

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: P550960

Luminaire Tested: **FCC-X-2-LD4-1STD-30-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: P550960
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-81-88-ED1D
Description: FCC CORNER MOUNT LUMINAIRE WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 80 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

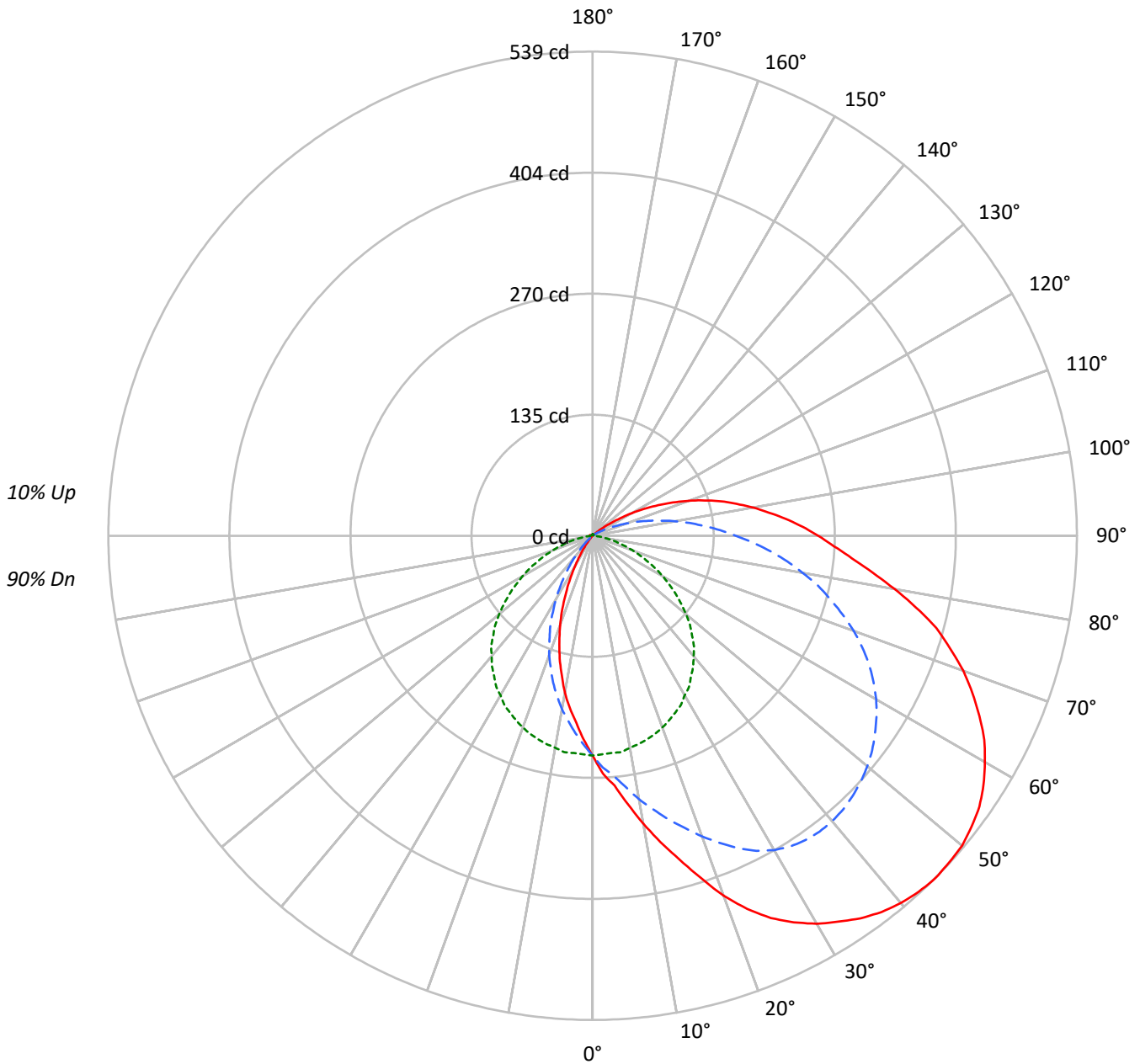
Lumens per Lamp: N/A
Luminaire Lumens: 1208.9 lumens
Efficiency: N/A
Efficacy: 72.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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

