

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: P550975

Luminaire Tested: **FCC-X-2-LD4-1STD-30-UNV-82-88-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: P550975
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-82-88-ED1D-90
Description: FCC CORNER MOUNT LUMINAIRE WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES AND 3000K, AND 90 CRI LEDS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

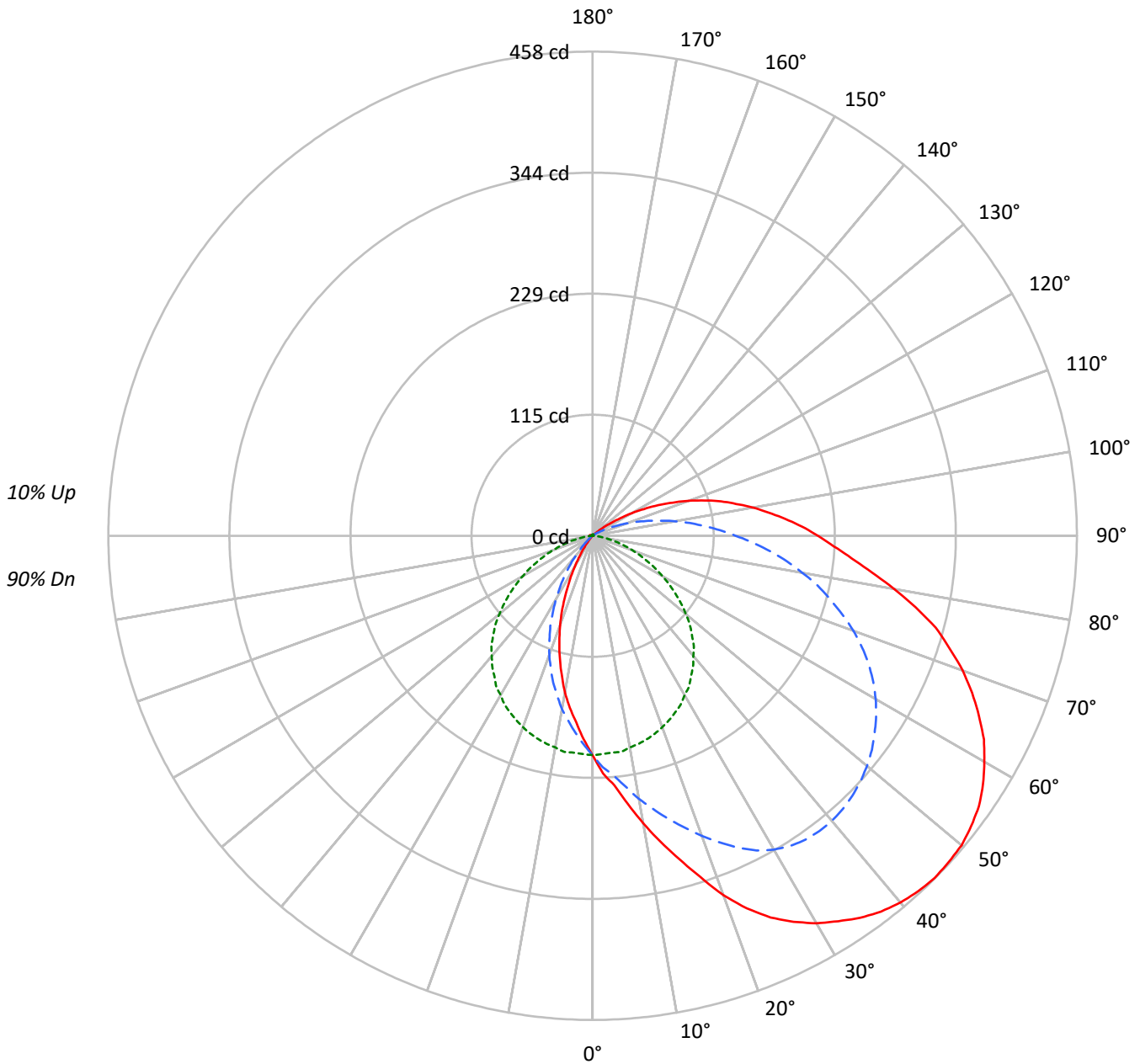
Lumens per Lamp: N/A
Luminaire Lumens: 1026.1 lumens
Efficiency: N/A
Efficacy: 61.4 lumens/watt
Spacing Criteria (0/90/45): 1.66 / 1.25 / 1.59
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 0.5' x H: 0.25')
CIE Type: Semi-Direct

Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (Ain): 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	70	70	70	67
2	92	82	74	67	88	79	72	65	74	67	62	69	64	59	64	60	56	56	56	56	53
3	83	71	61	54	79	68	60	53	64	56	50	59	53	48	55	50	46	46	46	46	43
4	75	62	52	44	72	60	51	44	56	48	42	52	45	40	49	43	38	38	38	38	36
5	69	55	45	38	66	53	44	37	50	42	35	46	39	34	43	38	33	33	33	33	30
6	63	49	39	32	61	47	38	32	44	36	31	42	35	29	39	33	28	28	28	28	26
7	58	44	35	28	56	43	34	28	40	32	27	38	31	26	36	29	25	25	25	25	23
8	54	40	31	25	52	39	30	24	37	29	24	34	28	23	32	26	22	22	22	22	20
9	51	36	28	22	49	35	27	22	33	26	21	32	25	20	30	24	20	20	20	20	18
10	47	33	25	20	45	33	25	19	31	24	19	29	23	18	28	22	18	18	18	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	2234	2234	2234
5°	2452	2201	1836
10°	2775	2174	1514
15°	3110	2147	1179
20°	3507	2111	868
25°	3837	2071	570
30°	4083	2017	321
35°	4294	1959	141
40°	4483	1886	34
45°	4644	1796	0
50°	4780	1676	0
55°	4883	1524	0
60°	4935	1347	0
65°	4956	1147	0
70°	4939	935	0
75°	4876	689	4
80°	4679	421	21
85°	4523	203	29



