

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: P314523

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-S-CA125-W2A-U-4500K**

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: P314523  
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-L83050-S-CA125-W2A-U-4500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET  
Light Source: (336) 4500K 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**

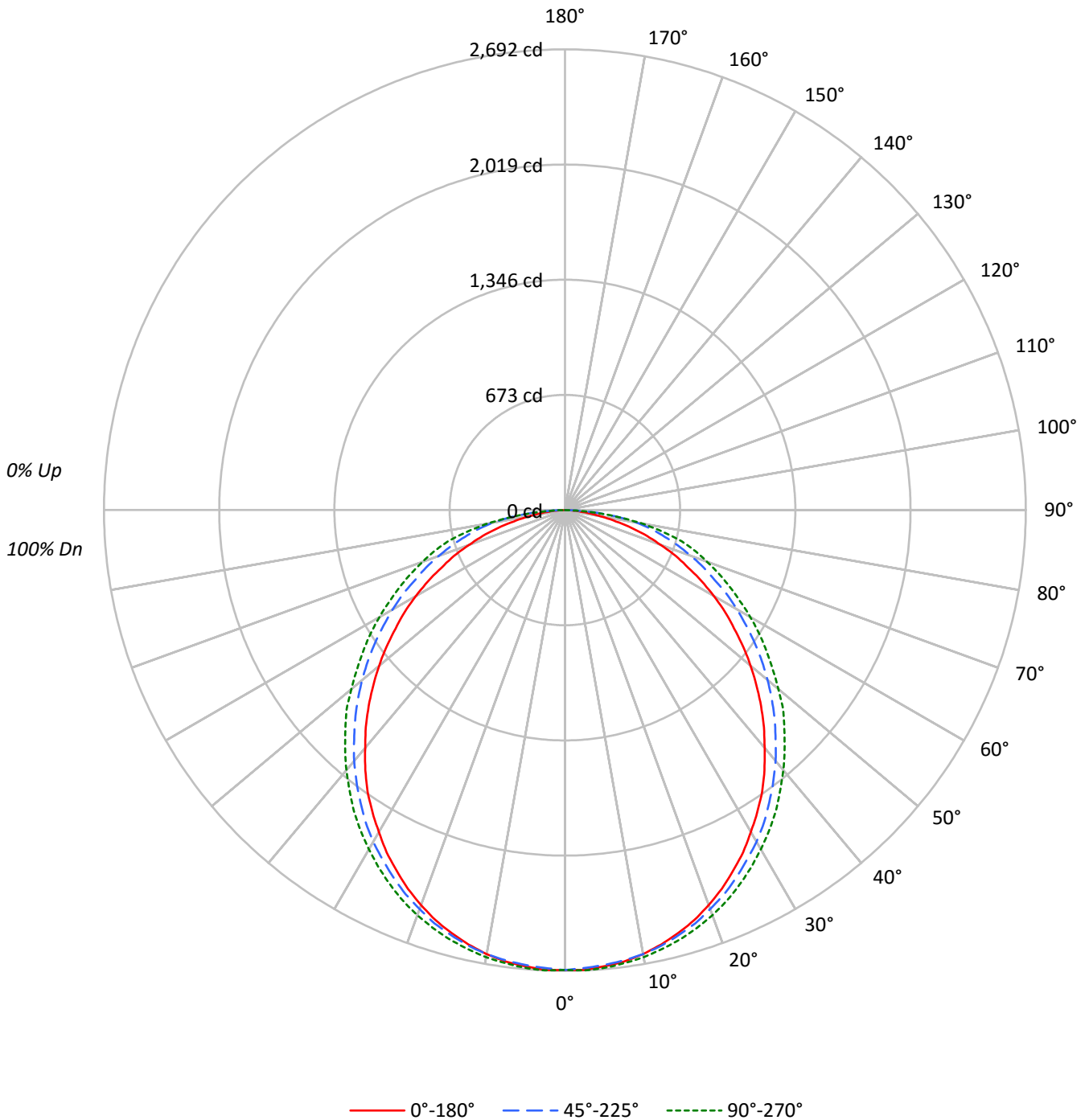
Lumens per Lamp: N/A  
Luminaire Lumens: 7649.0 lumens  
Efficiency: N/A  
Efficacy: 116.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.27 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 65.9  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	3615	3615	3615
5°	3613	3603	3626
10°	3598	3598	3625
15°	3564	3581	3618
20°	3517	3552	3608
25°	3452	3517	3585
30°	3375	3477	3556
35°	3300	3420	3528
40°	3188	3363	3486
45°	3084	3296	3449
50°	2965	3234	3407
55°	2833	3175	3374
60°	2700	3125	3367
65°	2529	3071	3388
70°	2342	3087	3479
75°	2097	3145	3675
80°	1695	3332	3596
85°	1275	2925	2851



