

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: P550952

Luminaire Tested: **FCC-X-2-LD4-1STD-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: P550952
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-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

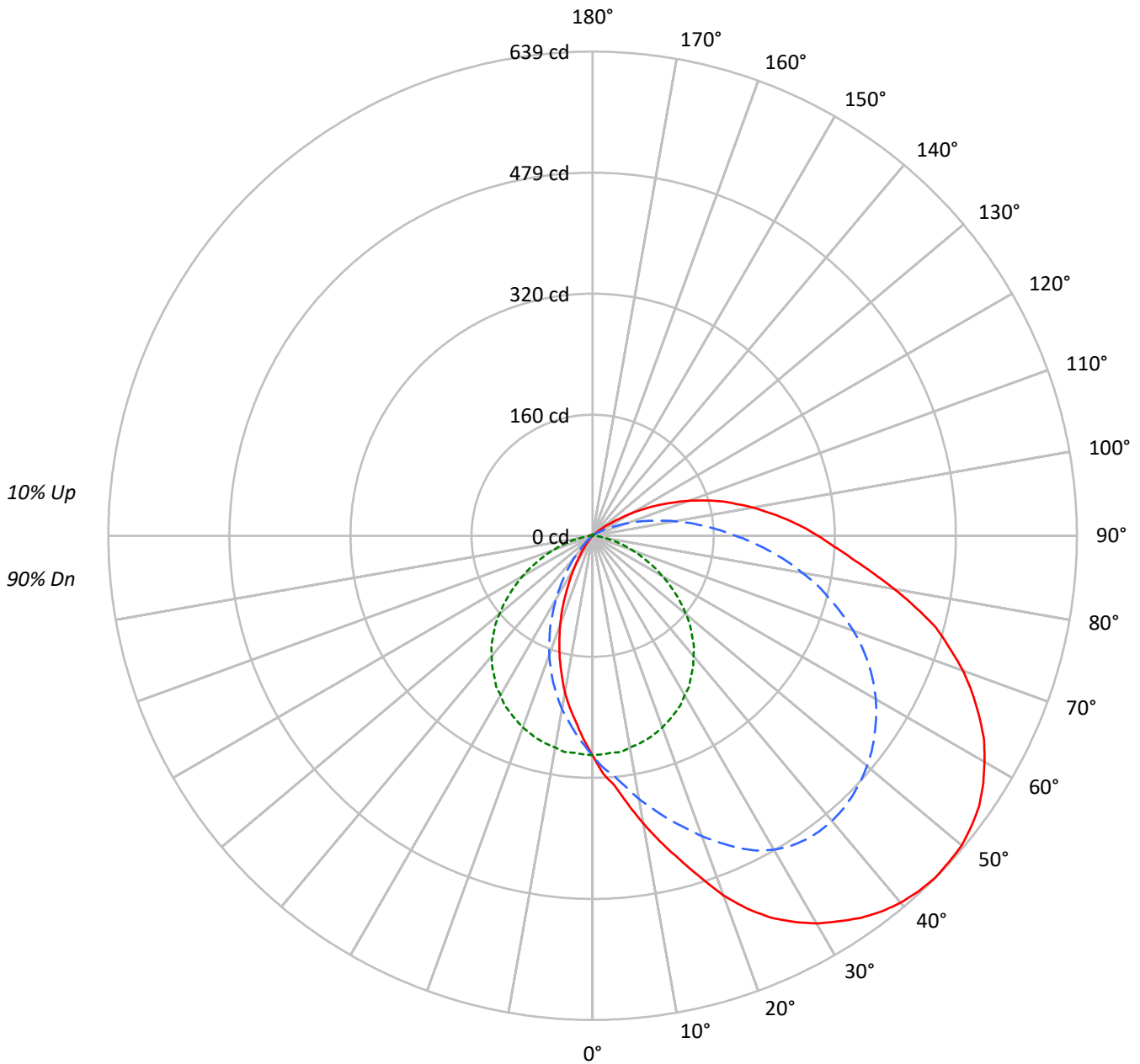
Lumens per Lamp: N/A
Luminaire Lumens: 1432.0 lumens
Efficiency: N/A
Efficacy: 85.7 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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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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°	3118	3118	3118
5°	3422	3072	2563
10°	3873	3035	2112
15°	4341	2996	1646
20°	4896	2947	1212
25°	5356	2891	796
30°	5698	2815	448
35°	5993	2733	198
40°	6257	2633	48
45°	6482	2506	0
50°	6672	2339	0
55°	6815	2127	0
60°	6887	1881	0
65°	6916	1601	0
70°	6893	1305	0
75°	6806	961	6
80°	6529	588	29
85°	6312	280	40



