

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: P309877

Luminaire Tested: **24FCZ2-30-UNV-L82765-RDP-CA125-W2A-U-6500K**

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: P309877  
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-6500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET  
Light Source: (168) 6500K 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: 1942.0 lumens  
Efficiency: N/A  
Efficacy: 79.6 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

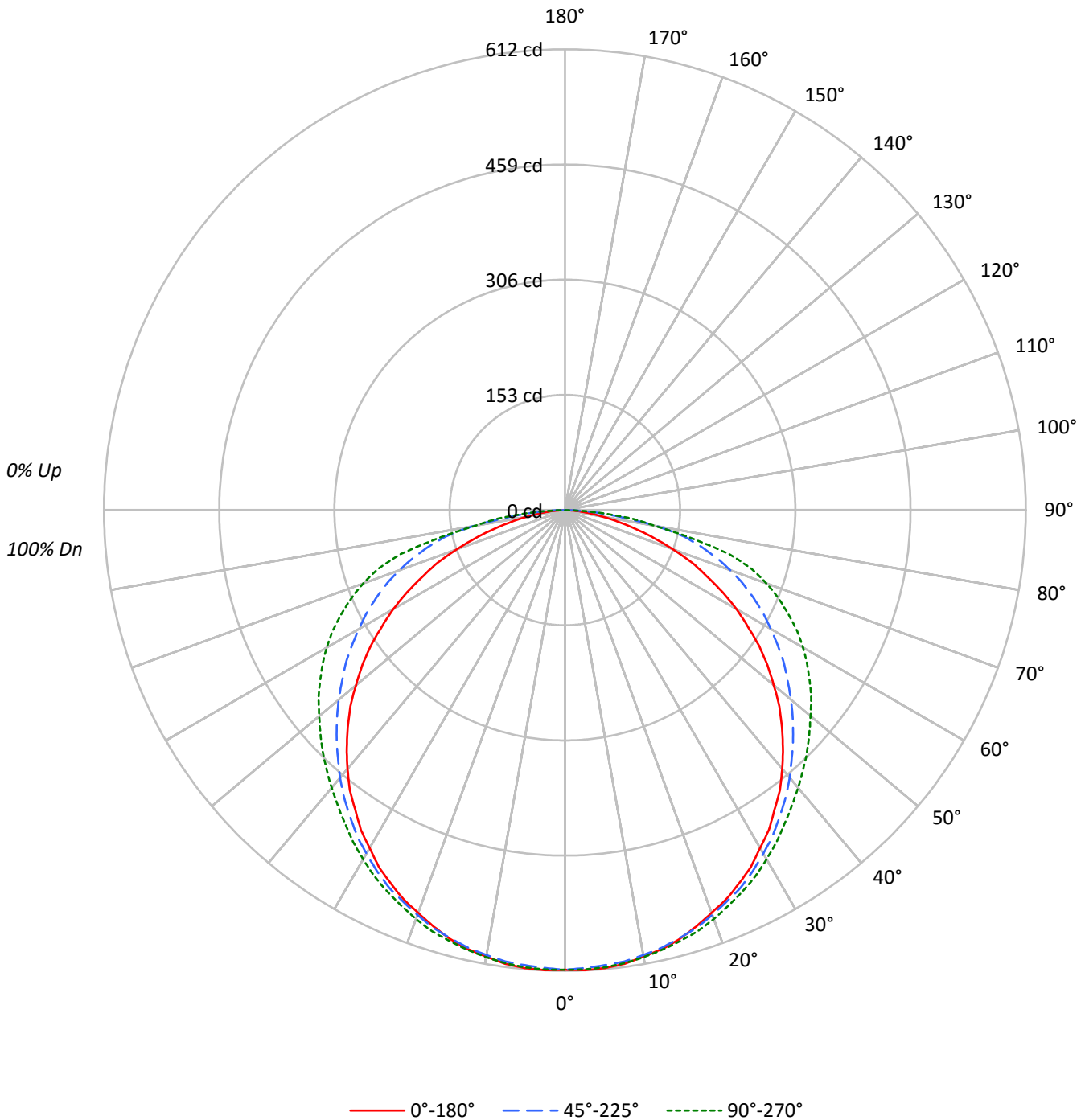
Input Watts (W): 24.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P309877

