

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: P312576

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-HRP-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: P312576
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-44HE-UNV-L83050-HRP-CP125-W2A-U-3500K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB SHEET
Light Source: (168) 3500K 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: 3131.0 lumens
Efficiency: N/A
Efficacy: 84.2 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

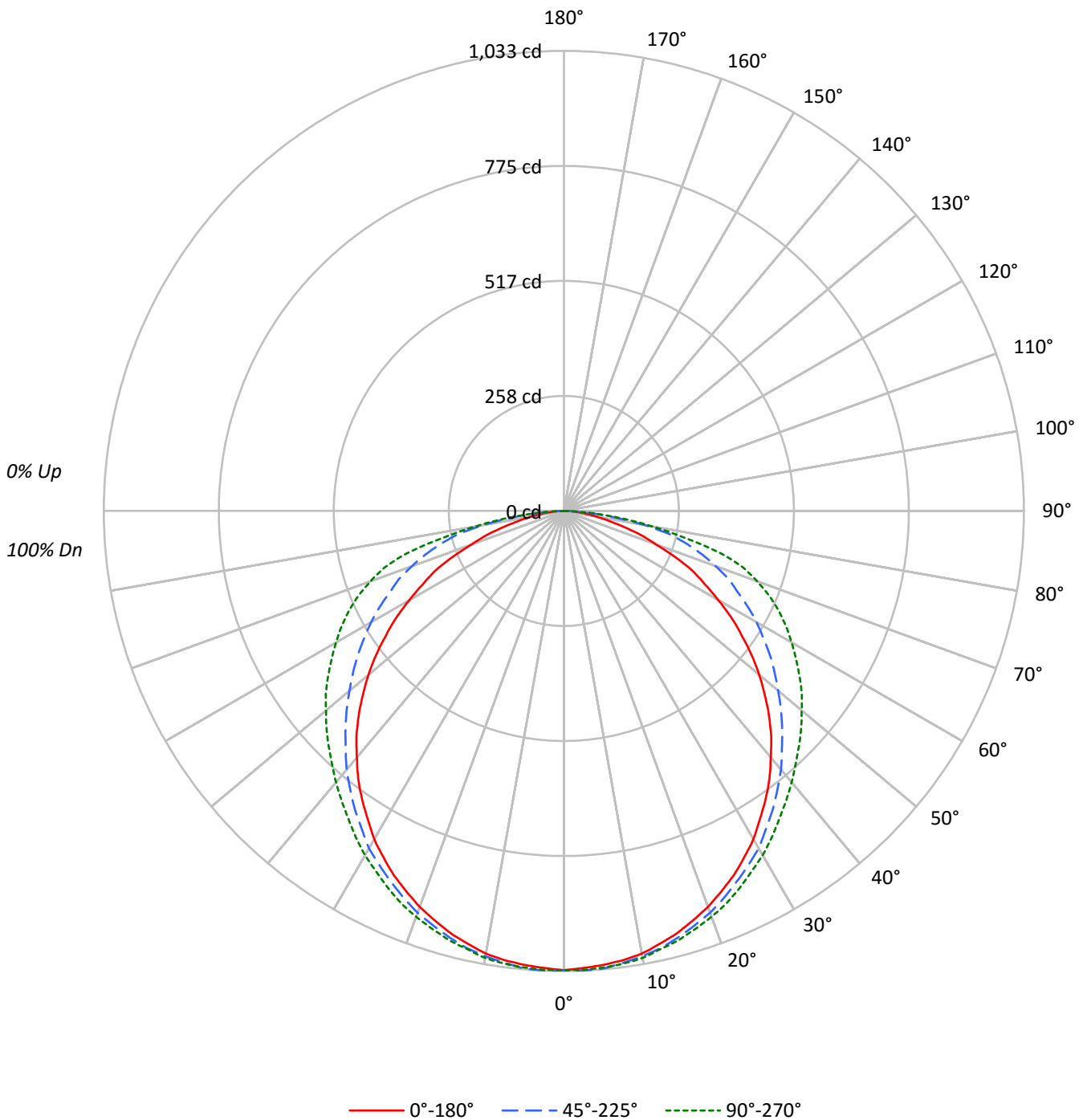
Input Watts (W): 37.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82				82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68				68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56				56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48				48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41				41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36				36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31				31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28				28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25				25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23				23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2774	2774	2774
5°	2764	2785	2780
10°	2758	2774	2785
15°	2735	2762	2779
20°	2709	2749	2777
25°	2680	2727	2774
30°	2645	2719	2774
35°	2595	2686	2771
40°	2539	2664	2796
45°	2481	2638	2841
50°	2398	2629	2919
55°	2289	2650	3030
60°	2158	2689	3179
65°	2038	2742	3396
70°	1740	2859	3637
75°	1458	2978	3778
80°	1193	2878	3152
85°	1037	2133	2319



