

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: P551033

Luminaire Tested: **FCC-X-2-LD4-1STD-35-UNV-82-85-ED1D-90**

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: P551033
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-82-85-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3500K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

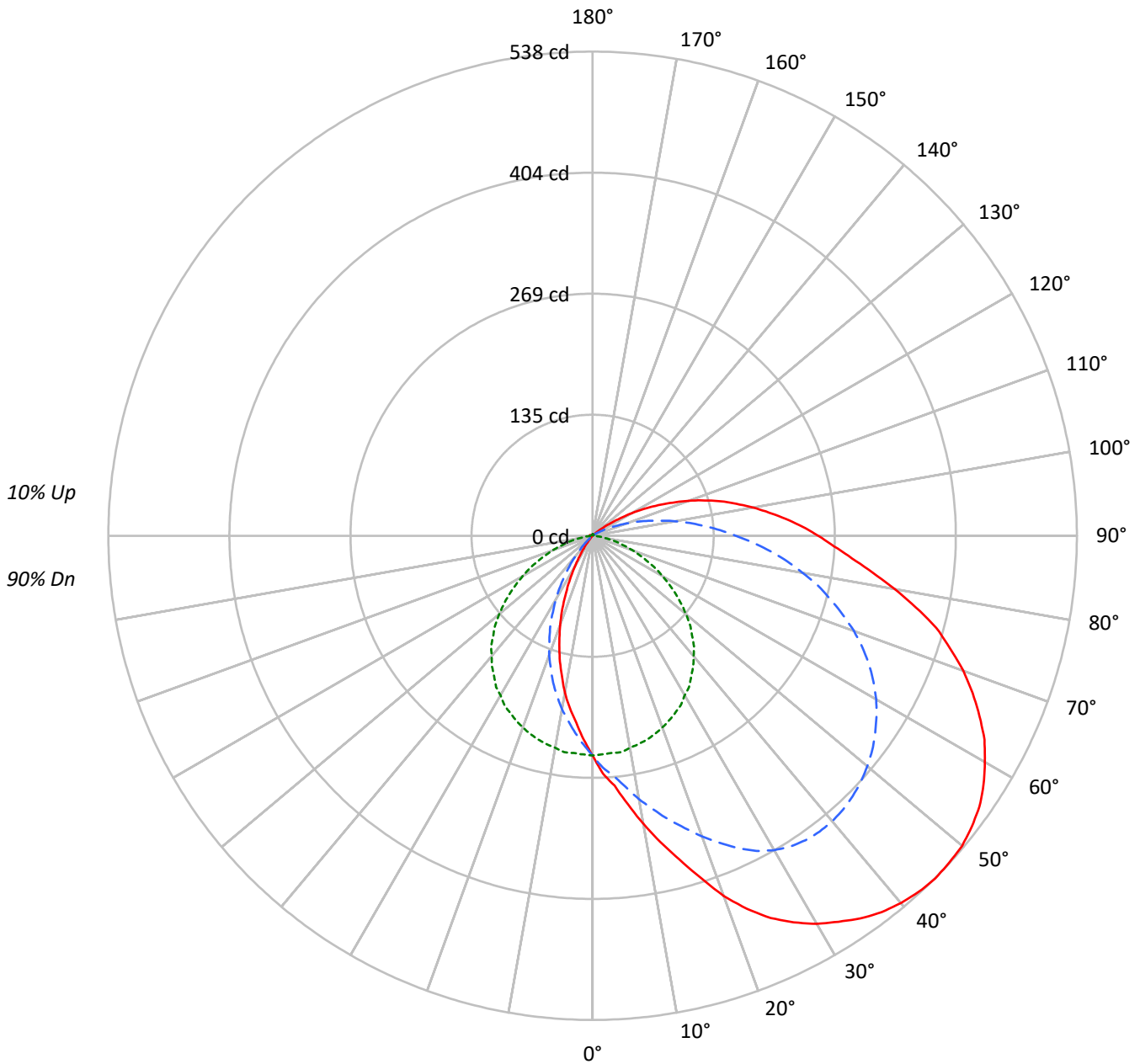
Lumens per Lamp: N/A
Luminaire Lumens: 1206.9 lumens
Efficiency: N/A
Efficacy: 72.3 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