TEST NUMBER: P550960

CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-81-88-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°	2633	2633	2633
5°	2889	2594	2164
10°	3269	2562	1784
15°	3665	2530	1390
20°	4133	2488	1023
25°	4522	2440	672
30°	4811	2376	379
35°	5060	2308	166
40°	5283	2223	40
45°	5473	2116	0
50°	5633	1975	0
55°	5754	1796	0
60°	5816	1587	0
65°	5839	1352	0
70°	5819	1101	0
75°	5746	814	4
80°	5512	497	26
85°	5328	239	35



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.4	1.9
10°-20°	70.1	5.8
20°-30°	113.6	9.4
30°-40°	145.9	12.1
40°-50°	165.2	13.7
50°-60°	171.1	14.2
60°-70°	161.4	13.3
70°-80°	135.2	11.2
80°-90°	98.0	8.1
90°-100°	64.4	5.3
100°-110°	37.2	3.1
110°-120°	16.4	1.4
120°-130°	4.4	0.4
130°-140°	1.0	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°	207.1	17.1
0°-40°	353.1	29.2
0°-60°	689.3	57.0
0°-90°	1084.0	89.7
90°-120°	118.0	9.8
90°-150°	124.1	10.3
90°-180°	125.0	10.3
0°-180°	1208.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	245	245	245	245	245	
5°	279	268	243	220	209	28
15°	373	327	235	170	141	108
25°	470	384	217	112	70	217
35°	520	414	191	54	17	326
45°	539	410	156	12	0	416
55°	526	384	113	0	0	469
65°	475	340	67	0	0	470
75°	396	274	29	0	0	415
85°	290	199	5	1	2	247
90°	251	159	1	2	2	138
95°	216	124	1	2	3	169
105°	148	64	1	2	2	156
115°	81	21	1	1	2	81
125°	24	3	1	1	1	24
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	



