

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: P311139

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-CP125-W2A-U-3000K**

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: P311139
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)
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-CP125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET
Light Source: (336) 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: 6358.0 lumens
Efficiency: N/A
Efficacy: 101.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

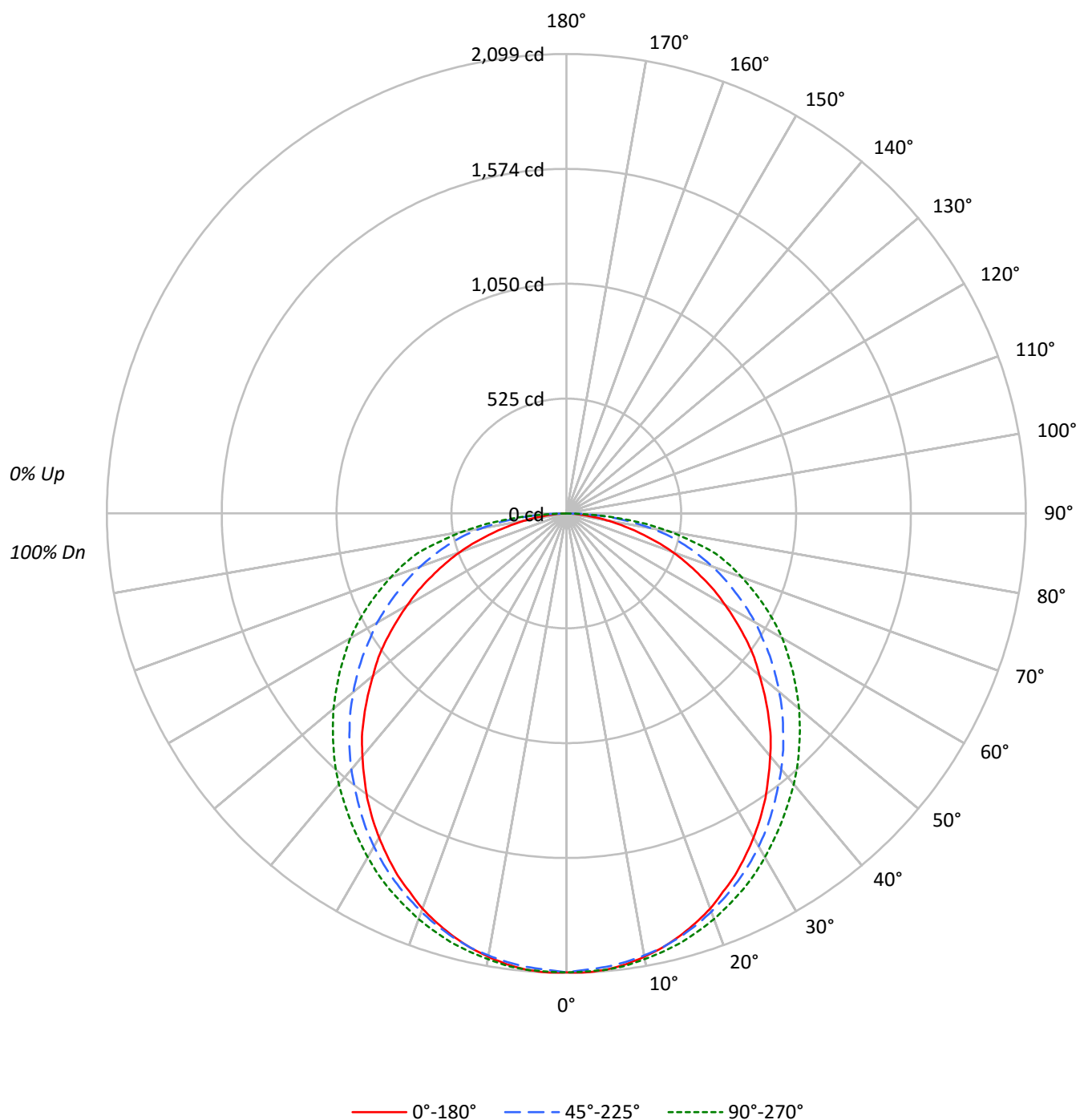
Input Watts (W): 62.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	92	89		92	89	87		82
2	98	89	81	75	95	87	80	74	83	78	73		80	75	71		67
3	89	77	69	62	86	76	68	61	73	66	60		70	64	59		56
4	81	68	59	52	79	67	58	52	64	57	51		62	56	50		47
5	74	61	52	45	72	60	51	44	58	50	44		56	49	43		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	64	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	37	31	57	45	36	30	43	36	30		42	35	30		28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	25		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2821	2821	2821
5°	2826	2809	2826
10°	2810	2801	2824
15°	2786	2791	2827
20°	2752	2773	2824
25°	2709	2753	2822
30°	2658	2730	2818
35°	2606	2703	2820
40°	2545	2683	2838
45°	2485	2665	2862
50°	2411	2658	2905
55°	2350	2662	2964
60°	2259	2685	3065
65°	2156	2713	3177
70°	2041	2797	3353
75°	1821	2917	3663
80°	1553	3089	3743
85°	1107	3061	3582



