

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: P310470

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-RDP-CP125-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: P310470  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
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-RDP-CP125-W2A-U-5700K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB 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**

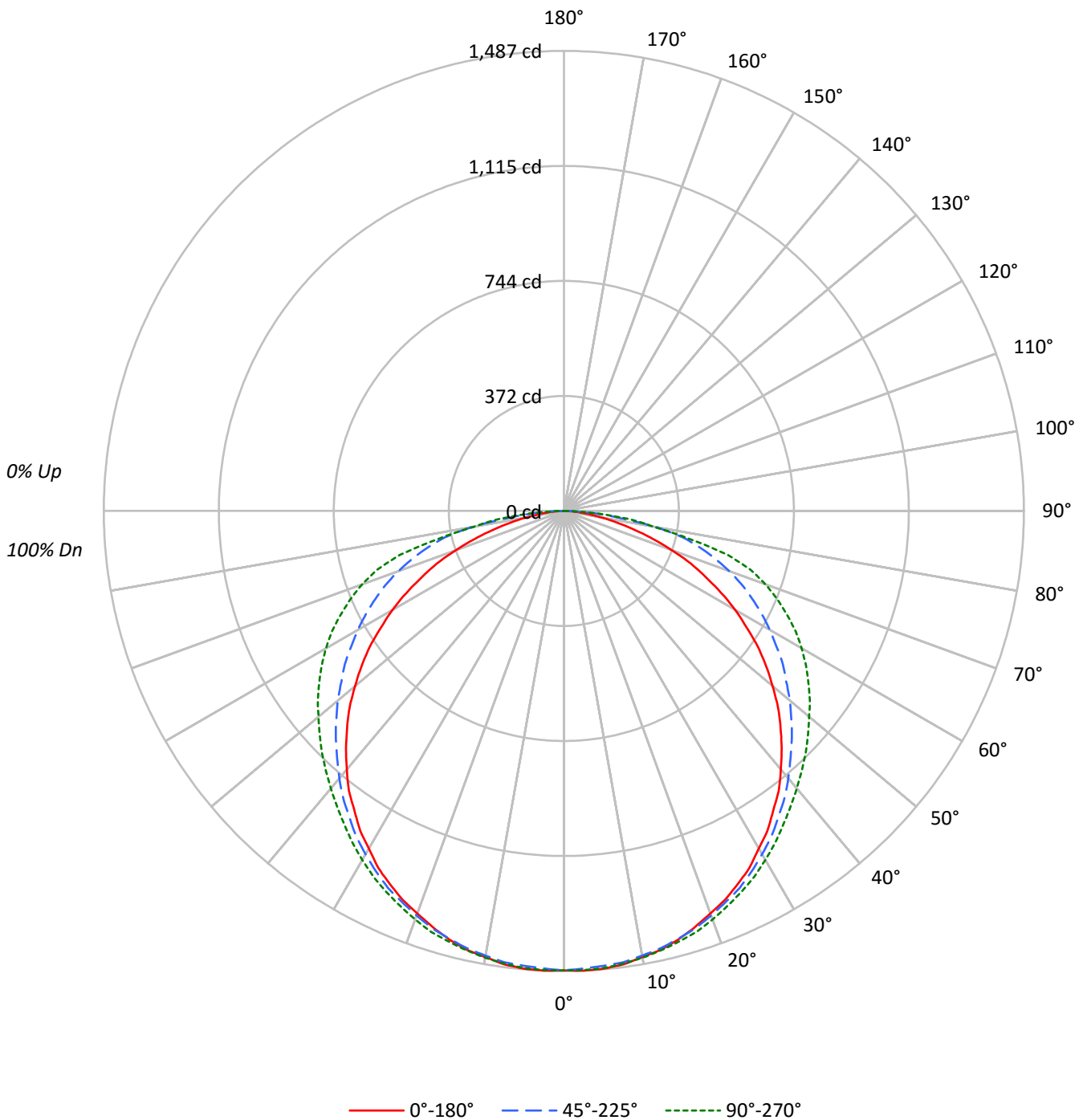
Lumens per Lamp: N/A  
Luminaire Lumens: 4722.0 lumens  
Efficiency: N/A  
Efficacy: 73.1 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 64.6  
Input Voltage (V): NR  
Input Current (A<sub>in</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	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1998	1998	1998
5°	2006	1993	2002
10°	2000	1994	2003
15°	1997	1993	2006
20°	1982	1992	2012
25°	1975	1996	2017
30°	1958	1991	2023
35°	1939	1985	2031
40°	1917	1983	2057
45°	1885	1983	2104
50°	1843	1995	2167
55°	1797	2027	2264
60°	1721	2067	2389
65°	1611	2140	2535
70°	1465	2239	2727
75°	1242	2362	2849
80°	980	2377	2305
85°	722	1808	2025



