

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: P314426

Luminaire Tested: **24FCZ2-55HE-UNV-L83050-S-CP125-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: P314426  
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-L83050-S-CP125-W2A-U-3500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB 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**

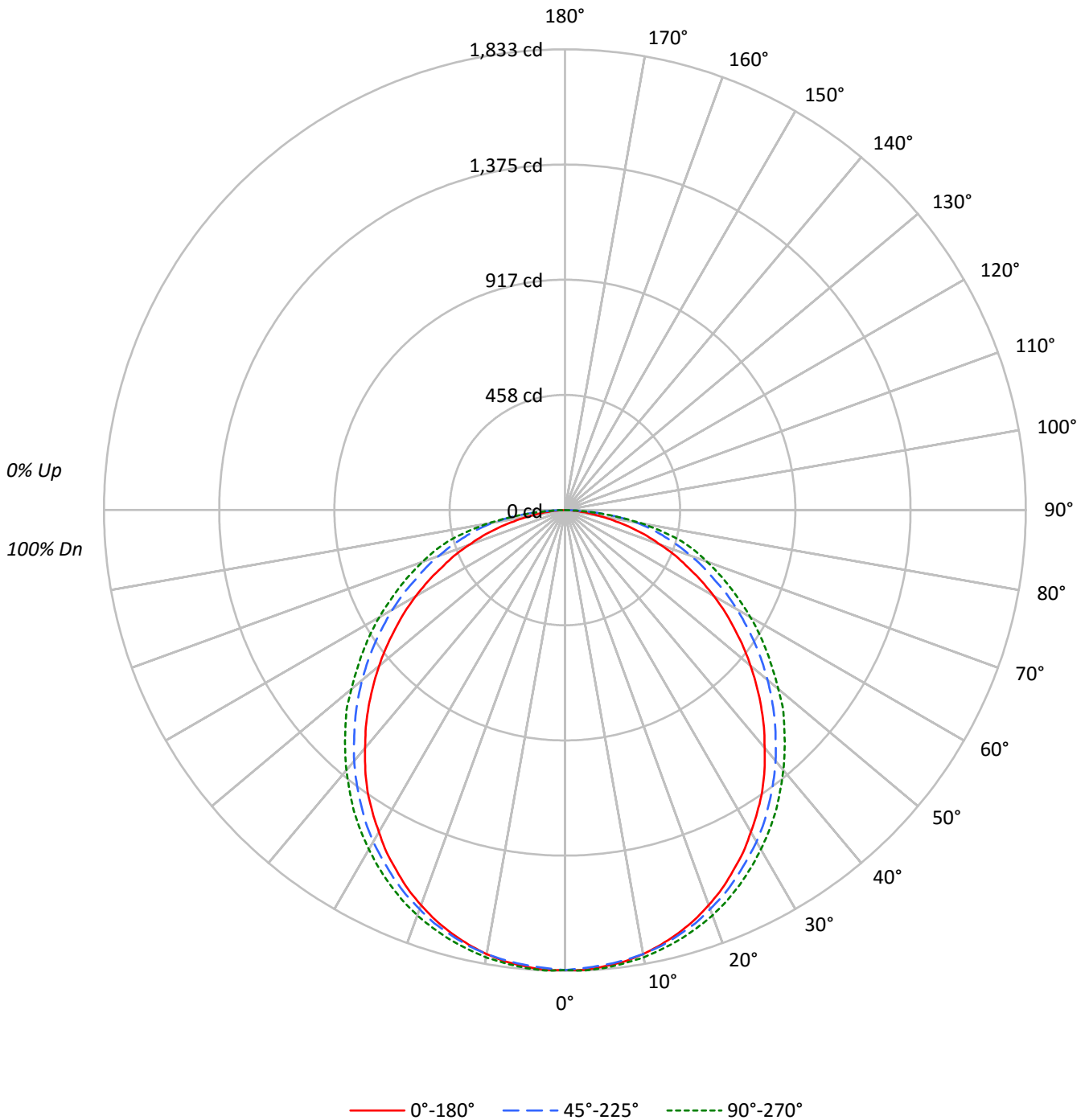
Lumens per Lamp: N/A  
Luminaire Lumens: 5209.0 lumens  
Efficiency: N/A  
Efficacy: 120.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 43.1  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	2462	2462	2462
5°	2460	2454	2469
10°	2450	2450	2469
15°	2427	2438	2464
20°	2395	2419	2457
25°	2351	2395	2442
30°	2298	2368	2421
35°	2247	2329	2402
40°	2171	2290	2374
45°	2100	2245	2349
50°	2019	2203	2321
55°	1929	2162	2298
60°	1839	2128	2293
65°	1722	2091	2307
70°	1595	2102	2369
75°	1428	2142	2503
80°	1154	2269	2448
85°	869	1993	1941



