

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: P309786

Luminaire Tested: **24FCZ2-75HE-UNV-L82765-HRP-CA125-W2A-U-5700K**

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: P309786
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
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-HRP-CA125-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 5700K 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: 5431.0 lumens
Efficiency: N/A
Efficacy: 84.1 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

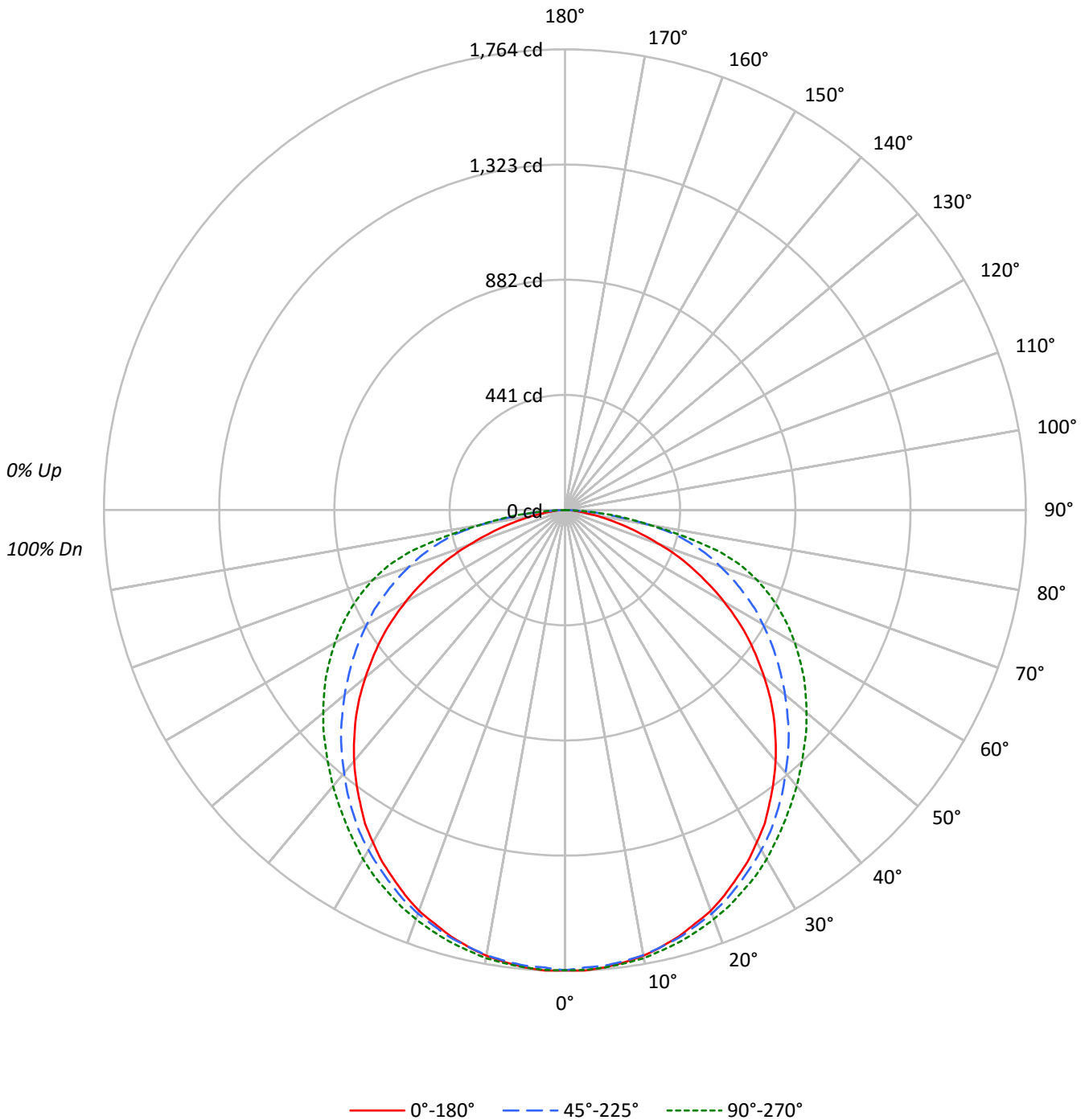
Input Watts (W): 64.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2371	2371	2371
5°	2374	2365	2374
10°	2367	2364	2379
15°	2353	2360	2382
20°	2337	2354	2386
25°	2309	2343	2390
30°	2282	2335	2399
35°	2245	2323	2401
40°	2204	2308	2424
45°	2155	2306	2462
50°	2085	2304	2527
55°	2011	2320	2619
60°	1897	2356	2735
65°	1752	2410	2888
70°	1530	2496	3077
75°	1241	2624	3179
80°	916	2572	2572
85°	702	1896	2141



