

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: P314371

Luminaire Tested: **24FCZ2-50HE-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: P314371  
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-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**

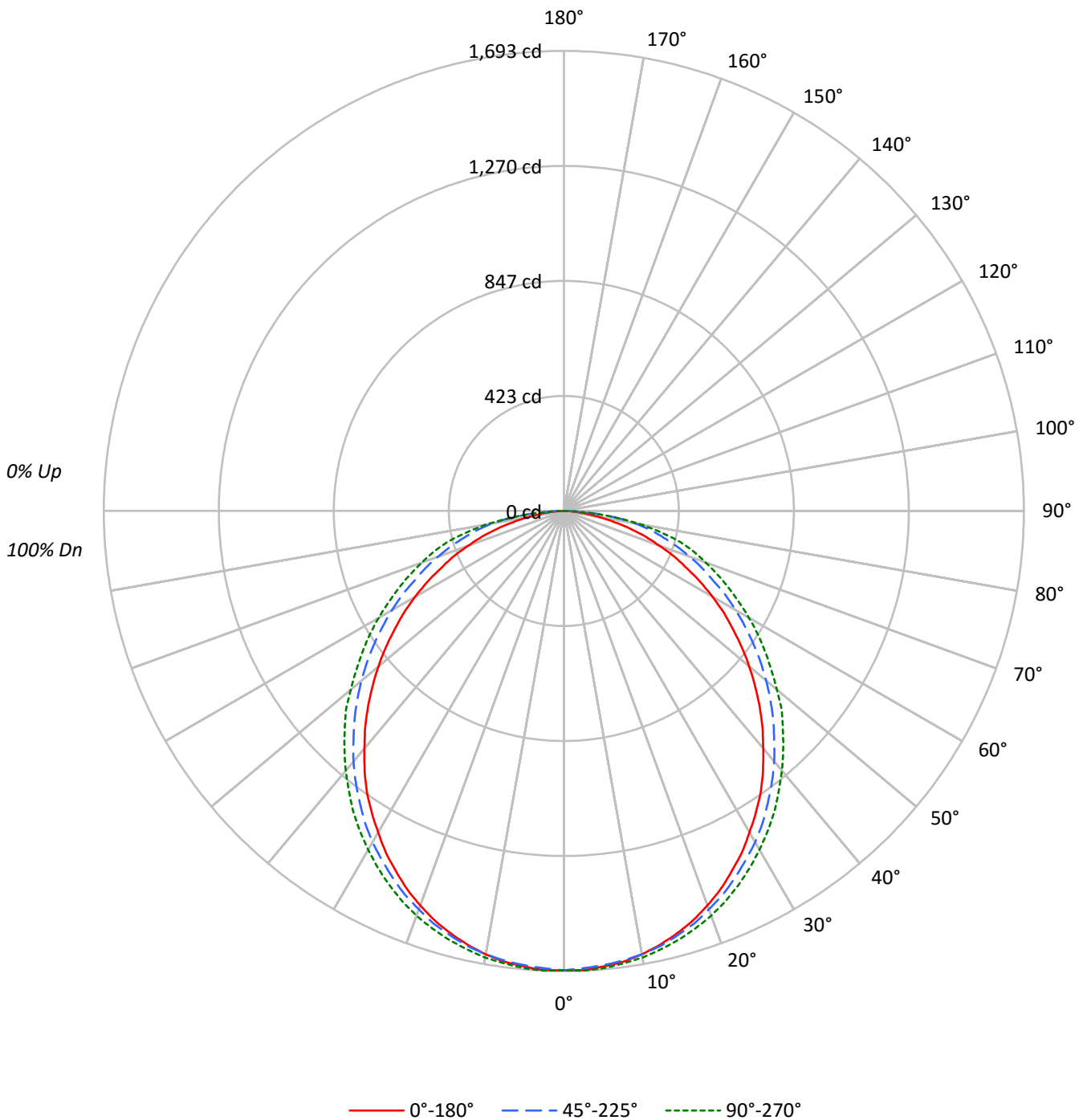
Lumens per Lamp: N/A  
Luminaire Lumens: 4811.0 lumens  
Efficiency: N/A  
Efficacy: 125.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 38.4  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	2274	2274	2274
5°	2272	2266	2281
10°	2263	2263	2280
15°	2241	2252	2276
20°	2212	2234	2269
25°	2171	2212	2255
30°	2123	2187	2236
35°	2076	2151	2219
40°	2005	2115	2193
45°	1940	2073	2169
50°	1865	2034	2143
55°	1782	1997	2122
60°	1698	1966	2118
65°	1591	1932	2131
70°	1473	1942	2188
75°	1319	1978	2312
80°	1065	2096	2262
85°	803	1840	1792



