

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: P551118

Luminaire Tested: **FCC-X-2-LD4-1STD-40-UNV-93-87-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: P551118
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-LD4-1STD-40-UNV-93-87-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR TEMPERED GLASS FIXTURE
SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 4000K, AND 80 CRI
LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

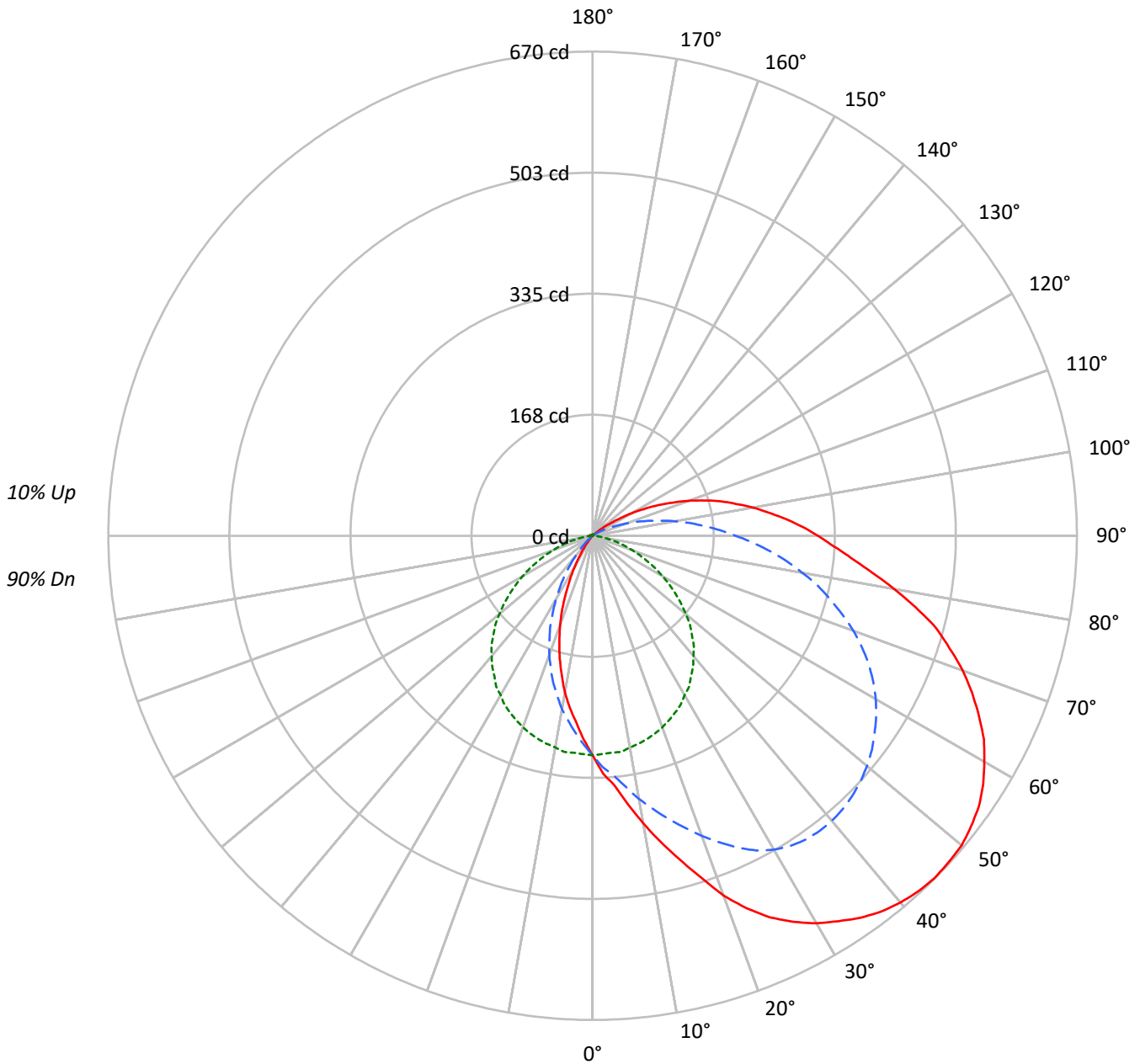
Lumens per Lamp: N/A
Luminaire Lumens: 1501.0 lumens
Efficiency: N/A
Efficacy: 89.9 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
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-LD4-1STD-40-UNV-93-87-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°	3268	3268	3268
5°	3587	3220	2686
10°	4060	3180	2215
15°	4550	3140	1726
20°	5131	3090	1271
25°	5614	3030	834
30°	5972	2950	470
35°	6283	2865	207
40°	6558	2760	49
45°	6794	2628	0
50°	6993	2451	0
55°	7144	2229	0
60°	7220	1971	0
65°	7249	1677	0
70°	7226	1368	0
75°	7134	1010	6
80°	6844	617	31
85°	6616	295	42