CATALOG NUMBER: 24FCZ2-30-UNV-L82765-RDP-CA125-W2A-U-6500K

### Luminous Intensity Polar Plot





TEST NUMBER: P309877

CATALOG NUMBER: 24FCZ2-30-UNV-L82765-RDP-CA125-W2A-U-6500K

**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°	822	822	822
5°	825	820	823
10°	822	820	824
15°	821	820	825
20°	815	819	828
25°	812	821	829
30°	805	819	832
35°	797	816	835
40°	788	816	846
45°	775	816	865
50°	758	821	891
55°	739	834	931
60°	708	850	982
65°	663	880	1043
70°	603	921	1122
75°	511	972	1172
80°	403	978	948
85°	298	744	832



TEST NUMBER: P309877

CATALOG NUMBER: 24FCZ2-30-UNV-L82765-RDP-CA125-W2A-U-6500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.9	3.0
10°-20°	166.7	8.6
20°-30°	255.0	13.1
30°-40°	311.7	16.0
40°-50°	332.2	17.1
50°-60°	317.6	16.4
60°-70°	269.1	13.9
70°-80°	180.8	9.3
80°-90°	51.0	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°	479.6	24.7
0°-40°	791.3	40.7
0°-60°	1441.1	74.2
0°-90°	1942.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1942.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	611	611	611	611	611	
5°	611	610	607	610	610	58
15°	590	590	588	593	592	166
25°	547	549	553	558	559	252
35°	486	489	497	507	509	304
45°	408	414	429	447	455	314
55°	315	326	355	383	397	281
65°	208	229	276	313	328	207
75°	98	134	187	219	225	105
85°	19	40	48	52	54	24
90°	0	0	0	0	0	



TEST NUMBER: P309877

CATALOG NUMBER: 24FCZ2-30-UNV-L82765-RDP-CA125-W2A-U-6500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	610.7	610.7	610.7	610.7	610.7
2.5°	611.7	611.7	608.8	610.7	610.7
5°	610.7	609.7	606.9	609.7	609.7
7.5°	607.8	606.9	604.9	607.8	606.9
10°	602.0	602.0	600.1	603.0	603.0
12.5°	597.2	596.3	595.3	599.1	598.2
15°	589.5	589.5	588.5	593.4	592.4
17.5°	579.9	580.8	581.8	585.7	586.6
20°	569.3	571.2	572.2	578.0	578.0
22.5°	559.7	560.6	562.5	568.3	568.3
25°	547.1	549.1	552.9	557.7	558.7
27.5°	534.6	535.6	540.4	547.1	548.1
30°	518.2	521.1	526.9	534.6	535.6
32.5°	503.8	506.7	513.4	521.1	523.0
35°	485.5	489.3	497.0	506.7	508.6
37.5°	469.1	472.0	481.6	492.2	495.1
40°	448.9	454.7	464.3	476.8	481.6
42.5°	428.6	434.4	446.0	462.4	468.1
45°	407.5	414.2	428.6	447.0	454.7
47.5°	386.3	394.0	410.3	431.5	440.2
50°	362.2	371.8	392.0	416.1	425.8
52.5°	339.1	350.6	372.8	399.8	412.3
55°	315.0	326.5	355.4	383.4	396.9
57.5°	288.0	303.4	335.2	367.0	381.4
60°	263.0	277.4	315.9	350.6	365.1
62.5°	236.0	255.3	296.7	333.3	347.7
65°	208.1	229.3	276.5	313.1	327.5
67.5°	183.0	206.1	256.2	292.8	307.3
70°	153.2	182.1	234.1	270.7	285.1
72.5°	125.2	157.0	211.0	246.6	260.1
75°	98.3	133.9	186.9	218.7	225.4
77.5°	73.2	110.8	161.8	175.3	170.5
80°	52.0	88.6	126.2	119.4	122.3
82.5°	33.7	67.4	78.0	88.6	91.5
85°	19.3	39.5	48.2	52.0	53.9
87.5°	8.7	14.4	19.3	19.3	18.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)