

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: P313246

Luminaire Tested: **24FCZ2-50HE-UNV-L83050-HRP-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: P313246  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)  
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-HRP-CA125-W2A-U-3500K  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. 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**

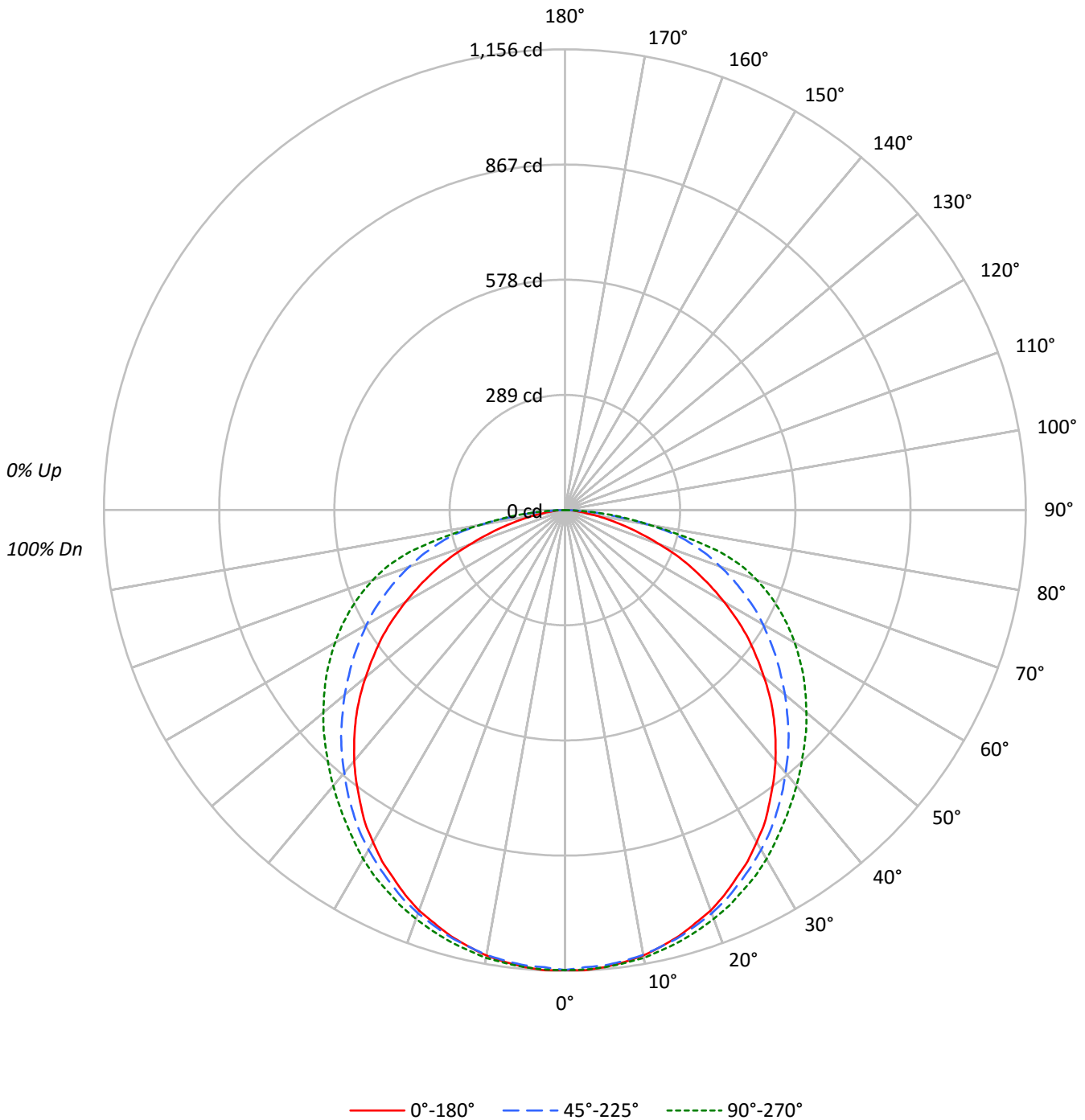
Lumens per Lamp: N/A  
Luminaire Lumens: 3557.0 lumens  
Efficiency: N/A  
Efficacy: 92.6 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 38.4  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1553	1553	1553
5°	1555	1549	1555
10°	1550	1548	1558
15°	1541	1545	1560
20°	1531	1542	1563
25°	1512	1534	1565
30°	1495	1529	1571
35°	1470	1521	1573
40°	1444	1512	1588
45°	1411	1510	1612
50°	1365	1509	1655
55°	1317	1520	1715
60°	1242	1543	1791
65°	1147	1579	1892
70°	1002	1635	2015
75°	813	1719	2083
80°	600	1684	1684
85°	460	1241	1402



