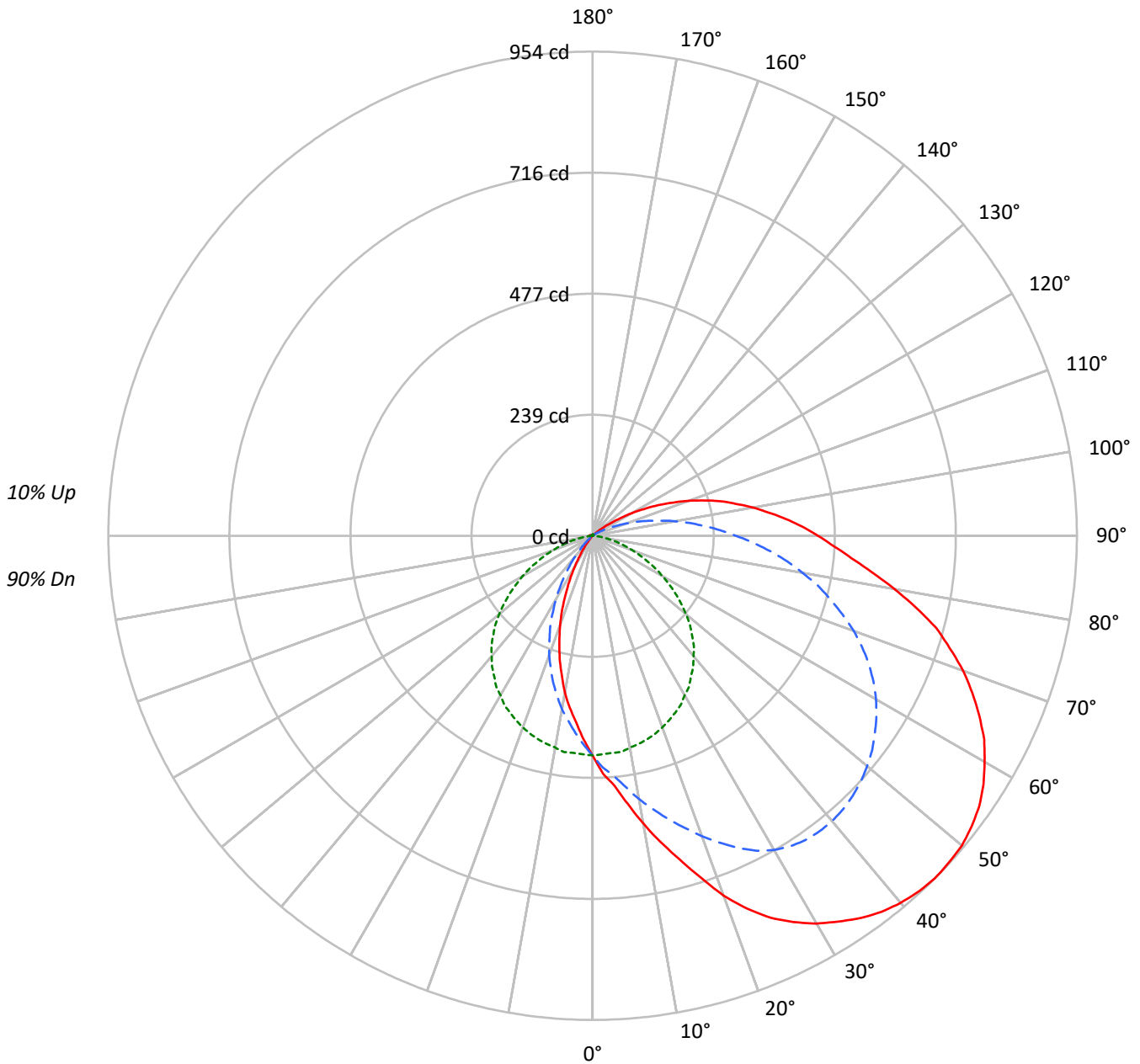
Lumens per Lamp: N/A
Luminaire Lumens: 2139.1 lumens
Efficiency: N/A
Efficacy: 91.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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-30-UNV-81-84-ED1D

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20
RC	80				70				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	93	93	93	90
1	103	96	91	86	99	93	88	83	87	83	79	81	78	74	76	73	70	76	73	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	64	60	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	55	50	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	49	43	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	43	38	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	39	33	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	36	29	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	32	26	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	30	24	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	28	22	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	4658	4658	4658
5°	5112	4589	3828
10°	5786	4532	3156
15°	6484	4475	2459
20°	7313	4402	1810
25°	8000	4317	1189
30°	8511	4205	669
35°	8953	4083	295
40°	9346	3932	71
45°	9683	3744	0
50°	9965	3495	0
55°	10180	3177	0
60°	10288	2808	0
65°	10330	2392	0
70°	10296	1949	0
75°	10165	1438	9
80°	9753	881	45
85°	9428	422	61