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.7	3.1
10°-20°	279.5	8.9
20°-30°	423.6	13.5
30°-40°	511.5	16.3
40°-50°	537.5	17.2
50°-60°	505.7	16.2
60°-70°	421.6	13.5
70°-80°	279.4	8.9
80°-90°	74.5	2.4
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°	800.8	25.6
0°-40°	1312.3	41.9
0°-60°	2355.5	75.2
0°-90°	3131.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3131.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1031	1031	1031	1031	1031	
5°	1023	1025	1031	1031	1029	97
15°	982	986	992	996	997	277
25°	903	908	918	930	934	416
35°	790	798	818	836	843	494
45°	652	662	693	729	747	502
55°	488	510	565	622	646	436
65°	320	348	431	502	533	311
75°	140	196	286	346	363	152
85°	34	51	69	75	75	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1031.0	1031.0	1031.0	1031.0	1031.0
2.5°	1027.1	1029.0	1033.0	1033.0	1031.0
5°	1023.1	1025.1	1031.0	1031.0	1029.0
7.5°	1017.2	1019.2	1023.1	1027.1	1025.1
10°	1009.3	1011.3	1015.2	1019.2	1019.2
12.5°	995.5	997.4	1005.3	1007.3	1007.3
15°	981.6	985.6	991.5	995.5	997.4
17.5°	963.8	967.8	975.7	983.6	983.6
20°	946.1	950.0	959.9	967.8	969.8
22.5°	924.3	930.3	940.1	950.0	954.0
25°	902.6	908.5	918.4	930.3	934.2
27.5°	876.9	882.9	896.7	910.5	912.5
30°	851.3	857.2	875.0	886.8	892.7
32.5°	819.7	827.6	845.3	863.1	869.0
35°	790.0	797.9	817.7	835.5	843.4
37.5°	758.4	766.3	788.1	809.8	819.7
40°	722.9	732.8	758.4	782.1	796.0
42.5°	689.3	699.2	724.9	756.5	770.3
45°	651.8	661.7	693.3	728.8	746.6
47.5°	612.3	624.1	661.7	705.1	722.9
50°	572.8	586.6	628.1	677.5	697.2
52.5°	531.3	549.1	596.5	649.8	673.5
55°	487.9	509.6	564.9	622.2	645.9
57.5°	446.4	466.1	531.3	592.5	618.2
60°	400.9	426.6	499.7	562.9	590.6
62.5°	357.5	385.1	466.1	533.3	562.9
65°	320.0	347.6	430.6	501.7	533.3
67.5°	270.6	308.1	400.9	468.1	499.7
70°	221.2	272.6	363.4	432.5	462.2
72.5°	183.7	233.1	325.9	395.0	422.7
75°	140.2	195.5	286.4	345.6	363.4
77.5°	104.7	162.0	244.9	274.5	276.5
80°	77.0	124.4	185.7	195.5	203.4
82.5°	53.3	86.9	120.5	132.3	136.3
85°	33.6	51.4	69.1	75.1	75.1
87.5°	17.8	19.8	23.7	23.7	23.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)