

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: P551024

Luminaire Tested: **FCC-X-2-LD4-1STD-35-UNV-81-88-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: P551024
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-35-UNV-81-88-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

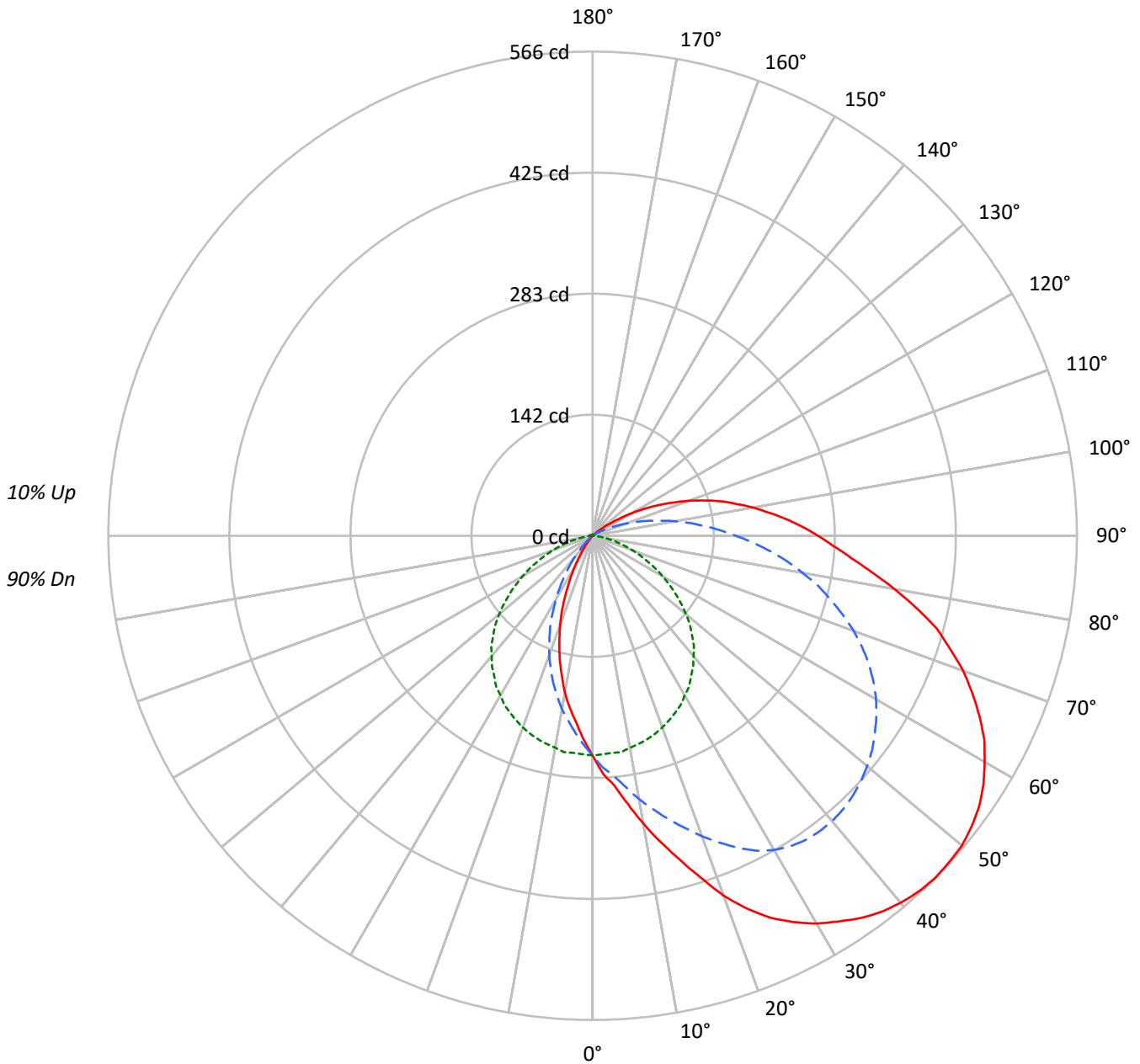
Lumens per Lamp: N/A
Luminaire Lumens: 1269.0 lumens
Efficiency: N/A
Efficacy: 76.0 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 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-35-UNV-81-88-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°	2763	2763	2763
5°	3033	2722	2271
10°	3432	2690	1872
15°	3846	2655	1459
20°	4339	2612	1075
25°	4746	2561	705
30°	5049	2495	397
35°	5311	2421	175
40°	5544	2332	43
45°	5744	2220	0
50°	5912	2072	0
55°	6039	1885	0
60°	6104	1667	0
65°	6129	1418	0
70°	6108	1157	0
75°	6031	854	4
80°	5787	522	26
85°	5593	249	37