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	173.2	3.3
10°-20°	495.0	9.5
20°-30°	744.1	14.3
30°-40°	886.4	17.0
40°-50°	907.2	17.4
50°-60°	816.7	15.7
60°-70°	641.4	12.3
70°-80°	416.3	8.0
80°-90°	128.7	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°	1412.4	27.1
0°-40°	2298.8	44.1
0°-60°	4022.6	77.2
0°-90°	5209.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5209.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1830	1830	1830	1830	1830	
5°	1822	1825	1817	1827	1828	173
15°	1742	1747	1750	1765	1769	491
25°	1583	1597	1613	1640	1645	729
35°	1368	1385	1418	1453	1463	854
45°	1104	1130	1180	1224	1234	851
55°	822	859	922	970	980	737
65°	541	582	657	712	725	539
75°	275	328	412	468	482	291
85°	56	104	129	126	126	68
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1830.0	1830.0	1830.0	1830.0	1830.0
2.5°	1831.6	1831.6	1823.3	1831.6	1833.3
5°	1821.7	1825.0	1816.7	1826.6	1828.3
7.5°	1811.8	1811.8	1806.8	1816.7	1818.4
10°	1793.6	1795.2	1793.6	1805.1	1806.8
12.5°	1770.4	1773.7	1775.4	1786.9	1788.6
15°	1742.3	1747.2	1750.5	1765.4	1768.7
17.5°	1710.8	1715.8	1724.1	1740.6	1743.9
20°	1672.8	1679.4	1689.3	1710.8	1715.8
22.5°	1631.4	1638.0	1654.6	1674.4	1682.7
25°	1583.4	1596.7	1613.2	1639.7	1644.6
27.5°	1535.4	1547.0	1568.5	1596.7	1603.3
30°	1479.2	1497.4	1523.9	1552.0	1558.6
32.5°	1424.6	1442.8	1474.2	1504.0	1512.3
35°	1368.3	1384.9	1418.0	1452.7	1462.6
37.5°	1303.8	1325.3	1361.7	1396.5	1406.4
40°	1236.0	1262.4	1303.8	1340.2	1351.8
42.5°	1171.4	1199.6	1240.9	1280.6	1293.9
45°	1103.6	1130.1	1179.7	1224.4	1234.3
47.5°	1034.1	1063.9	1116.8	1161.5	1178.1
50°	964.6	996.1	1052.3	1098.6	1108.6
52.5°	895.1	928.2	987.8	1037.4	1042.4
55°	822.3	858.7	921.6	969.6	979.5
57.5°	756.1	787.6	855.4	905.1	916.6
60°	683.3	718.1	790.9	837.2	852.1
62.5°	613.8	650.2	726.4	772.7	785.9
65°	541.0	582.4	656.9	711.5	724.7
67.5°	478.2	517.9	597.3	650.2	663.5
70°	405.4	450.0	534.4	589.0	602.3
72.5°	342.5	388.8	473.2	526.2	546.0
75°	274.7	327.6	412.0	468.2	481.5
77.5°	208.5	269.7	355.7	398.8	398.8
80°	148.9	213.4	292.9	312.7	316.0
82.5°	97.6	160.5	216.7	215.1	215.1
85°	56.3	104.2	129.1	125.7	125.7
87.5°	21.5	43.0	46.3	46.3	44.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)