

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: P309869

Luminaire Tested: **24FCZ2-30-UNV-L82765-RDP-CA125-W2A-U-2700K**

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: P309869
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-2700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (168) 2700K 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: 1705.0 lumens
Efficiency: N/A
Efficacy: 72.9 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

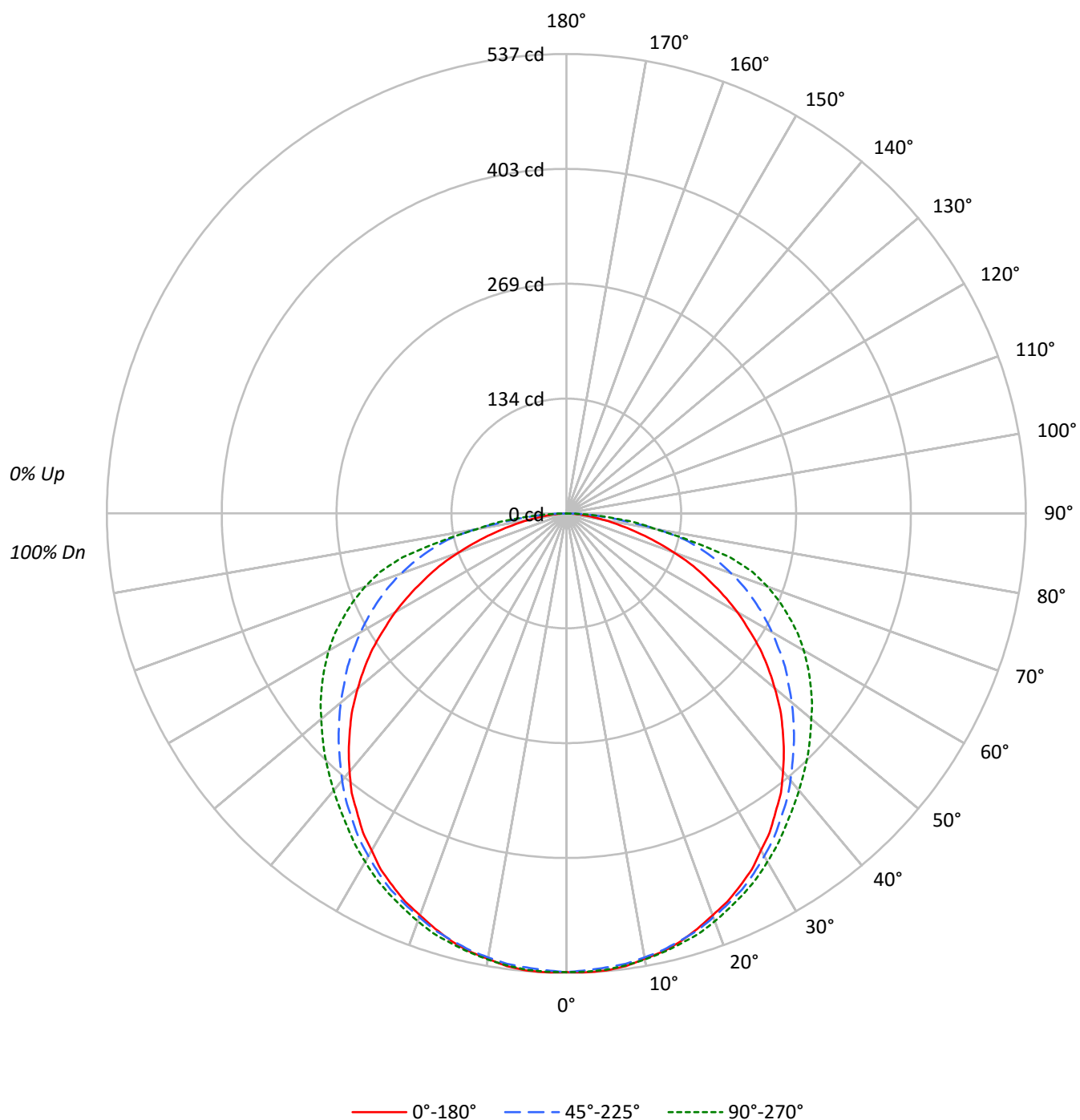
Input Watts (W): 23.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	721	721	721
5°	724	720	723
10°	722	720	723
15°	721	720	724
20°	716	719	727
25°	713	721	728
30°	707	719	731
35°	700	717	733
40°	692	716	743
45°	681	716	760
50°	666	720	782
55°	649	732	817
60°	621	746	862
65°	582	773	915
70°	529	808	985
75°	449	853	1029
80°	354	859	832
85°	261	653	732



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.9	3.0
10°-20°	146.4	8.6
20°-30°	223.8	13.1
30°-40°	273.6	16.0
40°-50°	291.6	17.1
50°-60°	278.9	16.4
60°-70°	236.2	13.9
70°-80°	158.8	9.3
80°-90°	44.8	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°	421.1	24.7
0°-40°	694.7	40.7
0°-60°	1265.2	74.2
0°-90°	1705.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1705.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	536	536	536	536	536	
5°	536	535	533	535	535	51
15°	518	518	517	521	520	146
25°	480	482	485	490	490	221
35°	426	430	436	445	446	267
45°	358	364	376	392	399	276
55°	276	287	312	337	348	246
65°	183	201	243	275	288	181
75°	86	118	164	192	198	92
85°	17	35	42	46	47	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	536.2	536.2	536.2	536.2	536.2
2.5°	537.0	537.0	534.5	536.2	536.2
5°	536.2	535.3	532.8	535.3	535.3
7.5°	533.6	532.8	531.1	533.6	532.8
10°	528.6	528.6	526.9	529.4	529.4
12.5°	524.3	523.5	522.6	526.0	525.2
15°	517.6	517.6	516.7	521.0	520.1
17.5°	509.1	510.0	510.8	514.2	515.0
20°	499.8	501.5	502.3	507.4	507.4
22.5°	491.4	492.2	493.9	499.0	499.0
25°	480.4	482.0	485.4	489.7	490.5
27.5°	469.4	470.2	474.4	480.4	481.2
30°	455.0	457.5	462.6	469.4	470.2
32.5°	442.3	444.8	450.8	457.5	459.2
35°	426.2	429.6	436.4	444.8	446.5
37.5°	411.9	414.4	422.9	432.2	434.7
40°	394.1	399.2	407.6	418.6	422.9
42.5°	376.3	381.4	391.6	405.9	411.0
45°	357.7	363.7	376.3	392.4	399.2
47.5°	339.1	345.9	360.3	378.9	386.5
50°	318.0	326.4	344.2	365.3	373.8
52.5°	297.7	307.8	327.3	351.0	362.0
55°	276.5	286.7	312.1	336.6	348.4
57.5°	252.9	266.4	294.3	322.2	334.9
60°	230.9	243.6	277.4	307.8	320.5
62.5°	207.2	224.1	260.5	292.6	305.3
65°	182.7	201.3	242.7	274.9	287.5
67.5°	160.7	181.0	225.0	257.1	269.8
70°	134.5	159.8	205.5	237.6	250.3
72.5°	109.9	137.8	185.2	216.5	228.3
75°	86.3	117.6	164.1	192.0	197.9
77.5°	64.3	97.3	142.1	153.9	149.7
80°	45.7	77.8	110.8	104.9	107.4
82.5°	29.6	59.2	68.5	77.8	80.3
85°	16.9	34.7	42.3	45.7	47.4
87.5°	7.6	12.7	16.9	16.9	16.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)