

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: P308974

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-S-CA125-W2A-U-5000K**

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: P308974
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-5000K
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: 2778.0 lumens
Efficiency: N/A
Efficacy: 121.3 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

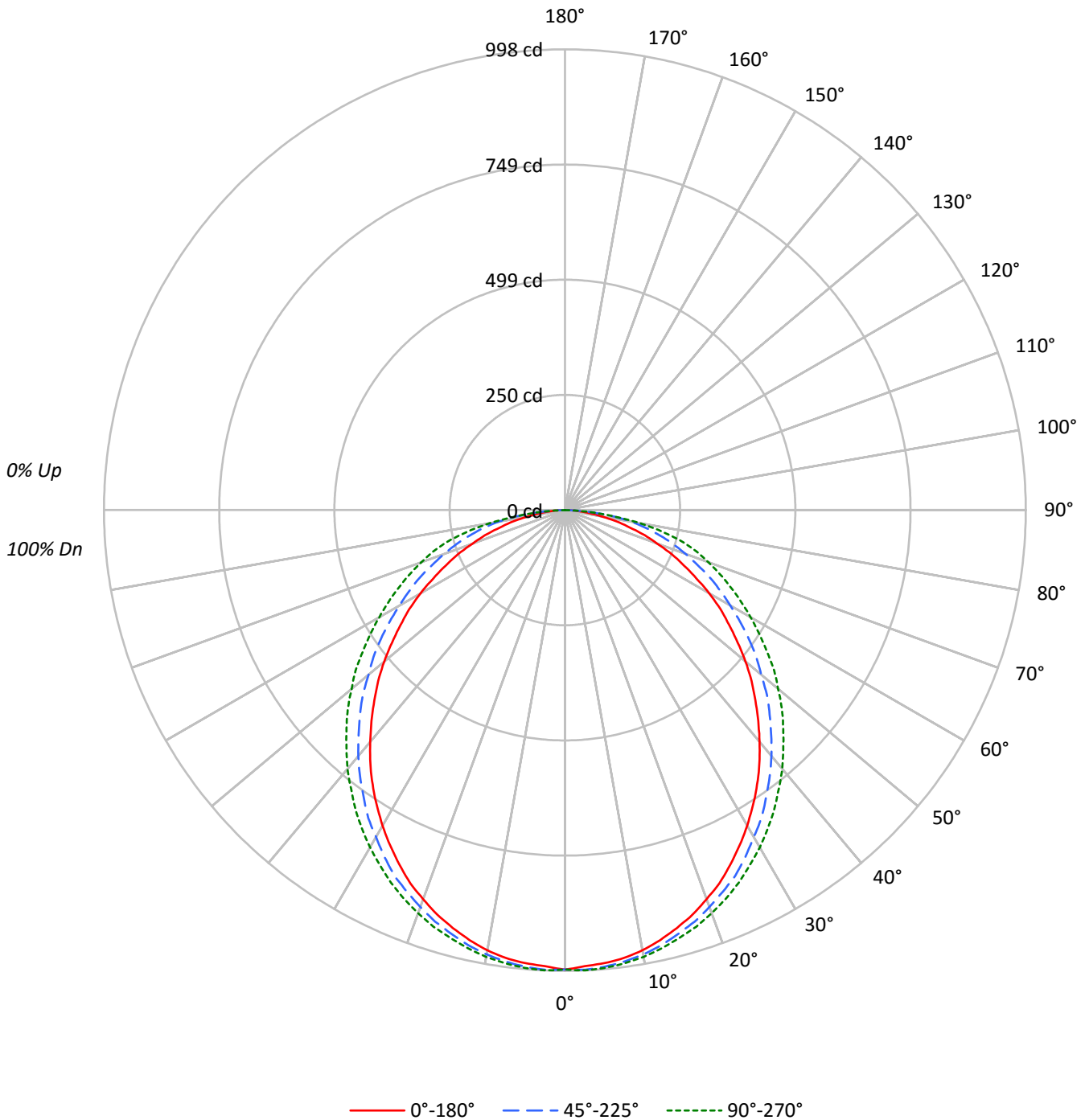
Input Watts (W): 22.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2679	2679	2679
5°	2661	2682	2689
10°	2646	2670	2685
15°	2611	2647	2672
20°	2568	2621	2661
25°	2517	2594	2644
30°	2453	2541	2622
35°	2384	2495	2598
40°	2304	2445	2572
45°	2220	2387	2545
50°	2138	2323	2523
55°	2037	2281	2505
60°	1946	2225	2497
65°	1816	2212	2525
70°	1673	2193	2600
75°	1510	2224	2735
80°	1305	2290	2571
85°	1081	1920	1920



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.1	3.4
10°-20°	267.9	9.6
20°-30°	400.8	14.4
30°-40°	474.7	17.1
40°-50°	483.8	17.4
50°-60°	433.6	15.6
60°-70°	339.5	12.2
70°-80°	218.9	7.9
80°-90°	64.7	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°	762.9	27.5
0°-40°	1237.6	44.5
0°-60°	2154.9	77.6
0°-90°	2778.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2778.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	995	995	995	995	995	
5°	985	988	993	994	995	94
15°	937	942	950	958	959	264
25°	848	856	874	885	890	390
35°	726	735	760	783	791	454
45°	583	596	627	660	669	450
55°	434	448	486	520	534	389
65°	285	302	347	381	397	283
75°	145	167	214	250	263	156
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°	995.4	995.4	995.4	995.4	995.4
2.5°	989.0	991.6	996.7	998.0	998.0
5°	985.1	987.7	992.9	994.1	995.4
7.5°	978.6	979.9	986.4	989.0	990.3
10°	968.2	970.8	977.3	981.2	982.5
12.5°	954.0	957.9	965.6	970.8	972.1
15°	937.1	942.3	950.1	957.9	959.2
17.5°	919.0	924.2	934.5	943.6	946.2
20°	896.9	903.4	915.1	925.5	929.3
22.5°	874.9	880.1	894.3	907.3	911.2
25°	847.7	855.5	873.6	885.3	890.5
27.5°	819.2	828.2	846.4	861.9	867.1
30°	789.4	798.4	817.9	837.3	843.8
32.5°	758.2	768.6	791.9	811.4	817.9
35°	725.8	734.9	759.5	782.9	790.7
37.5°	692.1	699.9	728.4	753.1	760.8
40°	655.9	666.2	696.0	724.5	732.3
42.5°	619.6	631.2	661.0	692.1	699.9
45°	583.3	596.2	627.3	659.7	668.8
47.5°	548.3	558.6	593.6	624.7	637.7
50°	510.7	521.1	554.8	589.7	602.7
52.5°	471.8	486.1	522.3	556.0	571.6
55°	434.2	448.5	486.1	519.8	534.0
57.5°	399.2	410.9	449.8	484.8	499.0
60°	361.6	372.0	413.5	451.1	464.0
62.5°	321.4	337.0	379.8	414.8	430.3
65°	285.2	302.0	347.4	381.1	396.6
67.5°	251.5	267.0	311.1	347.4	364.2
70°	212.6	233.3	278.7	315.0	330.5
72.5°	181.5	199.6	246.3	282.6	299.4
75°	145.2	167.2	213.9	250.2	263.1
77.5°	115.4	137.4	181.5	210.0	216.5
80°	84.2	106.3	147.8	162.0	165.9
82.5°	57.0	77.8	106.3	110.2	111.5
85°	35.0	48.0	62.2	62.2	62.2
87.5°	16.8	19.4	22.0	20.7	20.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)