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.1	1.9
10°-20°	87.1	5.8
20°-30°	141.0	9.4
30°-40°	181.1	12.1
40°-50°	205.1	13.7
50°-60°	212.4	14.2
60°-70°	200.4	13.3
70°-80°	167.9	11.2
80°-90°	121.7	8.1
90°-100°	80.0	5.3
100°-110°	46.2	3.1
110°-120°	20.4	1.4
120°-130°	5.5	0.4
130°-140°	1.3	0.1
140°-150°	0.8	0.1
150°-160°	0.6	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	257.2	17.1
0°-40°	438.3	29.2
0°-60°	855.8	57.0
0°-90°	1345.8	89.7
90°-120°	146.6	9.8
90°-150°	154.2	10.3
90°-180°	155.0	10.3
0°-180°	1501.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	304	304	304	304	304	
5°	346	333	301	273	260	35
15°	463	406	291	210	176	134
25°	583	476	270	138	87	269
35°	646	513	237	67	21	405
45°	670	508	194	16	0	517
55°	652	476	140	0	0	583
65°	590	422	84	0	0	584
75°	492	340	36	0	0	516
85°	360	247	6	2	2	307
90°	312	198	2	2	3	171
95°	268	154	1	3	4	210
105°	184	80	1	2	3	194
115°	100	26	1	1	2	100
125°	30	4	2	1	2	30
135°	2	1	2	2	1	3
145°	0	1	2	1	1	0
155°	1	2	2	1	0	0
165°	1	1	2	1	0	0
175°	1	1	2	1	0	0
180°	1	1	1	1	1	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	303.6	303.6	303.6	303.6	303.6	303.6	303.6	303.6	303.6	303.6	303.6
2.5°	329.1	328.8	327.6	325.7	323.0	318.3	314.4	311.0	306.3	302.5	295.1
5°	346.5	344.6	343.1	341.1	334.9	330.7	323.7	316.0	308.6	301.3	286.6
7.5°	374.4	371.3	369.0	363.6	355.1	345.4	334.6	327.2	322.2	301.7	276.5
10°	404.2	401.5	396.8	387.2	376.7	362.8	347.3	329.9	314.4	297.4	267.6
12.5°	433.6	429.7	423.1	410.8	396.1	378.7	357.4	336.9	314.8	294.7	257.2
15°	463.0	458.7	451.8	436.7	417.3	394.5	368.6	342.7	316.8	291.2	246.4
17.5°	495.1	489.3	478.8	461.8	437.4	409.2	378.7	347.3	316.0	287.0	234.8
20°	529.5	521.4	510.2	487.3	458.7	425.4	388.7	352.0	315.6	282.0	221.6
22.5°	558.1	550.0	537.6	514.0	479.6	439.0	397.2	355.1	314.1	276.2	209.2
25°	582.9	576.3	562.8	535.7	499.3	453.3	405.3	357.4	311.7	270.0	196.1
27.5°	602.2	596.0	580.9	553.1	516.0	466.1	411.5	358.5	308.6	263.8	182.6
30°	619.2	613.0	594.9	566.2	527.2	476.1	417.7	358.9	304.8	254.5	167.9
32.5°	632.4	626.6	608.0	577.5	534.9	483.1	421.2	358.5	299.7	247.9	152.0
35°	645.5	639.7	618.1	585.6	540.7	486.2	423.9	356.6	293.6	237.1	136.9
37.5°	655.6	649.0	627.0	591.0	543.4	486.9	423.5	353.9	287.0	228.2	121.8
40°	662.5	655.6	632.0	594.1	544.2	485.8	420.4	349.3	279.2	217.0	106.0
42.5°	667.2	659.4	634.3	598.7	542.6	482.7	415.8	343.5	270.7	207.3	90.9
45°	669.5	661.4	634.7	594.9	539.9	476.9	408.8	336.1	261.5	194.2	75.8
47.5°	668.3	659.4	632.8	590.6	534.9	470.7	401.1	327.2	250.2	182.6	61.5
50°	666.4	657.1	628.5	585.2	527.9	463.0	392.6	316.4	238.6	168.2	48.7
52.5°	660.2	650.9	623.9	577.5	519.8	454.1	381.0	305.2	226.3	154.3	37.1
55°	652.5	644.0	615.7	570.5	509.4	443.2	370.1	293.2	214.3	140.0	26.7
57.5°	640.5	632.8	605.7	559.3	498.9	431.3	358.2	280.0	199.2	125.7	18.6
60°	625.8	618.1	591.8	546.5	486.9	417.7	345.0	266.5	185.7	111.4	11.6
62.5°	610.3	603.0	575.5	530.7	471.9	403.4	330.7	252.9	171.3	98.2	7.0
65°	589.8	582.9	558.1	511.7	455.2	387.9	314.8	236.7	156.6	83.5	3.9
67.5°	568.2	562.0	536.8	494.3	435.9	370.9	298.6	220.8	141.2	70.8	1.9
70°	545.0	537.2	514.0	470.7	416.2	351.6	280.8	204.6	126.5	58.4	0.0
72.5°	517.9	512.1	489.7	448.7	393.3	331.1	262.6	186.8	110.2	46.4	0.4
75°	491.6	484.2	463.7	425.1	370.9	309.4	242.5	170.2	94.4	35.6	0.4
77.5°	457.6	455.2	435.9	398.4	349.6	288.5	220.5	150.1	79.3	25.5	0.4
80°	423.5	421.2	406.1	371.7	324.9	263.8	200.0	131.1	64.6	17.0	0.4
82.5°	389.9	386.8	372.5	343.8	299.7	242.9	178.7	112.2	51.1	10.4	0.4
85°	359.7	355.8	340.4	314.1	273.8	219.3	156.6	93.6	37.9	5.8	0.8
87.5°	333.8	331.1	314.1	287.0	247.5	197.3	137.3	75.8	26.7	2.7	1.2
90°	311.7	305.9	290.9	262.2	222.8	172.9	116.8	60.7	17.8	1.5	1.5
92.5°	290.1	285.1	268.4	239.0	200.7	152.0	97.1	46.4	11.2	0.8	1.9
95°	267.6	262.2	246.0	218.9	178.3	130.7	79.7	34.0	6.2	0.8	1.9
97.5°	245.6	240.6	223.6	196.5	158.2	112.2	63.0	24.0	3.1	0.8	1.5
100°	225.1	219.3	203.8	176.8	138.1	93.6	48.7	15.5	1.9	0.8	1.5
102.5°	203.4	198.8	182.9	156.6	117.2	76.2	36.4	9.7	0.8	0.8	1.2
105°	184.1	178.3	162.8	135.8	99.8	59.9	25.5	5.8	0.8	0.8	1.2



