

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: P311895

Luminaire Tested: **14FCZ2-29-UNV-L83050-HRP-CA125-W2A-U-3000K**

Issue Date: 3/3/2020

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: P311895
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-29-UNV-L83050-HRP-CA125-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 3000K TUNABLE CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment:

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2001.0 lumens
Efficiency: N/A
Efficacy: 84.1 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

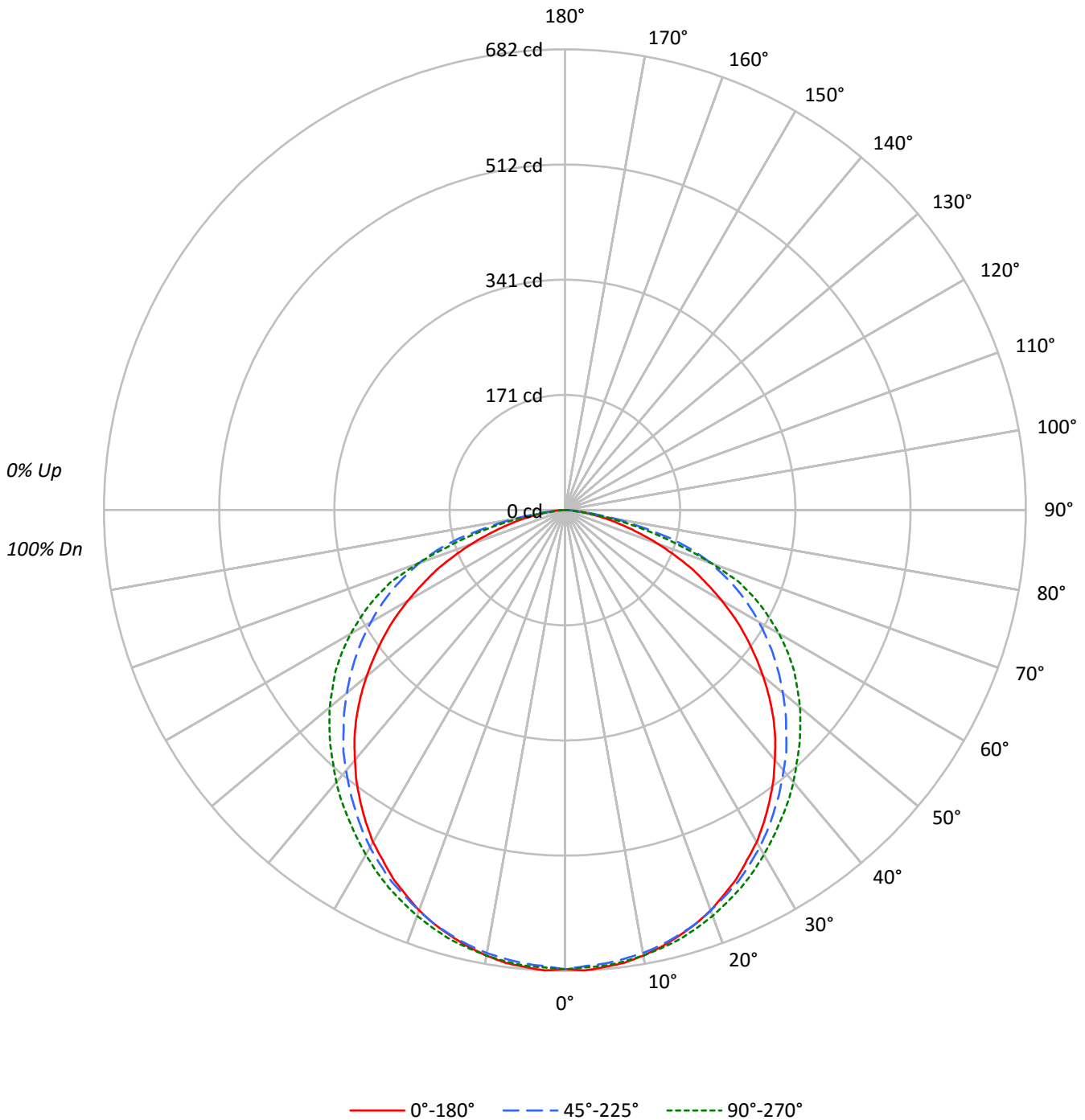
Input Watts (W): 23.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1829	1829	1829
5°	1834	1820	1829
10°	1829	1819	1829
15°	1818	1814	1832
20°	1806	1807	1831
25°	1786	1801	1831
30°	1763	1791	1830
35°	1732	1778	1833
40°	1697	1768	1848
45°	1662	1762	1868
50°	1604	1762	1902
55°	1535	1771	1942
60°	1442	1785	1968
65°	1330	1803	1979
70°	1158	1807	1822
75°	955	1681	1472
80°	750	1209	986
85°	584	466	235