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	198.4	3.1
10°-20°	567.4	8.9
20°-30°	857.0	13.5
30°-40°	1032.9	16.2
40°-50°	1084.4	17.1
50°-60°	1014.5	16.0
60°-70°	837.8	13.2
70°-80°	570.9	9.0
80°-90°	194.7	3.1
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°	1622.9	25.5
0°-40°	2655.8	41.8
0°-60°	4754.6	74.8
0°-90°	6358.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6358.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2097	2097	2097	2097	2097	
5°	2093	2090	2080	2093	2093	199
15°	2000	2002	2004	2025	2029	564
25°	1825	1833	1854	1890	1901	840
35°	1586	1603	1645	1700	1717	991
45°	1306	1333	1401	1477	1504	1007
55°	1002	1042	1135	1228	1264	894
65°	677	734	852	960	998	672
75°	350	430	561	667	705	373
85°	72	141	198	224	232	90
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2096.8	2096.8	2096.8	2096.8	2096.8
2.5°	2098.9	2096.8	2086.3	2096.8	2094.7
5°	2092.6	2090.5	2079.9	2092.6	2092.6
7.5°	2077.8	2077.8	2067.3	2082.0	2084.2
10°	2056.7	2056.7	2050.4	2067.3	2067.3
12.5°	2031.4	2031.4	2031.4	2048.3	2050.4
15°	1999.8	2001.9	2004.0	2025.1	2029.3
17.5°	1961.8	1966.0	1972.4	1997.7	2001.9
20°	1921.7	1925.9	1936.5	1966.0	1972.4
22.5°	1871.1	1881.6	1896.4	1930.2	1936.5
25°	1824.7	1833.1	1854.2	1890.1	1900.6
27.5°	1767.7	1780.4	1807.8	1845.8	1860.6
30°	1710.8	1723.4	1757.2	1801.5	1814.1
32.5°	1649.6	1668.6	1704.5	1750.9	1765.6
35°	1586.3	1603.2	1645.4	1700.2	1717.1
37.5°	1516.7	1539.9	1586.3	1645.4	1666.5
40°	1449.2	1474.5	1527.3	1590.5	1615.9
42.5°	1381.7	1407.0	1466.1	1537.8	1563.1
45°	1305.8	1333.2	1400.7	1476.6	1504.1
47.5°	1229.8	1263.6	1337.4	1417.6	1447.1
50°	1151.8	1189.7	1269.9	1354.3	1388.0
52.5°	1082.2	1118.0	1202.4	1293.1	1324.7
55°	1002.0	1042.1	1134.9	1227.7	1263.6
57.5°	919.7	964.0	1063.2	1164.4	1200.3
60°	839.6	888.1	997.8	1099.0	1139.1
62.5°	761.5	810.0	923.9	1029.4	1069.5
65°	677.1	734.1	852.2	959.8	997.8
67.5°	597.0	658.2	782.6	888.1	926.1
70°	518.9	578.0	710.9	814.3	852.2
72.5°	434.6	502.1	635.0	742.5	782.6
75°	350.2	430.3	561.1	666.6	704.6
77.5°	272.1	354.4	485.2	571.7	590.7
80°	200.4	284.8	398.7	459.9	483.1
82.5°	128.7	213.1	303.8	348.1	367.0
85°	71.7	141.3	198.3	223.6	232.0
87.5°	29.5	61.2	80.2	90.7	90.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)