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.4	1.9
10°-20°	124.1	5.8
20°-30°	201.0	9.4
30°-40°	258.1	12.1
40°-50°	292.2	13.7
50°-60°	302.7	14.2
60°-70°	285.5	13.3
70°-80°	239.3	11.2
80°-90°	173.4	8.1
90°-100°	114.0	5.3
100°-110°	65.8	3.1
110°-120°	29.1	1.4
120°-130°	7.9	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°	366.5	17.1
0°-40°	624.6	29.2
0°-60°	1219.6	57.0
0°-90°	1917.8	89.7
90°-120°	208.9	9.8
90°-150°	219.8	10.3
90°-180°	221.0	10.3
0°-180°	2139.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	433	433	433	433	433	
5°	494	474	429	390	370	50
15°	660	578	415	300	250	190
25°	831	679	385	197	124	384
35°	920	732	338	96	30	577
45°	954	724	277	22	0	737
55°	930	679	200	0	0	830
65°	840	601	119	0	0	832
75°	700	485	51	1	1	735
85°	513	351	8	2	3	438
90°	444	282	2	3	4	244
95°	381	220	1	4	5	299
105°	262	114	1	3	4	277
115°	143	38	2	2	3	143
125°	42	5	2	2	2	42
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°	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7	432.7
2.5°	469.0	468.5	466.8	464.1	460.2	453.6	448.1	443.1	436.5	431.0	420.5
5°	493.8	491.1	488.9	486.1	477.3	471.3	461.3	450.3	439.8	429.4	408.4
7.5°	533.5	529.1	525.8	518.1	506.0	492.2	476.8	466.3	459.1	429.9	394.1
10°	576.0	572.1	565.5	551.7	536.8	517.0	495.0	470.1	448.1	423.8	381.4
12.5°	617.9	612.3	603.0	585.3	564.4	539.6	509.3	480.1	448.7	420.0	366.5
15°	659.8	653.7	643.8	622.3	594.7	562.2	525.3	488.3	451.4	415.0	351.1
17.5°	705.5	697.2	682.3	658.1	623.4	583.1	539.6	495.0	450.3	409.0	334.6
20°	754.6	743.0	727.0	694.5	653.7	606.3	553.9	501.6	449.8	401.8	315.8
22.5°	795.3	783.8	766.1	732.5	683.5	625.6	566.1	506.0	447.5	393.5	298.2
25°	830.6	821.2	802.0	763.4	711.6	646.0	577.6	509.3	444.2	384.7	279.4
27.5°	858.2	849.4	827.9	788.2	735.3	664.2	586.4	510.9	439.8	375.9	260.2
30°	882.4	873.6	847.7	806.9	751.2	678.5	595.3	511.5	434.3	362.7	239.2
32.5°	901.2	892.9	866.4	822.9	762.3	688.4	600.2	510.9	427.2	353.3	216.6
35°	919.9	911.6	880.8	834.5	770.5	692.8	604.1	508.2	418.3	337.9	195.1
37.5°	934.2	924.9	893.4	842.2	774.4	693.9	603.5	504.3	409.0	325.2	173.6
40°	944.2	934.2	900.6	846.6	775.5	692.3	599.1	497.7	397.9	309.2	151.0
42.5°	950.8	939.7	903.9	853.2	773.3	687.9	592.5	489.4	385.8	295.4	129.5
45°	954.1	942.5	904.5	847.7	769.4	679.6	582.6	479.0	372.6	276.7	108.0
47.5°	952.4	939.7	901.7	841.6	762.3	670.8	571.6	466.3	356.6	260.2	87.6
50°	949.7	936.4	895.7	833.9	752.3	659.8	559.4	450.9	340.1	239.8	69.4
52.5°	940.8	927.6	889.0	822.9	740.8	647.1	542.9	434.9	322.4	219.9	52.9
55°	929.8	917.7	877.5	813.0	725.9	631.6	527.5	417.8	305.3	199.5	38.0
57.5°	912.7	901.7	863.1	797.0	711.0	614.6	510.4	399.0	283.9	179.1	26.5
60°	891.8	880.8	843.3	778.8	693.9	595.3	491.6	379.8	264.6	158.7	16.5
62.5°	869.7	859.3	820.1	756.2	672.4	574.9	471.3	360.5	244.2	140.0	9.9
65°	840.5	830.6	795.3	729.2	648.7	552.8	448.7	337.3	223.2	119.1	5.5
67.5°	809.7	800.8	765.0	704.4	621.2	528.6	425.5	314.7	201.2	100.9	2.8
70°	776.6	765.6	732.5	670.8	593.1	501.0	400.1	291.6	180.2	83.2	0.0
72.5°	738.0	729.7	697.8	639.4	560.5	471.8	374.2	266.2	157.1	66.1	0.6
75°	700.5	690.1	660.9	605.7	528.6	440.9	345.6	242.5	134.5	50.7	0.6
77.5°	652.0	648.7	621.2	567.7	498.3	411.2	314.2	213.9	113.0	36.4	0.6
80°	603.5	600.2	578.7	529.7	463.0	375.9	285.0	186.8	92.0	24.3	0.6
82.5°	555.6	551.2	530.8	490.0	427.2	346.1	254.6	159.8	72.8	14.9	0.6
85°	512.6	507.1	485.0	447.5	390.2	312.5	223.2	133.4	54.0	8.3	1.1
87.5°	475.7	471.8	447.5	409.0	352.7	281.1	195.7	108.0	38.0	3.9	1.7
90°	444.2	436.0	414.5	373.7	317.5	246.4	166.5	86.5	25.4	2.2	2.2
92.5°	413.4	406.2	382.5	340.6	286.1	216.6	138.3	66.1	16.0	1.1	2.8
95°	381.4	373.7	350.5	312.0	254.1	186.3	113.5	48.5	8.8	1.1	2.8
97.5°	350.0	342.8	318.6	280.0	225.4	159.8	89.8	34.2	4.4	1.1	2.2
100°	320.8	312.5	290.5	251.9	196.8	133.4	69.4	22.0	2.8	1.1	2.2
102.5°	289.9	283.3	260.7	223.2	167.0	108.6	51.8	13.8	1.1	1.1	1.7
105°	262.4	254.1	232.0	193.5	142.2	85.4	36.4	8.3	1.1	1.1	1.7