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CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-93-87-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	119.9	115.3	101.7	78.9	50.7	23.6	7.0	1.2	1.2	1.2	1.2
115°	100.2	93.2	81.2	61.1	37.5	15.5	3.5	1.2	1.2	1.2	1.2
117.5°	80.1	74.3	65.8	46.4	24.8	10.1	1.9	1.2	1.2	1.2	1.2
120°	62.7	57.2	47.6	32.1	16.6	5.8	0.8	1.2	1.2	1.2	1.2
122.5°	44.9	40.6	32.1	20.9	10.1	2.7	1.2	1.2	1.5	1.5	1.2
125°	29.8	27.5	21.3	12.8	6.2	1.2	1.2	1.2	1.5	1.5	1.2
127.5°	19.3	17.4	12.4	7.3	2.7	1.2	1.2	1.5	1.5	1.5	1.2
130°	10.8	9.7	7.3	4.3	1.2	1.2	1.2	1.5	1.5	1.5	1.2
132.5°	6.2	5.8	3.9	0.8	1.2	1.2	1.2	1.5	1.5	1.5	1.5
135°	1.5	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.5
137.5°	0.4	0.4	0.8	0.8	1.2	1.2	1.5	1.9	1.9	1.9	1.5
140°	0.4	0.4	0.8	1.2	1.2	1.2	1.5	1.9	1.9	1.9	1.5
142.5°	0.4	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.5	1.5
145°	0.4	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.5	1.5	1.5
147.5°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.5	1.5
150°	0.4	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.5
152.5°	0.4	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.5
155°	0.8	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.9
157.5°	0.8	0.8	0.8	1.2	1.5	1.5	1.5	1.9	1.5	1.5	1.9
160°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.8	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.5	1.5	1.5
167.5°	0.8	0.8	0.8	1.2	1.2	1.2	1.5	1.5	1.5	1.5	1.5
170°	0.8	0.8	0.8	1.2	1.2	1.2	1.5	1.9	1.9	1.9	1.9
172.5°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.9	1.9
175°	0.8	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.9	1.9
177.5°	0.4	0.8	0.8	1.2	1.2	1.5	1.5	1.9	1.9	1.9	1.5
180°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	303.6	303.6	303.6
2.5°	288.9	283.5	282.0
5°	273.4	264.6	259.5
7.5°	258.0	246.0	240.2
10°	243.7	226.6	220.5
12.5°	226.6	206.9	197.3
15°	210.4	184.9	175.6
17.5°	192.2	163.6	152.8
20°	175.2	142.3	131.1
22.5°	155.9	121.4	109.1
25°	138.5	100.6	86.6
27.5°	119.1	79.3	67.3
30°	100.9	60.7	48.7
32.5°	83.5	44.5	33.6
35°	67.3	30.2	21.3
37.5°	51.8	18.6	10.8
40°	37.5	9.7	5.0
42.5°	25.1	4.6	2.7
45°	15.5	2.3	0.0
47.5°	8.9	0.0	0.0
50°	4.6	0.0	0.0
52.5°	1.9	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°	0.4	0.4	0.4
77.5°	0.4	0.8	1.2
80°	0.8	1.5	1.9
82.5°	1.5	1.9	1.9
85°	1.5	1.9	2.3
87.5°	1.9	2.3	2.7
90°	2.3	2.7	2.7
92.5°	2.3	3.1	3.1
95°	2.7	3.1	3.5
97.5°	3.1	3.5	3.5
100°	2.7	3.5	3.9
102.5°	2.3	3.5	3.5
105°	1.9	2.7	3.1



