

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: P308975

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-S-CA125-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: P308975  
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-5500K  
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: 2806.0 lumens  
Efficiency: N/A  
Efficacy: 122.0 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

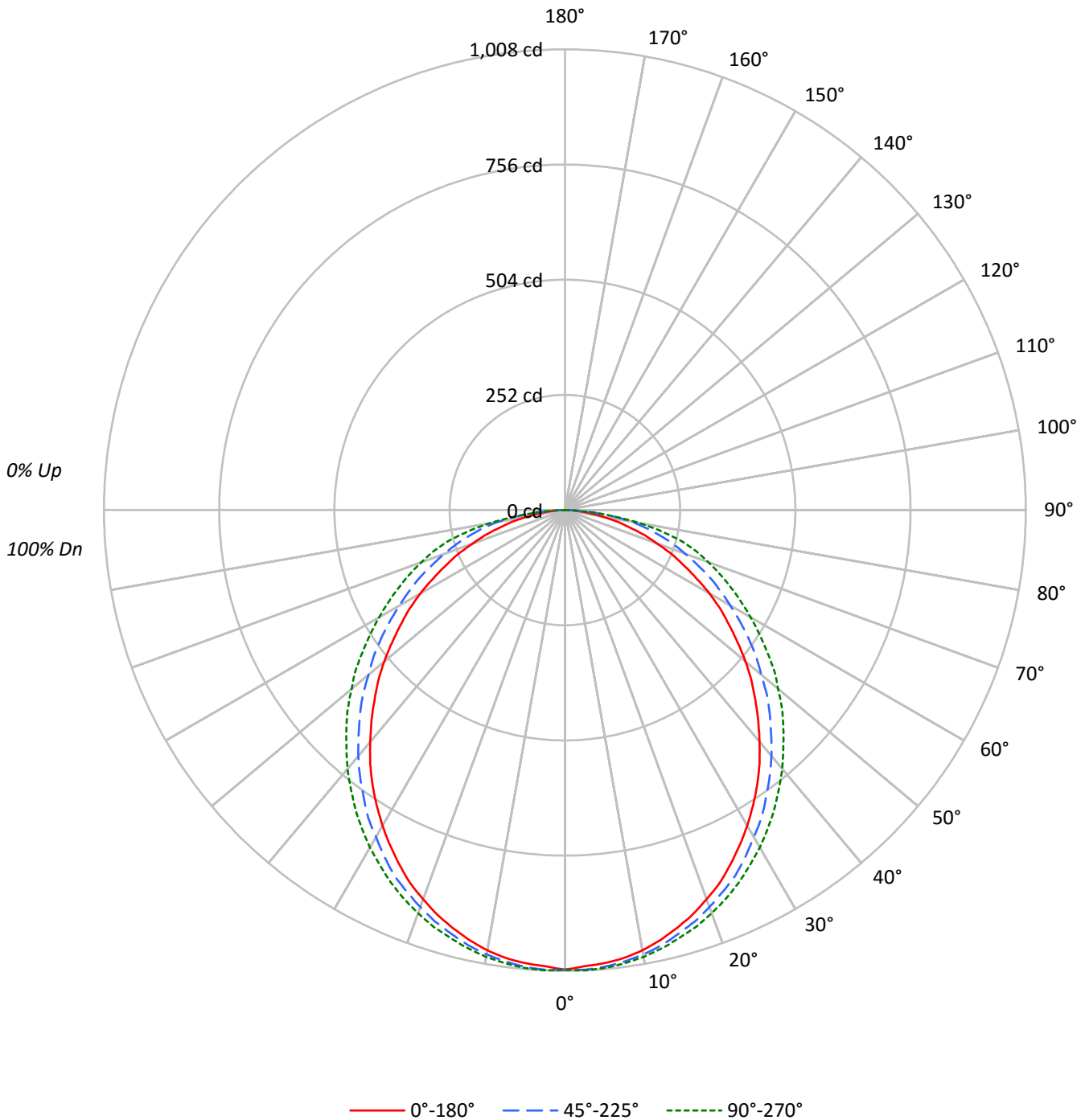
Input Watts (W): 23  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49					49			
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43					43			
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37					37			
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33					33			
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30					30			
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27					27			
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24					24			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2706	2706	2706
5°	2688	2709	2716
10°	2672	2697	2712
15°	2637	2674	2699
20°	2594	2647	2688
25°	2542	2620	2670
30°	2477	2567	2648
35°	2409	2520	2623
40°	2327	2470	2598
45°	2242	2412	2571
50°	2159	2346	2549
55°	2058	2304	2531
60°	1966	2248	2523
65°	1834	2234	2551
70°	1689	2215	2626
75°	1524	2246	2764
80°	1319	2314	2597
85°	1090	1939	1939



