

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: P311140

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-CP125-W2A-U-3500K**

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: P311140  
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-3500K  
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET  
Light Source: (336) 3500K 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**

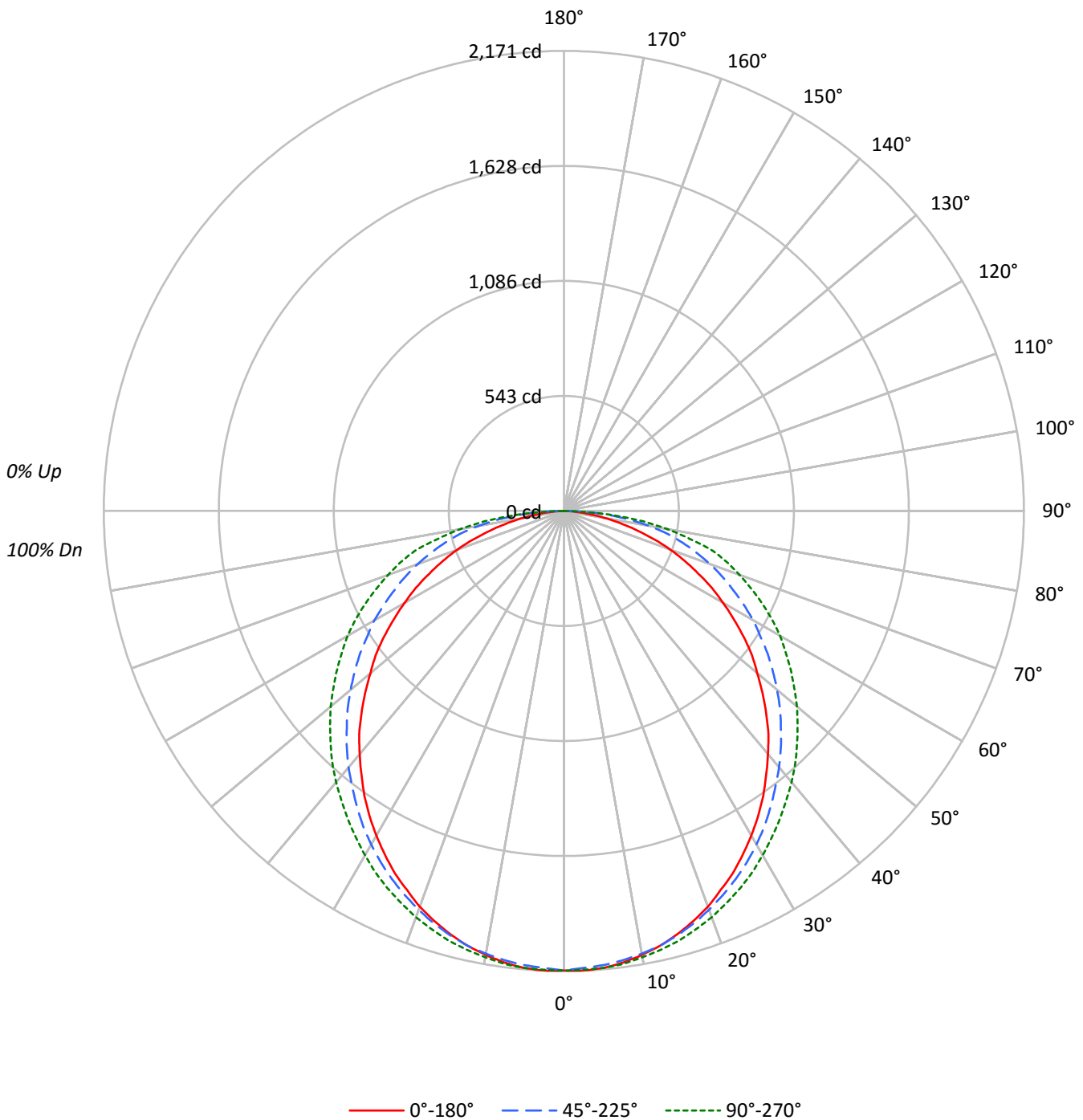
Lumens per Lamp: N/A  
Luminaire Lumens: 6576.0 lumens  
Efficiency: N/A  
Efficacy: 104.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 63.1  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	2918	2918	2918
5°	2923	2906	2923
10°	2906	2897	2921
15°	2881	2887	2924
20°	2846	2868	2921
25°	2802	2847	2918
30°	2749	2824	2915
35°	2695	2795	2917
40°	2633	2774	2935
45°	2570	2757	2960
50°	2494	2749	3005
55°	2431	2753	3066
60°	2337	2777	3171
65°	2230	2806	3286
70°	2111	2893	3467
75°	1883	3017	3788
80°	1606	3195	3871
85°	1145	3166	3705



