

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: P311873

Luminaire Tested: **14FCZ2-25-UNV-L83050-HRP-CA125-W2A-U-4500K**

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: P311873
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: 14FCZ2-25-UNV-L83050-HRP-CA125-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 4500K 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: 1878.0 lumens
Efficiency: N/A
Efficacy: 91.2 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

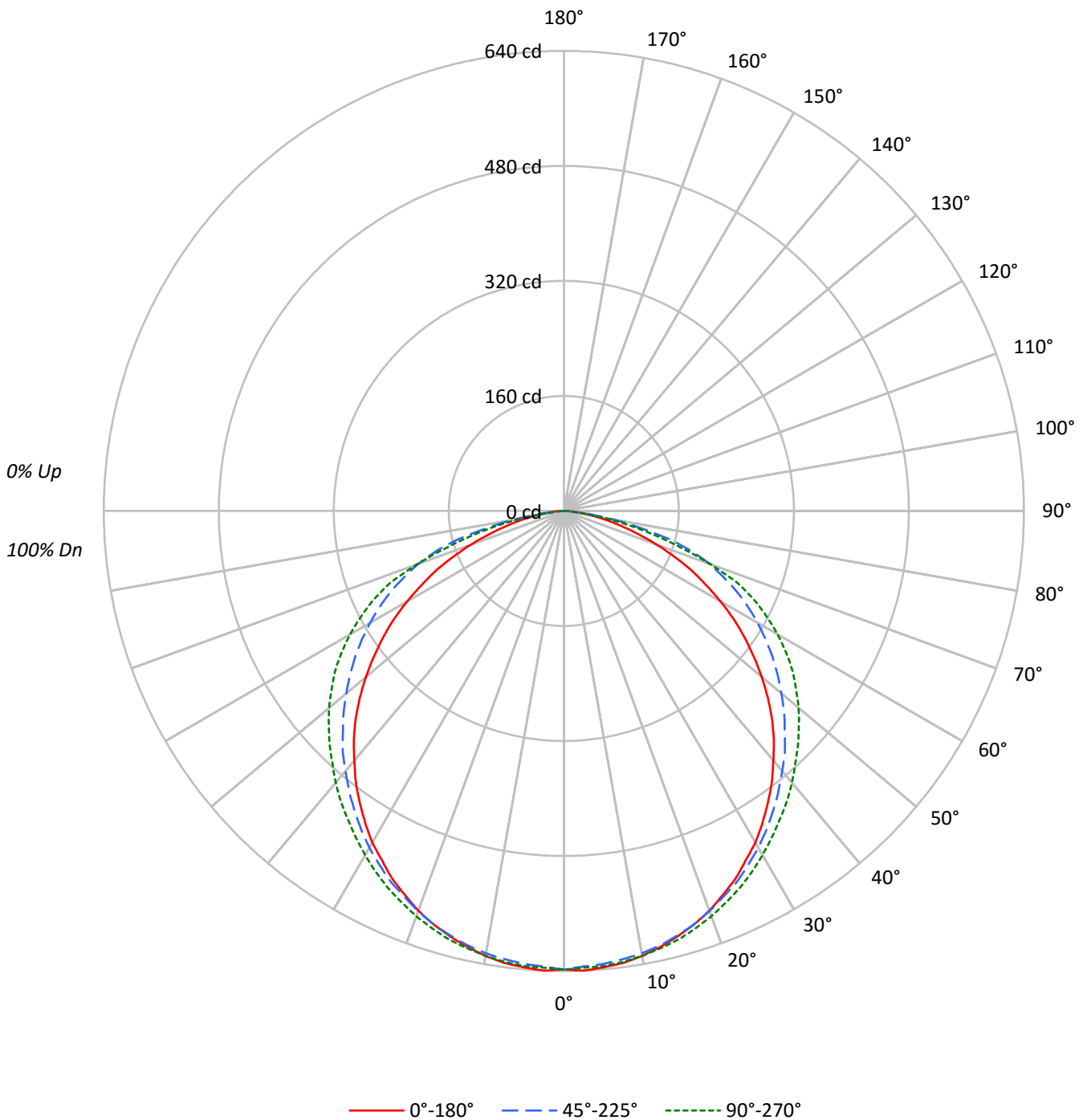
Input Watts (W): 20.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1716	1716	1716
5°	1721	1709	1716
10°	1717	1707	1717
15°	1706	1703	1719
20°	1694	1696	1718
25°	1676	1690	1718
30°	1655	1681	1717
35°	1626	1668	1721
40°	1593	1659	1734
45°	1560	1654	1753
50°	1505	1654	1785
55°	1441	1662	1823
60°	1354	1675	1847
65°	1249	1692	1857
70°	1087	1696	1710
75°	896	1578	1382
80°	705	1134	924
85°	546	438	219



