

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: P314526

Luminaire Tested: **24FCZ2-75HE-UNV-L83050-S-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: P314526  
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-CP125-W2A-U-3500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH 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**

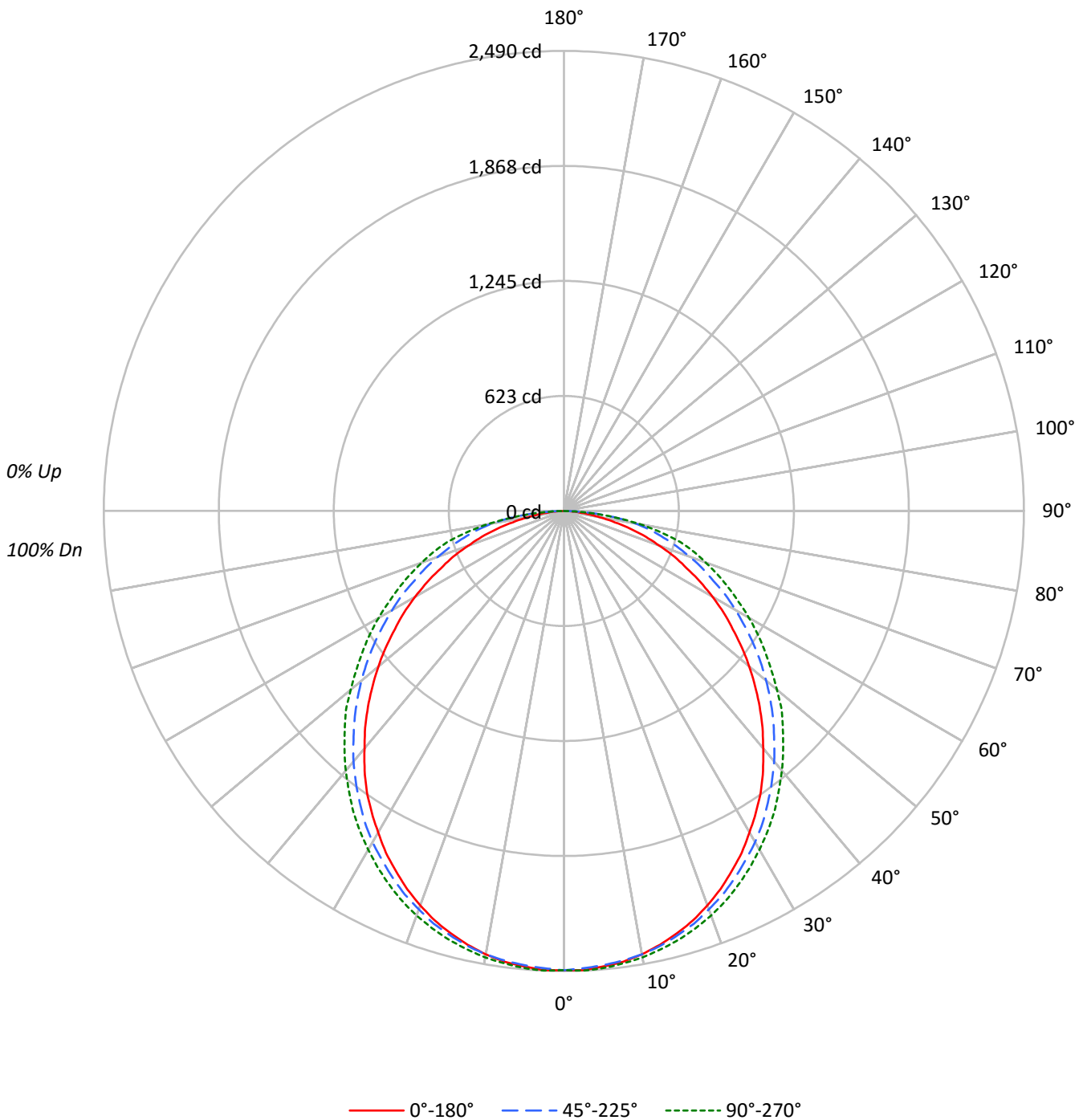
Lumens per Lamp: N/A  
Luminaire Lumens: 7075.0 lumens  
Efficiency: N/A  
Efficacy: 112.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 62.8  
Input Voltage (V): NR  
Input Current (A<sub>in</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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CATALOG NUMBER: 24FC22-75HE-UNV-L83050-S-CP125-W2A-U-3500K