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	205.2	3.1
10°-20°	586.9	8.9
20°-30°	886.4	13.5
30°-40°	1068.3	16.2
40°-50°	1121.6	17.1
50°-60°	1049.3	16.0
60°-70°	866.5	13.2
70°-80°	590.5	9.0
80°-90°	201.4	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°	1678.5	25.5
0°-40°	2746.8	41.8
0°-60°	4917.7	74.8
0°-90°	6576.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6576.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2169	2169	2169	2169	2169	
5°	2164	2162	2151	2164	2164	205
15°	2068	2070	2073	2094	2099	583
25°	1887	1896	1918	1955	1966	868
35°	1641	1658	1702	1758	1776	1025
45°	1350	1379	1449	1527	1556	1042
55°	1036	1078	1174	1270	1307	925
65°	700	759	881	993	1032	695
75°	362	445	580	689	729	386
85°	74	146	205	231	240	93
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2168.7	2168.7	2168.7	2168.7	2168.7
2.5°	2170.9	2168.7	2157.8	2168.7	2166.5
5°	2164.3	2162.2	2151.3	2164.3	2164.3
7.5°	2149.1	2149.1	2138.2	2153.4	2155.6
10°	2127.3	2127.3	2120.7	2138.2	2138.2
12.5°	2101.1	2101.1	2101.1	2118.5	2120.7
15°	2068.3	2070.5	2072.7	2094.5	2098.9
17.5°	2029.1	2033.4	2040.0	2066.2	2070.5
20°	1987.6	1992.0	2002.9	2033.4	2040.0
22.5°	1935.3	1946.2	1961.4	1996.3	2002.9
25°	1887.3	1896.0	1917.8	1954.9	1965.8
27.5°	1828.3	1841.4	1869.8	1909.1	1924.3
30°	1769.4	1782.5	1817.4	1863.3	1876.3
32.5°	1706.2	1725.8	1762.9	1810.9	1826.2
35°	1640.7	1658.2	1701.8	1758.5	1776.0
37.5°	1568.7	1592.7	1640.7	1701.8	1723.6
40°	1498.9	1525.1	1579.6	1645.1	1671.3
42.5°	1429.1	1455.3	1516.3	1590.5	1616.7
45°	1350.5	1378.9	1448.7	1527.3	1555.6
47.5°	1272.0	1306.9	1383.3	1466.2	1496.7
50°	1191.3	1230.5	1313.4	1400.7	1435.6
52.5°	1119.3	1156.4	1243.6	1337.4	1370.2
55°	1036.4	1077.8	1173.8	1269.8	1306.9
57.5°	951.3	997.1	1099.6	1204.4	1241.4
60°	868.4	918.5	1032.0	1136.7	1178.2
62.5°	787.6	837.8	955.6	1064.7	1106.2
65°	700.4	759.3	881.4	992.7	1032.0
67.5°	617.4	680.7	809.4	918.5	957.8
70°	536.7	597.8	735.3	842.2	881.4
72.5°	449.5	519.3	656.7	768.0	809.4
75°	362.2	445.1	580.4	689.4	728.7
77.5°	281.5	366.5	501.8	591.3	610.9
80°	207.3	294.5	412.4	475.6	499.6
82.5°	133.1	220.4	314.2	360.0	379.6
85°	74.2	146.2	205.1	231.3	240.0
87.5°	30.5	63.3	82.9	93.8	93.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)