

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: P311626

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-S-CA125-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: P311626  
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: 24FCZ2-55HE-UNV-L82765-S-CA125-W2A-U-3500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC 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**

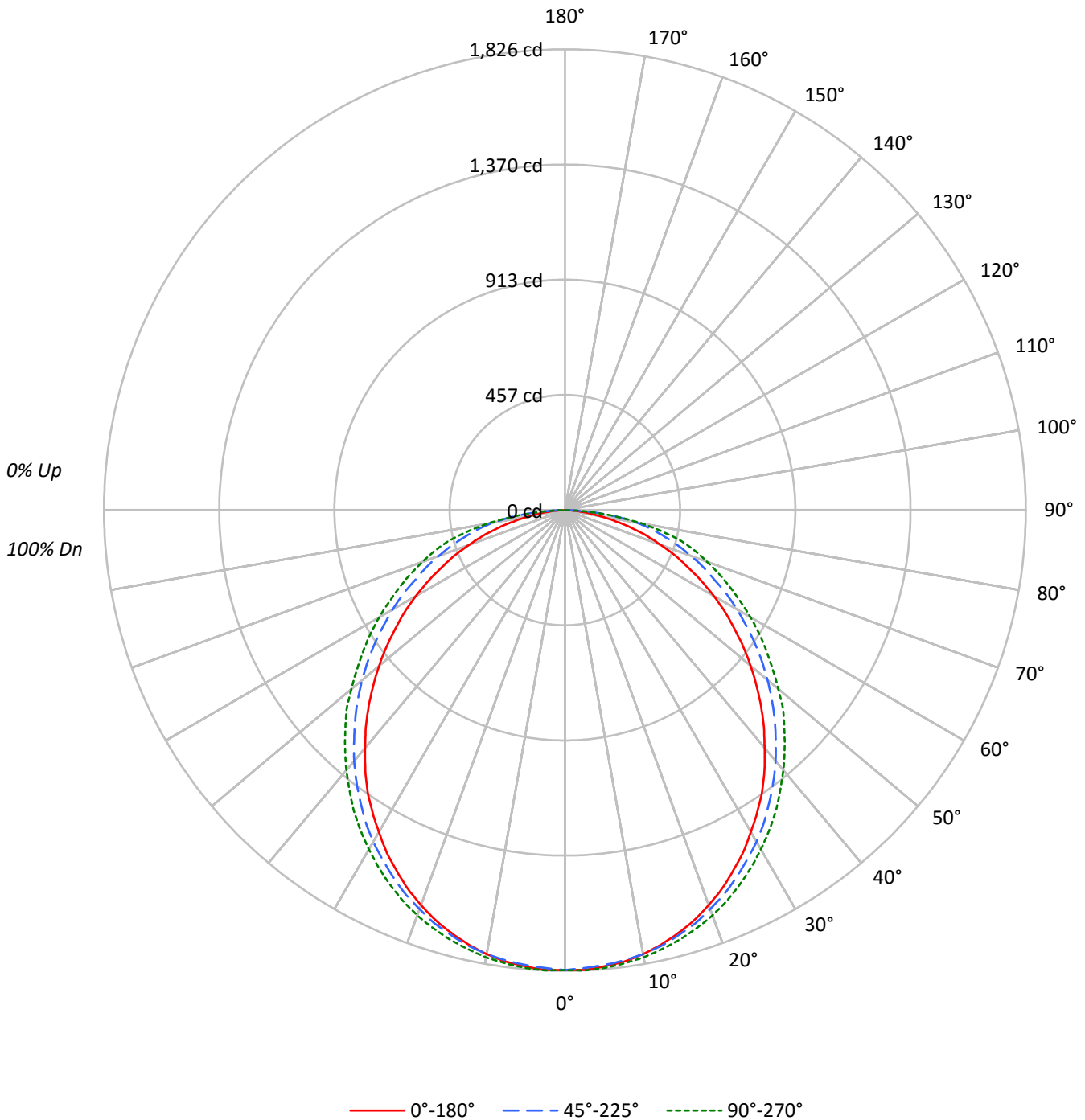
Lumens per Lamp: N/A  
Luminaire Lumens: 5189.0 lumens  
Efficiency: N/A  
Efficacy: 119.8 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.27 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 43.3  
Input Voltage (V): NR  
Input Current (A<sub>in</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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**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°	2453	2453	2453
5°	2451	2444	2460
10°	2441	2441	2459
15°	2418	2429	2454
20°	2386	2410	2447
25°	2342	2386	2432
30°	2289	2358	2412
35°	2239	2320	2393
40°	2162	2281	2365
45°	2092	2236	2340
50°	2011	2194	2312
55°	1922	2154	2289
60°	1832	2120	2284
65°	1716	2083	2298
70°	1589	2094	2360
75°	1422	2133	2493
80°	1149	2260	2439
85°	865	1985	1934



