

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: P309883

Luminaire Tested: **24FCZ2-30-UNV-L82765-RDP-CP125-W2A-U-5000K**

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: P309883
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-CP125-W2A-U-5000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET
Light Source: (168) 5000K 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: 1876.0 lumens
Efficiency: N/A
Efficacy: 78.5 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

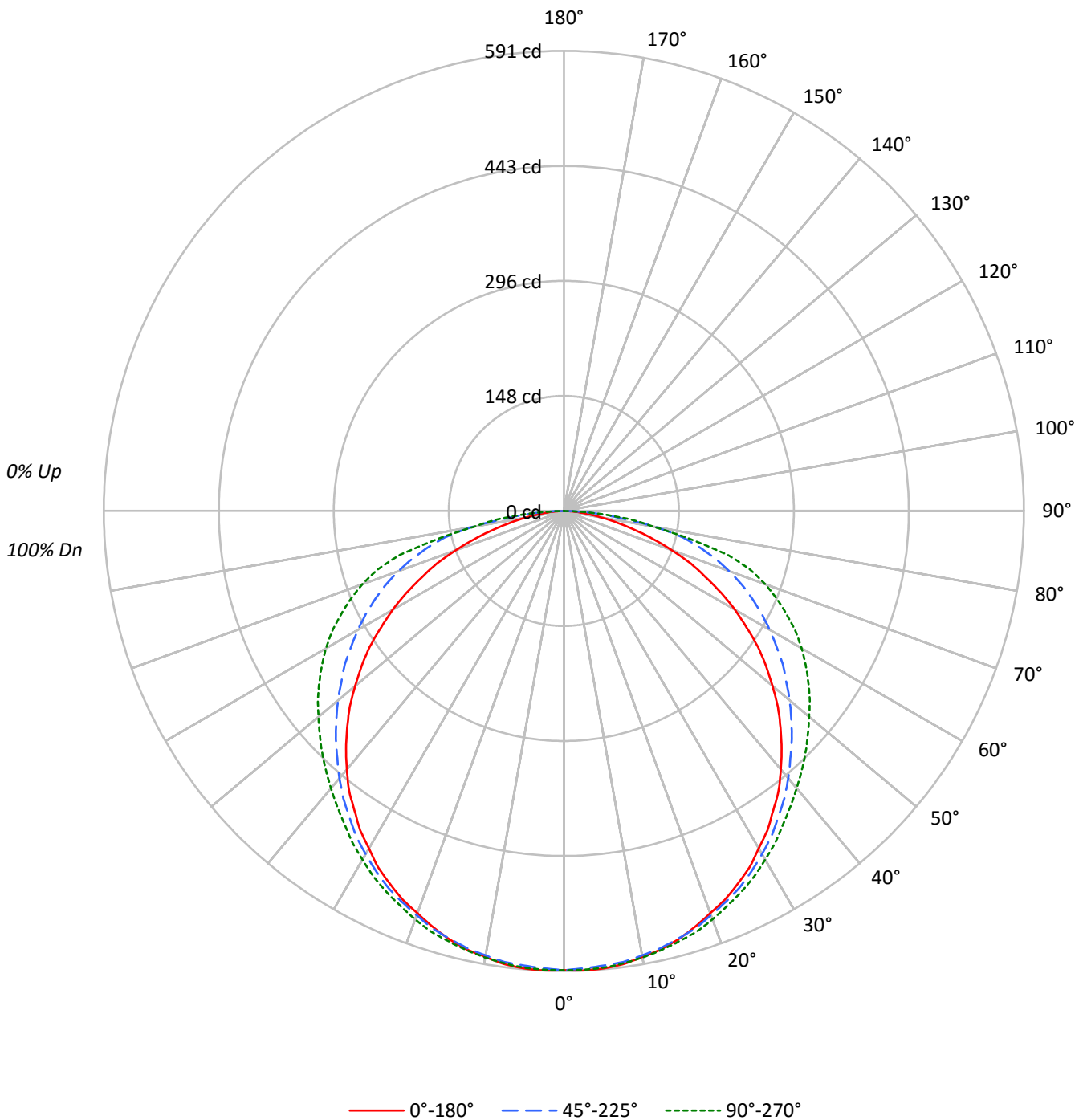
Input Watts (W): 23.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	794	794	794
5°	797	792	796
10°	795	792	796
15°	793	792	797
20°	787	791	799
25°	785	793	801
30°	778	791	804
35°	770	789	807
40°	762	788	817
45°	749	788	836
50°	732	793	861
55°	714	806	899
60°	684	821	949
65°	640	850	1007
70°	582	889	1083
75°	493	938	1132
80°	389	945	916
85°	287	718	804



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.0	3.0
10°-20°	161.1	8.6
20°-30°	246.3	13.1
30°-40°	301.1	16.0
40°-50°	320.9	17.1
50°-60°	306.8	16.4
60°-70°	259.9	13.9
70°-80°	174.7	9.3
80°-90°	49.3	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°	463.3	24.7
0°-40°	764.4	40.7
0°-60°	1392.1	74.2
0°-90°	1876.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1876.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	590	590	590	590	590	
5°	590	589	586	589	589	56
15°	570	570	568	573	572	161
25°	528	530	534	539	540	244
35°	469	473	480	490	491	294
45°	394	400	414	432	439	304
55°	304	315	343	370	383	271
65°	201	222	267	302	316	200
75°	95	129	180	211	218	102
85°	19	38	46	50	52	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	589.9	589.9	589.9	589.9	589.9
2.5°	590.9	590.9	588.1	589.9	589.9
5°	589.9	589.0	586.2	589.0	589.0
7.5°	587.2	586.2	584.4	587.2	586.2
10°	581.6	581.6	579.7	582.5	582.5
12.5°	576.9	576.0	575.1	578.8	577.9
15°	569.5	569.5	568.5	573.2	572.3
17.5°	560.2	561.1	562.0	565.8	566.7
20°	549.9	551.8	552.7	558.3	558.3
22.5°	540.6	541.6	543.4	549.0	549.0
25°	528.5	530.4	534.1	538.8	539.7
27.5°	516.4	517.4	522.0	528.5	529.5
30°	500.6	503.4	509.0	516.4	517.4
32.5°	486.7	489.5	496.0	503.4	505.3
35°	469.0	472.7	480.1	489.5	491.3
37.5°	453.2	456.0	465.3	475.5	478.3
40°	433.6	439.2	448.5	460.6	465.3
42.5°	414.1	419.7	430.8	446.6	452.2
45°	393.6	400.1	414.1	431.8	439.2
47.5°	373.1	380.6	396.4	416.9	425.2
50°	349.9	359.2	378.7	402.0	411.3
52.5°	327.5	338.7	360.1	386.2	398.3
55°	304.3	315.4	343.4	370.3	383.4
57.5°	278.2	293.1	323.8	354.5	368.5
60°	254.0	268.0	305.2	338.7	352.7
62.5°	228.0	246.6	286.6	322.0	335.9
65°	201.0	221.5	267.1	302.4	316.4
67.5°	176.8	199.1	247.5	282.9	296.8
70°	148.0	175.9	226.1	261.5	275.4
72.5°	121.0	151.7	203.8	238.2	251.2
75°	94.9	129.3	180.5	211.2	217.7
77.5°	70.7	107.0	156.3	169.4	164.7
80°	50.2	85.6	121.9	115.4	118.2
82.5°	32.6	65.1	75.4	85.6	88.4
85°	18.6	38.2	46.5	50.2	52.1
87.5°	8.4	14.0	18.6	18.6	17.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)