

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: P311812

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-S-CA125-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: P311812
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-CA125-W2A-U-6500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC 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: 7542.0 lumens
Efficiency: N/A
Efficacy: 115.0 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

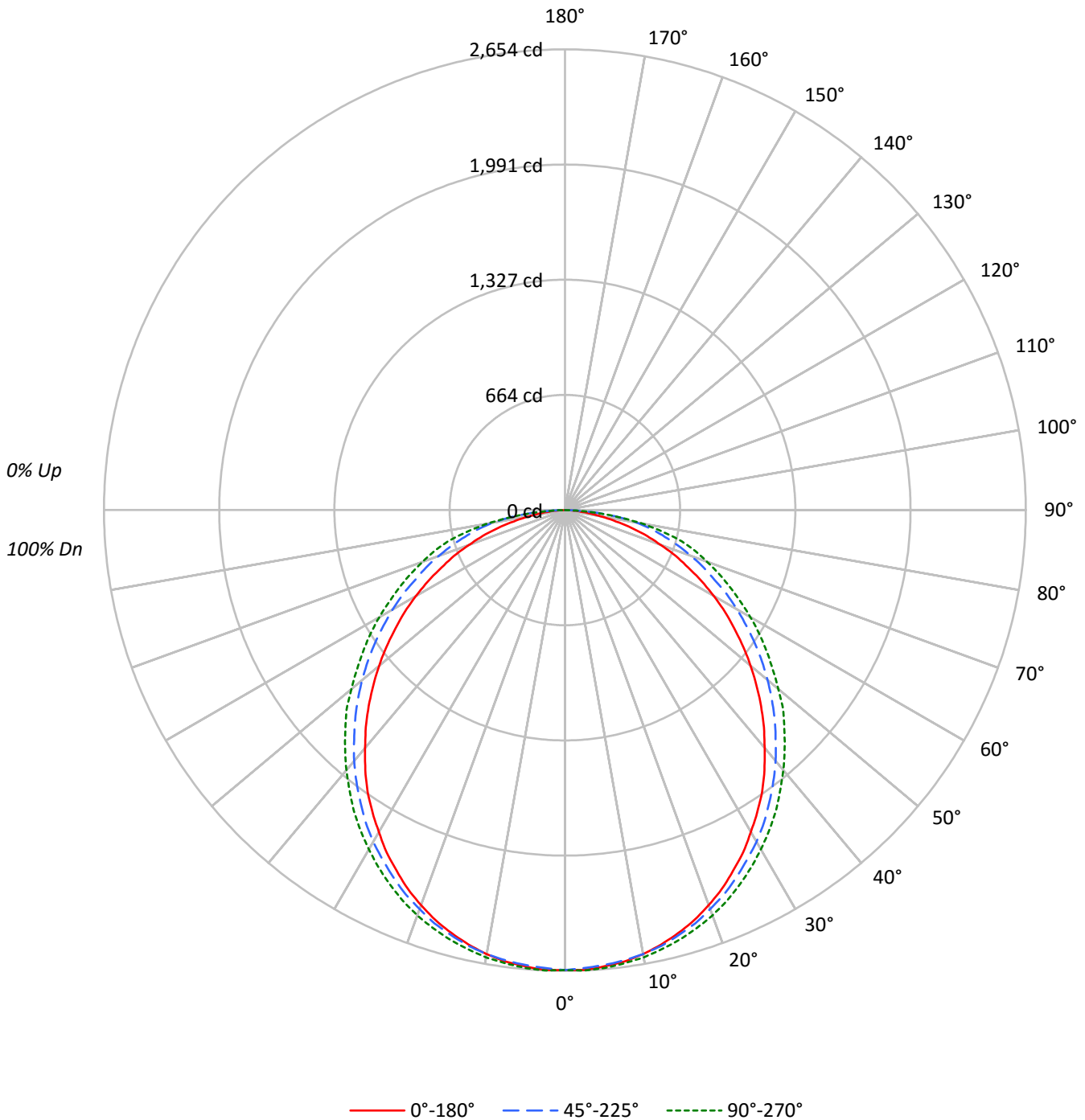
Input Watts (W): 65.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P311812

