

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: P314396

Luminaire Tested: **24FCZ2-50-UNV-L83050-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: P314396  
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: 24FCZ2-50-UNV-L83050-S-CA125-W2A-U-3500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" ACRYLIC SHEET  
Light Source: (168) 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**

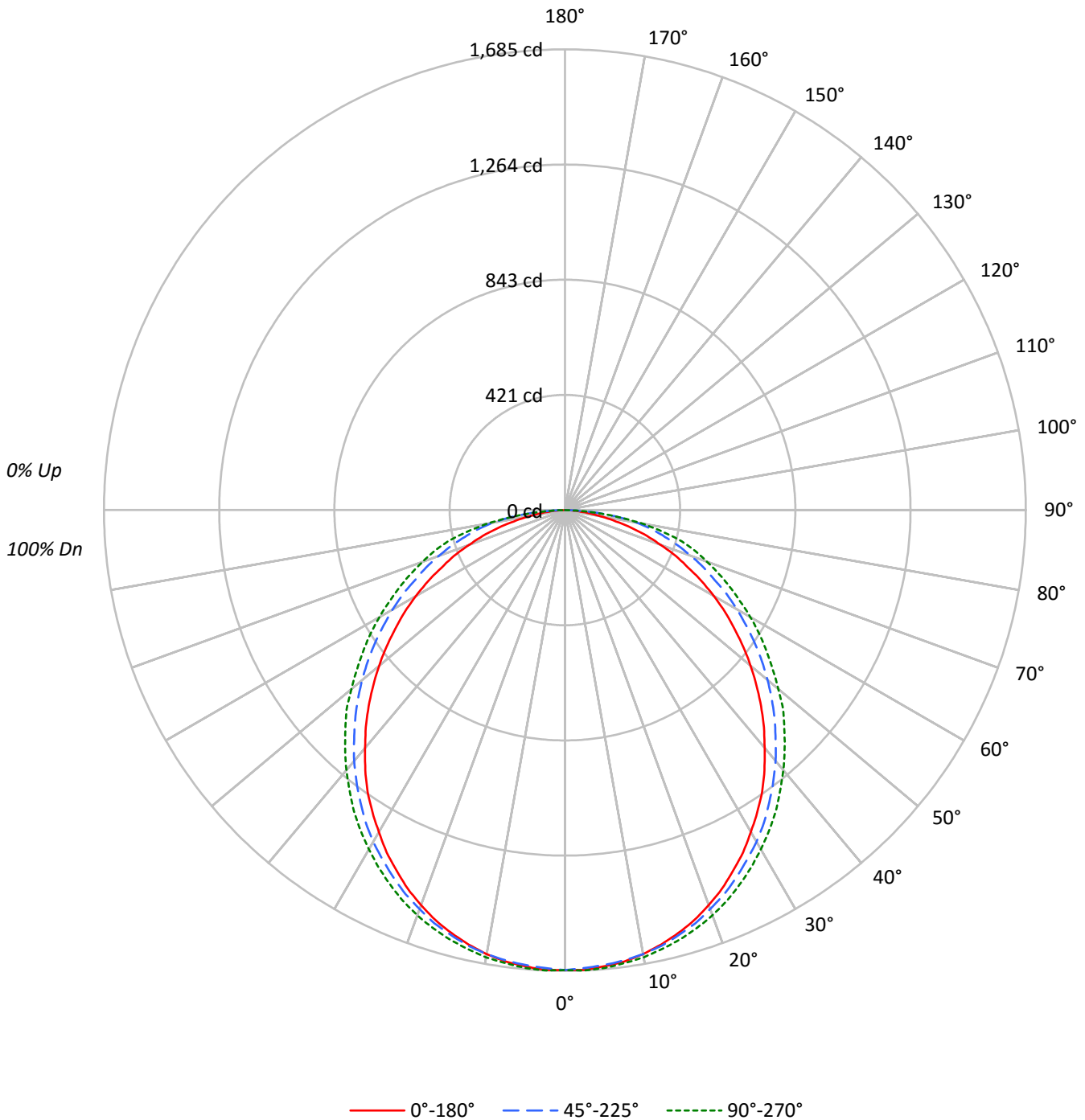
Lumens per Lamp: N/A  
Luminaire Lumens: 4788.0 lumens  
Efficiency: N/A  
Efficacy: 112.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 42.7  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	2263	2263	2263
5°	2262	2255	2270
10°	2252	2252	2269
15°	2231	2241	2265
20°	2202	2223	2258
25°	2161	2201	2244
30°	2112	2176	2226
35°	2066	2141	2208
40°	1995	2105	2182
45°	1930	2063	2159
50°	1856	2025	2133
55°	1773	1987	2112
60°	1690	1956	2108
65°	1583	1922	2121
70°	1466	1932	2178
75°	1313	1969	2301
80°	1061	2086	2251
85°	798	1831	1785



