

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: P311130

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-CA125-W2A-U-3000K**

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: P311130  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)  
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-CA125-W2A-U-3000K  
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC SHEET  
Light Source: (336) 3000K 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**

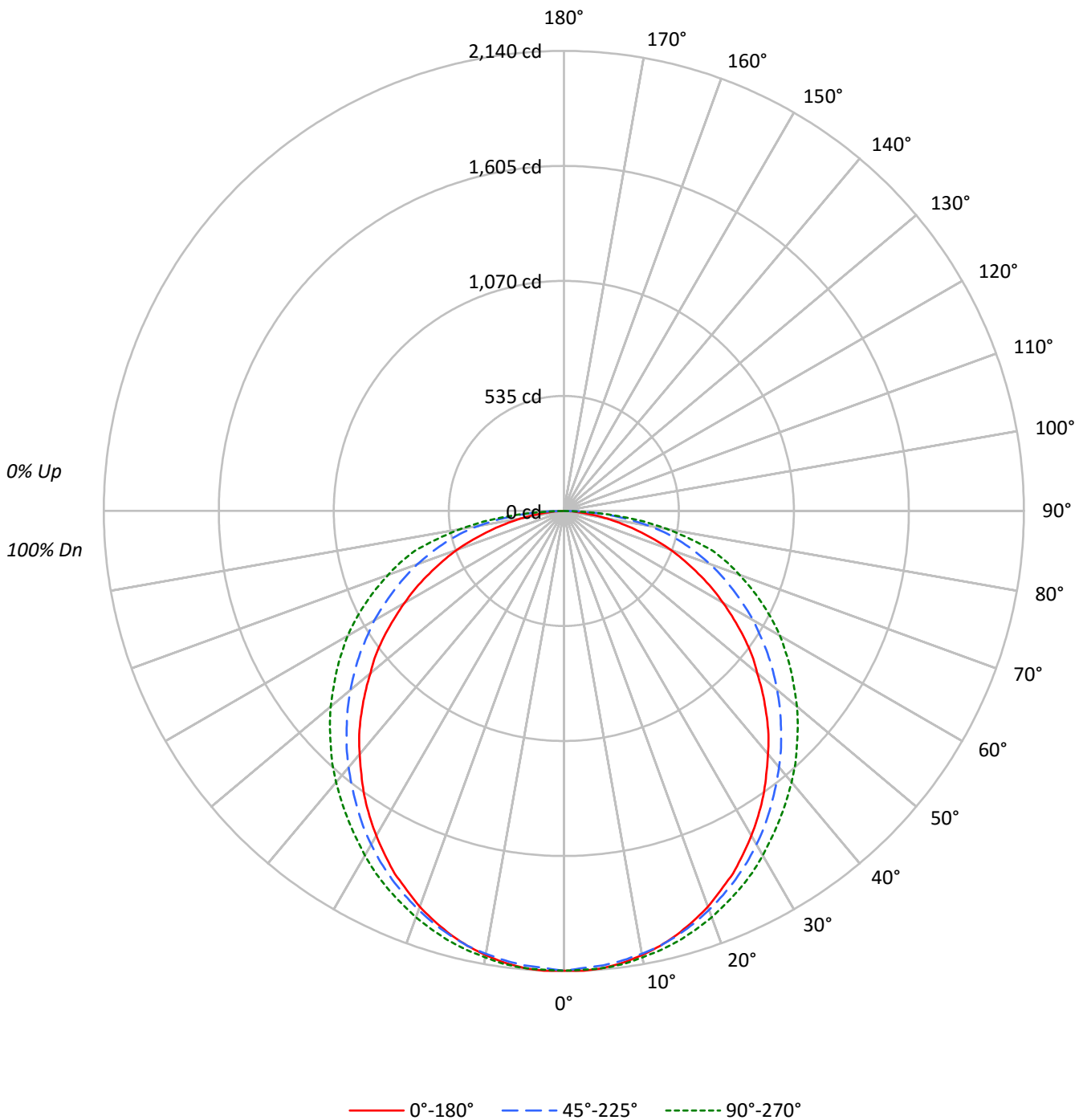
Lumens per Lamp: N/A  
Luminaire Lumens: 6484.0 lumens  
Efficiency: N/A  
Efficacy: 103.9 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 62.4  
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-L82765-CA125-W2A-U-3000K