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.1	3.4
10°-20°	270.6	9.6
20°-30°	404.9	14.4
30°-40°	479.5	17.1
40°-50°	488.7	17.4
50°-60°	438.0	15.6
60°-70°	342.9	12.2
70°-80°	221.1	7.9
80°-90°	65.3	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°	770.6	27.5
0°-40°	1250.1	44.5
0°-60°	2176.7	77.6
0°-90°	2806.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2806.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1006	1006	1006	1006	1006	
5°	995	998	1003	1004	1006	94
15°	947	952	960	968	969	267
25°	856	864	882	894	899	394
35°	733	742	767	791	799	458
45°	589	602	634	666	676	455
55°	439	453	491	525	539	393
65°	288	305	351	385	401	286
75°	147	169	216	253	266	157
85°	35	48	63	63	63	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1005.5	1005.5	1005.5	1005.5	1005.5
2.5°	998.9	1001.5	1006.8	1008.1	1008.1
5°	995.0	997.6	1002.9	1004.2	1005.5
7.5°	988.5	989.8	996.3	998.9	1000.2
10°	978.0	980.6	987.1	991.1	992.4
12.5°	963.6	967.5	975.4	980.6	981.9
15°	946.6	951.8	959.7	967.5	968.8
17.5°	928.2	933.5	943.9	953.1	955.7
20°	906.0	912.5	924.3	934.8	938.7
22.5°	883.7	889.0	903.4	916.5	920.4
25°	856.2	864.1	882.4	894.2	899.4
27.5°	827.4	836.6	854.9	870.6	875.9
30°	797.3	806.5	826.1	845.8	852.3
32.5°	765.9	776.4	799.9	819.6	826.1
35°	733.2	742.3	767.2	790.8	798.6
37.5°	699.1	707.0	735.8	760.7	768.5
40°	662.5	672.9	703.0	731.9	739.7
42.5°	625.8	637.6	667.7	699.1	707.0
45°	589.1	602.2	633.7	666.4	675.6
47.5°	553.8	564.3	599.6	631.0	644.1
50°	515.8	526.3	560.3	595.7	608.8
52.5°	476.6	491.0	527.6	561.7	577.4
55°	438.6	453.0	491.0	525.0	539.4
57.5°	403.2	415.0	454.3	489.6	504.0
60°	365.3	375.7	417.6	455.6	468.7
62.5°	324.7	340.4	383.6	418.9	434.7
65°	288.0	305.0	350.9	384.9	400.6
67.5°	254.0	269.7	314.2	350.9	367.9
70°	214.7	235.7	281.5	318.1	333.8
72.5°	183.3	201.6	248.8	285.4	302.4
75°	146.6	168.9	216.0	252.7	265.8
77.5°	116.5	138.8	183.3	212.1	218.6
80°	85.1	107.4	149.3	163.7	167.6
82.5°	57.6	78.6	107.4	111.3	112.6
85°	35.3	48.4	62.8	62.8	62.8
87.5°	17.0	19.6	22.3	20.9	20.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)