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.7	1.9
10°-20°	83.1	5.8
20°-30°	134.5	9.4
30°-40°	172.8	12.1
40°-50°	195.6	13.7
50°-60°	202.7	14.2
60°-70°	191.1	13.3
70°-80°	160.2	11.2
80°-90°	116.1	8.1
90°-100°	76.3	5.3
100°-110°	44.1	3.1
110°-120°	19.4	1.4
120°-130°	5.3	0.4
130°-140°	1.2	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°	245.4	17.1
0°-40°	418.2	29.2
0°-60°	816.5	57.0
0°-90°	1283.9	89.7
90°-120°	139.8	9.8
90°-150°	147.1	10.3
90°-180°	148.0	10.3
0°-180°	1432.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	290	290	290	290	290	
5°	331	318	287	261	248	33
15°	442	387	278	201	168	127
25°	556	454	258	132	83	257
35°	616	490	226	64	20	386
45°	639	485	185	15	0	493
55°	622	454	134	0	0	556
65°	563	402	80	0	0	557
75°	469	325	34	0	0	492
85°	343	235	6	2	2	293
90°	297	189	2	2	3	163
95°	255	147	1	3	3	200
105°	176	76	1	2	3	185
115°	96	25	1	1	2	96
125°	28	4	2	1	2	28
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°	289.7	289.7	289.7	289.7	289.7	289.7	289.7	289.7	289.7	289.7	289.7
2.5°	314.0	313.6	312.5	310.7	308.1	303.7	300.0	296.7	292.2	288.6	281.5
5°	330.6	328.8	327.3	325.5	319.5	315.5	308.8	301.5	294.5	287.4	273.4
7.5°	357.2	354.2	352.0	346.9	338.7	329.5	319.2	312.2	307.4	287.8	263.8
10°	385.6	383.0	378.6	369.4	359.4	346.1	331.4	314.8	300.0	283.8	255.3
12.5°	413.6	410.0	403.7	391.9	377.8	361.2	340.9	321.4	300.4	281.2	245.4
15°	441.7	437.6	431.0	416.6	398.1	376.4	351.6	326.9	302.2	277.9	235.0
17.5°	472.3	466.8	456.8	440.6	417.3	390.4	361.2	331.4	301.5	273.8	224.0
20°	505.2	497.4	486.7	464.9	437.6	405.9	370.8	335.8	301.1	269.0	211.4
22.5°	532.5	524.7	512.9	490.4	457.6	418.8	379.0	338.7	299.6	263.5	199.6
25°	556.1	549.8	536.9	511.1	476.4	432.5	386.7	340.9	297.4	257.6	187.1
27.5°	574.5	568.6	554.2	527.7	492.2	444.6	392.6	342.1	294.5	251.7	174.2
30°	590.8	584.9	567.5	540.2	502.9	454.2	398.5	342.4	290.8	242.8	160.1
32.5°	603.3	597.8	580.1	550.9	510.3	460.9	401.8	342.1	286.0	236.5	145.0
