

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: P308984

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-S-CP125-W2A-U-5500K**

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: P308984
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-29HE-UNV-L82765-S-CP125-W2A-U-5500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB 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: 2751.0 lumens
Efficiency: N/A
Efficacy: 119.6 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

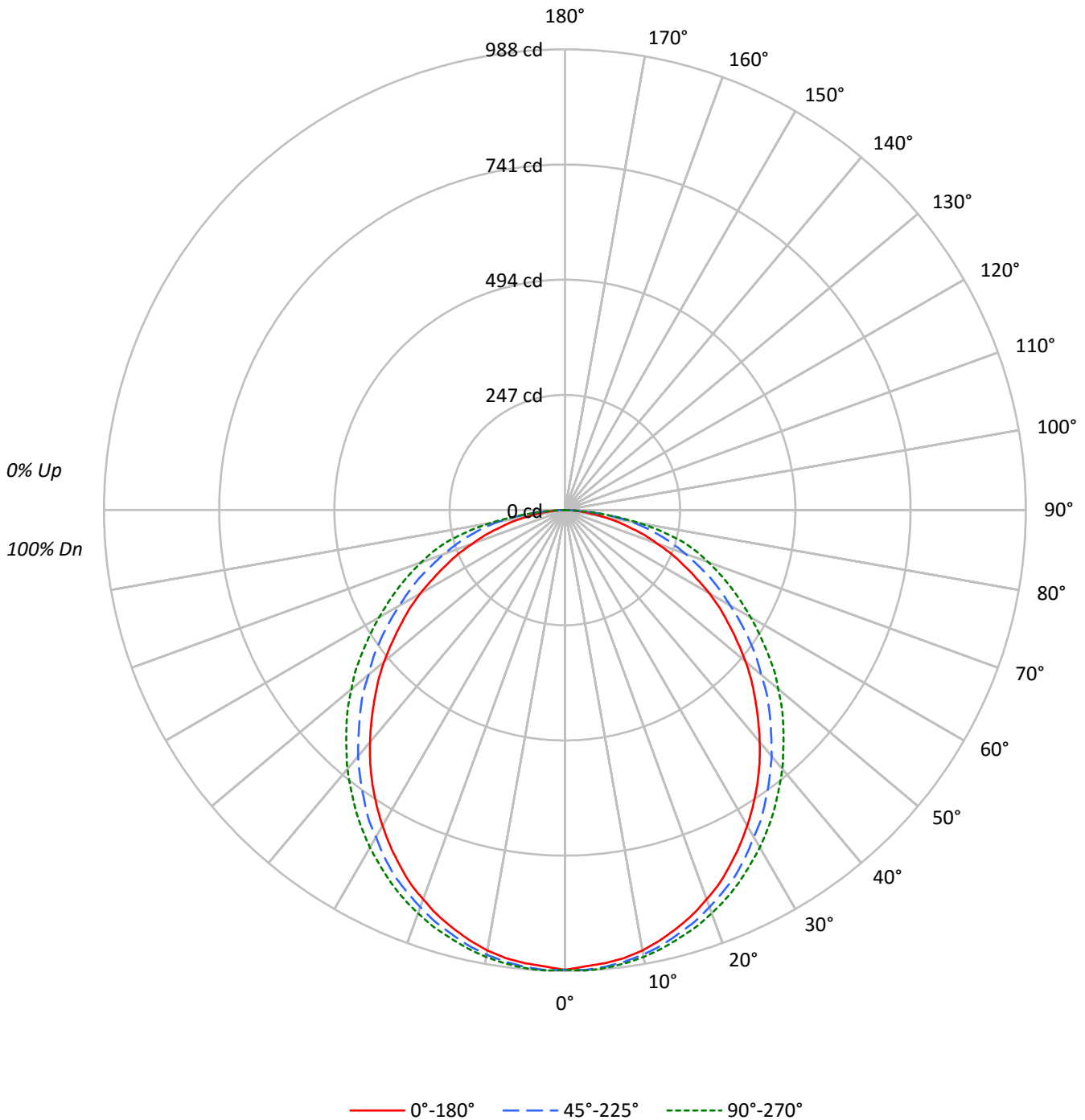
Input Watts (W): 23
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2653	2653	2653
5°	2635	2656	2663
10°	2620	2645	2658
15°	2585	2621	2646
20°	2544	2595	2635
25°	2492	2569	2618
30°	2429	2517	2596
35°	2361	2471	2572
40°	2282	2421	2547
45°	2198	2364	2520
50°	2117	2300	2499
55°	2017	2258	2481
60°	1927	2204	2473
65°	1798	2190	2501
70°	1656	2172	2575
75°	1495	2202	2709
80°	1292	2267	2546
85°	1071	1902	1902



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.2	3.4
10°-20°	265.3	9.6
20°-30°	397.0	14.4
30°-40°	470.1	17.1
40°-50°	479.1	17.4
50°-60°	429.4	15.6
60°-70°	336.2	12.2
70°-80°	216.8	7.9
80°-90°	64.0	2.3
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°	755.5	27.5
0°-40°	1225.6	44.5
0°-60°	2134.0	77.6
0°-90°	2751.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2751.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	986	986	986	986	986	
5°	976	978	983	984	986	93
15°	928	933	941	948	950	262
25°	839	847	865	877	882	386
35°	719	728	752	775	783	449
45°	578	590	621	653	662	446
55°	430	444	481	515	529	386
65°	282	299	344	377	393	280
75°	144	166	212	248	261	154
85°	35	48	62	62	62	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	985.8	985.8	985.8	985.8	985.8
2.5°	979.4	981.9	987.1	988.3	988.3
5°	975.5	978.1	983.2	984.5	985.8
7.5°	969.1	970.4	976.8	979.4	980.6
10°	958.8	961.4	967.8	971.6	972.9
12.5°	944.7	948.5	956.2	961.4	962.7
15°	928.0	933.1	940.8	948.5	949.8
17.5°	910.0	915.2	925.4	934.4	937.0
20°	888.2	894.6	906.2	916.5	920.3
22.5°	866.4	871.5	885.7	898.5	902.3
25°	839.4	847.1	865.1	876.7	881.8
27.5°	811.2	820.2	838.2	853.6	858.7
30°	781.7	790.7	809.9	829.2	835.6
32.5°	750.9	761.1	784.3	803.5	809.9
35°	718.8	727.8	752.2	775.3	783.0
37.5°	685.4	693.1	721.4	745.7	753.4
40°	649.5	659.7	689.3	717.5	725.2
42.5°	613.5	625.1	654.6	685.4	693.1
45°	577.6	590.4	621.2	653.3	662.3
47.5°	542.9	553.2	587.9	618.7	631.5
50°	505.7	516.0	549.4	584.0	596.9
52.5°	467.2	481.3	517.3	550.6	566.0
55°	430.0	444.1	481.3	514.7	528.8
57.5°	395.3	406.9	445.4	480.0	494.2
60°	358.1	368.4	409.5	446.7	459.5
62.5°	318.3	333.7	376.1	410.7	426.1
65°	282.4	299.1	344.0	377.4	392.8
67.5°	249.0	264.4	308.1	344.0	360.7
70°	210.5	231.0	276.0	311.9	327.3
72.5°	179.7	197.7	243.9	279.8	296.5
75°	143.8	165.6	211.8	247.7	260.6
77.5°	114.2	136.1	179.7	207.9	214.4
80°	83.4	105.3	146.3	160.4	164.3
82.5°	56.5	77.0	105.3	109.1	110.4
85°	34.7	47.5	61.6	61.6	61.6
87.5°	16.7	19.3	21.8	20.5	20.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)