TEST NUMBER: P550960

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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	244.6	244.6	244.6	244.6	244.6	244.6	244.6	244.6	244.6	244.6	244.6
2.5°	265.1	264.8	263.9	262.3	260.1	256.4	253.3	250.5	246.7	243.6	237.7
5°	279.1	277.6	276.3	274.8	269.8	266.4	260.8	254.5	248.6	242.7	230.8
7.5°	301.6	299.1	297.2	292.8	286.0	278.2	269.5	263.6	259.5	243.0	222.7
10°	325.5	323.4	319.6	311.8	303.4	292.2	279.8	265.7	253.3	239.6	215.6
12.5°	349.2	346.1	340.8	330.8	319.0	305.0	287.9	271.3	253.6	237.4	207.2
15°	372.9	369.5	363.9	351.7	336.1	317.8	296.9	276.0	255.1	234.6	198.4
17.5°	398.8	394.1	385.7	372.0	352.3	329.6	305.0	279.8	254.5	231.2	189.1
20°	426.5	419.9	410.9	392.5	369.5	342.7	313.1	283.5	254.2	227.1	178.5
22.5°	449.5	443.0	433.0	414.0	386.3	353.6	319.9	286.0	253.0	222.4	168.5
25°	469.5	464.2	453.3	431.5	402.2	365.1	326.5	287.9	251.1	217.4	157.9
27.5°	485.1	480.1	467.9	445.5	415.6	375.4	331.5	288.8	248.6	212.5	147.0
30°	498.8	493.8	479.1	456.1	424.6	383.5	336.5	289.1	245.5	205.0	135.2
32.5°	509.4	504.7	489.7	465.1	430.8	389.1	339.3	288.8	241.4	199.7	122.4
35°	519.9	515.3	497.8	471.7	435.5	391.6	341.4	287.2	236.5	191.0	110.3
37.5°	528.0	522.7	505.0	476.0	437.7	392.2	341.1	285.1	231.2	183.8	98.1
40°	533.7	528.0	509.0	478.5	438.3	391.3	338.6	281.3	224.9	174.8	85.4
42.5°	537.4	531.2	510.9	482.2	437.1	388.8	334.9	276.6	218.1	167.0	73.2
45°	539.3	532.7	511.2	479.1	434.9	384.1	329.3	270.7	210.6	156.4	61.1
47.5°	538.3	531.2	509.7	475.7	430.8	379.1	323.1	263.6	201.6	147.0	49.5
50°	536.8	529.3	506.2	471.3	425.2	372.9	316.2	254.8	192.2	135.5	39.3
52.5°	531.8	524.3	502.5	465.1	418.7	365.7	306.9	245.8	182.2	124.3	29.9
55°	525.6	518.7	496.0	459.5	410.3	357.0	298.1	236.1	172.6	112.8	21.5
57.5°	515.9	509.7	487.9	450.5	401.9	347.4	288.5	225.5	160.4	101.2	15.0
60°	504.1	497.8	476.6	440.2	392.2	336.5	277.9	214.6	149.5	89.7	9.3
62.5°	491.6	485.7	463.6	427.4	380.1	324.9	266.4	203.7	138.0	79.1	5.6
65°	475.1	469.5	449.5	412.2	366.7	312.5	253.6	190.7	126.2	67.3	3.1
67.5°	457.6	452.7	432.4	398.1	351.1	298.8	240.5	177.9	113.7	57.0	1.6
70°	438.9	432.7	414.0	379.1	335.2	283.2	226.2	164.8	101.9	47.0	0.0
72.5°	417.1	412.5	394.4	361.4	316.8	266.7	211.5	150.5	88.8	37.4	0.3
75°	396.0	390.0	373.5	342.4	298.8	249.2	195.3	137.1	76.0	28.7	0.3
77.5°	368.5	366.7	351.1	320.9	281.6	232.4	177.6	120.9	63.9	20.6	0.3
80°	341.1	339.3	327.1	299.4	261.7	212.5	161.1	105.6	52.0	13.7	0.3
82.5°	314.0	311.5	300.0	277.0	241.4	195.6	143.9	90.3	41.1	8.4	0.3
85°	289.7	286.6	274.1	253.0	220.6	176.6	126.2	75.4	30.5	4.7	0.6
87.5°	268.9	266.7	253.0	231.2	199.4	158.9	110.6	61.1	21.5	2.2	0.9
90°	251.1	246.4	234.3	211.2	179.4	139.3	94.1	48.9	14.3	1.2	1.2
92.5°	233.6	229.6	216.2	192.5	161.7	122.4	78.2	37.4	9.0	0.6	1.6
95°	215.6	211.2	198.1	176.3	143.6	105.3	64.2	27.4	5.0	0.6	1.6
97.5°	197.8	193.8	180.1	158.3	127.4	90.3	50.8	19.3	2.5	0.6	1.2
100°	181.3	176.6	164.2	142.4	111.2	75.4	39.3	12.5	1.6	0.6	1.2
102.5°	163.9	160.1	147.4	126.2	94.4	61.4	29.3	7.8	0.6	0.6	0.9
105°	148.3	143.6	131.2	109.3	80.4	48.3	20.6	4.7	0.6	0.6	0.9



