

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: P308985

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-S-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: P308985
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-5700K
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: 2758.0 lumens
Efficiency: N/A
Efficacy: 119.9 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

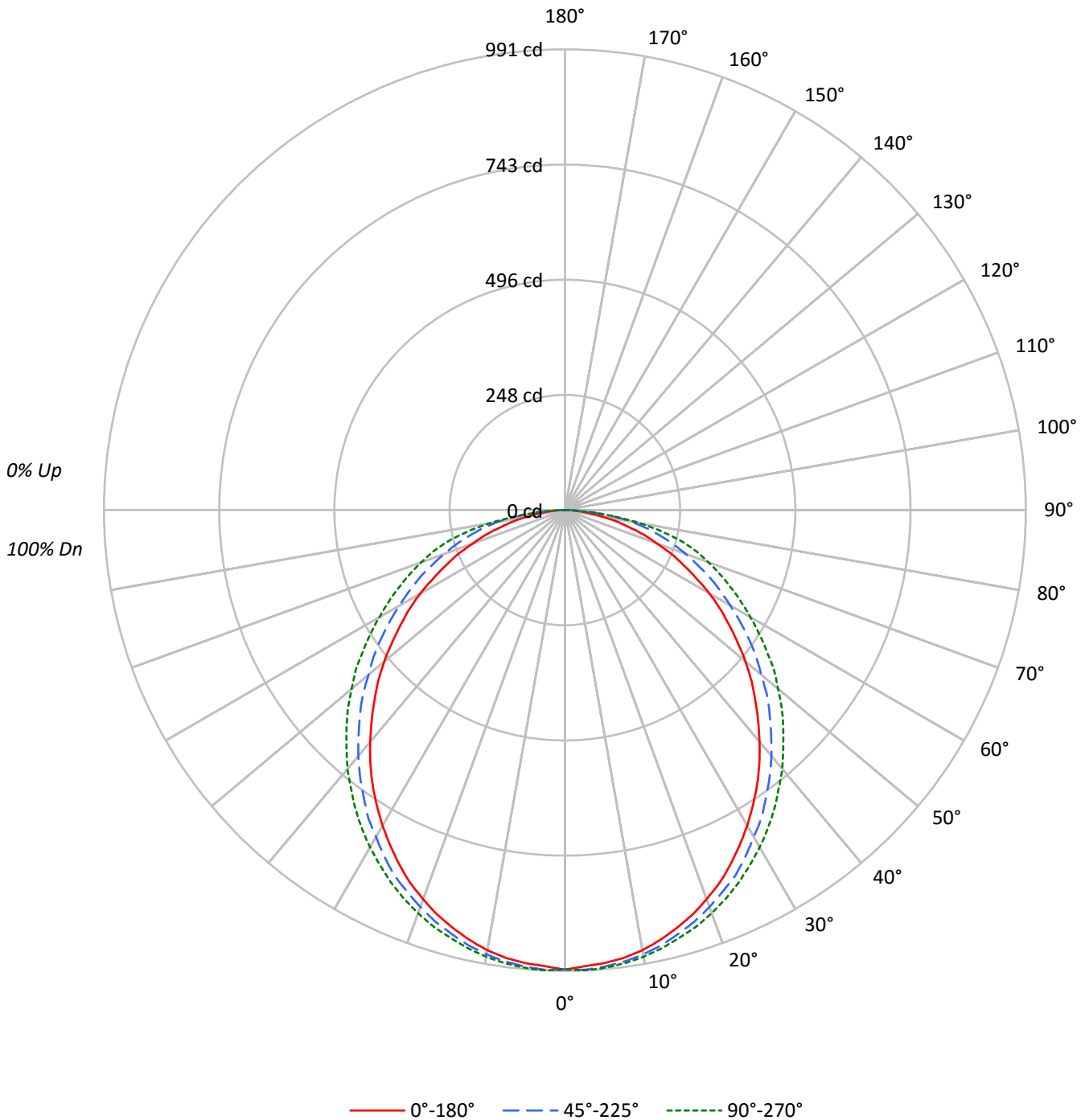
Input Watts (W): 23
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2659	2659	2659
5°	2642	2663	2670
10°	2627	2651	2665
15°	2592	2628	2653
20°	2550	2602	2642
25°	2499	2575	2625
30°	2435	2523	2603
35°	2367	2477	2579
40°	2287	2427	2554
45°	2204	2370	2527
50°	2123	2306	2505
55°	2023	2264	2487
60°	1932	2209	2479
65°	1803	2196	2507
70°	1660	2177	2581
75°	1498	2207	2716
80°	1296	2273	2552
85°	1071	1908	1908



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.5	3.4
10°-20°	266.0	9.6
20°-30°	398.0	14.4
30°-40°	471.3	17.1
40°-50°	480.3	17.4
50°-60°	430.5	15.6
60°-70°	337.0	12.2
70°-80°	217.3	7.9
80°-90°	64.2	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°	757.4	27.5
0°-40°	1228.7	44.5
0°-60°	2139.4	77.6
0°-90°	2758.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2758.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	988	988	988	988	988	
5°	978	981	986	987	988	93
15°	930	936	943	951	952	262
25°	842	849	867	879	884	387
35°	721	730	754	777	785	450
45°	579	592	623	655	664	447
55°	431	445	483	516	530	386
65°	283	300	345	378	394	281
75°	144	166	212	248	261	155
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°	988.3	988.3	988.3	988.3	988.3
2.5°	981.8	984.4	989.6	990.9	990.9
5°	978.0	980.6	985.7	987.0	988.3
7.5°	971.5	972.8	979.3	981.8	983.1
10°	961.3	963.8	970.3	974.1	975.4
12.5°	947.1	951.0	958.7	963.8	965.1
15°	930.4	935.5	943.2	951.0	952.2
17.5°	912.4	917.5	927.8	936.8	939.4
20°	890.5	896.9	908.5	918.8	922.6
22.5°	868.6	873.8	887.9	900.8	904.6
25°	841.6	849.3	867.3	878.9	884.0
27.5°	813.3	822.3	840.3	855.7	860.9
30°	783.7	792.7	812.0	831.3	837.7
32.5°	752.8	763.1	786.2	805.5	812.0
35°	720.6	729.6	754.1	777.2	785.0
37.5°	687.2	694.9	723.2	747.6	755.4
40°	651.1	661.4	691.0	719.3	727.1
42.5°	615.1	626.7	656.3	687.2	694.9
45°	579.1	591.9	622.8	655.0	664.0
47.5°	544.3	554.6	589.4	620.2	633.1
50°	507.0	517.3	550.8	585.5	598.4
52.5°	468.4	482.6	518.6	552.0	567.5
55°	431.1	445.2	482.6	516.0	530.2
57.5°	396.3	407.9	446.5	481.3	495.4
60°	359.0	369.3	410.5	447.8	460.7
62.5°	319.1	334.6	377.0	411.8	427.2
65°	283.1	299.8	344.9	378.3	393.8
67.5°	249.6	265.1	308.8	344.9	361.6
70°	211.0	231.6	276.7	312.7	328.1
72.5°	180.2	198.2	244.5	280.5	297.3
75°	144.1	166.0	212.3	248.4	261.2
77.5°	114.5	136.4	180.2	208.5	214.9
80°	83.6	105.5	146.7	160.9	164.7
82.5°	56.6	77.2	105.5	109.4	110.7
85°	34.7	47.6	61.8	61.8	61.8
87.5°	16.7	19.3	21.9	20.6	20.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)