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.6	1.9
10°-20°	73.6	5.8
20°-30°	119.2	9.4
30°-40°	153.1	12.1
40°-50°	173.4	13.7
50°-60°	179.6	14.2
60°-70°	169.4	13.3
70°-80°	141.9	11.2
80°-90°	102.9	8.1
90°-100°	67.6	5.3
100°-110°	39.1	3.1
110°-120°	17.2	1.4
120°-130°	4.7	0.4
130°-140°	1.1	0.1
140°-150°	0.7	0.1
150°-160°	0.5	0.0
160°-170°	0.3	0.0
170°-180°	0.1	0.0
0°-30°	217.4	17.1
0°-40°	370.6	29.2
0°-60°	723.5	57.0
0°-90°	1137.8	89.7
90°-120°	123.9	9.8
90°-150°	130.4	10.3
90°-180°	131.0	10.3
0°-180°	1269.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	257	257	257	257	257	
5°	293	281	255	231	219	30
15°	391	343	246	178	148	113
25°	493	403	228	117	73	228
35°	546	434	200	57	18	342
45°	566	430	164	13	0	437
55°	552	403	118	0	0	493
65°	499	356	71	0	0	493
75°	416	288	30	0	0	436
85°	304	208	5	1	2	260
90°	264	167	1	2	2	145
95°	226	131	1	2	3	178
105°	156	68	1	2	3	164
115°	85	22	1	1	2	85
125°	25	3	1	1	1	25
135°	1	1	2	1	1	2
145°	0	1	1	1	1	0
155°	1	1	1	1	0	0
165°	1	1	1	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°	256.7	256.7	256.7	256.7	256.7	256.7	256.7	256.7	256.7	256.7	256.7
2.5°	278.3	277.9	277.0	275.3	273.0	269.1	265.8	262.9	259.0	255.7	249.5
5°	293.0	291.3	290.0	288.4	283.2	279.6	273.7	267.2	260.9	254.7	242.3
7.5°	316.5	313.9	311.9	307.4	300.2	292.0	282.8	276.6	272.4	255.1	233.8
10°	341.7	339.4	335.5	327.3	318.5	306.7	293.6	278.9	265.8	251.5	226.3
12.5°	366.6	363.3	357.7	347.3	334.8	320.1	302.1	284.8	266.2	249.2	217.4
15°	391.4	387.8	381.9	369.2	352.8	333.5	311.6	289.7	267.8	246.2	208.3
17.5°	418.5	413.6	404.8	390.4	369.8	346.0	320.1	293.6	267.2	242.6	198.5
20°	447.7	440.8	431.3	412.0	387.8	359.7	328.6	297.6	266.8	238.4	187.4
22.5°	471.8	465.0	454.5	434.6	405.5	371.1	335.8	300.2	265.5	233.5	176.9
25°	492.8	487.2	475.8	452.9	422.1	383.2	342.7	302.1	263.6	228.2	165.8
27.5°	509.1	503.9	491.1	467.6	436.2	394.0	347.9	303.1	260.9	223.0	154.3
30°	523.5	518.3	502.9	478.7	445.7	402.5	353.2	303.4	257.7	215.2	141.9