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CATALOG NUMBER: FCC-X-2-LD4-2LO-30-UNV-81-84-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	170.9	164.2	145.0	112.4	72.2	33.6	9.9	1.7	1.7	1.7	1.7
115°	142.8	132.8	115.7	87.1	53.5	22.0	5.0	1.7	1.7	1.7	1.7
117.5°	114.1	105.8	93.7	66.1	35.3	14.3	2.8	1.7	1.7	1.7	1.7
120°	89.3	81.6	67.8	45.7	23.7	8.3	1.1	1.7	1.7	1.7	1.7
122.5°	63.9	57.9	45.7	29.8	14.3	3.9	1.7	1.7	2.2	2.2	1.7
125°	42.4	39.1	30.3	18.2	8.8	1.7	1.7	1.7	2.2	2.2	1.7
127.5°	27.6	24.8	17.6	10.5	3.9	1.7	1.7	2.2	2.2	2.2	1.7
130°	15.4	13.8	10.5	6.1	1.7	1.7	1.7	2.2	2.2	2.2	1.7
132.5°	8.8	8.3	5.5	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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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	432.7	432.7	432.7
2.5°	411.7	404.0	401.8
5°	389.7	377.0	369.8
7.5°	367.6	350.5	342.3
10°	347.2	323.0	314.2
12.5°	323.0	294.9	281.1
15°	299.8	263.5	250.2
17.5°	273.9	233.1	217.7
20°	249.7	202.8	186.8
22.5°	222.1	173.1	155.4
25°	197.3	143.3	123.5
27.5°	169.8	113.0	95.9
30°	143.9	86.5	69.4
32.5°	119.1	63.4	48.0
35°	95.9	43.0	30.3
37.5°	73.9	26.5	15.4
40°	53.5	13.8	7.2
42.5°	35.8	6.6	3.9
45°	22.0	3.3	0.0
47.5°	12.7	0.0	0.0
50°	6.6	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	3.3
87.5°	2.8	3.3	3.9
90°	3.3	3.9	3.9
92.5°	3.3	4.4	4.4
95°	3.9	4.4	5.0
97.5°	4.4	5.0	5.0
100°	3.9	5.0	5.5
102.5°	3.3	5.0	5.0
105°	2.8	3.9	4.4



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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°	231.5	224.9	202.8	166.5	116.3	65.0	24.3	4.4	1.1	1.7	1.7
110°	201.7	196.2	173.6	138.3	93.7	48.5	16.0	2.8	1.7	1.7	1.7





107.5°	2.2	3.3	3.9
110°	2.2	2.8	3.3



(END OF REPORT)