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	160.0	3.3
10°-20°	457.2	9.5
20°-30°	687.3	14.3
30°-40°	818.6	17.0
40°-50°	837.8	17.4
50°-60°	754.3	15.7
60°-70°	592.4	12.3
70°-80°	384.5	8.0
80°-90°	118.9	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°	1304.5	27.1
0°-40°	2123.1	44.1
0°-60°	3715.3	77.2
0°-90°	4811.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4811.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1690	1690	1690	1690	1690	
5°	1682	1686	1678	1687	1689	160
15°	1609	1614	1617	1630	1634	454
25°	1462	1475	1490	1514	1519	674
35°	1264	1279	1310	1342	1351	788
45°	1019	1044	1090	1131	1140	786
55°	760	793	851	896	905	681
65°	500	538	607	657	669	497
75°	254	303	380	432	445	268
85°	52	96	119	116	116	63
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1690.1	1690.1	1690.1	1690.1	1690.1
2.5°	1691.7	1691.7	1684.0	1691.7	1693.2
5°	1682.5	1685.6	1677.9	1687.1	1688.6
7.5°	1673.3	1673.3	1668.7	1677.9	1679.4
10°	1656.5	1658.0	1656.5	1667.2	1668.7
12.5°	1635.1	1638.2	1639.7	1650.4	1651.9
15°	1609.1	1613.7	1616.8	1630.5	1633.6
17.5°	1580.1	1584.7	1592.3	1607.6	1610.7
20°	1545.0	1551.1	1560.2	1580.1	1584.7
22.5°	1506.8	1512.9	1528.2	1546.5	1554.1
25°	1462.4	1474.7	1489.9	1514.4	1519.0
27.5°	1418.1	1428.8	1448.7	1474.7	1480.8
30°	1366.2	1383.0	1407.4	1433.4	1439.5
32.5°	1315.7	1332.5	1361.6	1389.1	1396.7
35°	1263.8	1279.1	1309.6	1341.7	1350.9
37.5°	1204.2	1224.0	1257.7	1289.8	1298.9
40°	1141.5	1166.0	1204.2	1237.8	1248.5
42.5°	1081.9	1107.9	1146.1	1182.8	1195.0
45°	1019.3	1043.7	1089.6	1130.8	1140.0
47.5°	955.1	982.6	1031.5	1072.8	1088.0
50°	890.9	919.9	971.9	1014.7	1023.9
52.5°	826.7	857.3	912.3	958.2	962.7
55°	759.5	793.1	851.2	895.5	904.7
57.5°	698.4	727.4	790.1	835.9	846.6
60°	631.1	663.2	730.5	773.2	787.0
62.5°	566.9	600.6	670.9	713.6	725.9
65°	499.7	537.9	606.7	657.1	669.3
67.5°	441.6	478.3	551.7	600.6	612.8
70°	374.4	415.7	493.6	544.0	556.2
72.5°	316.3	359.1	437.1	486.0	504.3
75°	253.7	302.6	380.5	432.5	444.7
77.5°	192.5	249.1	328.6	368.3	368.3
80°	137.5	197.1	270.5	288.8	291.9
82.5°	90.2	148.2	200.2	198.7	198.7
85°	52.0	96.3	119.2	116.1	116.1
87.5°	19.9	39.7	42.8	42.8	41.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)