

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: P314150

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-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: P314150
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-L83050-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: 6363.0 lumens
Efficiency: N/A
Efficacy: 101.5 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

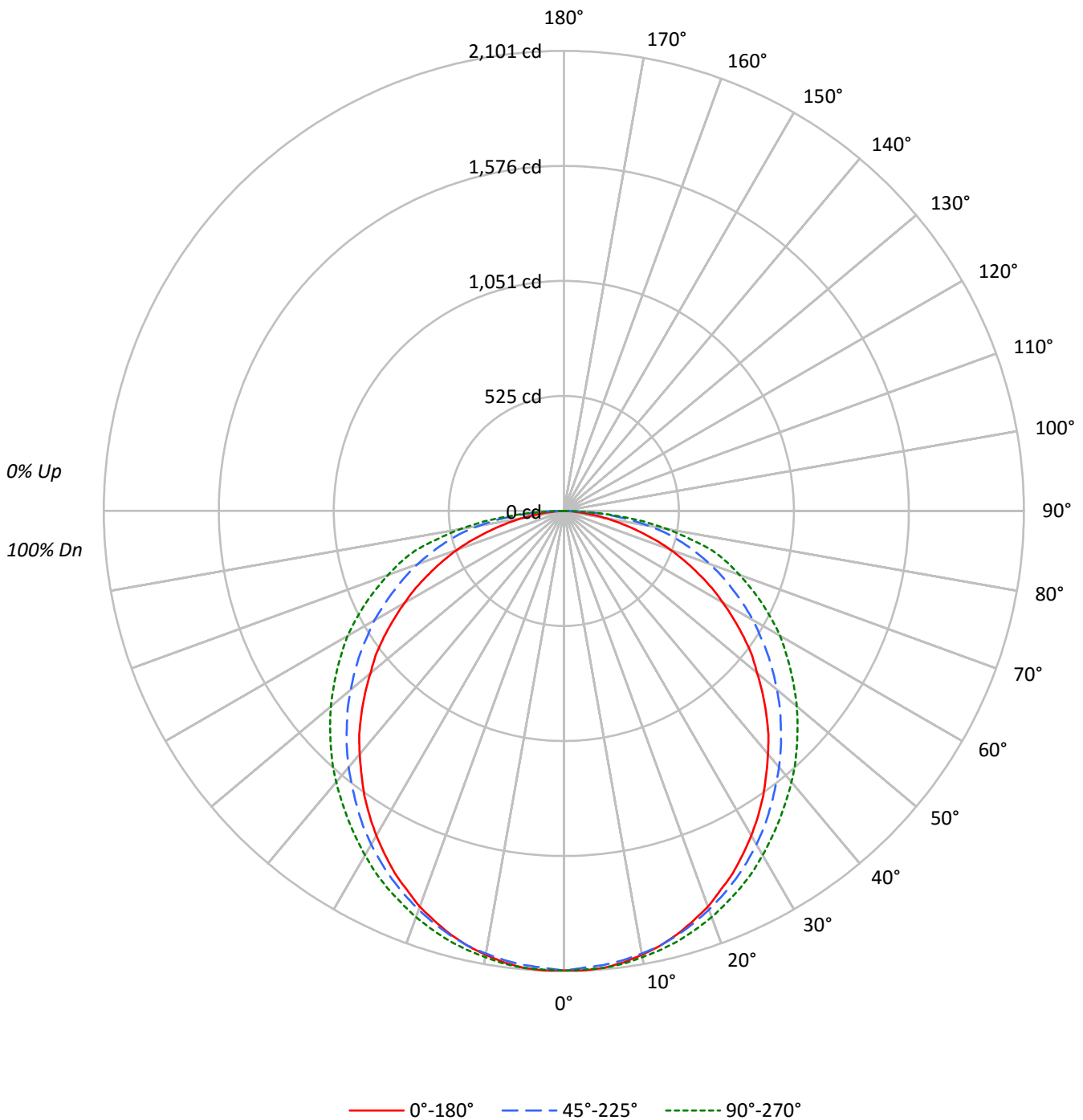
Input Watts (W): 62.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	92	89	92	89	87	88	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	37	31	57	45	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2824	2824	2824
5°	2828	2811	2828
10°	2812	2804	2827
15°	2788	2794	2829
20°	2754	2775	2826
25°	2711	2755	2824
30°	2660	2732	2821
35°	2608	2705	2823
40°	2547	2685	2840
45°	2487	2667	2864
50°	2413	2660	2908
55°	2352	2664	2966
60°	2261	2687	3068
65°	2158	2715	3179
70°	2043	2799	3355
75°	1822	2920	3666
80°	1554	3092	3746
85°	1108	3063	3585