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.9	1.9
10°-20°	59.5	5.8
20°-30°	96.4	9.4
30°-40°	123.8	12.1
40°-50°	140.2	13.7
50°-60°	145.2	14.2
60°-70°	137.0	13.3
70°-80°	114.8	11.2
80°-90°	83.2	8.1
90°-100°	54.7	5.3
100°-110°	31.6	3.1
110°-120°	13.9	1.4
120°-130°	3.8	0.4
130°-140°	0.9	0.1
140°-150°	0.6	0.1
150°-160°	0.4	0.0
160°-170°	0.2	0.0
170°-180°	0.1	0.0
0°-30°	175.8	17.1
0°-40°	299.6	29.2
0°-60°	585.0	57.0
0°-90°	919.9	89.7
90°-120°	100.2	9.8
90°-150°	105.4	10.3
90°-180°	106.0	10.3
0°-180°	1026.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	208	208	208	208	208	
5°	237	227	206	187	177	24
15°	316	278	199	144	120	91
25°	398	326	184	95	59	184
35°	441	351	162	46	14	277
45°	458	348	133	11	0	353
55°	446	326	96	0	0	398
65°	403	288	57	0	0	399
75°	336	232	24	0	0	352
85°	246	169	4	1	2	210
90°	213	135	1	2	2	117
95°	183	106	0	2	2	144
105°	126	55	0	1	2	133
115°	68	18	1	1	1	69
125°	20	2	1	1	1	20
135°	1	1	1	1	1	2
145°	0	1	1	1	1	0
155°	0	1	1	1	0	0
165°	0	1	1	1	0	0
175°	0	1	1	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°	207.5	207.5	207.5	207.5	207.5	207.5	207.5	207.5	207.5	207.5	207.5
2.5°	225.0	224.7	223.9	222.6	220.8	217.6	214.9	212.6	209.4	206.7	201.7
5°	236.9	235.6	234.5	233.2	228.9	226.0	221.3	216.0	211.0	205.9	195.9
7.5°	255.9	253.8	252.2	248.5	242.7	236.1	228.7	223.7	220.2	206.2	189.0
10°	276.3	274.4	271.2	264.6	257.5	248.0	237.4	225.5	214.9	203.3	182.9
12.5°	296.4	293.7	289.2	280.8	270.7	258.8	244.3	230.3	215.2	201.5	175.8
15°	316.5	313.5	308.8	298.5	285.3	269.7	252.0	234.2	216.5	199.1	168.4
17.5°	338.4	334.4	327.3	315.7	299.0	279.7	258.8	237.4	216.0	196.2	160.5
20°	361.9	356.4	348.7	333.1	313.5	290.8	265.7	240.6	215.7	192.7	151.5
22.5°	381.5	375.9	367.5	351.4	327.8	300.1	271.5	242.7	214.7	188.8	143.0
25°	398.4	393.9	384.7	366.2	341.3	309.8	277.1	244.3	213.1	184.5	134.0
27.5°	411.6	407.4	397.1	378.1	352.7	318.6	281.3	245.1	211.0	180.3	124.8
30°	423.3	419.0	406.6	387.0	360.3	325.4	285.5	245.3	208.3	174.0	114.7
32.5°	432.3	428.3	415.6	394.7	365.6	330.2	287.9	245.1	204.9	169.5	103.9
35°	441.2	437.3	422.5	400.3	369.6	332.3	289.8	243.8	200.7	162.1	93.6
37.5°	448.1	443.6	428.6	404.0	371.4	332.8	289.5	241.9	196.2	156.0	83.3
40°	452.9	448.1	432.0	406.1	372.0	332.1	287.4	238.7	190.9	148.3	72.4
42.5°	456.0	450.8	433.6	409.3	370.9	329.9	284.2	234.8	185.1	141.7	62.1
45°	457.6	452.1	433.8	406.6	369.1	326.0	279.4	229.7	178.7	132.7	51.8
47.5°	456.8	450.8	432.5	403.7	365.6	321.7	274.2	223.7	171.1	124.8	42.0
50°	455.5	449.2	429.6	400.0	360.9	316.5	268.3	216.3	163.1	115.0	33.3
52.5°	451.3	444.9	426.4	394.7	355.3	310.4	260.4	208.6	154.7	105.5	25.4
55°	446.0	440.2	420.9	390.0	348.2	303.0	253.0	200.4	146.5	95.7	18.2
57.5°	437.8	432.5	414.0	382.3	341.0	294.8	244.8	191.4	136.2	85.9	12.7
60°	427.8	422.5	404.5	373.6	332.8	285.5	235.8	182.2	126.9	76.1	7.9
62.5°	417.2	412.2	393.4	362.7	322.5	275.7	226.0	172.9	117.1	67.2	4.8
65°	403.2	398.4	381.5	349.8	311.2	265.2	215.2	161.8	107.1	57.1	2.6
67.5°	388.4	384.1	367.0	337.9	298.0	253.5	204.1	151.0	96.5	48.4	1.3
70°	372.5	367.2	351.4	321.7	284.5	240.3	191.9	139.9	86.5	39.9	0.0
72.5°	354.0	350.0	334.7	306.7	268.9	226.3	179.5	127.7	75.3	31.7	0.3
75°	336.0	331.0	317.0	290.5	253.5	211.5	165.8	116.3	64.5	24.3	0.3
77.5°	312.8	311.2	298.0	272.3	239.0	197.2	150.7	102.6	54.2	17.4	0.3
80°	289.5	287.9	277.6	254.1	222.1	180.3	136.7	89.6	44.2	11.6	0.3
82.5°	266.5	264.4	254.6	235.0	204.9	166.0	122.1	76.7	34.9	7.1	0.3
85°	245.9	243.2	232.7	214.7	187.2	149.9	107.1	64.0	25.9	4.0	0.5
87.5°	228.2	226.3	214.7	196.2	169.2	134.8	93.9	51.8	18.2	1.9	0.8
90°	213.1	209.1	198.8	179.2	152.3	118.2	79.8	41.5	12.2	1.1	1.1
92.5°	198.3	194.8	183.5	163.4	137.2	103.9	66.4	31.7	7.7	0.5	1.3
95°	182.9	179.2	168.1	149.6	121.9	89.4	54.5	23.3	4.2	0.5	1.3
97.5°	167.9	164.4	152.8	134.3	108.1	76.7	43.1	16.4	2.1	0.5	1.1
100°	153.9	149.9	139.3	120.8	94.4	64.0	33.3	10.6	1.3	0.5	1.1
102.5°	139.1	135.9	125.0	107.1	80.1	52.1	24.9	6.6	0.5	0.5	0.8
105°	125.8	121.9	111.3	92.8	68.2	41.0	17.4	4.0	0.5	0.5	0.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
112.5°	82.0	78.8	69.5	53.9	34.6	16.1	4.8	0.8	0.8	0.8	0.8
115°	68.5	63.7	55.5	41.8	25.6	10.6	2.4	0.8	0.8	0.8	0.8
117.5°	54.7	50.8	44.9	31.7	16.9	6.9	1.3	0.8	0.8	0.8	0.8
120°	42.8	39.1	32.5	21.9	11.4	4.0	0.5	0.8	0.8	0.8	0.8
122.5°	30.7	27.8	21.9	14.3	6.9	1.9	0.8	0.8	1.1	1.1	0.8
125°	20.4	18.8	14.5	8.7	4.2	0.8	0.8	0.8	1.1	1.1	0.8
127.5°	13.2	11.9	8.5	5.0	1.9	0.8	0.8	1.1	1.1	1.1	0.8
130°	7.4	6.6	5.0	2.9	0.8	0.8	0.8	1.1	1.1	1.1	0.8
132.5°	4.2	4.0	2.6	0.5	0.8	0.8	0.8	1.1	1.1	1.1	1.1
135°	1.1	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.1
137.5°	0.3	0.3	0.5	0.5	0.8	0.8	1.1	1.3	1.3	1.3	1.1
140°	0.3	0.3	0.5	0.8	0.8	0.8	1.1	1.3	1.3	1.3	1.1
142.5°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.1	1.1
145°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.1	1.1	1.1
147.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.1	1.1
150°	0.3	0.5	0.5	0.8	1.1	1.1	1.1	1.3	1.1	1.1	1.1
152.5°	0.3	0.5	0.5	0.8	1.1	1.1	1.1	1.3	1.1	1.1	1.1
155°	0.5	0.5	0.5	0.8	1.1	1.1	1.1	1.3	1.1	1.1	1.3
157.5°	0.5	0.5	0.5	0.8	1.1	1.1	1.1	1.3	1.1	1.1	1.3
160°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.1	1.1	1.1	1.1
162.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.1	1.1	1.1	1.1
165°	0.5	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.1	1.1	1.1
167.5°	0.5	0.5	0.5	0.8	0.8	0.8	1.1	1.1	1.1	1.1	1.1
170°	0.5	0.5	0.5	0.8	0.8	0.8	1.1	1.3	1.3	1.3	1.3
172.5°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.3	1.3
175°	0.5	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.3	1.3
177.5°	0.3	0.5	0.5	0.8	0.8	1.1	1.1	1.3	1.3	1.3	1.1
180°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	207.5	207.5	207.5
2.5°	197.5	193.8	192.7
5°	186.9	180.8	177.4
7.5°	176.3	168.1	164.2
10°	166.6	154.9	150.7
12.5°	154.9	141.4	134.8
15°	143.8	126.4	120.0
17.5°	131.4	111.8	104.4
20°	119.8	97.3	89.6
22.5°	106.5	83.0	74.6
25°	94.6	68.7	59.2
27.5°	81.4	54.2	46.0
30°	69.0	41.5	33.3
32.5°	57.1	30.4	23.0
35°	46.0	20.6	14.5
37.5°	35.4	12.7	7.4
40°	25.6	6.6	3.4
42.5°	17.2	3.2	1.9
45°	10.6	1.6	0.0
47.5°	6.1	0.0	0.0
50°	3.2	0.0	0.0
52.5°	1.3	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	0.5	0.8
80°	0.5	1.1	1.3
82.5°	1.1	1.3	1.3
85°	1.1	1.3	1.6
87.5°	1.3	1.6	1.9
90°	1.6	1.9	1.9
92.5°	1.6	2.1	2.1
95°	1.9	2.1	2.4
97.5°	2.1	2.4	2.4
100°	1.9	2.4	2.6
102.5°	1.6	2.4	2.4
105°	1.3	1.9	2.1