32.5°	534.6	529.7	514.0	488.2	452.2	408.4	356.1	303.1	253.4	209.6	128.5
35°	545.7	540.8	522.5	495.1	457.1	411.0	358.4	301.5	248.2	200.4	115.8
37.5°	554.3	548.7	530.1	499.6	459.4	411.7	358.1	299.2	242.6	192.9	103.0
40°	560.1	554.3	534.3	502.3	460.1	410.7	355.4	295.3	236.1	183.4	89.6
42.5°	564.1	557.5	536.3	506.2	458.8	408.1	351.5	290.4	228.9	175.3	76.8
45°	566.0	559.2	536.6	502.9	456.5	403.2	345.6	284.2	221.0	164.1	64.1
47.5°	565.0	557.5	535.0	499.3	452.2	397.9	339.1	276.6	211.6	154.3	52.0
50°	563.4	555.6	531.4	494.7	446.3	391.4	331.9	267.5	201.8	142.2	41.2
52.5°	558.2	550.3	527.4	488.2	439.5	383.9	322.1	258.0	191.3	130.5	31.4
55°	551.6	544.4	520.6	482.3	430.6	374.7	312.9	247.9	181.2	118.4	22.6
57.5°	541.5	535.0	512.1	472.8	421.8	364.6	302.8	236.7	168.4	106.3	15.7
60°	529.1	522.5	500.3	462.0	411.7	353.2	291.7	225.3	157.0	94.2	9.8
62.5°	516.0	509.8	486.6	448.6	398.9	341.1	279.6	213.9	144.9	83.1	5.9
65°	498.7	492.8	471.8	432.6	384.9	328.0	266.2	200.1	132.4	70.6	3.3
67.5°	480.4	475.1	453.9	417.9	368.5	313.6	252.4	186.7	119.4	59.8	1.6
70°	460.7	454.2	434.6	397.9	351.8	297.2	237.4	173.0	106.9	49.4	0.0
72.5°	437.8	432.9	414.0	379.3	332.6	279.9	222.0	157.9	93.2	39.2	0.3
75°	415.6	409.4	392.1	359.4	313.6	261.6	205.0	143.9	79.8	30.1	0.3
77.5°	386.8	384.9	368.5	336.8	295.6	243.9	186.4	126.9	67.0	21.6	0.3
80°	358.1	356.1	343.3	314.2	274.7	223.0	169.1	110.9	54.6	14.4	0.3
82.5°	329.6	327.0	314.9	290.7	253.4	205.4	151.1	94.8	43.2	8.8	0.3
85°	304.1	300.8	287.8	265.5	231.5	185.4	132.4	79.1	32.0	4.9	0.7
87.5°	282.2	279.9	265.5	242.6	209.3	166.8	116.1	64.1	22.6	2.3	1.0
90°	263.6	258.7	245.9	221.7	188.3	146.2	98.8	51.3	15.0	1.3	1.3
92.5°	245.2	241.0	226.9	202.1	169.7	128.5	82.1	39.2	9.5	0.7	1.6
95°	226.3	221.7	208.0	185.1	150.7	110.5	67.4	28.8	5.2	0.7	1.6
97.5°	207.6	203.4	189.0	166.1	133.7	94.8	53.3	20.3	2.6	0.7	1.3
100°	190.3	185.4	172.3	149.4	116.7	79.1	41.2	13.1	1.6	0.7	1.3
102.5°	172.0	168.1	154.7	132.4	99.1	64.4	30.7	8.2	0.7	0.7	1.0
105°	155.6	150.7	137.7	114.8	84.4	50.7	21.6	4.9	0.7	0.7	1.0