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	109.3	3.1
10°-20°	313.9	8.8
20°-30°	477.9	13.4
30°-40°	580.3	16.3
40°-50°	613.1	17.2
50°-60°	578.5	16.3
60°-70°	481.0	13.5
70°-80°	316.5	8.9
80°-90°	86.3	2.4
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°	901.2	25.3
0°-40°	1481.5	41.7
0°-60°	2673.2	75.2
0°-90°	3557.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3557.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1154	1154	1154	1154	1154	
5°	1151	1151	1147	1151	1151	109
15°	1106	1108	1109	1120	1120	312
25°	1019	1024	1034	1051	1054	470
35°	895	905	926	950	958	560
45°	742	756	794	832	847	571
55°	561	585	648	709	731	500
65°	360	402	496	569	594	356
75°	156	228	331	392	401	168
85°	30	66	80	89	91	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1154.1	1154.1	1154.1	1154.1	1154.1
2.5°	1155.6	1154.1	1148.1	1154.1	1154.1
5°	1151.1	1151.1	1146.6	1151.1	1151.1
7.5°	1143.6	1143.6	1140.7	1146.6	1146.6
10°	1134.7	1134.7	1133.2	1140.7	1140.7
12.5°	1121.3	1122.8	1121.3	1130.2	1130.2
15°	1106.4	1107.9	1109.4	1119.8	1119.8
17.5°	1087.1	1090.0	1093.0	1104.9	1106.4
20°	1069.2	1070.7	1076.6	1090.0	1091.5
22.5°	1045.4	1049.8	1057.3	1070.7	1075.1
25°	1018.6	1024.5	1033.5	1051.3	1054.3
27.5°	993.2	997.7	1009.6	1029.0	1034.9
30°	962.0	969.4	984.3	1003.7	1011.1
32.5°	932.2	939.6	957.5	978.4	984.3
35°	895.0	905.4	926.2	950.1	957.5
37.5°	859.2	869.6	895.0	921.8	930.7
40°	822.0	833.9	860.7	892.0	903.9
42.5°	781.8	798.2	828.0	862.2	875.6
45°	741.6	756.5	793.7	832.4	847.3
47.5°	698.4	716.3	756.5	802.6	820.5
50°	652.2	674.6	720.7	771.4	790.7
52.5°	606.1	631.4	683.5	740.1	760.9
55°	561.4	585.2	647.8	708.8	731.2
57.5°	512.3	542.0	610.5	676.1	698.4
60°	461.6	494.4	573.3	641.8	665.6
62.5°	411.0	448.2	537.6	606.1	631.4
65°	360.4	402.1	495.9	568.8	594.2
67.5°	311.2	357.4	457.2	530.1	555.4
70°	254.6	312.7	415.5	486.9	512.3
72.5°	202.5	269.5	375.3	442.3	464.6
75°	156.4	227.8	330.6	391.6	400.6
77.5°	114.7	186.1	284.4	305.3	306.8
80°	77.4	148.9	217.4	214.4	217.4
82.5°	50.6	111.7	137.0	153.4	154.9
85°	29.8	65.5	80.4	89.3	90.8
87.5°	14.9	22.3	28.3	29.8	32.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)