

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: P314377

Luminaire Tested: **24FCZ2-50HE-UNV-L83050-S-CP125-W2A-U-4000K**

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: P314377  
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: 24FCZ2-50HE-UNV-L83050-S-CP125-W2A-U-4000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" POLYCARB SHEET  
Light Source: (336) 4000K 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: 4953.0 lumens  
Efficiency: N/A  
Efficacy: 126.0 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

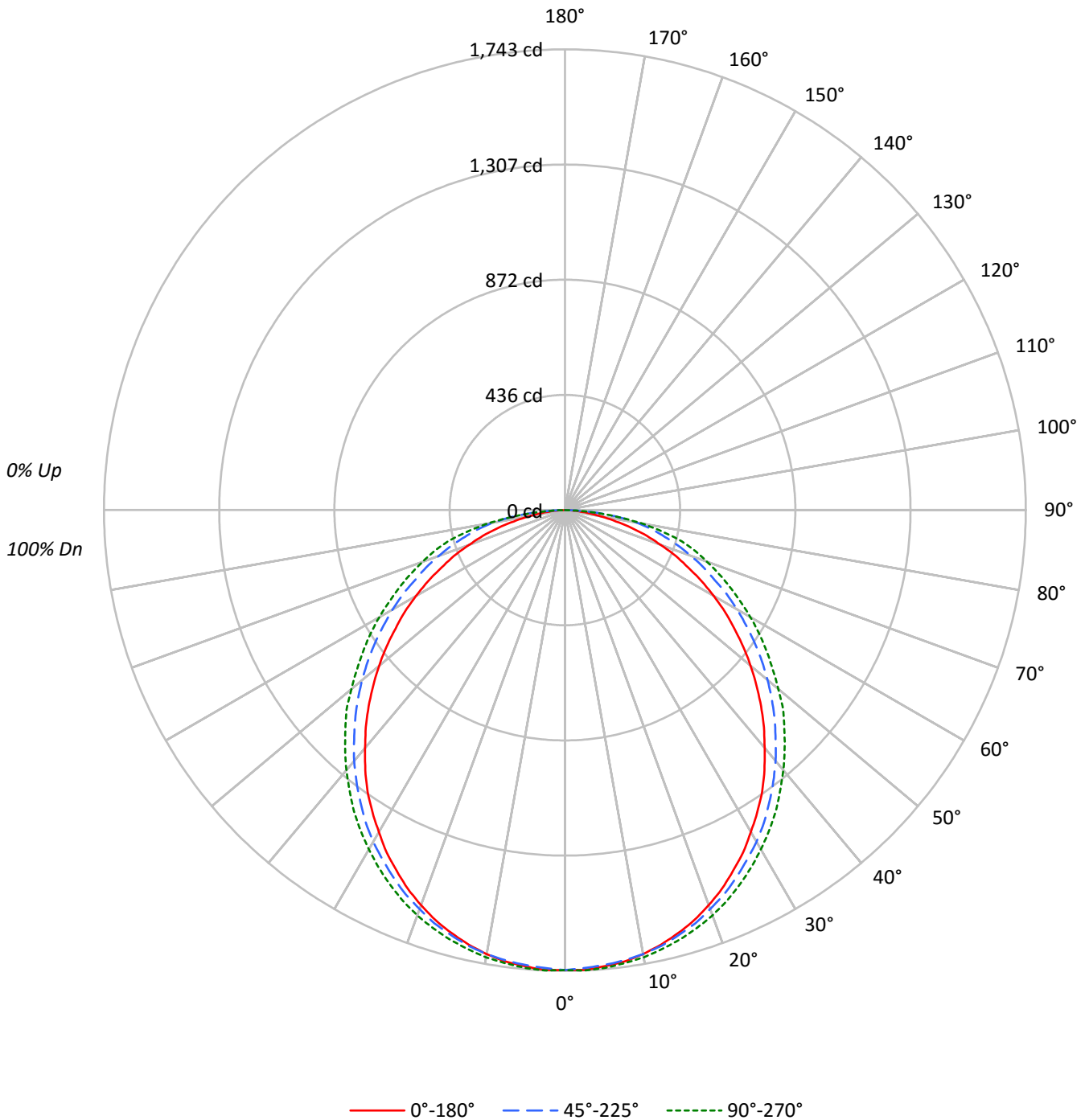
Input Watts (W): 39.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2341	2341	2341
5°	2340	2333	2348
10°	2330	2330	2347
15°	2308	2319	2343
20°	2277	2300	2336
25°	2235	2277	2322
30°	2185	2251	2302
35°	2137	2215	2284
40°	2064	2177	2258
45°	1997	2134	2233
50°	1920	2094	2206
55°	1834	2056	2185
60°	1749	2024	2180
65°	1638	1989	2194
70°	1516	1999	2253
75°	1358	2036	2380
80°	1097	2158	2328
85°	826	1894	1846



