

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: P309875

Luminaire Tested: **24FCZ2-30-UNV-L82765-RDP-CA125-W2A-U-5500K**

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: P309875
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-30-UNV-L82765-RDP-CA125-W2A-U-5500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (168) 5500K 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: 1933.0 lumens
Efficiency: N/A
Efficacy: 80.2 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

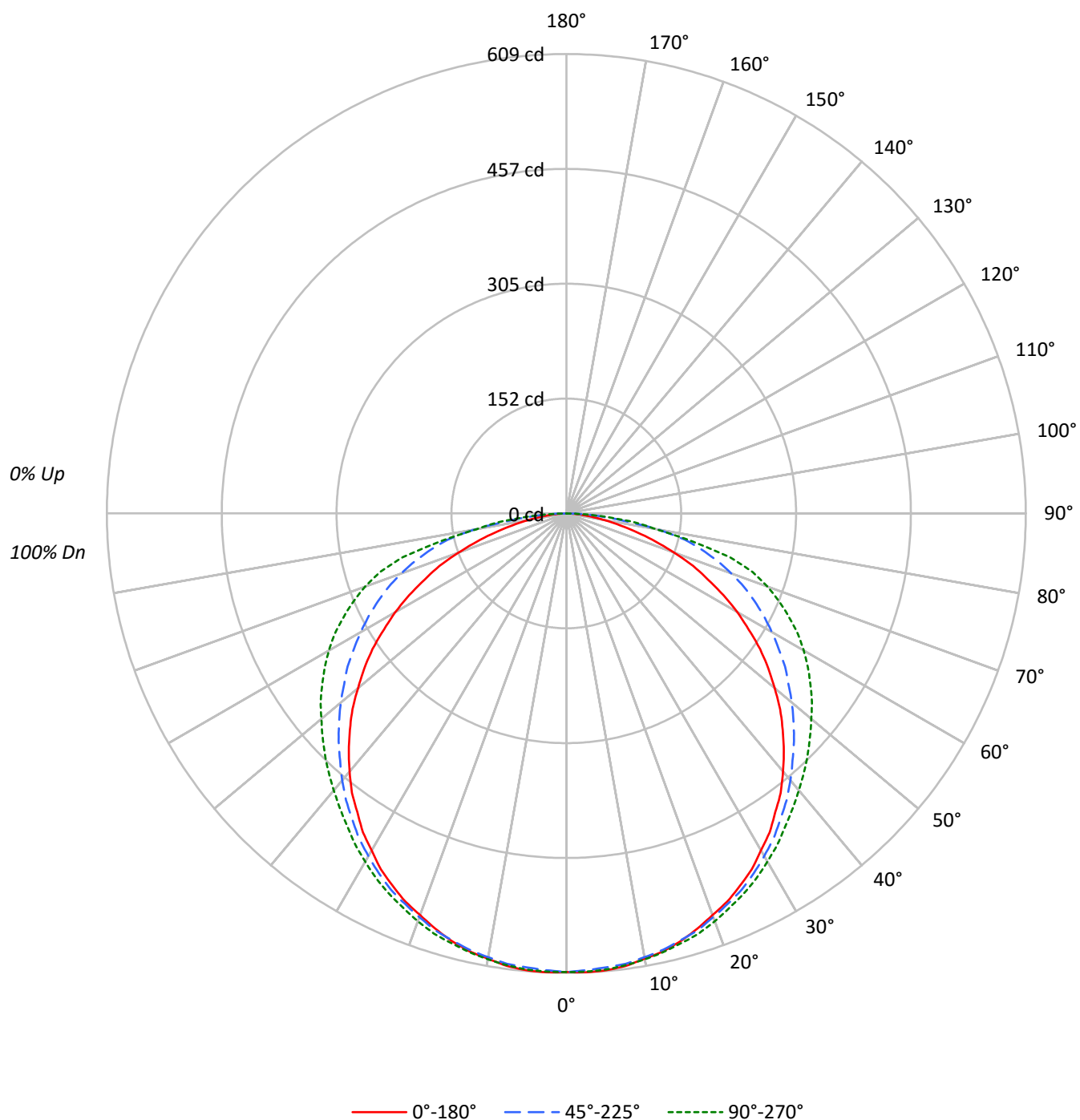
Input Watts (W): 24.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	108	103	98	94	105	100	96	92	96	93	89		92	89	87		82
2	97	89	81	75	95	87	80	74	83	77	72		80	75	71		67
3	88	77	68	62	86	76	67	61	72	66	60		70	64	59		56
4	81	68	59	52	78	67	58	51	64	57	51		62	55	50		47
5	74	60	51	44	72	59	51	44	57	49	43		55	48	43		40
6	68	54	45	38	66	53	45	38	51	44	38		50	43	37		35
7	63	49	40	34	61	48	40	34	47	39	33		45	38	33		31
8	59	45	36	30	57	44	36	30	43	35	30		41	34	29		27
9	55	41	33	27	53	40	32	27	39	32	27		38	31	26		24
10	51	38	30	24	50	37	29	24	36	29	24		35	29	24		22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	818	818	818
5°	821	816	820
10°	819	816	820
15°	817	816	821
20°	811	815	824
25°	809	817	826
30°	801	815	828
35°	794	813	831
40°	785	812	842
45°	772	812	861
50°	755	817	887
55°	735	830	927
60°	704	846	978
65°	659	876	1038
70°	600	917	1116
75°	508	967	1167
80°	401	973	944
85°	296	739	829