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.3	3.2
10°-20°	184.6	9.2
20°-30°	280.3	14.0
30°-40°	339.7	17.0
40°-50°	357.9	17.9
50°-60°	334.2	16.7
60°-70°	267.0	13.3
70°-80°	146.9	7.3
80°-90°	25.9	1.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	529.3	26.5
0°-40°	869.0	43.4
0°-60°	1561.1	78.0
0°-90°	2001.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2001.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	680	680	680	680	680	
5°	679	677	674	678	677	65
15°	652	652	651	658	658	184
25°	602	603	607	615	617	277
35°	527	532	541	555	558	330
45°	437	445	463	484	491	336
55°	327	344	378	404	414	292
65°	209	235	283	306	311	206
75°	92	132	162	145	142	99
85°	19	24	15	9	8	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	679.5	679.5	679.5	679.5	679.5
2.5°	682.1	680.2	675.8	679.5	677.7
5°	678.9	677.0	673.9	678.3	677.0
7.5°	675.8	673.3	670.1	675.1	673.9
10°	669.5	667.6	665.7	670.1	669.5
12.5°	661.9	661.3	659.4	664.4	663.8
15°	652.5	652.5	651.2	657.5	657.5
17.5°	642.4	641.8	642.4	649.3	648.7
20°	630.5	630.5	631.1	639.3	639.3
22.5°	616.0	616.6	618.5	628.6	628.0
25°	601.5	602.8	606.6	615.4	616.6
27.5°	583.9	587.1	591.5	602.2	603.4
30°	567.5	569.4	576.4	586.4	588.9
32.5°	548.0	551.8	559.4	570.7	573.8
35°	527.3	532.3	541.1	555.0	558.1
37.5°	506.5	510.9	522.9	537.3	543.0
40°	483.2	490.8	503.4	519.7	526.0
42.5°	460.6	468.1	485.1	502.1	507.8
45°	436.7	444.9	463.1	483.9	490.8
47.5°	410.2	419.7	443.0	465.0	472.5
50°	383.2	395.1	420.9	445.5	454.3
52.5°	354.9	370.0	399.6	425.3	433.5
55°	327.2	343.6	377.5	404.0	414.0
57.5°	298.9	316.5	354.9	385.1	390.7
60°	268.0	289.4	331.6	358.0	365.6
62.5°	237.8	262.4	307.7	332.9	339.1
65°	208.9	235.3	283.1	306.4	310.8
67.5°	177.4	208.9	256.1	277.5	278.7
70°	147.2	183.7	229.7	239.7	231.6
72.5°	117.7	156.7	198.8	190.7	183.7
75°	91.9	131.5	161.7	145.3	141.6
77.5°	68.0	107.6	115.8	107.0	100.0
80°	48.4	84.9	78.0	66.7	63.6
82.5°	33.3	53.5	42.8	33.3	28.9
85°	18.9	23.9	15.1	9.4	7.6
87.5°	8.2	5.7	3.1	2.5	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)