

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: P310461

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-RDP-CA125-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: P310461  
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-CA125-W2A-U-5700K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC 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**

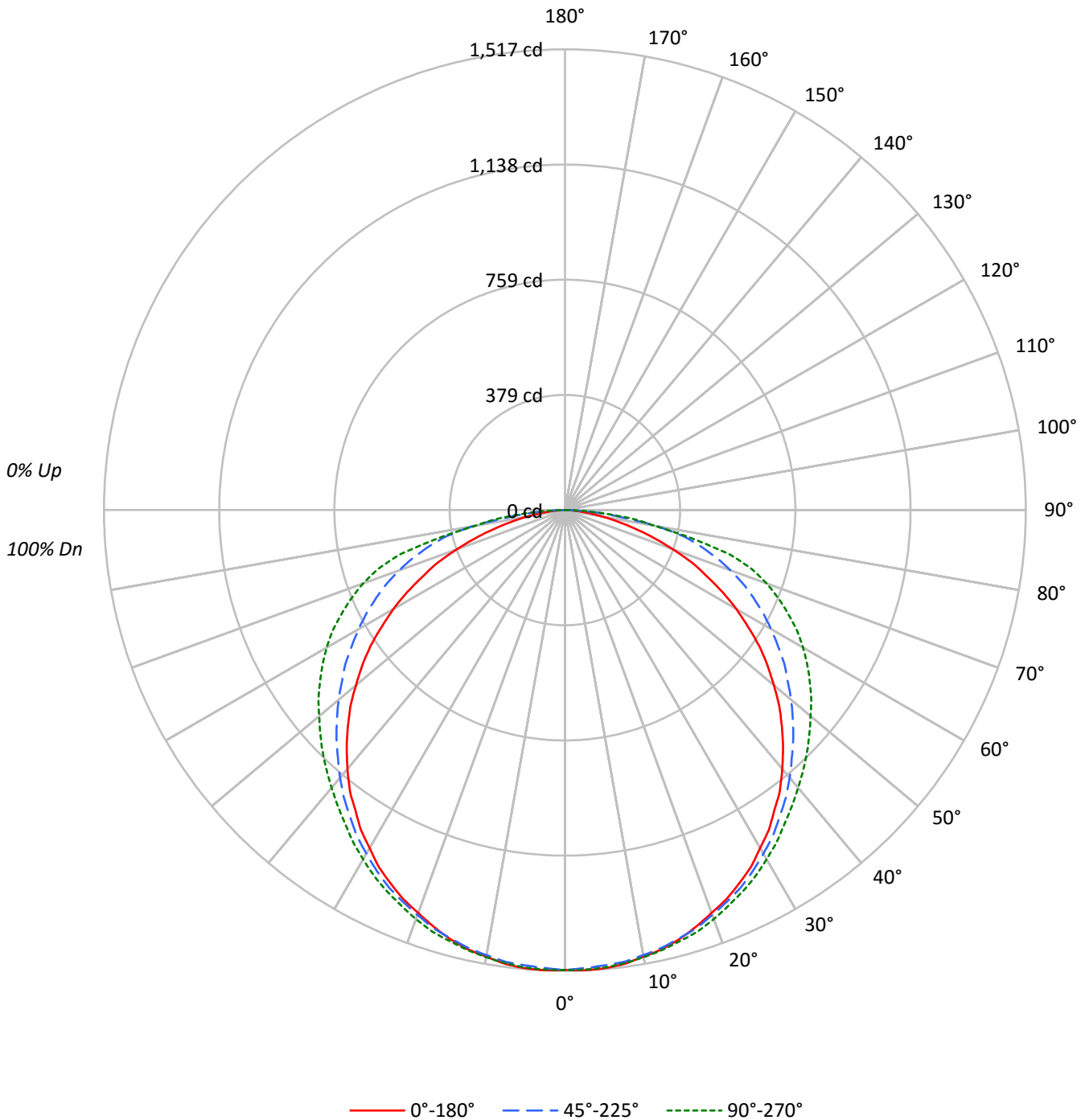
Lumens per Lamp: N/A  
Luminaire Lumens: 4815.0 lumens  
Efficiency: N/A  
Efficacy: 74.5 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 64.6  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	2037	2037	2037
5°	2045	2032	2042
10°	2039	2033	2043
15°	2036	2033	2046
20°	2021	2031	2052
25°	2014	2035	2056
30°	1996	2030	2063
35°	1977	2024	2071
40°	1955	2022	2097
45°	1922	2022	2145
50°	1880	2035	2210
55°	1832	2067	2308
60°	1755	2108	2436
65°	1642	2182	2585
70°	1494	2283	2781
75°	1266	2408	2905
80°	1000	2424	2350
85°	738	1843	2064



