

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: P311129

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-CA125-W2A-U-2700K**

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: P311129
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-CA125-W2A-U-2700K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 2700K 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: 6301.0 lumens
Efficiency: N/A
Efficacy: 100.3 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

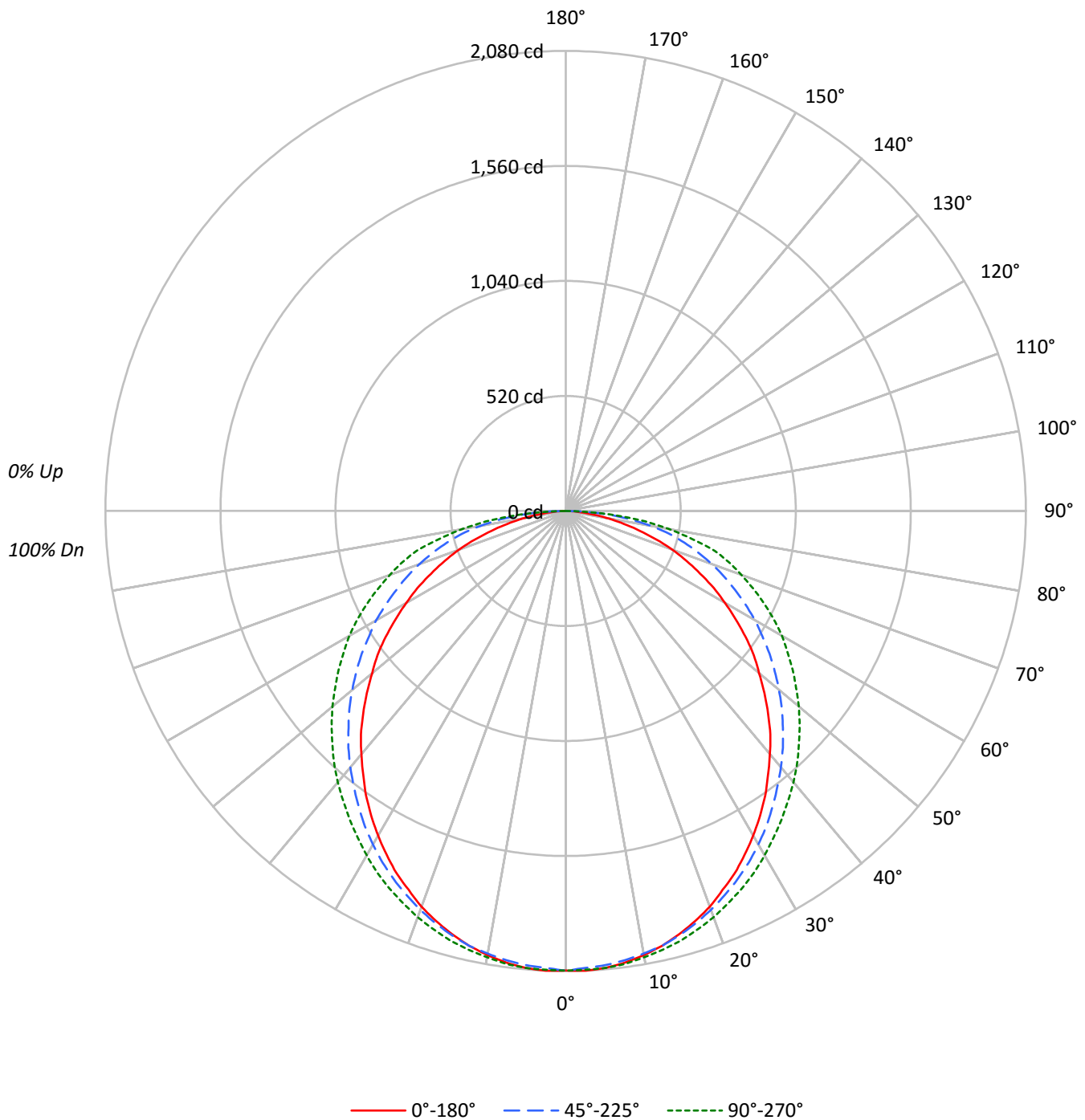
Input Watts (W): 62.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2796	2796	2796
5°	2801	2784	2801
10°	2785	2776	2799
15°	2761	2766	2801
20°	2727	2748	2799
25°	2685	2728	2796
30°	2634	2706	2793
35°	2582	2678	2795
40°	2523	2659	2813
45°	2462	2641	2836
50°	2389	2634	2879
55°	2329	2638	2937
60°	2239	2661	3038
65°	2137	2689	3148
70°	2023	2771	3323
75°	1804	2891	3630
80°	1539	3061	3709
85°	1098	3034	3551



