

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: P309870

Luminaire Tested: **24FCZ2-30-UNV-L82765-RDP-CA125-W2A-U-3000K**

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: P309870
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-3000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (168) 3000K 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: 1754.0 lumens
Efficiency: N/A
Efficacy: 75.6 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

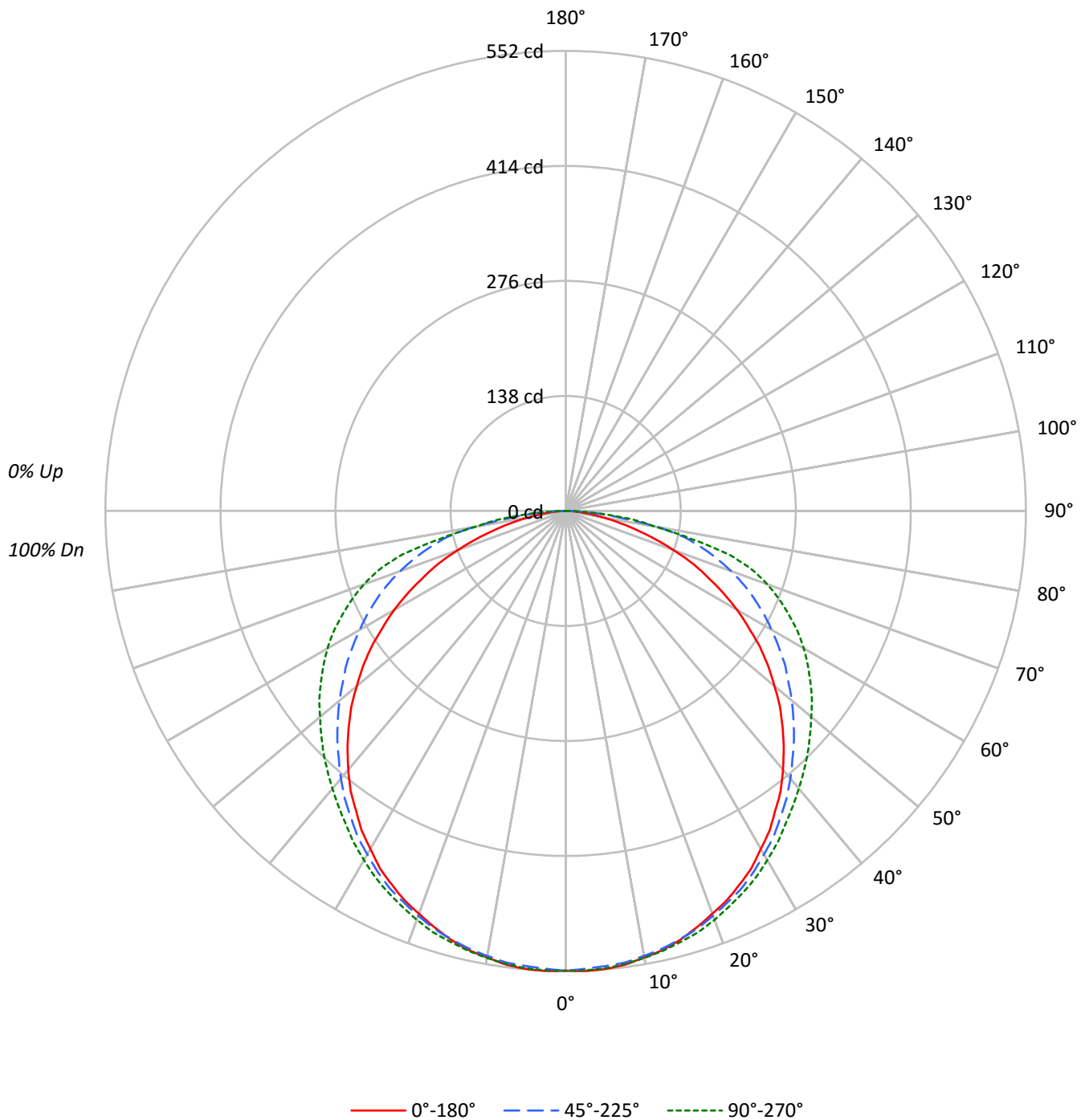
Input Watts (W): 23.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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°	742	742	742
5°	745	740	744
10°	743	741	744
15°	742	740	745
20°	736	740	747
25°	734	741	749
30°	727	739	751
35°	720	737	755
40°	712	736	764
45°	700	737	781
50°	685	741	805
55°	667	753	841
60°	639	768	887
65°	598	795	942
70°	544	832	1013
75°	461	878	1058
80°	364	883	856
85°	269	672	752



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.3	3.0
10°-20°	150.6	8.6
20°-30°	230.3	13.1
30°-40°	281.5	16.0
40°-50°	300.0	17.1
50°-60°	286.9	16.4
60°-70°	243.0	13.9
70°-80°	163.3	9.3
80°-90°	46.1	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°	433.2	24.7
0°-40°	714.7	40.7
0°-60°	1301.6	74.2
0°-90°	1754.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1754.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	552	552	552	552	552	
5°	552	551	548	551	551	52
15°	532	532	532	536	535	150
25°	494	496	499	504	505	228
35°	438	442	449	458	459	275
45°	368	374	387	404	411	284
55°	284	295	321	346	358	253
65°	188	207	250	283	296	187
75°	89	121	169	198	204	95
85°	17	36	44	47	49	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	551.6	551.6	551.6	551.6	551.6
2.5°	552.5	552.5	549.8	551.6	551.6
5°	551.6	550.7	548.1	550.7	550.7
7.5°	549.0	548.1	546.4	549.0	548.1
10°	543.8	543.8	542.0	544.6	544.6
12.5°	539.4	538.5	537.7	541.1	540.3
15°	532.4	532.4	531.6	535.9	535.1
17.5°	523.7	524.6	525.5	529.0	529.8
20°	514.2	515.9	516.8	522.0	522.0
22.5°	505.5	506.3	508.1	513.3	513.3
25°	494.2	495.9	499.4	503.7	504.6
27.5°	482.9	483.7	488.1	494.2	495.0
30°	468.1	470.7	475.9	482.9	483.7
32.5°	455.0	457.6	463.7	470.7	472.4
35°	438.5	442.0	448.9	457.6	459.4
37.5°	423.7	426.3	435.0	444.6	447.2
40°	405.4	410.6	419.3	430.7	435.0
42.5°	387.2	392.4	402.8	417.6	422.8
45°	368.0	374.1	387.2	403.7	410.6
47.5°	348.9	355.8	370.6	389.8	397.6
50°	327.1	335.8	354.1	375.8	384.5
52.5°	306.2	316.7	336.7	361.1	372.4
55°	284.5	294.9	321.0	346.3	358.4
57.5°	260.1	274.1	302.8	331.5	344.5
60°	237.5	250.6	285.4	316.7	329.7
62.5°	213.2	230.6	268.0	301.0	314.1
65°	187.9	207.1	249.7	282.8	295.8
67.5°	165.3	186.2	231.4	264.5	277.5
70°	138.3	164.4	211.4	244.5	257.5
72.5°	113.1	141.8	190.5	222.7	234.9
75°	88.7	120.9	168.8	197.5	203.6
77.5°	66.1	100.1	146.2	158.3	154.0
80°	47.0	80.0	114.0	107.9	110.5
82.5°	30.5	60.9	70.5	80.0	82.7
85°	17.4	35.7	43.5	47.0	48.7
87.5°	7.8	13.1	17.4	17.4	16.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)