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	159.2	3.3
10°-20°	455.0	9.5
20°-30°	684.0	14.3
30°-40°	814.7	17.0
40°-50°	833.8	17.4
50°-60°	750.7	15.7
60°-70°	589.5	12.3
70°-80°	382.6	8.0
80°-90°	118.3	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°	1298.2	27.1
0°-40°	2113.0	44.1
0°-60°	3697.5	77.2
0°-90°	4788.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4788.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1682	1682	1682	1682	1682	
5°	1674	1678	1670	1679	1680	159
15°	1602	1606	1609	1623	1626	452
25°	1455	1468	1483	1507	1512	670
35°	1258	1273	1303	1335	1344	785
45°	1014	1039	1084	1125	1135	782
55°	756	789	847	891	900	678
65°	497	535	604	654	666	495
75°	252	301	379	430	443	267
85°	52	96	119	116	116	62
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1682.1	1682.1	1682.1	1682.1	1682.1
2.5°	1683.6	1683.6	1676.0	1683.6	1685.1
5°	1674.5	1677.5	1669.9	1679.0	1680.5
7.5°	1665.3	1665.3	1660.8	1669.9	1671.4
10°	1648.6	1650.1	1648.6	1659.2	1660.8
12.5°	1627.3	1630.3	1631.9	1642.5	1644.0
15°	1601.5	1606.0	1609.1	1622.7	1625.8
17.5°	1572.6	1577.1	1584.7	1599.9	1603.0
20°	1537.6	1543.7	1552.8	1572.6	1577.1
22.5°	1499.6	1505.6	1520.8	1539.1	1546.7
25°	1455.4	1467.6	1482.8	1507.2	1511.7
27.5°	1411.3	1422.0	1441.8	1467.6	1473.7
30°	1359.6	1376.4	1400.7	1426.6	1432.6
32.5°	1309.4	1326.2	1355.1	1382.4	1390.1
35°	1257.7	1272.9	1303.4	1335.3	1344.4
37.5°	1198.4	1218.2	1251.7	1283.6	1292.7
40°	1136.1	1160.4	1198.4	1231.9	1242.5
42.5°	1076.8	1102.6	1140.6	1177.1	1189.3
45°	1014.4	1038.7	1084.4	1125.4	1134.6
47.5°	950.5	977.9	1026.6	1067.6	1082.8
50°	886.7	915.5	967.3	1009.8	1019.0
52.5°	822.8	853.2	907.9	953.6	958.1
55°	755.9	789.3	847.1	891.2	900.3
57.5°	695.0	723.9	786.3	831.9	842.5
60°	628.1	660.0	727.0	769.5	783.2
62.5°	564.2	597.7	667.7	710.2	722.4
65°	497.3	535.3	603.8	654.0	666.1
67.5°	439.5	476.0	549.0	597.7	609.9
70°	372.6	413.7	491.2	541.4	553.6
72.5°	314.8	357.4	435.0	483.6	501.9
75°	252.5	301.1	378.7	430.4	442.6
77.5°	191.6	247.9	327.0	366.5	366.5
80°	136.9	196.2	269.2	287.4	290.5
82.5°	89.7	147.5	199.2	197.7	197.7
85°	51.7	95.8	118.6	115.6	115.6
87.5°	19.8	39.5	42.6	42.6	41.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)