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.4	3.2
10°-20°	173.3	9.2
20°-30°	263.1	14.0
30°-40°	318.8	17.0
40°-50°	335.9	17.9
50°-60°	313.6	16.7
60°-70°	250.6	13.3
70°-80°	137.9	7.3
80°-90°	24.4	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°	496.7	26.5
0°-40°	815.5	43.4
0°-60°	1465.1	78.0
0°-90°	1878.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1878.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	638	638	638	638	638	
5°	637	635	632	637	635	61
15°	612	612	611	617	617	173
25°	565	566	569	578	579	260
35°	495	500	508	521	524	310
45°	410	418	435	454	461	315
55°	307	322	354	379	389	274
65°	196	221	266	288	292	193
75°	86	123	152	136	133	93
85°	18	22	14	9	7	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	637.8	637.8	637.8	637.8	637.8
2.5°	640.1	638.4	634.2	637.8	636.0
5°	637.2	635.4	632.5	636.6	635.4
7.5°	634.2	631.9	628.9	633.6	632.5
10°	628.3	626.6	624.8	628.9	628.3
12.5°	621.2	620.7	618.9	623.6	623.0
15°	612.4	612.4	611.2	617.1	617.1
17.5°	602.9	602.3	602.9	609.4	608.8
20°	591.7	591.7	592.3	600.0	600.0
22.5°	578.1	578.7	580.5	589.9	589.4
25°	564.6	565.7	569.3	577.5	578.7
27.5°	548.0	551.0	555.1	565.1	566.3
30°	532.7	534.4	540.9	550.4	552.7
32.5°	514.4	517.9	525.0	535.6	538.6
35°	494.9	499.6	507.9	520.9	523.8
37.5°	475.4	479.5	490.7	504.3	509.6
40°	453.5	460.6	472.4	487.8	493.7
42.5°	432.3	439.4	455.3	471.2	476.6
45°	409.8	417.5	434.6	454.1	460.6
47.5°	385.0	393.9	415.7	436.4	443.5
50°	359.6	370.9	395.1	418.1	426.4
52.5°	333.1	347.2	375.0	399.2	406.9
55°	307.1	322.4	354.3	379.1	388.6
57.5°	280.5	297.0	333.1	361.4	366.7
60°	251.6	271.6	311.2	336.0	343.1
62.5°	223.2	246.3	288.8	312.4	318.3
65°	196.1	220.9	265.7	287.6	291.7
67.5°	166.5	196.1	240.3	260.4	261.6
70°	138.2	172.4	215.5	225.0	217.3
72.5°	110.4	147.0	186.6	178.9	172.4
75°	86.2	123.4	151.8	136.4	132.9
77.5°	63.8	101.0	108.7	100.4	93.9
80°	45.5	79.7	73.2	62.6	59.6
82.5°	31.3	50.2	40.2	31.3	27.2
85°	17.7	22.4	14.2	8.9	7.1
87.5°	7.7	5.3	3.0	2.4	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)