**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°	3344	3344	3344
5°	3342	3333	3354
10°	3328	3328	3353
15°	3296	3312	3346
20°	3253	3285	3337
25°	3193	3253	3316
30°	3121	3216	3289
35°	3053	3163	3263
40°	2948	3110	3225
45°	2852	3049	3190
50°	2743	2992	3152
55°	2620	2936	3121
60°	2497	2891	3115
65°	2340	2840	3134
70°	2166	2856	3218
75°	1939	2909	3400
80°	1567	3082	3326
85°	1179	2706	2637



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	235.3	3.3
10°-20°	672.3	9.5
20°-30°	1010.7	14.3
30°-40°	1203.9	17.0
40°-50°	1232.1	17.4
50°-60°	1109.3	15.7
60°-70°	871.1	12.3
70°-80°	565.4	8.0
80°-90°	174.9	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°	1918.3	27.1
0°-40°	3122.2	44.1
0°-60°	5463.6	77.2
0°-90°	7075.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7075.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2486	2486	2486	2486	2486	
5°	2474	2479	2468	2481	2483	235
15°	2366	2373	2378	2398	2402	667
25°	2151	2169	2191	2227	2234	991
35°	1858	1881	1926	1973	1987	1159
45°	1499	1535	1602	1663	1676	1156
55°	1117	1166	1252	1317	1330	1001
65°	735	791	892	966	984	732
75°	373	445	560	636	654	395
85°	76	142	175	171	171	92
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2485.5	2485.5	2485.5	2485.5	2485.5
2.5°	2487.7	2487.7	2476.5	2487.7	2490.0
5°	2474.3	2478.8	2467.5	2481.0	2483.2
7.5°	2460.8	2460.8	2454.0	2467.5	2469.8
10°	2436.1	2438.3	2436.1	2451.8	2454.0
12.5°	2404.6	2409.1	2411.3	2427.1	2429.3
15°	2366.4	2373.1	2377.6	2397.8	2402.3
17.5°	2323.7	2330.4	2341.7	2364.1	2368.6
20°	2272.0	2281.0	2294.5	2323.7	2330.4
22.5°	2215.8	2224.8	2247.3	2274.2	2285.5
25°	2150.6	2168.6	2191.1	2227.1	2233.8
27.5°	2085.5	2101.2	2130.4	2168.6	2177.6
30°	2009.1	2033.8	2069.7	2108.0	2116.9
32.5°	1934.9	1959.6	2002.3	2042.8	2054.0
35°	1858.5	1881.0	1925.9	1973.1	1986.6
37.5°	1770.9	1800.1	1849.5	1896.7	1910.2
40°	1678.7	1714.7	1770.9	1820.3	1836.0
42.5°	1591.1	1629.3	1685.5	1739.4	1757.4
45°	1498.9	1534.9	1602.3	1663.0	1676.5
47.5°	1404.6	1445.0	1516.9	1577.6	1600.1
50°	1310.2	1352.9	1429.3	1492.2	1505.7
52.5°	1215.8	1260.7	1341.6	1409.0	1415.8
55°	1116.9	1166.3	1251.7	1316.9	1330.4
57.5°	1027.0	1069.7	1161.8	1229.3	1245.0
60°	928.1	975.3	1074.2	1137.1	1157.4
62.5°	833.7	883.2	986.6	1049.5	1067.5
65°	734.9	791.0	892.2	966.3	984.3
67.5°	649.5	703.4	811.3	883.2	901.2
70°	550.6	611.3	725.9	800.0	818.0
72.5°	465.2	528.1	642.7	714.6	741.6
75°	373.0	445.0	559.6	636.0	654.0
77.5°	283.2	366.3	483.2	541.6	541.6
80°	202.3	289.9	397.8	424.7	429.2
82.5°	132.6	218.0	294.4	292.1	292.1
85°	76.4	141.6	175.3	170.8	170.8
87.5°	29.2	58.4	62.9	62.9	60.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)