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	198.6	3.1
10°-20°	567.9	8.9
20°-30°	857.7	13.5
30°-40°	1033.7	16.2
40°-50°	1085.2	17.1
50°-60°	1015.3	16.0
60°-70°	838.5	13.2
70°-80°	571.3	9.0
80°-90°	194.8	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°	1624.1	25.5
0°-40°	2657.9	41.8
0°-60°	4758.4	74.8
0°-90°	6363.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6363.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2098	2098	2098	2098	2098	
5°	2094	2092	2082	2094	2094	199
15°	2001	2004	2006	2027	2031	564
25°	1826	1835	1856	1892	1902	840
35°	1588	1604	1647	1702	1718	992
45°	1307	1334	1402	1478	1505	1008
55°	1003	1043	1136	1229	1265	895
65°	678	735	853	961	999	672
75°	350	431	562	667	705	374
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°	2098.5	2098.5	2098.5	2098.5	2098.5
2.5°	2100.6	2098.5	2087.9	2098.5	2096.4
5°	2094.2	2092.1	2081.6	2094.2	2094.2
7.5°	2079.5	2079.5	2068.9	2083.7	2085.8
10°	2058.4	2058.4	2052.0	2068.9	2068.9
12.5°	2033.0	2033.0	2033.0	2049.9	2052.0
15°	2001.4	2003.5	2005.6	2026.7	2030.9
17.5°	1963.3	1967.6	1973.9	1999.2	2003.5
20°	1923.2	1927.5	1938.0	1967.6	1973.9
22.5°	1872.6	1883.1	1897.9	1931.7	1938.0
25°	1826.1	1834.6	1855.7	1891.6	1902.1
27.5°	1769.1	1781.8	1809.2	1847.2	1862.0
30°	1712.1	1724.8	1758.6	1802.9	1815.6
32.5°	1650.9	1669.9	1705.8	1752.2	1767.0
35°	1587.6	1604.5	1646.7	1701.6	1718.5
37.5°	1517.9	1541.1	1587.6	1646.7	1667.8
40°	1450.3	1475.7	1528.5	1591.8	1617.1
42.5°	1382.8	1408.1	1467.2	1539.0	1564.3
45°	1306.8	1334.2	1401.8	1477.8	1505.2
47.5°	1230.8	1264.6	1338.5	1418.7	1448.2
50°	1152.7	1190.7	1270.9	1355.3	1389.1
52.5°	1083.0	1118.9	1203.3	1294.1	1325.8
55°	1002.8	1042.9	1135.8	1228.7	1264.6
57.5°	920.5	964.8	1064.0	1165.3	1201.2
60°	840.2	888.8	998.6	1099.9	1140.0
62.5°	762.1	810.7	924.7	1030.2	1070.3
65°	677.7	734.7	852.9	960.6	998.6
67.5°	597.4	658.7	783.2	888.8	926.8
70°	519.3	578.4	711.5	814.9	852.9
72.5°	434.9	502.4	635.4	743.1	783.2
75°	350.4	430.7	561.6	667.1	705.1
77.5°	272.3	354.7	485.6	572.1	591.1
80°	200.6	285.0	399.0	460.2	483.4
82.5°	128.8	213.2	304.0	348.3	367.3
85°	71.8	141.4	198.4	223.8	232.2
87.5°	29.6	61.2	80.2	90.8	90.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)