35°	615.8	610.3	589.7	558.7	515.9	463.8	404.4	340.2	280.1	226.2	130.6
37.5°	625.4	619.2	598.1	563.8	518.4	464.6	404.0	337.6	273.8	217.7	116.2
40°	632.1	625.4	602.9	566.8	519.2	463.5	401.1	333.2	266.4	207.0	101.1
42.5°	636.5	629.1	605.1	571.2	517.7	460.5	396.7	327.7	258.3	197.8	86.7
45°	638.7	631.0	605.5	567.5	515.1	455.0	390.0	320.7	249.4	185.2	72.3
47.5°	637.6	629.1	603.7	563.5	510.3	449.1	382.6	312.2	238.7	174.2	58.7
50°	635.8	626.9	599.6	558.3	503.7	441.7	374.5	301.8	227.7	160.5	46.5
52.5°	629.9	621.0	595.2	550.9	495.9	433.2	363.5	291.1	215.9	147.2	35.4
55°	622.5	614.4	587.4	544.3	486.0	422.9	353.1	279.7	204.4	133.6	25.5
57.5°	611.1	603.7	577.8	533.6	476.0	411.4	341.7	267.2	190.0	119.9	17.7
60°	597.0	589.7	564.6	521.4	464.6	398.5	329.1	254.2	177.1	106.3	11.1
62.5°	582.3	575.3	549.1	506.3	450.2	384.9	315.5	241.3	163.5	93.7	6.6
65°	562.7	556.1	532.5	488.2	434.3	370.1	300.4	225.8	149.4	79.7	3.7
67.5°	542.1	536.1	512.2	471.6	415.9	353.9	284.9	210.7	134.7	67.5	1.8
70°	519.9	512.5	490.4	449.1	397.0	335.4	267.9	195.2	120.7	55.7	0.0
72.5°	494.1	488.5	467.1	428.0	375.3	315.9	250.5	178.2	105.2	44.3	0.4
75°	469.0	462.0	442.4	405.5	353.9	295.2	231.4	162.4	90.0	33.9	0.4
77.5°	436.5	434.3	415.9	380.1	333.6	275.3	210.3	143.2	75.6	24.4	0.4
80°	404.0	401.8	387.4	354.6	310.0	251.7	190.8	125.1	61.6	16.2	0.4
82.5°	371.9	369.0	355.3	328.0	286.0	231.7	170.5	107.0	48.7	10.0	0.4
85°	343.2	339.5	324.7	299.6	261.2	209.2	149.4	89.3	36.2	5.5	0.7
87.5°	318.4	315.9	299.6	273.8	236.2	188.2	131.0	72.3	25.5	2.6	1.1
90°	297.4	291.9	277.5	250.2	212.5	164.9	111.4	57.9	17.0	1.5	1.5
92.5°	276.7	271.9	256.1	228.0	191.5	145.0	92.6	44.3	10.7	0.7	1.8
95°	255.3	250.2	234.7	208.8	170.1	124.7	76.0	32.5	5.9	0.7	1.8
97.5°	234.3	229.5	213.3	187.4	150.9	107.0	60.1	22.9	3.0	0.7	1.5
100°	214.8	209.2	194.5	168.6	131.7	89.3	46.5	14.8	1.8	0.7	1.5
102.5°	194.1	189.7	174.5	149.4	111.8	72.7	34.7	9.2	0.7	0.7	1.1
105°	175.6	170.1	155.3	129.5	95.2	57.2	24.4	5.5	0.7	0.7	1.1



