

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: P311819

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-S-CP125-W2A-U-5500K**

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: P311819
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-5500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB SHEET
Light Source: (336) 5500K 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

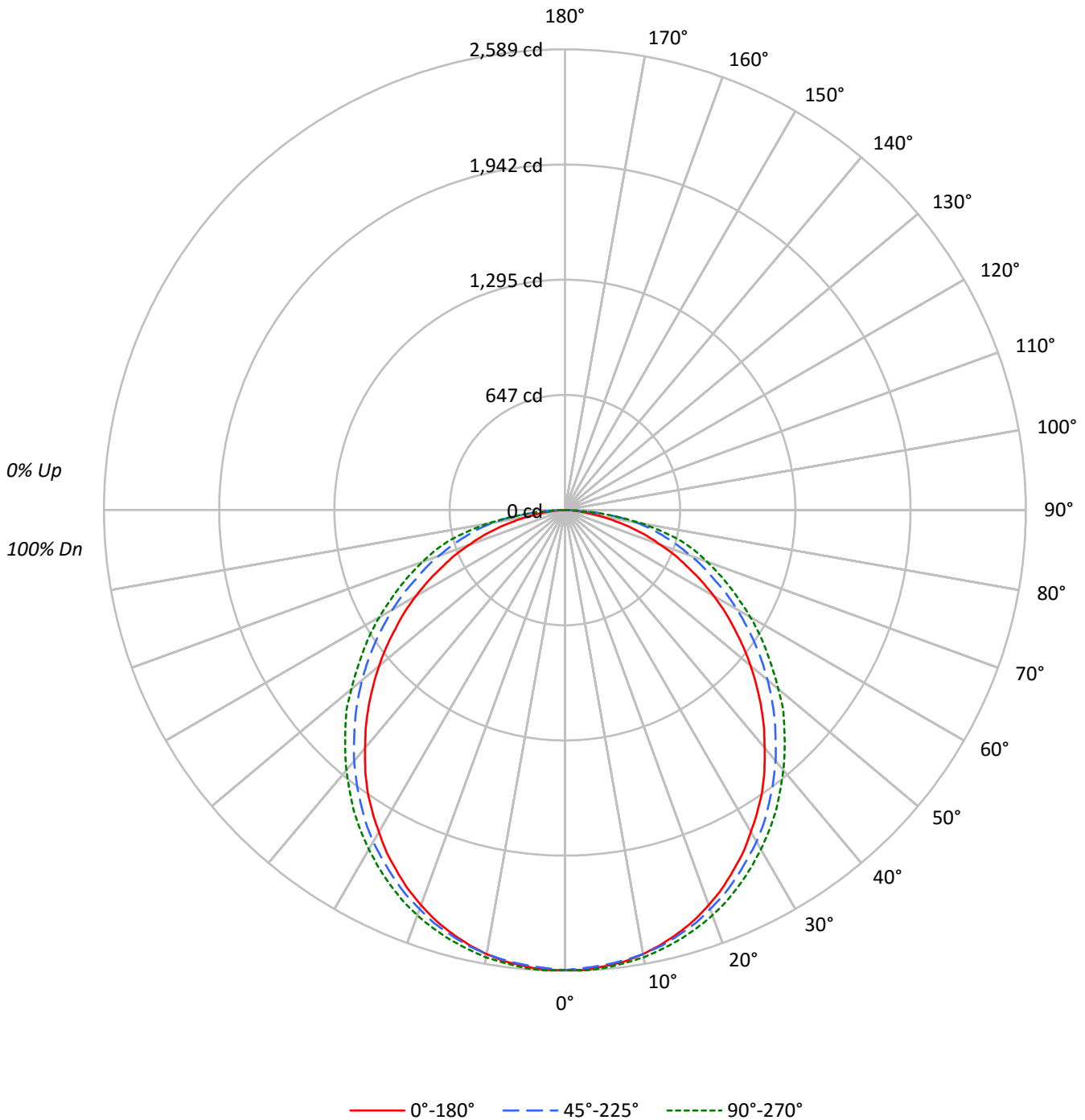
Lumens per Lamp: N/A
Luminaire Lumens: 7357.0 lumens
Efficiency: N/A
Efficacy: 113.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 64.6
Input Voltage (V): NR
Input Current (A_{in}): 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-S-CP125-W2A-U-5500K