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.7	3.0
10°-20°	166.0	8.6
20°-30°	253.8	13.1
30°-40°	310.2	16.0
40°-50°	330.6	17.1
50°-60°	316.1	16.4
60°-70°	267.8	13.9
70°-80°	180.0	9.3
80°-90°	50.8	2.6
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°	477.4	24.7
0°-40°	787.6	40.7
0°-60°	1434.4	74.2
0°-90°	1933.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1933.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	608	608	608	608	608	
5°	608	607	604	607	607	58
15°	587	587	586	591	590	165
25°	545	546	550	555	556	251
35°	483	487	495	504	506	303
45°	406	412	427	445	452	313
55°	314	325	354	382	395	279
65°	207	228	275	312	326	206
75°	98	133	186	218	224	105
85°	19	39	48	52	54	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	607.9	607.9	607.9	607.9	607.9
2.5°	608.8	608.8	606.0	607.9	607.9
5°	607.9	606.9	604.0	606.9	606.9
7.5°	605.0	604.0	602.1	605.0	604.0
10°	599.2	599.2	597.3	600.2	600.2
12.5°	594.5	593.5	592.5	596.4	595.4
15°	586.8	586.8	585.8	590.6	589.7
17.5°	577.2	578.2	579.1	582.9	583.9
20°	566.6	568.6	569.5	575.3	575.3
22.5°	557.1	558.0	559.9	565.7	565.7
25°	544.6	546.5	550.3	555.1	556.1
27.5°	532.1	533.1	537.9	544.6	545.6
30°	515.8	518.7	524.5	532.1	533.1
32.5°	501.4	504.3	511.0	518.7	520.6
35°	483.2	487.1	494.7	504.3	506.2
37.5°	466.9	469.8	479.4	489.9	492.8
40°	446.8	452.5	462.1	474.6	479.4
42.5°	426.7	432.4	443.9	460.2	466.0
45°	405.6	412.3	426.7	444.9	452.5
47.5°	384.5	392.1	408.4	429.5	438.2
50°	360.5	370.1	390.2	414.2	423.8
52.5°	337.5	349.0	371.1	397.9	410.4
55°	313.5	325.0	353.8	381.6	395.0
57.5°	286.7	302.0	333.7	365.3	379.7
60°	261.7	276.1	314.5	349.0	363.4
62.5°	234.9	254.1	295.3	331.7	346.1
65°	207.1	228.2	275.2	311.6	326.0
67.5°	182.2	205.2	255.0	291.5	305.9
70°	152.4	181.2	233.0	269.4	283.8
72.5°	124.6	156.3	210.0	245.5	258.9
75°	97.8	133.3	186.0	217.6	224.4
77.5°	72.9	110.3	161.1	174.5	169.7
80°	51.8	88.2	125.6	118.9	121.8
82.5°	33.6	67.1	77.7	88.2	91.1
85°	19.2	39.3	47.9	51.8	53.7
87.5°	8.6	14.4	19.2	19.2	18.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)