

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: P309874

Luminaire Tested: **24FCZ2-30-UNV-L82765-RDP-CA125-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: P309874
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-5000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC 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: 1914.0 lumens
Efficiency: N/A
Efficacy: 80.1 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

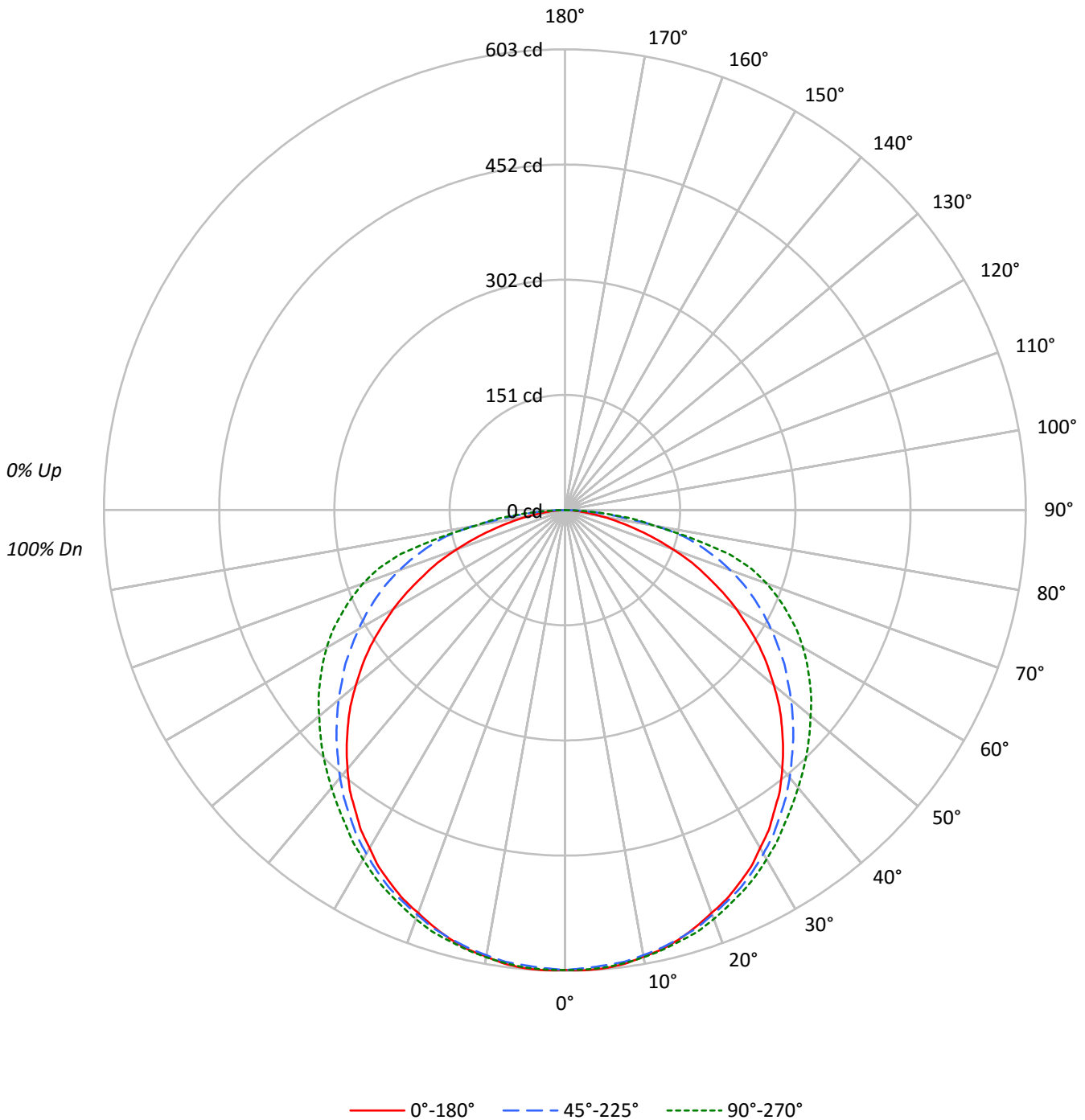
Input Watts (W): 23.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	810	810	810
5°	813	808	812
10°	811	808	812
15°	809	808	813
20°	803	807	816
25°	800	809	817
30°	794	807	820
35°	786	805	823
40°	777	804	834
45°	764	804	853
50°	747	809	878
55°	728	822	917
60°	698	838	968
65°	653	868	1028
70°	594	908	1105
75°	503	958	1155
80°	397	964	934
85°	293	733	821



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.1	3.0
10°-20°	164.3	8.6
20°-30°	251.3	13.1
30°-40°	307.2	16.0
40°-50°	327.4	17.1
50°-60°	313.0	16.4
60°-70°	265.2	13.9
70°-80°	178.2	9.3
80°-90°	50.3	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°	472.7	24.7
0°-40°	779.9	40.7
0°-60°	1420.3	74.2
0°-90°	1914.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1914.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	602	602	602	602	602	
5°	602	601	598	601	601	57
15°	581	581	580	585	584	164
25°	539	541	545	550	551	249
35°	478	482	490	499	501	300
45°	402	408	422	440	448	310
55°	310	322	350	378	391	277
65°	205	226	272	308	323	204
75°	97	132	184	216	222	104
85°	19	39	48	51	53	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	601.9	601.9	601.9	601.9	601.9
2.5°	602.8	602.8	600.0	601.9	601.9
5°	601.9	600.9	598.1	600.9	600.9
7.5°	599.1	598.1	596.2	599.1	598.1
10°	593.4	593.4	591.5	594.3	594.3
12.5°	588.6	587.7	586.7	590.5	589.6
15°	581.0	581.0	580.1	584.8	583.9
17.5°	571.5	572.5	573.4	577.2	578.2
20°	561.1	563.0	563.9	569.6	569.6
22.5°	551.6	552.5	554.4	560.1	560.1
25°	539.2	541.1	544.9	549.7	550.6
27.5°	526.9	527.8	532.6	539.2	540.2
30°	510.8	513.6	519.3	526.9	527.8
32.5°	496.5	499.4	506.0	513.6	515.5
35°	478.5	482.3	489.9	499.4	501.3
37.5°	462.3	465.2	474.7	485.1	488.0
40°	442.4	448.1	457.6	469.9	474.7
42.5°	422.5	428.2	439.6	455.7	461.4
45°	401.6	408.2	422.5	440.5	448.1
47.5°	380.7	388.3	404.4	425.3	433.9
50°	357.0	366.5	386.4	410.1	419.6
52.5°	334.2	345.6	367.4	394.0	406.3
55°	310.4	321.8	350.3	377.8	391.1
57.5°	283.9	299.1	330.4	361.7	375.9
60°	259.2	273.4	311.4	345.6	359.8
62.5°	232.6	251.6	292.4	328.5	342.7
65°	205.1	225.9	272.5	308.5	322.8
67.5°	180.4	203.2	252.5	288.6	302.8
70°	150.9	179.4	230.7	266.8	281.0
72.5°	123.4	154.7	207.9	243.0	256.3
75°	96.8	132.0	184.2	215.5	222.2
77.5°	72.2	109.2	159.5	172.8	168.0
80°	51.3	87.3	124.4	117.7	120.6
82.5°	33.2	66.5	76.9	87.3	90.2
85°	19.0	38.9	47.5	51.3	53.2
87.5°	8.5	14.2	19.0	19.0	18.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)