

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: P311810

Luminaire Tested: **24FCZ2-75HE-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: P311810
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-75HE-UNV-L82765-S-CA125-W2A-U-5500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 5500K 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: 7503.0 lumens
Efficiency: N/A
Efficacy: 116.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

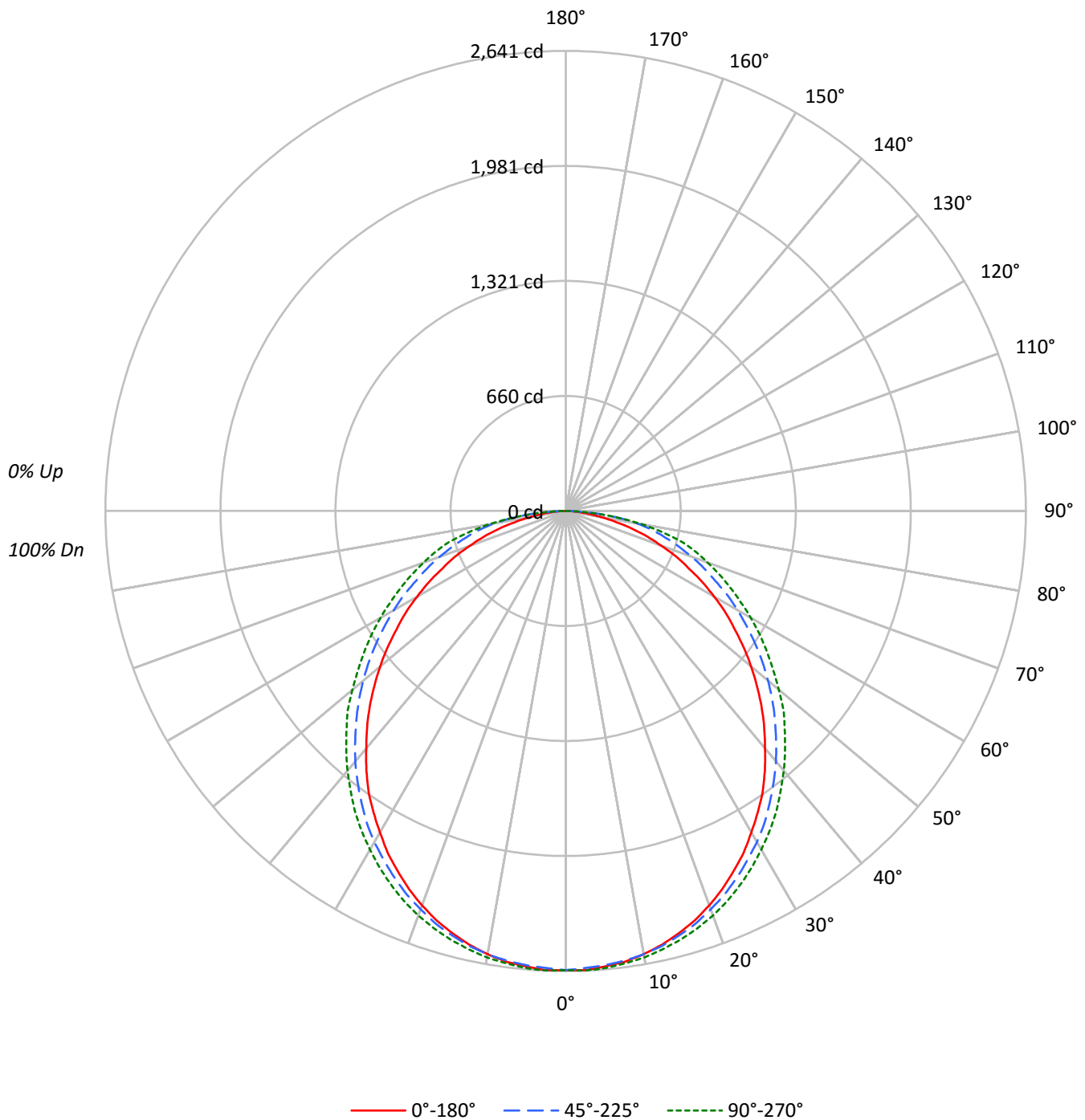
Input Watts (W): 64.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	108	103	99	95	106	101	97	93	97	93	90		93	90	88		83
2	98	90	83	77	96	88	81	76	84	79	74		81	76	72		69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		58
4	82	70	61	54	80	68	60	54	66	59	53		63	57	52		49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		42
6	70	56	47	40	68	55	47	40	53	46	40		52	45	40		37
7	64	51	42	36	63	50	42	36	48	41	35		47	40	35		33
8	60	46	38	32	58	46	37	32	44	37	32		43	36	31		29
9	56	43	34	29	55	42	34	29	41	34	28		40	33	28		26
10	53	39	31	26	51	39	31	26	38	31	26		37	30	26		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3547	3547	3547
5°	3544	3534	3557
10°	3530	3530	3556
15°	3496	3512	3549
20°	3450	3484	3539
25°	3386	3450	3517
30°	3310	3410	3488
35°	3237	3355	3461
40°	3127	3299	3420
45°	3025	3233	3383
50°	2908	3173	3342
55°	2779	3114	3310
60°	2649	3066	3303
65°	2481	3012	3323
70°	2297	3028	3413
75°	2057	3085	3605
80°	1662	3268	3527
85°	1250	2870	2796



