

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: P311821

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-S-CP125-W2A-U-6500K**

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: P311821  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)  
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-S-CP125-W2A-U-6500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB SHEET  
Light Source: (336) 6500K 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**

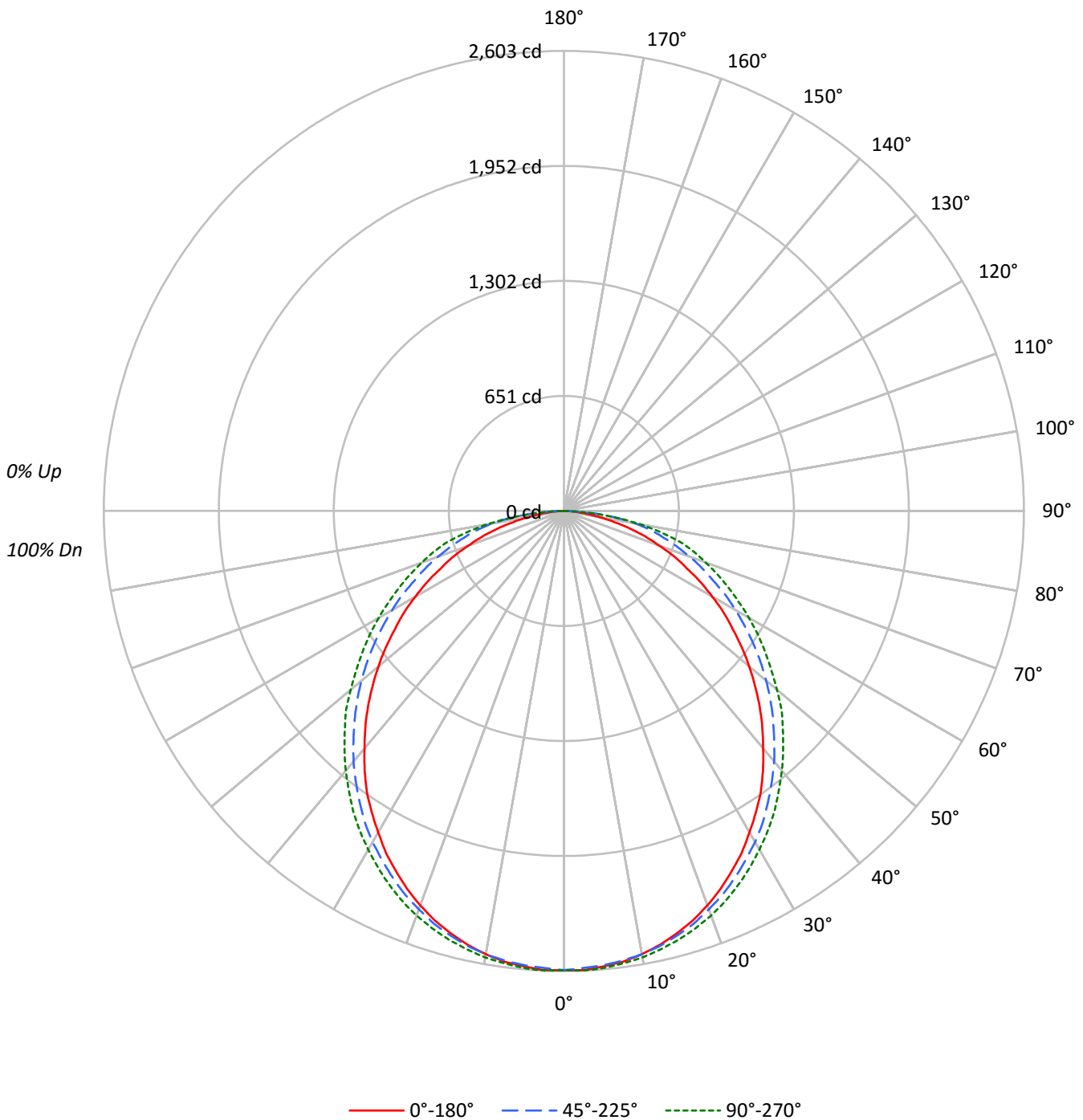
Lumens per Lamp: N/A  
Luminaire Lumens: 7395.0 lumens  
Efficiency: N/A  
Efficacy: 112.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 65.6  
Input Voltage (V): NR  
Input Current (A<sub>in</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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