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	196.7	3.1
10°-20°	562.3	8.9
20°-30°	849.3	13.5
30°-40°	1023.6	16.2
40°-50°	1074.6	17.1
50°-60°	1005.4	16.0
60°-70°	830.3	13.2
70°-80°	565.8	9.0
80°-90°	192.9	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°	1608.3	25.5
0°-40°	2632.0	41.8
0°-60°	4712.0	74.8
0°-90°	6301.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6301.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2078	2078	2078	2078	2078	
5°	2074	2072	2061	2074	2074	197
15°	1982	1984	1986	2007	2011	559
25°	1808	1817	1838	1873	1884	832
35°	1572	1589	1631	1685	1702	982
45°	1294	1321	1388	1463	1491	998
55°	993	1033	1125	1217	1252	886
65°	671	728	845	951	989	666
75°	347	426	556	661	698	370
85°	71	140	196	222	230	89
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2078.0	2078.0	2078.0	2078.0	2078.0
2.5°	2080.1	2078.0	2067.6	2078.0	2075.9
5°	2073.8	2071.7	2061.3	2073.8	2073.8
7.5°	2059.2	2059.2	2048.7	2063.4	2065.5
10°	2038.3	2038.3	2032.0	2048.7	2048.7
12.5°	2013.2	2013.2	2013.2	2029.9	2032.0
15°	1981.8	1983.9	1986.0	2006.9	2011.1
17.5°	1944.2	1948.4	1954.7	1979.8	1983.9
20°	1904.5	1908.7	1919.1	1948.4	1954.7
22.5°	1854.3	1864.8	1879.4	1912.9	1919.1
25°	1808.3	1816.7	1837.6	1873.1	1883.6
27.5°	1751.9	1764.4	1791.6	1829.2	1843.9
30°	1695.4	1708.0	1741.4	1785.3	1797.9
32.5°	1634.8	1653.6	1689.2	1735.2	1749.8
35°	1572.1	1588.8	1630.6	1685.0	1701.7
37.5°	1503.1	1526.1	1572.1	1630.6	1651.5
40°	1436.2	1461.3	1513.6	1576.3	1601.4
42.5°	1369.3	1394.4	1452.9	1524.0	1549.1
45°	1294.1	1321.2	1388.1	1463.4	1490.6
47.5°	1218.8	1252.2	1325.4	1404.9	1434.1
50°	1141.4	1179.1	1258.5	1342.1	1375.6
52.5°	1072.5	1108.0	1191.6	1281.5	1312.9
55°	993.0	1032.7	1124.7	1216.7	1252.2
57.5°	911.5	955.4	1053.6	1154.0	1189.5
60°	832.0	880.1	988.8	1089.2	1128.9
62.5°	754.7	802.8	915.7	1020.2	1059.9
65°	671.1	727.5	844.6	951.2	988.8
67.5°	591.6	652.3	775.6	880.1	917.8
70°	514.3	572.8	704.5	807.0	844.6
72.5°	430.7	497.6	629.3	735.9	775.6
75°	347.0	426.5	556.1	660.6	698.2
77.5°	269.7	351.2	480.8	566.5	585.4
80°	198.6	282.2	395.1	455.7	478.7
82.5°	127.5	211.1	301.0	344.9	363.8
85°	71.1	140.1	196.5	221.6	230.0
87.5°	29.3	60.6	79.4	89.9	89.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)