**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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	108	103	98	94	105	100	96	92	96	92	89	92	89	87	88	86	84	82				82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67				67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56				56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47				47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41				41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36				36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31				31
8	59	45	37	31	57	45	36	30	43	36	30	42	35	30	41	34	30	28				28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25				25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23				23

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

	0°	45°	90°
0°	2877	2877	2877
5°	2882	2865	2882
10°	2866	2857	2880
15°	2841	2847	2883
20°	2806	2828	2880
25°	2763	2807	2878
30°	2711	2784	2874
35°	2657	2756	2876
40°	2596	2736	2894
45°	2534	2718	2919
50°	2459	2711	2963
55°	2397	2715	3023
60°	2304	2738	3126
65°	2199	2767	3240
70°	2082	2852	3419
75°	1856	2975	3735
80°	1584	3150	3817
85°	1129	3122	3653



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	202.4	3.1
10°-20°	578.7	8.9
20°-30°	874.0	13.5
30°-40°	1053.4	16.2
40°-50°	1105.9	17.1
50°-60°	1034.6	16.0
60°-70°	854.4	13.2
70°-80°	582.2	9.0
80°-90°	198.5	3.1
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°	1655.0	25.5
0°-40°	2708.4	41.8
0°-60°	4848.9	74.8
0°-90°	6484.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6484.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2138	2138	2138	2138	2138	
5°	2134	2132	2121	2134	2134	202
15°	2039	2042	2044	2065	2070	575
25°	1861	1870	1891	1928	1938	856
35°	1618	1635	1678	1734	1751	1011
45°	1332	1360	1428	1506	1534	1027
55°	1022	1063	1157	1252	1289	912
65°	691	749	869	979	1018	685
75°	357	439	572	680	718	381
85°	73	144	202	228	237	92
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2138.4	2138.4	2138.4	2138.4	2138.4
2.5°	2140.5	2138.4	2127.6	2138.4	2136.2
5°	2134.1	2131.9	2121.2	2134.1	2134.1
7.5°	2119.0	2119.0	2108.2	2123.3	2125.5
10°	2097.5	2097.5	2091.0	2108.2	2108.2
12.5°	2071.7	2071.7	2071.7	2088.9	2091.0
15°	2039.4	2041.6	2043.7	2065.2	2069.5
17.5°	2000.7	2005.0	2011.4	2037.3	2041.6
20°	1959.8	1964.1	1974.9	2005.0	2011.4
22.5°	1908.2	1918.9	1934.0	1968.4	1974.9
25°	1860.9	1869.5	1891.0	1927.5	1938.3
27.5°	1802.8	1815.7	1843.6	1882.4	1897.4
30°	1744.7	1757.6	1792.0	1837.2	1850.1
32.5°	1682.3	1701.7	1738.2	1785.6	1800.6
35°	1617.8	1635.0	1678.0	1733.9	1751.1
37.5°	1546.8	1570.4	1617.8	1678.0	1699.5
40°	1477.9	1503.7	1557.5	1622.1	1647.9
42.5°	1409.1	1434.9	1495.1	1568.3	1594.1
45°	1331.6	1359.6	1428.4	1505.9	1533.9
47.5°	1254.2	1288.6	1363.9	1445.7	1475.8
50°	1174.6	1213.3	1295.1	1381.1	1415.5
52.5°	1103.6	1140.2	1226.2	1318.7	1351.0
55°	1021.9	1062.7	1157.4	1252.0	1288.6
57.5°	938.0	983.1	1084.2	1187.5	1224.1
60°	856.2	905.7	1017.6	1120.8	1161.7
62.5°	776.6	826.1	942.3	1049.8	1090.7
65°	690.6	748.6	869.1	978.8	1017.6
67.5°	608.8	671.2	798.1	905.7	944.4
70°	529.2	589.4	725.0	830.4	869.1
72.5°	443.2	512.0	647.5	757.2	798.1
75°	357.1	438.9	572.2	679.8	718.5
77.5°	277.5	361.4	494.8	583.0	602.4
80°	204.4	290.4	406.6	469.0	492.6
82.5°	131.2	217.3	309.8	355.0	374.3
85°	73.1	144.1	202.2	228.0	236.6
87.5°	30.1	62.4	81.7	92.5	92.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)