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CATALOG NUMBER: FCC-X-2-LD4-1STD-35-UNV-81-88-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	101.4	97.4	86.0	66.7	42.8	19.9	5.9	1.0	1.0	1.0	1.0
115°	84.7	78.8	68.7	51.7	31.7	13.1	2.9	1.0	1.0	1.0	1.0
117.5°	67.7	62.8	55.6	39.2	20.9	8.5	1.6	1.0	1.0	1.0	1.0
120°	53.0	48.4	40.2	27.1	14.1	4.9	0.7	1.0	1.0	1.0	1.0
122.5°	37.9	34.3	27.1	17.7	8.5	2.3	1.0	1.0	1.3	1.3	1.0
125°	25.2	23.2	18.0	10.8	5.2	1.0	1.0	1.0	1.3	1.3	1.0
127.5°	16.3	14.7	10.5	6.2	2.3	1.0	1.0	1.3	1.3	1.3	1.0
130°	9.2	8.2	6.2	3.6	1.0	1.0	1.0	1.3	1.3	1.3	1.0
132.5°	5.2	4.9	3.3	0.7	1.0	1.0	1.0	1.3	1.3	1.3	1.3
135°	1.3	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.6	1.3
137.5°	0.3	0.3	0.7	0.7	1.0	1.0	1.3	1.6	1.6	1.6	1.3
140°	0.3	0.3	0.7	1.0	1.0	1.0	1.3	1.6	1.6	1.6	1.3
142.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.6	1.3	1.3
145°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.3	1.3	1.3
147.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.6	1.3	1.3
150°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.3
152.5°	0.3	0.7	0.7	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.3
155°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.6
157.5°	0.7	0.7	0.7	1.0	1.3	1.3	1.3	1.6	1.3	1.3	1.6
160°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
162.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.3
165°	0.7	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.3	1.3	1.3
167.5°	0.7	0.7	0.7	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3
170°	0.7	0.7	0.7	1.0	1.0	1.0	1.3	1.6	1.6	1.6	1.6
172.5°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.6
175°	0.7	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.6
177.5°	0.3	0.7	0.7	1.0	1.0	1.3	1.3	1.6	1.6	1.6	1.3
180°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	256.7	256.7	256.7
2.5°	244.3	239.7	238.4
5°	231.2	223.7	219.4
7.5°	218.1	208.0	203.1
10°	206.0	191.6	186.4
12.5°	191.6	174.9	166.8
15°	177.9	156.3	148.5
17.5°	162.5	138.3	129.2
20°	148.1	120.3	110.9
22.5°	131.8	102.7	92.2
25°	117.1	85.0	73.2
27.5°	100.7	67.0	56.9
30°	85.3	51.3	41.2
32.5°	70.6	37.6	28.4
35°	56.9	25.5	18.0
37.5°	43.8	15.7	9.2
40°	31.7	8.2	4.3
42.5°	21.3	3.9	2.3
45°	13.1	2.0	0.0
47.5°	7.5	0.0	0.0
50°	3.9	0.0	0.0
52.5°	1.6	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°	0.3	0.3	0.3
77.5°	0.3	0.7	1.0
80°	0.7	1.3	1.6
82.5°	1.3	1.6	1.6
85°	1.3	1.6	2.0
87.5°	1.6	2.0	2.3
90°	2.0	2.3	2.3
92.5°	2.0	2.6	2.6
95°	2.3	2.6	2.9
97.5°	2.6	2.9	2.9
100°	2.3	2.9	3.3
102.5°	2.0	2.9	2.9
105°	1.6	2.3	2.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.3	1.6	1.6
115°	1.0	1.3	1.6
117.5°	1.0	1.3	1.3
120°	1.0	1.0	1.3
122.5°	1.0	1.0	1.3
125°	1.0	1.0	1.3
127.5°	1.3	1.0	1.0
130°	1.0	1.0	1.0
132.5°	1.3	1.0	1.0
135°	1.3	1.0	1.0
137.5°	1.3	1.0	1.0
140°	1.3	1.0	1.0
142.5°	1.3	1.0	1.0
145°	1.0	1.0	1.0
147.5°	1.0	1.0	1.0
150°	1.0	1.0	0.7
152.5°	1.0	0.7	0.7
155°	1.0	0.7	0.3
157.5°	1.3	0.7	0.3
160°	1.0	0.7	0.3
162.5°	1.0	0.7	0.3
165°	1.0	0.7	0.0
167.5°	1.0	0.7	0.3
170°	1.0	0.7	0.3
172.5°	1.0	0.7	0.3
175°	1.0	0.3	0.3
177.5°	1.0	0.3	0.3
180°	1.0	1.0	1.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	137.3	133.4	120.3	98.8	69.0	38.6	14.4	2.6	0.7	1.0	1.0
110°	119.7	116.4	103.0	82.1	55.6	28.8	9.5	1.6	1.0	1.0	1.0





107.5°	1.3	2.0	2.3
110°	1.3	1.6	2.0



(END OF REPORT)