

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: P309885

Luminaire Tested: **24FCZ2-30-UNV-L82765-RDP-CP125-W2A-U-5700K**

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: P309885
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-5700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET
Light Source: (168) 5700K 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: 1900.0 lumens
Efficiency: N/A
Efficacy: 78.8 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

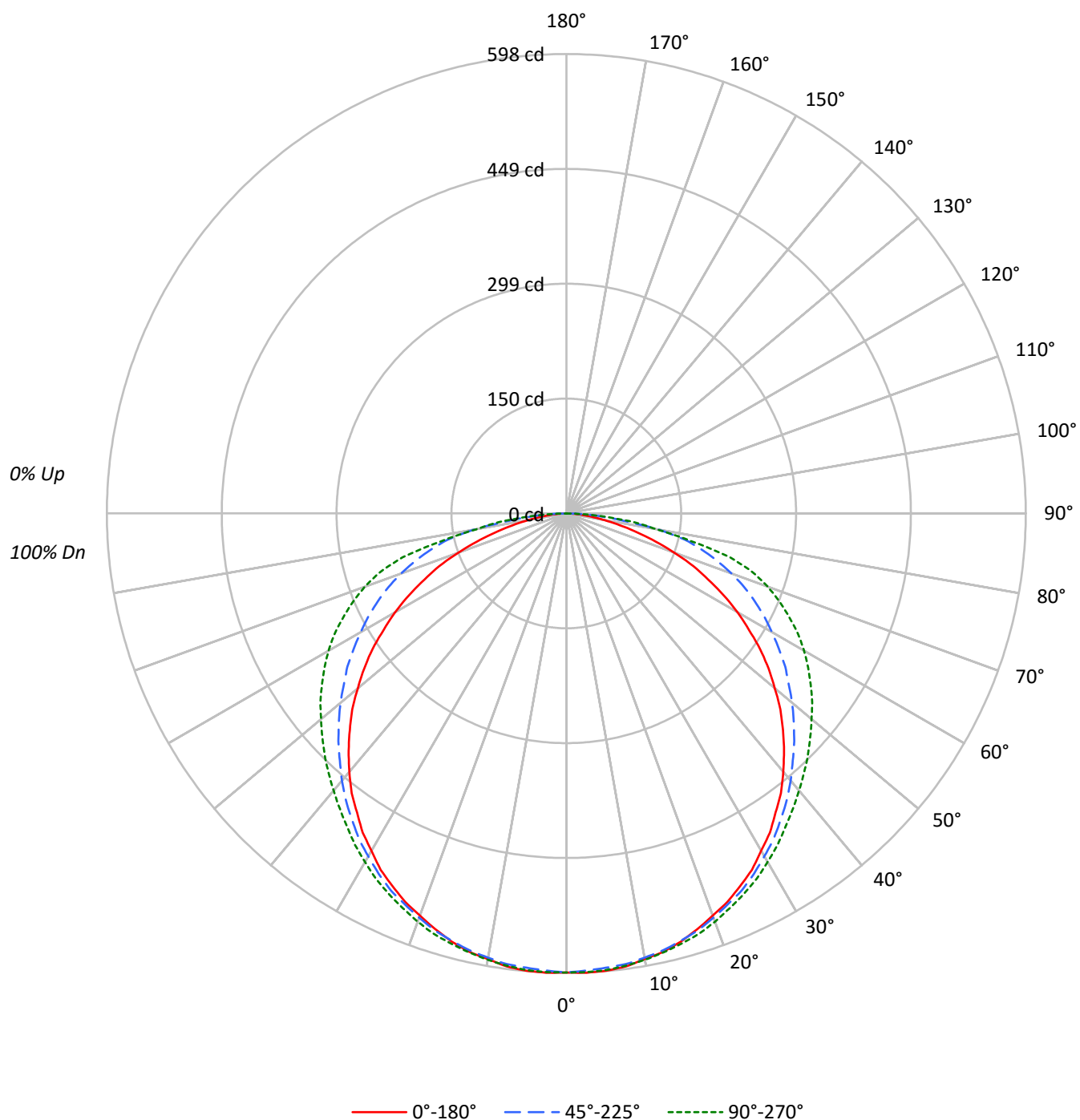
Input Watts (W): 24.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	68	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°	804	804	804
5°	807	802	806
10°	805	802	806
15°	803	802	807
20°	798	802	810
25°	795	803	811
30°	788	801	814
35°	780	799	817
40°	771	798	828
45°	758	798	846
50°	742	803	872
55°	723	816	911
60°	692	832	961
65°	648	861	1020
70°	589	901	1098
75°	500	950	1146
80°	394	957	927
85°	290	727	815



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.7	3.0
10°-20°	163.1	8.6
20°-30°	249.4	13.1
30°-40°	304.9	16.0
40°-50°	325.0	17.1
50°-60°	310.8	16.4
60°-70°	263.2	13.9
70°-80°	176.9	9.3
80°-90°	49.9	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°	469.2	24.7
0°-40°	774.2	40.7
0°-60°	1410.0	74.2
0°-90°	1900.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1900.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	598	598	598	598	598	
5°	598	597	594	597	597	57
15°	577	577	576	580	580	163
25°	535	537	541	546	547	247
35°	475	479	486	496	498	298
45°	399	405	419	437	445	307
55°	308	320	348	375	388	274
65°	204	224	270	306	320	202
75°	96	131	183	214	220	103
85°	19	39	47	51	53	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	597.5	597.5	597.5	597.5	597.5
2.5°	598.4	598.4	595.6	597.5	597.5
5°	597.5	596.6	593.7	596.6	596.6
7.5°	594.7	593.7	591.8	594.7	593.7
10°	589.0	589.0	587.1	590.0	590.0
12.5°	584.3	583.4	582.4	586.2	585.2
15°	576.8	576.8	575.8	580.5	579.6
17.5°	567.3	568.3	569.2	573.0	573.9
20°	557.0	558.9	559.8	565.5	565.5
22.5°	547.5	548.5	550.4	556.0	556.0
25°	535.3	537.2	541.0	545.7	546.6
27.5°	523.0	524.0	528.7	535.3	536.2
30°	507.0	509.9	515.5	523.0	524.0
32.5°	492.9	495.7	502.3	509.9	511.7
35°	475.0	478.8	486.3	495.7	497.6
37.5°	459.0	461.8	471.2	481.6	484.4
40°	439.2	444.8	454.2	466.5	471.2
42.5°	419.4	425.0	436.3	452.4	458.0
45°	398.6	405.2	419.4	437.3	444.8
47.5°	377.9	385.5	401.5	422.2	430.7
50°	354.4	363.8	383.6	407.1	416.6
52.5°	331.7	343.0	364.7	391.1	403.4
55°	308.2	319.5	347.8	375.1	388.3
57.5°	281.8	296.9	328.0	359.1	373.2
60°	257.3	271.4	309.1	343.0	357.2
62.5°	230.9	249.7	290.3	326.1	340.2
65°	203.6	224.3	270.5	306.3	320.4
67.5°	179.1	201.7	250.7	286.5	300.6
70°	149.8	178.1	229.0	264.8	279.0
72.5°	122.5	153.6	206.4	241.3	254.5
75°	96.1	131.0	182.8	213.9	220.5
77.5°	71.6	108.4	158.3	171.5	166.8
80°	50.9	86.7	123.5	116.9	119.7
82.5°	33.0	66.0	76.3	86.7	89.5
85°	18.8	38.6	47.1	50.9	52.8
87.5°	8.5	14.1	18.8	18.8	17.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)