TEST NUMBER: P550960

CATALOG NUMBER: FCC-X-2-LD4-1STD-30-UNV-81-88-ED1D

CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	96.6	92.8	81.9	63.6	40.8	19.0	5.6	0.9	0.9	0.9	0.9
115°	80.7	75.1	65.4	49.2	30.2	12.5	2.8	0.9	0.9	0.9	0.9
117.5°	64.5	59.8	53.0	37.4	19.9	8.1	1.6	0.9	0.9	0.9	0.9
120°	50.5	46.1	38.3	25.9	13.4	4.7	0.6	0.9	0.9	0.9	0.9
122.5°	36.1	32.7	25.9	16.8	8.1	2.2	0.9	0.9	1.2	1.2	0.9
125°	24.0	22.1	17.1	10.3	5.0	0.9	0.9	0.9	1.2	1.2	0.9
127.5°	15.6	14.0	10.0	5.9	2.2	0.9	0.9	1.2	1.2	1.2	0.9
130°	8.7	7.8	5.9	3.4	0.9	0.9	0.9	1.2	1.2	1.2	0.9
132.5°	5.0	4.7	3.1	0.6	0.9	0.9	0.9	1.2	1.2	1.2	1.2
135°	1.2	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.6	1.6	1.2
137.5°	0.3	0.3	0.6	0.6	0.9	0.9	1.2	1.6	1.6	1.6	1.2
140°	0.3	0.3	0.6	0.9	0.9	0.9	1.2	1.6	1.6	1.6	1.2
142.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.6	1.6	1.2	1.2
145°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.6	1.2	1.2	1.2
147.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.6	1.6	1.2	1.2
150°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.6	1.2	1.2	1.2
152.5°	0.3	0.6	0.6	0.9	1.2	1.2	1.2	1.6	1.2	1.2	1.2
155°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.6	1.2	1.2	1.6
157.5°	0.6	0.6	0.6	0.9	1.2	1.2	1.2	1.6	1.2	1.2	1.6
160°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
162.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2	1.2
165°	0.6	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.2	1.2	1.2
167.5°	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.2	1.2	1.2	1.2
170°	0.6	0.6	0.6	0.9	0.9	0.9	1.2	1.6	1.6	1.6	1.6
172.5°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.6	1.6	1.6	1.6
175°	0.6	0.6	0.6	0.9	0.9	1.2	1.2	1.6	1.6	1.6	1.6
177.5°	0.3	0.6	0.6	0.9	0.9	1.2	1.2	1.6	1.6	1.6	1.2
180°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	244.6	244.6	244.6
2.5°	232.7	228.4	227.1
5°	220.3	213.1	209.0
7.5°	207.8	198.1	193.5
10°	196.3	182.6	177.6
12.5°	182.6	166.7	158.9
15°	169.5	148.9	141.4
17.5°	154.8	131.8	123.1
20°	141.1	114.6	105.6
22.5°	125.5	97.8	87.9
25°	111.5	81.0	69.8
27.5°	96.0	63.9	54.2
30°	81.3	48.9	39.3
32.5°	67.3	35.8	27.1
35°	54.2	24.3	17.1
37.5°	41.7	15.0	8.7
40°	30.2	7.8	4.0
42.5°	20.2	3.7	2.2
45°	12.5	1.9	0.0
47.5°	7.2	0.0	0.0
50°	3.7	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	0.6	0.9
80°	0.6	1.2	1.6
82.5°	1.2	1.6	1.6
85°	1.2	1.6	1.9
87.5°	1.6	1.9	2.2
90°	1.9	2.2	2.2
92.5°	1.9	2.5	2.5
95°	2.2	2.5	2.8
97.5°	2.5	2.8	2.8
100°	2.2	2.8	3.1
102.5°	1.9	2.8	2.8
105°	1.6	2.2	2.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.2	1.6	1.6
115°	0.9	1.2	1.6
117.5°	0.9	1.2	1.2
120°	0.9	0.9	1.2
122.5°	0.9	0.9	1.2
125°	0.9	0.9	1.2
127.5°	1.2	0.9	0.9
130°	0.9	0.9	0.9
132.5°	1.2	0.9	0.9
135°	1.2	0.9	0.9
137.5°	1.2	0.9	0.9
140°	1.2	0.9	0.9
142.5°	1.2	0.9	0.9
145°	0.9	0.9	0.9
147.5°	0.9	0.9	0.9
150°	0.9	0.9	0.6
152.5°	0.9	0.6	0.6
155°	0.9	0.6	0.3
157.5°	1.2	0.6	0.3
160°	0.9	0.6	0.3
162.5°	0.9	0.6	0.3
165°	0.9	0.6	0.0
167.5°	0.9	0.6	0.3
170°	0.9	0.6	0.3
172.5°	0.9	0.6	0.3
175°	0.9	0.3	0.3
177.5°	0.9	0.3	0.3
180°	0.9	0.9	0.9



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	130.8	127.1	114.6	94.1	65.7	36.8	13.7	2.5	0.6	0.9	0.9
110°	114.0	110.9	98.1	78.2	53.0	27.4	9.0	1.6	0.9	0.9	0.9





107.5°	1.2	1.9	2.2
110°	1.2	1.6	1.9



(END OF REPORT)