

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: P311897

Luminaire Tested: **14FCZ2-29-UNV-L83050-HRP-CA125-W2A-U-4000K**

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: P311897
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-4000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 4000K 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: 2224.0 lumens
Efficiency: N/A
Efficacy: 91.5 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

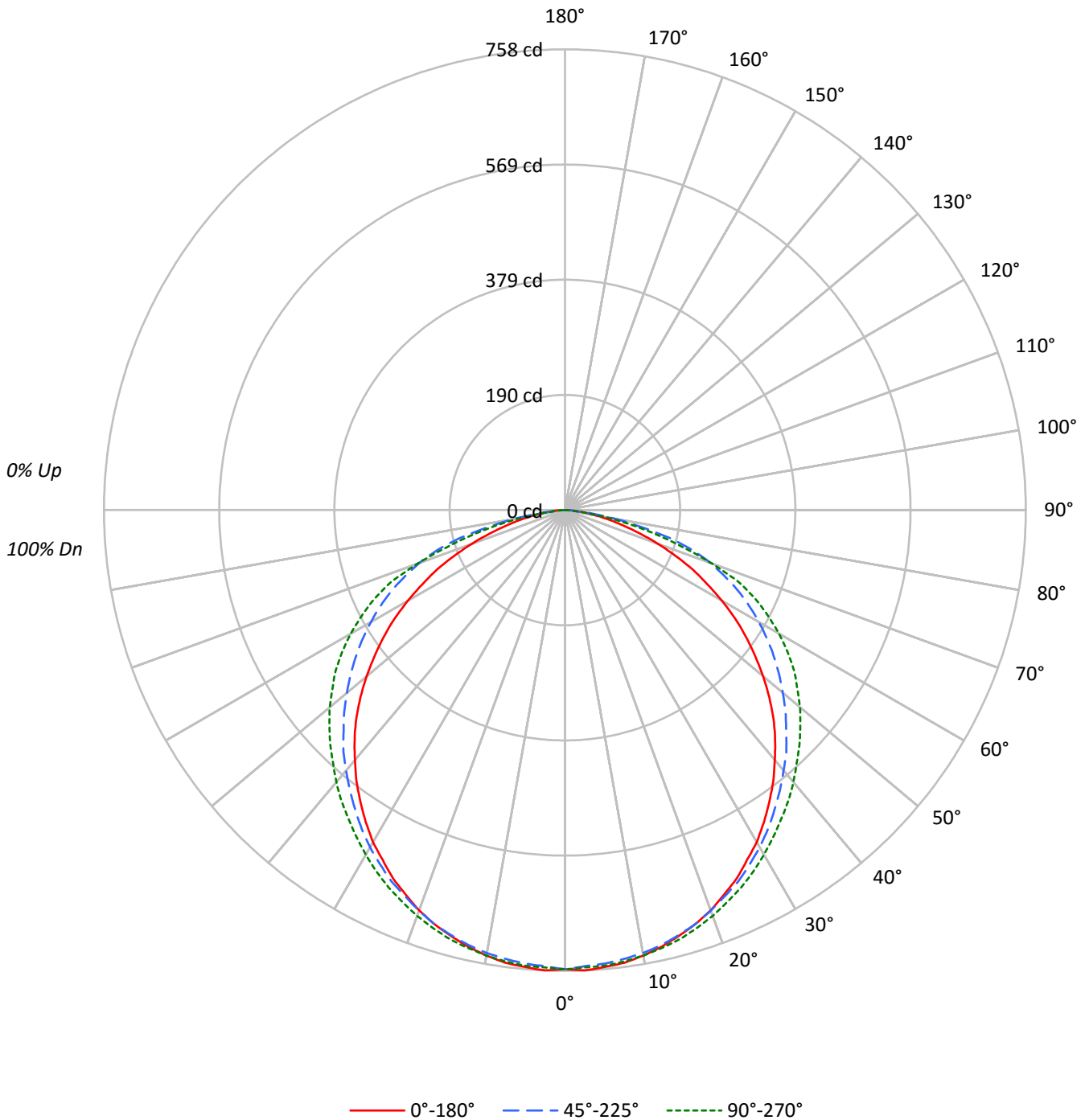
Input Watts (W): 24.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
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°	2032	2032	2032
5°	2038	2023	2033
10°	2033	2022	2033
15°	2020	2016	2036
20°	2007	2009	2035
25°	1985	2002	2035
30°	1960	1991	2034
35°	1925	1976	2038
40°	1887	1965	2054
45°	1847	1959	2076
50°	1783	1959	2114
55°	1706	1969	2159
60°	1603	1983	2187
65°	1479	2004	2200
70°	1287	2009	2025
75°	1062	1868	1637
80°	834	1344	1094
85°	648	519	259



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.5	3.2
10°-20°	205.2	9.2
20°-30°	311.6	14.0
30°-40°	377.5	17.0
40°-50°	397.8	17.9
50°-60°	371.4	16.7
60°-70°	296.8	13.3
70°-80°	163.3	7.3
80°-90°	28.8	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°	588.3	26.5
0°-40°	965.8	43.4
0°-60°	1735.0	78.0
0°-90°	2224.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2224.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	755	755	755	755	755	
5°	755	752	749	754	752	72
15°	725	725	724	731	731	205
25°	669	670	674	684	685	308
35°	586	592	601	617	620	367
45°	485	494	515	538	546	373
55°	364	382	420	449	460	325
65°	232	262	315	341	346	229
75°	102	146	180	162	157	110
85°	21	27	17	10	8	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	755.3	755.3	755.3	755.3	755.3
2.5°	758.1	756.0	751.1	755.3	753.2
5°	754.6	752.5	749.0	753.9	752.5
7.5°	751.1	748.3	744.8	750.4	749.0
10°	744.1	742.0	739.9	744.8	744.1
12.5°	735.7	735.0	732.9	738.5	737.8
15°	725.2	725.2	723.8	730.8	730.8
17.5°	714.0	713.3	714.0	721.7	721.0
20°	700.7	700.7	701.4	710.5	710.5
22.5°	684.6	685.3	687.4	698.6	697.9
25°	668.6	670.0	674.2	683.9	685.3
27.5°	649.0	652.5	657.4	669.3	670.7
30°	630.8	632.9	640.6	651.8	654.6
32.5°	609.1	613.3	621.7	634.3	637.8
35°	586.0	591.6	601.4	616.8	620.3
37.5°	563.0	567.9	581.1	597.2	603.5
40°	537.1	545.5	559.5	577.7	584.6
42.5°	511.9	520.3	539.2	558.1	564.4
45°	485.3	494.4	514.7	537.8	545.5
47.5°	456.0	466.5	492.3	516.8	525.2
50°	425.9	439.2	467.9	495.1	504.9
52.5°	394.4	411.2	444.1	472.8	481.8
55°	363.7	381.8	419.6	449.0	460.2
57.5°	332.2	351.8	394.4	428.0	434.3
60°	297.9	321.7	368.5	397.9	406.3
62.5°	264.3	291.6	342.0	369.9	376.9
65°	232.2	261.6	314.7	340.6	345.5
67.5°	197.2	232.2	284.6	308.4	309.8
70°	163.6	204.2	255.3	266.4	257.4
72.5°	130.8	174.1	221.0	211.9	204.2
75°	102.1	146.2	179.7	161.5	157.4
77.5°	75.5	119.6	128.7	118.9	111.2
80°	53.8	94.4	86.7	74.1	70.6
82.5°	37.1	59.4	47.6	37.1	32.2
85°	21.0	26.6	16.8	10.5	8.4
87.5°	9.1	6.3	3.5	2.8	2.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)