TEST NUMBER: P550952

CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-81-84-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	114.4	110.0	97.0	75.3	48.3	22.5	6.6	1.1	1.1	1.1	1.1
115°	95.6	88.9	77.5	58.3	35.8	14.8	3.3	1.1	1.1	1.1	1.1
117.5°	76.4	70.8	62.7	44.3	23.6	9.6	1.8	1.1	1.1	1.1	1.1
120°	59.8	54.6	45.4	30.6	15.9	5.5	0.7	1.1	1.1	1.1	1.1
122.5°	42.8	38.7	30.6	19.9	9.6	2.6	1.1	1.1	1.5	1.5	1.1
125°	28.4	26.2	20.3	12.2	5.9	1.1	1.1	1.1	1.5	1.5	1.1
127.5°	18.4	16.6	11.8	7.0	2.6	1.1	1.1	1.5	1.5	1.5	1.1
130°	10.3	9.2	7.0	4.1	1.1	1.1	1.1	1.5	1.5	1.5	1.1
132.5°	5.9	5.5	3.7	0.7	1.1	1.1	1.1	1.5	1.5	1.5	1.5
135°	1.5	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.5
137.5°	0.4	0.4	0.7	0.7	1.1	1.1	1.5	1.8	1.8	1.8	1.5
140°	0.4	0.4	0.7	1.1	1.1	1.1	1.5	1.8	1.8	1.8	1.5
142.5°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.5	1.5
145°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.5	1.5	1.5
147.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.5	1.5
150°	0.4	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.5
152.5°	0.4	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.5
155°	0.7	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.8
157.5°	0.7	0.7	0.7	1.1	1.5	1.5	1.5	1.8	1.5	1.5	1.8
160°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
162.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5	1.5
165°	0.7	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.5	1.5	1.5
167.5°	0.7	0.7	0.7	1.1	1.1	1.1	1.5	1.5	1.5	1.5	1.5
170°	0.7	0.7	0.7	1.1	1.1	1.1	1.5	1.8	1.8	1.8	1.8
172.5°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.8	1.8
175°	0.7	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.8	1.8
177.5°	0.4	0.7	0.7	1.1	1.1	1.5	1.5	1.8	1.8	1.8	1.5
180°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	289.7	289.7	289.7
2.5°	275.6	270.5	269.0
5°	260.9	252.4	247.6
7.5°	246.1	234.7	229.1
10°	232.5	216.2	210.3
12.5°	216.2	197.4	188.2
15°	200.7	176.4	167.5
17.5°	183.4	156.1	145.8
20°	167.2	135.8	125.1
22.5°	148.7	115.9	104.1
25°	132.1	95.9	82.7
27.5°	113.6	75.6	64.2
30°	96.3	57.9	46.5
32.5°	79.7	42.4	32.1
35°	64.2	28.8	20.3
37.5°	49.4	17.7	10.3
40°	35.8	9.2	4.8
42.5°	24.0	4.4	2.6
45°	14.8	2.2	0.0
47.5°	8.5	0.0	0.0
50°	4.4	0.0	0.0
52.5°	1.8	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°	0.4	0.4	0.4
77.5°	0.4	0.7	1.1
80°	0.7	1.5	1.8
82.5°	1.5	1.8	1.8
85°	1.5	1.8	2.2
87.5°	1.8	2.2	2.6
90°	2.2	2.6	2.6
92.5°	2.2	3.0	3.0
95°	2.6	3.0	3.3
97.5°	3.0	3.3	3.3
100°	2.6	3.3	3.7
102.5°	2.2	3.3	3.3
105°	1.8	2.6	3.0



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CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-81-84-ED1D

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.5	1.8	1.8
115°	1.1	1.5	1.8
117.5°	1.1	1.5	1.5
120°	1.1	1.1	1.5
122.5°	1.1	1.1	1.5
125°	1.1	1.1	1.5
127.5°	1.5	1.1	1.1
130°	1.1	1.1	1.1
132.5°	1.5	1.1	1.1
135°	1.5	1.1	1.1
137.5°	1.5	1.1	1.1
140°	1.5	1.1	1.1
142.5°	1.5	1.1	1.1
145°	1.1	1.1	1.1
147.5°	1.1	1.1	1.1
150°	1.1	1.1	0.7
152.5°	1.1	0.7	0.7
155°	1.1	0.7	0.4
157.5°	1.5	0.7	0.4
160°	1.1	0.7	0.4
162.5°	1.1	0.7	0.4
165°	1.1	0.7	0.0
167.5°	1.1	0.7	0.4
170°	1.1	0.7	0.4
172.5°	1.1	0.7	0.4
175°	1.1	0.4	0.4
177.5°	1.1	0.4	0.4
180°	1.1	1.1	1.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	155.0	150.5	135.8	111.4	77.9	43.5	16.2	3.0	0.7	1.1	1.1
110°	135.1	131.4	116.2	92.6	62.7	32.5	10.7	1.8	1.1	1.1	1.1





107.5°	1.5	2.2	2.6
110°	1.5	1.8	2.2



(END OF REPORT)