CATALOG NUMBER: 24FC22-75HE-UNV-L82765-S-CA125-W2A-U-6500K

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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83				83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69				69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58				58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49				49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42				42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37				37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33				33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29				29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26				26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24				24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3565	3565	3565
5°	3562	3553	3575
10°	3548	3548	3574
15°	3514	3531	3567
20°	3468	3502	3557
25°	3404	3468	3535
30°	3327	3428	3506
35°	3254	3372	3478
40°	3143	3316	3438
45°	3040	3250	3401
50°	2923	3189	3360
55°	2793	3130	3327
60°	2662	3081	3320
65°	2494	3028	3341
70°	2309	3044	3430
75°	2067	3101	3624
80°	1671	3285	3546
85°	1258	2885	2811



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	250.8	3.3
10°-20°	716.7	9.5
20°-30°	1077.4	14.3
30°-40°	1283.4	17.0
40°-50°	1313.5	17.4
50°-60°	1182.5	15.7
60°-70°	928.6	12.3
70°-80°	602.7	8.0
80°-90°	186.4	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°	2045.0	27.1
0°-40°	3328.3	44.1
0°-60°	5824.3	77.2
0°-90°	7542.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7542.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2650	2650	2650	2650	2650	
5°	2638	2642	2630	2645	2647	251
15°	2523	2530	2535	2556	2561	711
25°	2293	2312	2336	2374	2381	1056
35°	1981	2005	2053	2103	2118	1236
45°	1598	1636	1708	1773	1787	1232
55°	1191	1243	1334	1404	1418	1067
65°	783	843	951	1030	1049	780
75°	398	474	596	678	697	421
85°	82	151	187	182	182	98
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2649.6	2649.6	2649.6	2649.6	2649.6
2.5°	2651.9	2651.9	2640.0	2651.9	2654.3
5°	2637.6	2642.4	2630.4	2644.8	2647.2
7.5°	2623.2	2623.2	2616.0	2630.4	2632.8
10°	2596.9	2599.2	2596.9	2613.6	2616.0
12.5°	2563.3	2568.1	2570.5	2587.3	2589.7
15°	2522.6	2529.8	2534.6	2556.1	2560.9
17.5°	2477.1	2484.3	2496.2	2520.2	2525.0
20°	2422.0	2431.6	2445.9	2477.1	2484.3
22.5°	2362.1	2371.7	2395.6	2424.4	2436.3
25°	2292.6	2311.8	2335.7	2374.1	2381.2
27.5°	2223.1	2239.9	2271.0	2311.8	2321.4
30°	2141.7	2168.0	2206.4	2247.1	2256.7
32.5°	2062.6	2089.0	2134.5	2177.6	2189.6
35°	1981.2	2005.1	2053.0	2103.4	2117.7
37.5°	1887.7	1918.9	1971.6	2021.9	2036.3
40°	1789.5	1827.9	1887.7	1940.5	1957.2
42.5°	1696.1	1736.8	1796.7	1854.2	1873.4
45°	1597.9	1636.2	1708.1	1772.8	1787.1
47.5°	1497.3	1540.4	1617.0	1681.7	1705.7
50°	1396.6	1442.2	1523.6	1590.7	1605.1
52.5°	1296.0	1343.9	1430.2	1502.1	1509.2
55°	1190.6	1243.3	1334.4	1403.8	1418.2
57.5°	1094.8	1140.3	1238.5	1310.4	1327.2
60°	989.4	1039.7	1145.1	1212.2	1233.7
62.5°	888.8	941.5	1051.7	1118.8	1137.9
65°	783.4	843.3	951.1	1030.1	1049.3
67.5°	692.3	749.8	864.8	941.5	960.6
70°	586.9	651.6	773.8	852.8	872.0
72.5°	495.9	563.0	685.1	761.8	790.6
75°	397.7	474.3	596.5	678.0	697.1
77.5°	301.8	390.5	515.1	577.3	577.3
80°	215.6	309.0	424.0	452.8	457.6
82.5°	141.3	232.4	313.8	311.4	311.4
85°	81.5	150.9	186.9	182.1	182.1
87.5°	31.1	62.3	67.1	67.1	64.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)