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
112.5°	1.1	1.3	1.3
115°	0.8	1.1	1.3
117.5°	0.8	1.1	1.1
120°	0.8	0.8	1.1
122.5°	0.8	0.8	1.1
125°	0.8	0.8	1.1
127.5°	1.1	0.8	0.8
130°	0.8	0.8	0.8
132.5°	1.1	0.8	0.8
135°	1.1	0.8	0.8
137.5°	1.1	0.8	0.8
140°	1.1	0.8	0.8
142.5°	1.1	0.8	0.8
145°	0.8	0.8	0.8
147.5°	0.8	0.8	0.8
150°	0.8	0.8	0.5
152.5°	0.8	0.5	0.5
155°	0.8	0.5	0.3
157.5°	1.1	0.5	0.3
160°	0.8	0.5	0.3
162.5°	0.8	0.5	0.3
165°	0.8	0.5	0.0
167.5°	0.8	0.5	0.3
170°	0.8	0.5	0.3
172.5°	0.8	0.5	0.3
175°	0.8	0.3	0.3
177.5°	0.8	0.3	0.3
180°	0.8	0.8	0.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	111.0	107.9	97.3	79.8	55.8	31.2	11.6	2.1	0.5	0.8	0.8
110°	96.8	94.1	83.3	66.4	44.9	23.3	7.7	1.3	0.8	0.8	0.8





107.5°	1.1	1.6	1.9
110°	1.1	1.3	1.6



(END OF REPORT)