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CATALOG NUMBER: FCC-X-2-LD4-1STD-40-UNV-93-87-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.5	1.9	1.9
115°	1.2	1.5	1.9
117.5°	1.2	1.5	1.5
120°	1.2	1.2	1.5
122.5°	1.2	1.2	1.5
125°	1.2	1.2	1.5
127.5°	1.5	1.2	1.2
130°	1.2	1.2	1.2
132.5°	1.5	1.2	1.2
135°	1.5	1.2	1.2
137.5°	1.5	1.2	1.2
140°	1.5	1.2	1.2
142.5°	1.5	1.2	1.2
145°	1.2	1.2	1.2
147.5°	1.2	1.2	1.2
150°	1.2	1.2	0.8
152.5°	1.2	0.8	0.8
155°	1.2	0.8	0.4
157.5°	1.5	0.8	0.4
160°	1.2	0.8	0.4
162.5°	1.2	0.8	0.4
165°	1.2	0.8	0.0
167.5°	1.2	0.8	0.4
170°	1.2	0.8	0.4
172.5°	1.2	0.8	0.4
175°	1.2	0.4	0.4
177.5°	1.2	0.4	0.4
180°	1.2	1.2	1.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	162.4	157.8	142.3	116.8	81.6	45.6	17.0	3.1	0.8	1.2	1.2
110°	141.6	137.7	121.8	97.1	65.8	34.0	11.2	1.9	1.2	1.2	1.2





107.5°	1.5	2.3	2.7
110°	1.5	1.9	2.3



(END OF REPORT)