

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: P311811

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-S-CA125-W2A-U-5700K**

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: P311811
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-5700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 5700K 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: 7523.0 lumens
Efficiency: N/A
Efficacy: 116.5 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

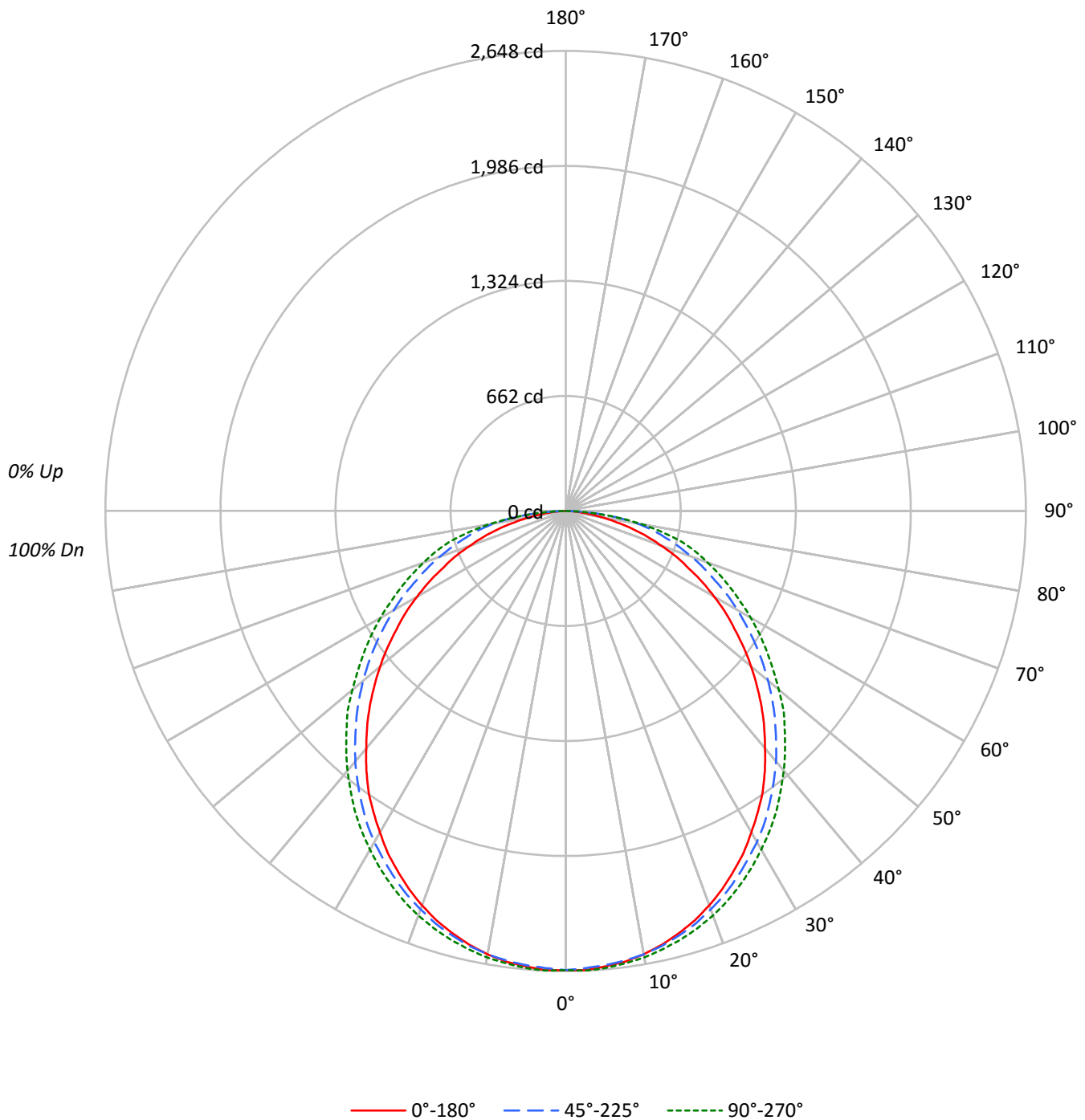
Input Watts (W): 64.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3556	3556	3556
5°	3553	3544	3566
10°	3539	3539	3565
15°	3505	3522	3558
20°	3459	3493	3548
25°	3395	3459	3526
30°	3319	3419	3497
35°	3246	3364	3470
40°	3135	3307	3429
45°	3033	3242	3392
50°	2916	3181	3351
55°	2786	3122	3318
60°	2656	3074	3312
65°	2488	3020	3332
70°	2303	3036	3422
75°	2062	3093	3615
80°	1667	3278	3536
85°	1254	2878	2803



