

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: P308973

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-S-CA125-W2A-U-4500K**

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: P308973  
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-CA125-W2A-U-4500K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 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**

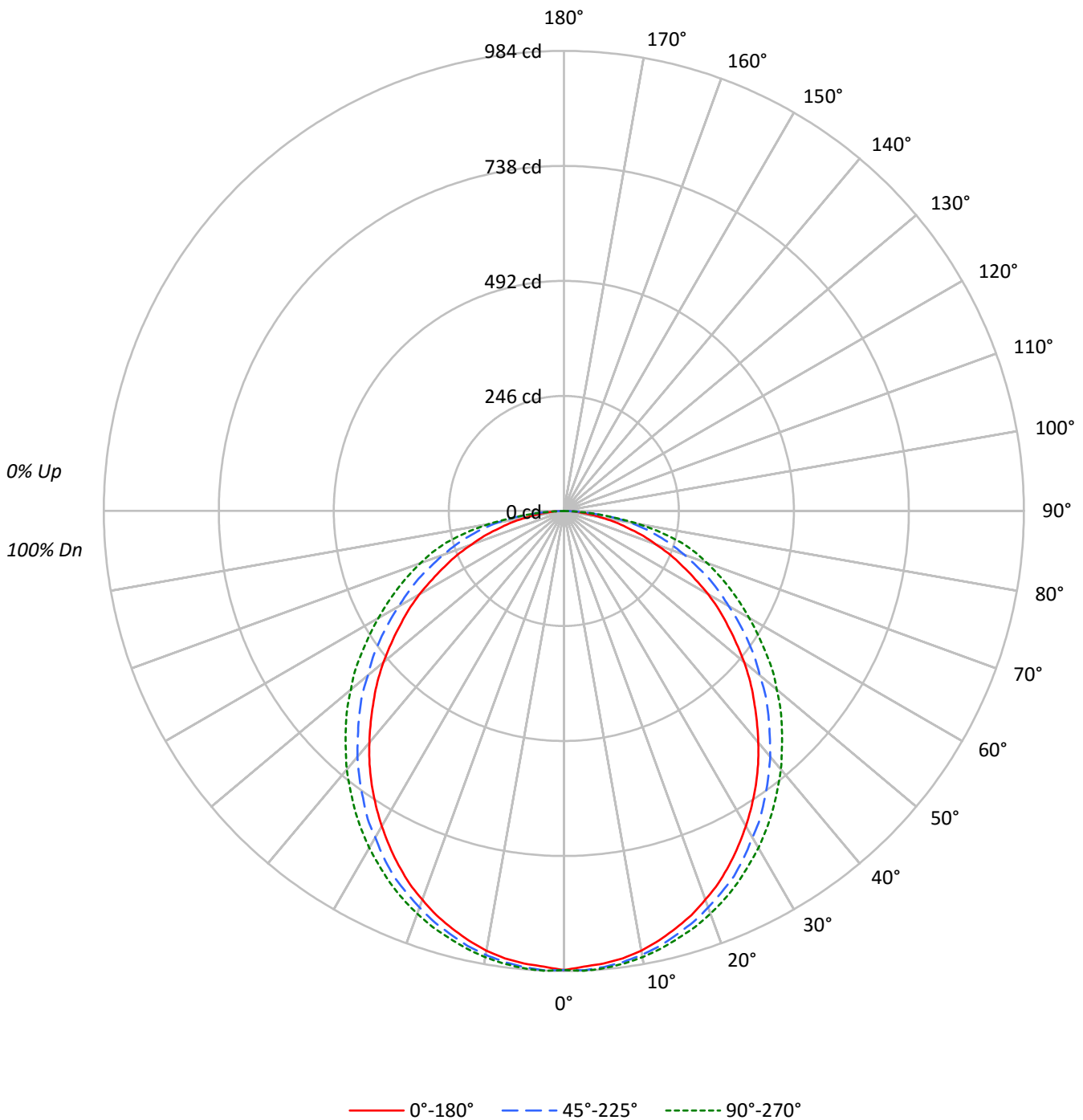
Lumens per Lamp: N/A  
Luminaire Lumens: 2740.0 lumens  
Efficiency: N/A  
Efficacy: 120.2 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 22.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	2642	2642	2642
5°	2625	2645	2652
10°	2610	2634	2648
15°	2575	2611	2635
20°	2533	2585	2625
25°	2483	2559	2608
30°	2419	2507	2586
35°	2352	2461	2562
40°	2272	2412	2537
45°	2189	2355	2511
50°	2109	2291	2489
55°	2009	2249	2471
60°	1920	2195	2463
65°	1791	2181	2491
70°	1650	2163	2565
75°	1489	2193	2698
80°	1288	2258	2535
85°	1065	1896	1896