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

	0°	45°	90°
0°	3495	3495	3495
5°	3493	3483	3506
10°	3479	3479	3504
15°	3445	3462	3498
20°	3400	3434	3488
25°	3337	3400	3466
30°	3262	3361	3438
35°	3191	3306	3411
40°	3082	3251	3371
45°	2981	3187	3334
50°	2866	3127	3294
55°	2738	3069	3262
60°	2611	3021	3255
65°	2445	2969	3275
70°	2264	2985	3364
75°	2027	3041	3553
80°	1638	3222	3476
85°	1233	2828	2756



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	245.9	3.3
10°-20°	702.8	9.5
20°-30°	1056.4	14.3
30°-40°	1258.4	17.0
40°-50°	1287.9	17.4
50°-60°	1159.5	15.7
60°-70°	910.5	12.3
70°-80°	591.0	8.0
80°-90°	182.8	2.5
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°	2005.1	27.1
0°-40°	3263.5	44.1
0°-60°	5710.8	77.2
0°-90°	7395.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7395.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2598	2598	2598	2598	2598	
5°	2586	2591	2579	2593	2596	246
15°	2473	2480	2485	2506	2511	697
25°	2248	2267	2290	2328	2335	1036
35°	1943	1966	2013	2062	2076	1212
45°	1567	1604	1675	1738	1752	1208
55°	1167	1219	1308	1376	1391	1047
65°	768	827	932	1010	1029	765
75°	390	465	585	665	684	413
85°	80	148	183	178	178	96
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2597.9	2597.9	2597.9	2597.9	2597.9
2.5°	2600.3	2600.3	2588.5	2600.3	2602.6
5°	2586.2	2590.9	2579.1	2593.2	2595.6
7.5°	2572.1	2572.1	2565.0	2579.1	2581.5
10°	2546.2	2548.6	2546.2	2562.7	2565.0
12.5°	2513.4	2518.0	2520.4	2536.8	2539.2
15°	2473.4	2480.5	2485.2	2506.3	2511.0
17.5°	2428.8	2435.8	2447.6	2471.1	2475.8
20°	2374.8	2384.2	2398.3	2428.8	2435.8
22.5°	2316.0	2325.4	2348.9	2377.1	2388.9
25°	2247.9	2266.7	2290.2	2327.8	2334.8
27.5°	2179.8	2196.2	2226.8	2266.7	2276.1
30°	2099.9	2125.8	2163.4	2203.3	2212.7
32.5°	2022.4	2048.3	2092.9	2135.2	2146.9
35°	1942.6	1966.1	2013.0	2062.4	2076.5
37.5°	1851.0	1881.5	1933.2	1982.5	1996.6
40°	1754.6	1792.2	1851.0	1902.6	1919.1
42.5°	1663.0	1703.0	1761.7	1818.1	1836.9
45°	1566.7	1604.3	1674.8	1738.2	1752.3
47.5°	1468.1	1510.4	1585.5	1648.9	1672.4
50°	1369.4	1414.1	1493.9	1559.7	1573.8
52.5°	1270.8	1317.7	1402.3	1472.8	1479.8
55°	1167.4	1219.1	1308.4	1376.5	1390.6
57.5°	1073.5	1118.1	1214.4	1284.9	1301.3
60°	970.1	1019.4	1122.8	1188.6	1209.7
62.5°	871.5	923.1	1031.2	1096.9	1115.7
65°	768.1	826.8	932.5	1010.0	1028.8
67.5°	678.8	735.2	848.0	923.1	941.9
70°	575.5	638.9	758.7	836.2	855.0
72.5°	486.2	552.0	671.8	747.0	775.1
75°	389.9	465.1	584.9	664.7	683.5
77.5°	296.0	382.9	505.0	566.1	566.1
80°	211.4	303.0	415.8	443.9	448.6
82.5°	138.6	227.8	307.7	305.4	305.4
85°	79.9	148.0	183.2	178.5	178.5
87.5°	30.5	61.1	65.8	65.8	63.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)