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.9	3.1
10°-20°	479.3	8.8
20°-30°	729.7	13.4
30°-40°	886.1	16.3
40°-50°	936.2	17.2
50°-60°	883.4	16.3
60°-70°	734.5	13.5
70°-80°	483.2	8.9
80°-90°	131.7	2.4
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°	1376.0	25.3
0°-40°	2262.1	41.7
0°-60°	4081.6	75.2
0°-90°	5431.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5431.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1762	1762	1762	1762	1762	
5°	1758	1758	1751	1758	1758	167
15°	1689	1692	1694	1710	1710	476
25°	1555	1564	1578	1605	1610	717
35°	1366	1382	1414	1451	1462	855
45°	1132	1155	1212	1271	1294	872
55°	857	894	989	1082	1116	763
65°	550	614	757	868	907	544
75°	239	348	505	598	612	257
85°	46	100	123	136	139	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1762.1	1762.1	1762.1	1762.1	1762.1
2.5°	1764.4	1762.1	1753.0	1762.1	1762.1
5°	1757.5	1757.5	1750.7	1757.5	1757.5
7.5°	1746.2	1746.2	1741.6	1750.7	1750.7
10°	1732.5	1732.5	1730.3	1741.6	1741.6
12.5°	1712.1	1714.3	1712.1	1725.7	1725.7
15°	1689.3	1691.6	1693.9	1709.8	1709.8
17.5°	1659.8	1664.3	1668.9	1687.1	1689.3
20°	1632.5	1634.8	1643.9	1664.3	1666.6
22.5°	1596.1	1602.9	1614.3	1634.8	1641.6
25°	1555.2	1564.3	1577.9	1605.2	1609.8
27.5°	1516.5	1523.4	1541.5	1571.1	1580.2
30°	1468.8	1480.2	1502.9	1532.5	1543.8
32.5°	1423.3	1434.7	1462.0	1493.8	1502.9
35°	1366.5	1382.4	1414.2	1450.6	1462.0
37.5°	1311.9	1327.8	1366.5	1407.4	1421.0
40°	1255.1	1273.3	1314.2	1361.9	1380.1
42.5°	1193.7	1218.7	1264.2	1316.5	1336.9
45°	1132.3	1155.0	1211.9	1271.0	1293.7
47.5°	1066.3	1093.6	1155.0	1225.5	1252.8
50°	995.9	1030.0	1100.5	1177.8	1207.3
52.5°	925.4	964.0	1043.6	1130.0	1161.8
55°	857.2	893.6	989.0	1082.3	1116.4
57.5°	782.1	827.6	932.2	1032.2	1066.3
60°	704.8	754.9	875.4	980.0	1016.3
62.5°	627.5	684.4	820.8	925.4	964.0
65°	550.2	613.9	757.1	868.5	907.2
67.5°	475.2	545.7	698.0	809.4	848.1
70°	388.8	477.5	634.4	743.5	782.1
72.5°	309.2	411.5	573.0	675.3	709.4
75°	238.7	347.9	504.8	598.0	611.6
77.5°	175.1	284.2	434.3	466.1	468.4
80°	118.2	227.4	332.0	327.4	332.0
82.5°	77.3	170.5	209.2	234.2	236.5
85°	45.5	100.0	122.8	136.4	138.7
87.5°	22.7	34.1	43.2	45.5	50.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)