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	250.2	3.3
10°-20°	714.9	9.5
20°-30°	1074.7	14.3
30°-40°	1280.1	17.0
40°-50°	1310.1	17.4
50°-60°	1179.5	15.7
60°-70°	926.3	12.3
70°-80°	601.2	8.0
80°-90°	185.9	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°	2039.8	27.1
0°-40°	3319.9	44.1
0°-60°	5809.6	77.2
0°-90°	7523.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7523.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2643	2643	2643	2643	2643	
5°	2631	2636	2624	2638	2640	250
15°	2516	2523	2528	2550	2554	709
25°	2287	2306	2330	2368	2375	1053
35°	1976	2000	2048	2098	2112	1233
45°	1594	1632	1704	1768	1783	1229
55°	1188	1240	1331	1400	1415	1065
65°	781	841	949	1028	1047	778
75°	397	473	595	676	695	420
85°	81	150	186	182	182	98
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2642.9	2642.9	2642.9	2642.9	2642.9
2.5°	2645.3	2645.3	2633.3	2645.3	2647.7
5°	2630.9	2635.7	2623.8	2638.1	2640.5
7.5°	2616.6	2616.6	2609.4	2623.8	2626.2
10°	2590.3	2592.7	2590.3	2607.0	2609.4
12.5°	2556.9	2561.6	2564.0	2580.7	2583.1
15°	2516.2	2523.4	2528.2	2549.7	2554.5
17.5°	2470.8	2478.0	2489.9	2513.8	2518.6
20°	2415.9	2425.4	2439.8	2470.8	2478.0
22.5°	2356.1	2365.7	2389.6	2418.3	2430.2
25°	2286.8	2305.9	2329.8	2368.1	2375.2
27.5°	2217.5	2234.3	2265.3	2305.9	2315.5
30°	2136.3	2162.6	2200.8	2241.4	2251.0
32.5°	2057.4	2083.7	2129.1	2172.1	2184.1
35°	1976.2	2000.1	2047.9	2098.1	2112.4
37.5°	1883.0	1914.1	1966.6	2016.8	2031.1
40°	1785.0	1823.3	1883.0	1935.6	1952.3
42.5°	1691.8	1732.4	1792.2	1849.5	1868.7
45°	1593.9	1632.1	1703.8	1768.3	1782.6
47.5°	1493.5	1536.5	1613.0	1677.5	1701.4
50°	1393.1	1438.5	1519.8	1586.7	1601.0
52.5°	1292.8	1340.6	1426.6	1498.3	1505.4
55°	1187.6	1240.2	1331.0	1400.3	1414.6
57.5°	1092.0	1137.4	1235.4	1307.1	1323.8
60°	986.9	1037.1	1142.2	1209.1	1230.6
62.5°	886.5	939.1	1049.0	1115.9	1135.1
65°	781.4	841.1	948.7	1027.5	1046.6
67.5°	690.6	747.9	862.6	939.1	958.2
70°	585.4	650.0	771.8	850.7	869.8
72.5°	494.6	561.6	683.4	759.9	788.6
75°	396.7	473.1	595.0	676.3	695.4
77.5°	301.1	389.5	513.8	575.9	575.9
80°	215.1	308.3	423.0	451.6	456.4
82.5°	141.0	231.8	313.0	310.6	310.6
85°	81.2	150.5	186.4	181.6	181.6
87.5°	31.1	62.1	66.9	66.9	64.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)