

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: P308980

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-S-CP125-W2A-U-3500K**

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: P308980
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-3500K
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: 2584.0 lumens
Efficiency: N/A
Efficacy: 114.8 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

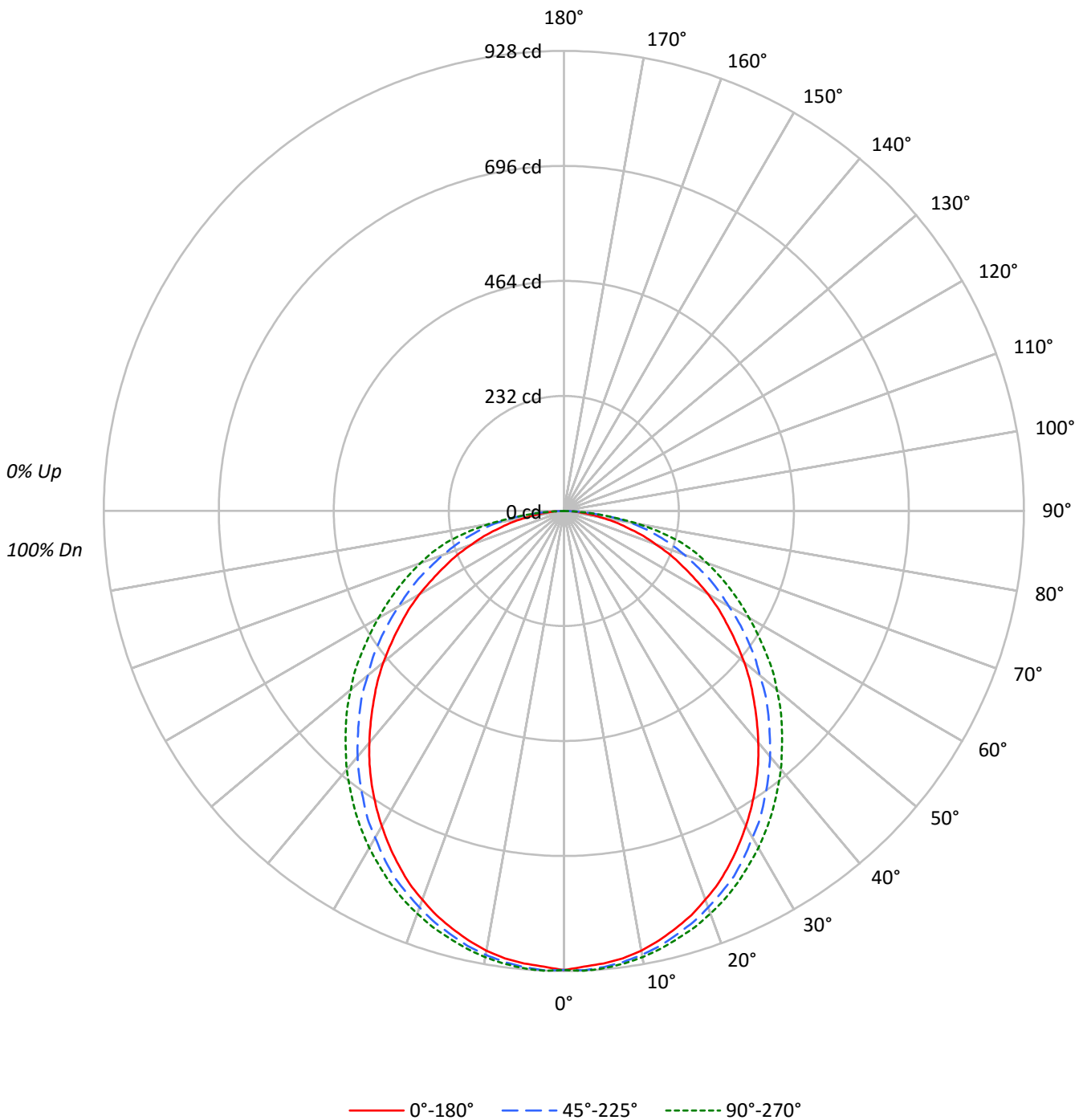
Input Watts (W): 22.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2492	2492	2492
5°	2475	2495	2501
10°	2461	2484	2497
15°	2428	2462	2486
20°	2389	2438	2475
25°	2341	2413	2459
30°	2281	2364	2439
35°	2218	2321	2416
40°	2143	2274	2393
45°	2065	2221	2367
50°	1989	2160	2347
55°	1895	2121	2330
60°	1810	2070	2323
65°	1689	2057	2349
70°	1555	2039	2419
75°	1404	2068	2544
80°	1215	2129	2391
85°	1007	1788	1788



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.6	3.4
10°-20°	249.2	9.6
20°-30°	372.8	14.4
30°-40°	441.5	17.1
40°-50°	450.0	17.4
50°-60°	403.3	15.6
60°-70°	315.8	12.2
70°-80°	203.6	7.9
80°-90°	60.2	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°	709.6	27.5
0°-40°	1151.2	44.5
0°-60°	2004.5	77.6
0°-90°	2584.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2584.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	926	926	926	926	926	
5°	916	919	924	925	926	87
15°	872	876	884	891	892	246
25°	788	796	813	823	828	363
35°	675	684	706	728	735	422
45°	542	555	584	614	622	419
55°	404	417	452	484	497	362
65°	265	281	323	354	369	263
75°	135	156	199	233	245	145
85°	33	45	58	58	58	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	925.9	925.9	925.9	925.9	925.9
2.5°	919.9	922.3	927.1	928.3	928.3
5°	916.3	918.7	923.5	924.7	925.9
7.5°	910.3	911.5	917.5	919.9	921.1
10°	900.6	903.0	909.0	912.7	913.9
12.5°	887.3	891.0	898.2	903.0	904.2
15°	871.7	876.5	883.7	891.0	892.2
17.5°	854.8	859.6	869.3	877.7	880.1
20°	834.3	840.3	851.2	860.8	864.4
22.5°	813.8	818.6	831.9	843.9	847.6
25°	788.5	795.7	812.6	823.4	828.3
27.5°	762.0	770.4	787.3	801.7	806.6
30°	734.2	742.7	760.8	778.8	784.9
32.5°	705.3	714.9	736.6	754.7	760.8
35°	675.2	683.6	706.5	728.2	735.4
37.5°	643.8	651.0	677.6	700.5	707.7
40°	610.1	619.7	647.4	674.0	681.2
42.5°	576.3	587.1	614.9	643.8	651.0
45°	542.5	554.6	583.5	613.7	622.1
47.5°	510.0	519.6	552.2	581.1	593.2
50°	475.0	484.7	516.0	548.6	560.6
52.5°	438.9	452.1	485.9	517.2	531.7
55°	403.9	417.1	452.1	483.5	496.7
57.5°	371.3	382.2	418.4	450.9	464.2
60°	336.4	346.0	384.6	419.6	431.6
62.5°	299.0	313.5	353.3	385.8	400.3
65°	265.2	280.9	323.1	354.5	368.9
67.5°	233.9	248.4	289.4	323.1	338.8
70°	197.7	217.0	259.2	293.0	307.4
72.5°	168.8	185.7	229.1	262.8	278.5
75°	135.0	155.5	198.9	232.7	244.7
77.5°	107.3	127.8	168.8	195.3	201.3
80°	78.4	98.9	137.4	150.7	154.3
82.5°	53.0	72.3	98.9	102.5	103.7
85°	32.6	44.6	57.9	57.9	57.9
87.5°	15.7	18.1	20.5	19.3	19.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)