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	92.8	3.4
10°-20°	264.2	9.6
20°-30°	395.4	14.4
30°-40°	468.2	17.1
40°-50°	477.2	17.4
50°-60°	427.7	15.6
60°-70°	334.8	12.2
70°-80°	215.9	7.9
80°-90°	63.8	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°	752.4	27.5
0°-40°	1220.7	44.5
0°-60°	2125.5	77.6
0°-90°	2740.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2740.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	982	982	982	982	982	
5°	972	974	979	980	982	92
15°	924	929	937	945	946	261
25°	836	844	862	873	878	385
35°	716	725	749	772	780	447
45°	575	588	619	651	660	444
55°	428	442	479	513	527	384
65°	281	298	343	376	391	279
75°	143	165	211	247	260	154
85°	34	47	61	61	61	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	981.8	981.8	981.8	981.8	981.8
2.5°	975.4	978.0	983.1	984.4	984.4
5°	971.6	974.2	979.3	980.5	981.8
7.5°	965.2	966.5	972.9	975.4	976.7
10°	955.0	957.5	963.9	967.8	969.0
12.5°	940.9	944.8	952.4	957.5	958.8
15°	924.3	929.4	937.1	944.8	946.0
17.5°	906.4	911.5	921.7	930.7	933.2
20°	884.7	891.1	902.6	912.8	916.6
22.5°	862.9	868.0	882.1	894.9	898.7
25°	836.1	843.8	861.7	873.2	878.3
27.5°	808.0	816.9	834.8	850.2	855.3
30°	778.6	787.5	806.7	825.9	832.3
32.5°	747.9	758.1	781.1	800.3	806.7
35°	715.9	724.9	749.2	772.2	779.8
37.5°	682.7	690.3	718.5	742.8	750.4
40°	646.9	657.1	686.5	714.6	722.3
42.5°	611.1	622.6	652.0	682.7	690.3
45°	575.3	588.1	618.8	650.7	659.7
47.5°	540.8	551.0	585.5	616.2	629.0
50°	503.7	513.9	547.2	581.7	594.5
52.5°	465.3	479.4	515.2	548.4	563.8
55°	428.3	442.3	479.4	512.6	526.7
57.5°	393.8	405.3	443.6	478.1	492.2
60°	356.7	366.9	407.8	444.9	457.7
62.5°	317.0	332.4	374.6	409.1	424.4
65°	281.3	297.9	342.6	375.9	391.2
67.5°	248.0	263.4	306.8	342.6	359.2
70°	209.7	230.1	274.9	310.7	326.0
72.5°	179.0	196.9	242.9	278.7	295.3
75°	143.2	164.9	210.9	246.7	259.5
77.5°	113.8	135.5	179.0	207.1	213.5
80°	83.1	104.8	145.7	159.8	163.6
82.5°	56.3	76.7	104.8	108.7	109.9
85°	34.5	47.3	61.4	61.4	61.4
87.5°	16.6	19.2	21.7	20.5	20.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)