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	143.6	3.0
10°-20°	413.4	8.6
20°-30°	632.1	13.1
30°-40°	772.8	16.0
40°-50°	823.6	17.1
50°-60°	787.5	16.4
60°-70°	667.1	13.9
70°-80°	448.3	9.3
80°-90°	126.5	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°	1189.2	24.7
0°-40°	1961.9	40.7
0°-60°	3573.1	74.2
0°-90°	4815.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4815.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1514	1514	1514	1514	1514	
5°	1514	1512	1505	1512	1512	144
15°	1462	1462	1459	1471	1469	412
25°	1357	1361	1371	1383	1385	625
35°	1204	1213	1232	1256	1261	754
45°	1010	1027	1063	1108	1127	779
55°	781	810	881	950	984	696
65°	516	568	685	776	812	512
75°	244	332	463	542	559	261
85°	48	98	119	129	134	59
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1514.2	1514.2	1514.2	1514.2	1514.2
2.5°	1516.6	1516.6	1509.4	1514.2	1514.2
5°	1514.2	1511.8	1504.6	1511.8	1511.8
7.5°	1507.0	1504.6	1499.9	1507.0	1504.6
10°	1492.7	1492.7	1487.9	1495.1	1495.1
12.5°	1480.7	1478.4	1476.0	1485.5	1483.1
15°	1461.6	1461.6	1459.2	1471.2	1468.8
17.5°	1437.8	1440.1	1442.5	1452.1	1454.5
20°	1411.5	1416.3	1418.6	1433.0	1433.0
22.5°	1387.6	1390.0	1394.8	1409.1	1409.1
25°	1356.6	1361.3	1370.9	1382.8	1385.2
27.5°	1325.5	1327.9	1339.8	1356.6	1358.9
30°	1284.9	1292.1	1306.4	1325.5	1327.9
32.5°	1249.1	1256.2	1273.0	1292.1	1296.8
35°	1203.7	1213.3	1232.4	1256.2	1261.0
37.5°	1163.1	1170.3	1194.1	1220.4	1227.6
40°	1112.9	1127.3	1151.2	1182.2	1194.1
42.5°	1062.8	1077.1	1105.8	1146.4	1160.7
45°	1010.2	1027.0	1062.8	1108.2	1127.3
47.5°	957.7	976.8	1017.4	1070.0	1091.5
50°	898.0	921.9	972.0	1031.7	1055.6
52.5°	840.7	869.3	924.3	991.1	1022.2
55°	781.0	809.6	881.3	950.5	984.0
57.5°	714.1	752.3	831.1	909.9	945.8
60°	652.0	687.8	783.4	869.3	905.2
62.5°	585.1	632.9	735.6	826.4	862.2
65°	515.9	568.4	685.4	776.2	812.0
67.5°	453.8	511.1	635.3	726.0	761.9
70°	379.7	451.4	580.4	671.1	706.9
72.5°	310.5	389.3	523.0	611.4	644.8
75°	243.6	332.0	463.3	542.1	558.9
77.5°	181.5	274.7	401.2	434.7	422.7
80°	129.0	219.7	312.9	296.1	303.3
82.5°	83.6	167.2	193.5	219.7	226.9
85°	47.8	97.9	119.4	129.0	133.7
87.5°	21.5	35.8	47.8	47.8	45.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)