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	140.9	3.0
10°-20°	405.4	8.6
20°-30°	619.9	13.1
30°-40°	757.9	16.0
40°-50°	807.7	17.1
50°-60°	772.3	16.4
60°-70°	654.2	13.9
70°-80°	439.7	9.3
80°-90°	124.0	2.6
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°	1166.2	24.7
0°-40°	1924.1	40.7
0°-60°	3504.1	74.2
0°-90°	4722.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4722.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1485	1485	1485	1485	1485	
5°	1485	1483	1476	1483	1483	141
15°	1433	1433	1431	1443	1440	404
25°	1330	1335	1344	1356	1358	613
35°	1180	1190	1209	1232	1237	740
45°	991	1007	1042	1087	1106	764
55°	766	794	864	932	965	682
65°	506	557	672	761	796	502
75°	239	326	454	532	548	256
85°	47	96	117	126	131	58
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1484.9	1484.9	1484.9	1484.9	1484.9
2.5°	1487.3	1487.3	1480.2	1484.9	1484.9
5°	1484.9	1482.6	1475.6	1482.6	1482.6
7.5°	1477.9	1475.6	1470.9	1477.9	1475.6
10°	1463.9	1463.9	1459.2	1466.2	1466.2
12.5°	1452.1	1449.8	1447.5	1456.8	1454.5
15°	1433.4	1433.4	1431.1	1442.8	1440.4
17.5°	1410.0	1412.3	1414.7	1424.0	1426.4
20°	1384.2	1388.9	1391.2	1405.3	1405.3
22.5°	1360.8	1363.1	1367.8	1381.9	1381.9
25°	1330.4	1335.0	1344.4	1356.1	1358.5
27.5°	1299.9	1302.2	1314.0	1330.4	1332.7
30°	1260.1	1267.1	1281.2	1299.9	1302.2
32.5°	1225.0	1232.0	1248.4	1267.1	1271.8
35°	1180.5	1189.8	1208.6	1232.0	1236.7
37.5°	1140.6	1147.7	1171.1	1196.8	1203.9
40°	1091.5	1105.5	1128.9	1159.4	1171.1
42.5°	1042.3	1056.3	1084.4	1124.2	1138.3
45°	990.7	1007.1	1042.3	1086.8	1105.5
47.5°	939.2	957.9	997.8	1049.3	1070.4
50°	880.7	904.1	953.3	1011.8	1035.2
52.5°	824.4	852.5	906.4	972.0	1002.4
55°	765.9	794.0	864.3	932.2	965.0
57.5°	700.3	737.8	815.1	892.4	927.5
60°	639.4	674.5	768.2	852.5	887.7
62.5°	573.8	620.7	721.4	810.4	845.5
65°	505.9	557.4	672.2	761.2	796.3
67.5°	445.0	501.2	623.0	712.0	747.2
70°	372.4	442.7	569.1	658.1	693.3
72.5°	304.5	381.8	512.9	599.6	632.4
75°	238.9	325.6	454.4	531.7	548.1
77.5°	178.0	269.3	393.5	426.3	414.6
80°	126.5	215.5	306.8	290.4	297.5
82.5°	82.0	164.0	189.7	215.5	222.5
85°	46.8	96.0	117.1	126.5	131.2
87.5°	21.1	35.1	46.8	46.8	44.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)