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	172.6	3.3
10°-20°	493.1	9.5
20°-30°	741.3	14.3
30°-40°	883.0	17.0
40°-50°	903.7	17.4
50°-60°	813.6	15.7
60°-70°	638.9	12.3
70°-80°	414.7	8.0
80°-90°	128.3	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°	1406.9	27.1
0°-40°	2289.9	44.1
0°-60°	4007.2	77.2
0°-90°	5189.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5189.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1823	1823	1823	1823	1823	
5°	1815	1818	1810	1820	1821	172
15°	1736	1740	1744	1759	1762	489
25°	1577	1590	1607	1633	1638	727
35°	1363	1380	1412	1447	1457	850
45°	1099	1126	1175	1220	1230	848
55°	819	855	918	966	976	734
65°	539	580	654	709	722	537
75°	274	326	410	466	480	290
85°	56	104	129	125	125	68
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1822.9	1822.9	1822.9	1822.9	1822.9
2.5°	1824.6	1824.6	1816.3	1824.6	1826.2
5°	1814.7	1818.0	1809.7	1819.6	1821.3
7.5°	1804.8	1804.8	1799.9	1809.7	1811.4
10°	1786.7	1788.3	1786.7	1798.2	1799.9
12.5°	1763.6	1766.9	1768.5	1780.1	1781.7
15°	1735.6	1740.5	1743.8	1758.6	1761.9
17.5°	1704.3	1709.2	1717.4	1733.9	1737.2
20°	1666.3	1672.9	1682.8	1704.3	1709.2
22.5°	1625.1	1631.7	1648.2	1668.0	1676.2
25°	1577.3	1590.5	1607.0	1633.4	1638.3
27.5°	1529.5	1541.1	1562.5	1590.5	1597.1
30°	1473.5	1491.6	1518.0	1546.0	1552.6
32.5°	1419.1	1437.2	1468.6	1498.2	1506.5
35°	1363.1	1379.6	1412.5	1447.1	1457.0
37.5°	1298.8	1320.2	1356.5	1391.1	1401.0
40°	1231.2	1257.6	1298.8	1335.1	1346.6
42.5°	1166.9	1195.0	1236.2	1275.7	1288.9
45°	1099.4	1125.7	1175.2	1219.7	1229.6
47.5°	1030.1	1059.8	1112.5	1157.0	1173.5
50°	960.9	992.2	1048.3	1094.4	1104.3
52.5°	891.7	924.7	984.0	1033.4	1038.4
55°	819.2	855.4	918.1	965.9	975.7
57.5°	753.2	784.6	852.1	901.6	913.1
60°	680.7	715.3	787.8	834.0	848.8
62.5°	611.5	647.7	723.6	769.7	782.9
65°	539.0	580.2	654.3	708.7	721.9
67.5°	476.3	515.9	595.0	647.7	660.9
70°	403.8	448.3	532.4	586.8	600.0
72.5°	341.2	387.3	471.4	524.1	543.9
75°	273.6	326.3	410.4	466.4	479.6
77.5°	207.7	268.7	354.4	397.2	397.2
80°	148.3	212.6	291.7	311.5	314.8
82.5°	97.2	159.9	215.9	214.3	214.3
85°	56.0	103.8	128.6	125.3	125.3
87.5°	21.4	42.9	46.2	46.2	44.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)