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	254.4	3.3
10°-20°	726.9	9.5
20°-30°	1092.7	14.3
30°-40°	1301.6	17.0
40°-50°	1332.1	17.4
50°-60°	1199.3	15.7
60°-70°	941.8	12.3
70°-80°	611.3	8.0
80°-90°	189.0	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°	2074.0	27.1
0°-40°	3375.5	44.1
0°-60°	5906.9	77.2
0°-90°	7649.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7649.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2687	2687	2687	2687	2687	
5°	2675	2680	2668	2682	2685	254
15°	2558	2566	2570	2592	2597	721
25°	2325	2345	2369	2408	2415	1071
35°	2009	2034	2082	2133	2148	1253
45°	1620	1659	1732	1798	1812	1249
55°	1208	1261	1353	1424	1438	1083
65°	794	855	965	1045	1064	791
75°	403	481	605	688	707	427
85°	83	153	190	185	185	100
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2687.1	2687.1	2687.1	2687.1	2687.1
2.5°	2689.6	2689.6	2677.4	2689.6	2692.0
5°	2675.0	2679.9	2667.7	2682.3	2684.7
7.5°	2660.4	2660.4	2653.1	2667.7	2670.1
10°	2633.7	2636.1	2633.7	2650.7	2653.1
12.5°	2599.7	2604.5	2607.0	2624.0	2626.4
15°	2558.4	2565.7	2570.5	2592.4	2597.2
17.5°	2512.2	2519.5	2531.6	2555.9	2560.8
20°	2456.3	2466.0	2480.6	2512.2	2519.5
22.5°	2395.6	2405.3	2429.6	2458.8	2470.9
25°	2325.1	2344.6	2368.9	2407.7	2415.0
27.5°	2254.7	2271.7	2303.3	2344.6	2354.3
30°	2172.1	2198.8	2237.7	2279.0	2288.7
32.5°	2091.9	2118.6	2164.8	2208.5	2220.7
35°	2009.3	2033.6	2082.2	2133.2	2147.8
37.5°	1914.5	1946.1	1999.6	2050.6	2065.2
40°	1814.9	1853.8	1914.5	1968.0	1985.0
42.5°	1720.2	1761.5	1822.2	1880.5	1900.0
45°	1620.5	1659.4	1732.3	1797.9	1812.5
47.5°	1518.5	1562.2	1640.0	1705.6	1729.9
50°	1416.5	1462.6	1545.2	1613.3	1627.8
52.5°	1314.4	1363.0	1450.5	1523.4	1530.7
55°	1207.5	1261.0	1353.3	1423.7	1438.3
57.5°	1110.3	1156.5	1256.1	1329.0	1346.0
60°	1003.4	1054.4	1161.4	1229.4	1251.2
62.5°	901.4	954.8	1066.6	1134.6	1154.1
65°	794.5	855.2	964.6	1044.7	1064.2
67.5°	702.2	760.5	877.1	954.8	974.3
70°	595.3	660.9	784.8	864.9	884.4
72.5°	502.9	571.0	694.9	772.6	801.8
75°	403.3	481.1	605.0	687.6	707.0
77.5°	306.1	396.0	522.4	585.5	585.5
80°	218.7	313.4	430.0	459.2	464.1
82.5°	143.3	235.7	318.3	315.8	315.8
85°	82.6	153.1	189.5	184.7	184.7
87.5°	31.6	63.2	68.0	68.0	65.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)