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	249.5	3.3
10°-20°	713.0	9.5
20°-30°	1071.8	14.3
30°-40°	1276.7	17.0
40°-50°	1306.7	17.4
50°-60°	1176.4	15.7
60°-70°	923.8	12.3
70°-80°	599.6	8.0
80°-90°	185.4	2.5
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°	2034.4	27.1
0°-40°	3311.1	44.1
0°-60°	5794.1	77.2
0°-90°	7503.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7503.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2636	2636	2636	2636	2636	
5°	2624	2629	2617	2631	2634	249
15°	2510	2517	2522	2543	2548	708
25°	2281	2300	2324	2362	2369	1051
35°	1971	1995	2042	2092	2107	1230
45°	1590	1628	1699	1764	1778	1226
55°	1184	1237	1328	1397	1411	1062
65°	779	839	946	1025	1044	776
75°	396	472	593	674	694	419
85°	81	150	186	181	181	98
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2635.9	2635.9	2635.9	2635.9	2635.9
2.5°	2638.2	2638.2	2626.3	2638.2	2640.6
5°	2623.9	2628.7	2616.8	2631.1	2633.5
7.5°	2609.6	2609.6	2602.5	2616.8	2619.2
10°	2583.4	2585.8	2583.4	2600.1	2602.5
12.5°	2550.1	2554.8	2557.2	2573.9	2576.3
15°	2509.5	2516.7	2521.5	2542.9	2547.7
17.5°	2464.3	2471.4	2483.3	2507.2	2511.9
20°	2409.4	2419.0	2433.3	2464.3	2471.4
22.5°	2349.9	2359.4	2383.2	2411.8	2423.7
25°	2280.8	2299.8	2323.6	2361.8	2368.9
27.5°	2211.6	2228.3	2259.3	2299.8	2309.4
30°	2130.6	2156.8	2195.0	2235.5	2245.0
32.5°	2052.0	2078.2	2123.5	2166.4	2178.3
35°	1970.9	1994.8	2042.4	2092.5	2106.8
37.5°	1878.0	1909.0	1961.4	2011.4	2025.7
40°	1780.3	1818.4	1878.0	1930.4	1947.1
42.5°	1687.3	1727.8	1787.4	1844.6	1863.7
45°	1589.6	1627.7	1699.2	1763.6	1777.9
47.5°	1489.5	1532.4	1608.7	1673.0	1696.9
50°	1389.4	1434.7	1515.7	1582.5	1596.8
52.5°	1289.3	1337.0	1422.8	1494.3	1501.4
55°	1184.5	1236.9	1327.5	1396.6	1410.9
57.5°	1089.1	1134.4	1232.1	1303.6	1320.3
60°	984.3	1034.3	1139.2	1205.9	1227.4
62.5°	884.2	936.6	1046.2	1113.0	1132.0
65°	779.3	838.9	946.1	1024.8	1043.9
67.5°	688.8	746.0	860.3	936.6	955.7
70°	583.9	648.2	769.8	848.4	867.5
72.5°	493.3	560.1	681.6	757.9	786.5
75°	395.6	471.9	593.4	674.5	693.5
77.5°	300.3	388.5	512.4	574.4	574.4
80°	214.5	307.4	421.8	450.4	455.2
82.5°	140.6	231.2	312.2	309.8	309.8
85°	81.0	150.1	185.9	181.1	181.1
87.5°	31.0	62.0	66.7	66.7	64.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)