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									
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°	2627	2627	2627
5°	2885	2590	2161
10°	3264	2558	1781
15°	3659	2525	1388
20°	4126	2484	1021
25°	4514	2436	671
30°	4802	2372	378
35°	5052	2304	166
40°	5274	2219	40
45°	5464	2112	0
50°	5623	1972	0
55°	5745	1793	0
60°	5805	1586	0
65°	5830	1350	0
70°	5810	1101	0
75°	5736	811	4
80°	5504	497	26
85°	5319	239	35



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.4	1.9
10°-20°	70.0	5.8
20°-30°	113.4	9.4
30°-40°	145.7	12.1
40°-50°	164.9	13.7
50°-60°	170.8	14.2
60°-70°	161.1	13.3
70°-80°	135.0	11.2
80°-90°	97.9	8.1
90°-100°	64.3	5.3
100°-110°	37.1	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°	206.8	17.1
0°-40°	352.5	29.2
0°-60°	688.2	57.0
0°-90°	1082.2	89.7
90°-120°	117.8	9.8
90°-150°	123.9	10.3
90°-180°	125.0	10.4
0°-180°	1206.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	244	244	244	244	244	
5°	279	268	242	220	209	28
15°	372	326	234	169	141	107
25°	469	383	217	111	70	217
35°	519	413	191	54	17	326
45°	538	409	156	12	0	416
55°	525	383	113	0	0	469
65°	474	339	67	0	0	469
75°	395	274	29	0	0	415
85°	289	198	5	1	2	247
90°	251	159	1	2	2	137
95°	215	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	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	244.1	244.1	244.1	244.1	244.1	244.1	244.1	244.1	244.1	244.1	244.1
2.5°	264.7	264.4	263.4	261.9	259.7	256.0	252.9	250.1	246.3	243.2	237.3
5°	278.7	277.1	275.9	274.3	269.3	265.9	260.3	254.1	248.2	242.3	230.5
7.5°	301.1	298.6	296.7	292.4	285.5	277.7	269.0	263.1	259.1	242.6	222.4
10°	325.0	322.8	319.1	311.3	302.9	291.7	279.3	265.3	252.9	239.2	215.2
12.5°	348.6	345.5	340.3	330.3	318.5	304.5	287.4	270.9	253.2	237.0	206.8
15°	372.3	368.9	363.3	351.1	335.6	317.2	296.4	275.6	254.7	234.2	198.1
17.5°	398.1	393.4	385.0	371.4	351.8	329.1	304.5	279.3	254.1	230.8	188.8
20°	425.8	419.2	410.2	391.9	368.9	342.1	312.6	283.0	253.8	226.7	178.2
22.5°	448.8	442.3	432.3	413.3	385.7	353.0	319.4	285.5	252.5	222.1	168.3
25°	468.7	463.4	452.5	430.8	401.5	364.5	325.9	287.4	250.7	217.1	157.7
27.5°	484.3	479.3	467.1	444.8	414.9	374.8	330.9	288.3	248.2	212.1	146.8
30°	497.9	493.0	478.3	455.3	423.9	382.9	335.9	288.6	245.1	204.6	135.0
32.5°	508.5	503.8	488.9	464.3	430.1	388.5	338.7	288.3	241.0	199.4	122.2
35°	519.1	514.4	497.0	470.9	434.8	390.9	340.9	286.8	236.1	190.7	110.1
37.5°	527.2	521.9	504.2	475.2	437.0	391.6	340.6	284.6	230.8	183.5	98.0
40°	532.8	527.2	508.2	477.7	437.6	390.6	338.1	280.8	224.6	174.5	85.2
42.5°	536.5	530.3	510.1	481.5	436.4	388.1	334.3	276.2	217.7	166.7	73.1
45°	538.4	531.8	510.4	478.3	434.2	383.5	328.7	270.3	210.2	156.1	61.0
47.5°	537.4	530.3	508.8	474.9	430.1	378.5	322.5	263.1	201.2	146.8	49.5
50°	535.9	528.4	505.4	470.6	424.5	372.3	315.7	254.4	191.9	135.3	39.2
52.5°	530.9	523.4	501.7	464.3	418.0	365.1	306.4	245.4	181.9	124.1	29.9
55°	524.7	517.8	495.1	458.7	409.6	356.4	297.6	235.7	172.3	112.6	21.5
57.5°	515.0	508.8	487.1	449.7	401.2	346.8	288.0	225.2	160.2	101.1	14.9
60°	503.2	497.0	475.9	439.5	391.6	335.9	277.4	214.3	149.3	89.6	9.3
62.5°	490.8	484.9	462.8	426.7	379.4	324.4	265.9	203.4	137.8	79.0	5.6
65°	474.3	468.7	448.8	411.5	366.1	311.9	253.2	190.3	126.0	67.2	3.1
67.5°	456.9	451.9	431.7	397.5	350.5	298.3	240.1	177.6	113.5	56.9	1.6
70°	438.2	432.0	413.3	378.5	334.7	282.7	225.8	164.5	101.7	47.0	0.0
72.5°	416.4	411.8	393.7	360.8	316.3	266.2	211.2	150.2	88.6	37.3	0.3
75°	395.3	389.4	372.9	341.8	298.3	248.8	195.0	136.8	75.9	28.6	0.3
77.5°	367.9	366.1	350.5	320.3	281.2	232.0	177.3	120.7	63.8	20.5	0.3
80°	340.6	338.7	326.6	298.9	261.3	212.1	160.8	105.4	51.9	13.7	0.3
82.5°	313.5	311.0	299.5	276.5	241.0	195.3	143.7	90.2	41.1	8.4	0.3
85°	289.2	286.1	273.7	252.5	220.2	176.3	126.0	75.3	30.5	4.7	0.6
87.5°	268.4	266.2	252.5	230.8	199.0	158.6	110.4	61.0	21.5	2.2	0.9
90°	250.7	246.0	233.9	210.9	179.1	139.0	93.9	48.8	14.3	1.2	1.2
92.5°	233.3	229.2	215.8	192.2	161.4	122.2	78.1	37.3	9.0	0.6	1.6
95°	215.2	210.9	197.8	176.0	143.4	105.1	64.1	27.4	5.0	0.6	1.6
97.5°	197.5	193.5	179.8	158.0	127.2	90.2	50.7	19.3	2.5	0.6	1.2
100°	181.0	176.3	163.9	142.1	111.0	75.3	39.2	12.4	1.6	0.6	1.2
102.5°	163.6	159.9	147.1	126.0	94.2	61.3	29.2	7.8	0.6	0.6	0.9
105°	148.0	143.4	130.9	109.2	80.2	48.2	20.5	4.7	0.6	0.6	0.9