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°	3478	3478	3478
5°	3475	3466	3488
10°	3461	3461	3486
15°	3428	3444	3480
20°	3383	3416	3470
25°	3320	3382	3448
30°	3246	3344	3420
35°	3174	3290	3393
40°	3066	3234	3353
45°	2966	3170	3317
50°	2852	3111	3277
55°	2724	3053	3245
60°	2597	3006	3239
65°	2433	2954	3259
70°	2252	2969	3346
75°	2017	3025	3535
80°	1629	3205	3458
85°	1227	2814	2742



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	244.7	3.3
10°-20°	699.1	9.5
20°-30°	1051.0	14.3
30°-40°	1251.9	17.0
40°-50°	1281.2	17.4
50°-60°	1153.5	15.7
60°-70°	905.9	12.3
70°-80°	587.9	8.0
80°-90°	181.8	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°	1994.8	27.1
0°-40°	3246.7	44.1
0°-60°	5681.4	77.2
0°-90°	7357.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7357.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2585	2585	2585	2585	2585	
5°	2573	2578	2566	2580	2582	244
15°	2461	2468	2472	2493	2498	694
25°	2236	2255	2278	2316	2323	1030
35°	1933	1956	2003	2052	2066	1206
45°	1559	1596	1666	1729	1743	1202
55°	1161	1213	1302	1369	1383	1041
65°	764	823	928	1005	1024	761
75°	388	463	582	661	680	410
85°	80	147	182	178	178	96
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2584.6	2584.6	2584.6	2584.6	2584.6
2.5°	2586.9	2586.9	2575.2	2586.9	2589.2
5°	2572.9	2577.6	2565.9	2579.9	2582.2
7.5°	2558.9	2558.9	2551.8	2565.9	2568.2
10°	2533.2	2535.5	2533.2	2549.5	2551.8
12.5°	2500.4	2505.1	2507.4	2523.8	2526.1
15°	2460.7	2467.7	2472.4	2493.4	2498.1
17.5°	2416.3	2423.3	2435.0	2458.4	2463.0
20°	2362.6	2371.9	2385.9	2416.3	2423.3
22.5°	2304.1	2313.5	2336.9	2364.9	2376.6
25°	2236.4	2255.1	2278.4	2315.8	2322.8
27.5°	2168.6	2185.0	2215.3	2255.1	2264.4
30°	2089.1	2114.9	2152.2	2192.0	2201.3
32.5°	2012.0	2037.7	2082.1	2124.2	2135.9
35°	1932.6	1955.9	2002.7	2051.8	2065.8
37.5°	1841.4	1871.8	1923.2	1972.3	1986.3
40°	1745.6	1783.0	1841.4	1892.9	1909.2
42.5°	1654.5	1694.2	1752.6	1808.7	1827.4
45°	1558.7	1596.1	1666.2	1729.3	1743.3
47.5°	1460.5	1502.6	1577.4	1640.5	1663.8
50°	1362.4	1406.8	1486.2	1551.7	1565.7
52.5°	1264.2	1311.0	1395.1	1465.2	1472.2
55°	1161.4	1212.8	1301.6	1369.4	1383.4
57.5°	1067.9	1112.3	1208.2	1278.3	1294.6
60°	965.1	1014.2	1117.0	1182.4	1203.5
62.5°	867.0	918.4	1025.9	1091.3	1110.0
65°	764.2	822.6	927.7	1004.8	1023.5
67.5°	675.4	731.4	843.6	918.4	937.1
70°	572.5	635.6	754.8	831.9	850.6
72.5°	483.7	549.2	668.3	743.1	771.2
75°	387.9	462.7	581.9	661.3	680.0
77.5°	294.4	380.9	502.4	563.2	563.2
80°	210.3	301.5	413.6	441.7	446.3
82.5°	137.9	226.7	306.1	303.8	303.8
85°	79.5	147.2	182.3	177.6	177.6
87.5°	30.4	60.8	65.4	65.4	63.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)