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	164.7	3.3
10°-20°	470.7	9.5
20°-30°	707.6	14.3
30°-40°	842.8	17.0
40°-50°	862.6	17.4
50°-60°	776.6	15.7
60°-70°	609.9	12.3
70°-80°	395.8	8.0
80°-90°	122.4	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°	1343.0	27.1
0°-40°	2185.8	44.1
0°-60°	3824.9	77.2
0°-90°	4953.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4953.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1740	1740	1740	1740	1740	
5°	1732	1735	1727	1737	1738	165
15°	1657	1661	1664	1679	1682	467
25°	1506	1518	1534	1559	1564	694
35°	1301	1317	1348	1381	1391	812
45°	1049	1074	1122	1164	1174	809
55°	782	816	876	922	931	701
65°	514	554	625	676	689	512
75°	261	312	392	445	458	276
85°	54	99	123	120	120	65
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1740.0	1740.0	1740.0	1740.0	1740.0
2.5°	1741.6	1741.6	1733.7	1741.6	1743.2
5°	1732.2	1735.3	1727.4	1736.9	1738.4
7.5°	1722.7	1722.7	1718.0	1727.4	1729.0
10°	1705.4	1707.0	1705.4	1716.4	1718.0
12.5°	1683.4	1686.5	1688.1	1699.1	1700.7
15°	1656.6	1661.4	1664.5	1678.7	1681.8
17.5°	1626.7	1631.5	1639.3	1655.1	1658.2
20°	1590.6	1596.9	1606.3	1626.7	1631.5
22.5°	1551.2	1557.5	1573.3	1592.1	1600.0
25°	1505.6	1518.2	1533.9	1559.1	1563.8
27.5°	1460.0	1471.0	1491.4	1518.2	1524.5
30°	1406.5	1423.8	1449.0	1475.7	1482.0
32.5°	1354.6	1371.9	1401.8	1430.1	1438.0
35°	1301.1	1316.8	1348.3	1381.3	1390.8
37.5°	1239.7	1260.2	1294.8	1327.8	1337.3
40°	1175.2	1200.4	1239.7	1274.3	1285.4
42.5°	1113.9	1140.6	1179.9	1217.7	1230.3
45°	1049.4	1074.5	1121.7	1164.2	1173.6
47.5°	983.3	1011.6	1061.9	1104.4	1120.2
50°	917.2	947.1	1000.6	1044.6	1054.1
52.5°	851.1	882.6	939.2	986.4	991.2
55°	781.9	816.5	876.3	921.9	931.4
57.5°	719.0	748.9	813.4	860.6	871.6
60°	649.8	682.8	752.0	796.1	810.2
62.5°	583.7	618.3	690.7	734.7	747.3
65°	514.5	553.8	624.6	676.5	689.1
67.5°	454.7	492.4	567.9	618.3	630.9
70°	385.4	427.9	508.2	560.1	572.7
72.5°	325.7	369.7	450.0	500.3	519.2
75°	261.2	311.5	391.7	445.2	457.8
77.5°	198.2	256.4	338.3	379.2	379.2
80°	141.6	203.0	278.5	297.3	300.5
82.5°	92.8	152.6	206.1	204.5	204.5
85°	53.5	99.1	122.7	119.6	119.6
87.5°	20.5	40.9	44.1	44.1	42.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)