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	96.4	92.7	81.8	63.4	40.7	19.0	5.6	0.9	0.9	0.9	0.9
115°	80.6	75.0	65.3	49.1	30.2	12.4	2.8	0.9	0.9	0.9	0.9
117.5°	64.4	59.7	52.9	37.3	19.9	8.1	1.6	0.9	0.9	0.9	0.9
120°	50.4	46.0	38.3	25.8	13.4	4.7	0.6	0.9	0.9	0.9	0.9
122.5°	36.1	32.7	25.8	16.8	8.1	2.2	0.9	0.9	1.2	1.2	0.9
125°	23.9	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°	244.1	244.1	244.1
2.5°	232.3	228.0	226.7
5°	219.9	212.7	208.7
7.5°	207.4	197.8	193.1
10°	195.9	182.3	177.3
12.5°	182.3	166.4	158.6
15°	169.2	148.7	141.2
17.5°	154.6	131.6	122.9
20°	140.9	114.5	105.4
22.5°	125.3	97.7	87.7
25°	111.3	80.9	69.7
27.5°	95.8	63.8	54.1
30°	81.2	48.8	39.2
32.5°	67.2	35.8	27.1
35°	54.1	24.3	17.1
37.5°	41.7	14.9	8.7
40°	30.2	7.8	4.0
42.5°	20.2	3.7	2.2
45°	12.4	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°	130.6	126.9	114.5	93.9	65.6	36.7	13.7	2.5	0.6	0.9	0.9
110°	113.8	110.7	98.0	78.1	52.9	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)