

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: P310226

Luminaire Tested: **24FCZ2-50-UNV-L82765-RDP-CA08-W2A-U-5500K**

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: P310226  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
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-L82765-RDP-CA08-W2A-U-5500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC SHEET  
Light Source: (168) 5500K 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**

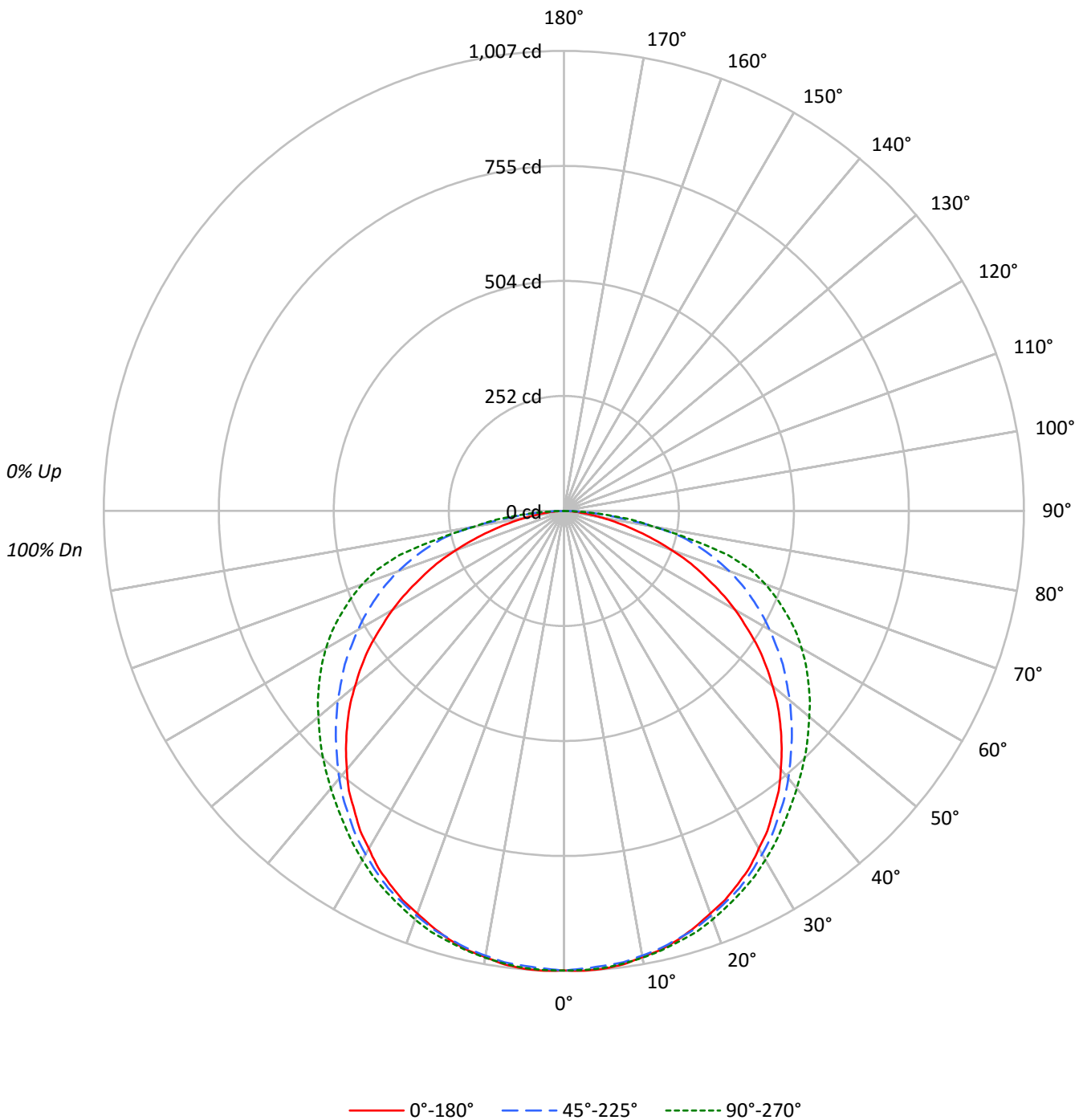
Lumens per Lamp: N/A  
Luminaire Lumens: 3198.0 lumens  
Efficiency: N/A  
Efficacy: 72.8 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 43.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
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	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

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

	0°	45°	90°
0°	1353	1353	1353
5°	1358	1350	1356
10°	1354	1350	1357
15°	1352	1350	1359
20°	1342	1349	1363
25°	1338	1352	1366
30°	1326	1348	1370
35°	1313	1344	1376
40°	1298	1343	1393
45°	1277	1343	1425
50°	1248	1351	1468
55°	1217	1373	1533
60°	1165	1400	1618
65°	1091	1450	1717
70°	992	1517	1847
75°	841	1600	1930
80°	664	1610	1561
85°	489	1224	1371



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.4	3.0
10°-20°	274.6	8.6
20°-30°	419.9	13.1
30°-40°	513.3	16.0
40°-50°	547.0	17.1
50°-60°	523.0	16.4
60°-70°	443.1	13.9
70°-80°	297.8	9.3
80°-90°	84.0	2.6
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°	789.8	24.7
0°-40°	1303.1	40.7
0°-60°	2373.1	74.2
0°-90°	3198.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3198.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1006	1006	1006	1006	1006	
5°	1006	1004	999	1004	1004	96
15°	971	971	969	977	976	274
25°	901	904	910	918	920	415
35°	800	806	818	834	838	501
45°	671	682	706	736	749	518
55°	519	538	585	631	654	462
65°	343	378	455	516	539	340
75°	162	220	308	360	371	173
85°	32	65	79	86	89	39
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1005.7	1005.7	1005.7	1005.7	1005.7
2.5°	1007.3	1007.3	1002.5	1005.7	1005.7
5°	1005.7	1004.1	999.3	1004.1	1004.1
7.5°	1000.9	999.3	996.2	1000.9	999.3
10°	991.4	991.4	988.2	993.0	993.0
12.5°	983.5	981.9	980.3	986.6	985.1
15°	970.8	970.8	969.2	977.1	975.5
17.5°	954.9	956.5	958.1	964.4	966.0
20°	937.5	940.6	942.2	951.7	951.7
22.5°	921.6	923.2	926.4	935.9	935.9
25°	901.0	904.2	910.5	918.4	920.0
27.5°	880.4	882.0	889.9	901.0	902.6
30°	853.4	858.2	867.7	880.4	882.0
32.5°	829.6	834.4	845.5	858.2	861.3
35°	799.5	805.8	818.5	834.4	837.5
37.5°	772.5	777.3	793.1	810.6	815.3
40°	739.2	748.7	764.6	785.2	793.1
42.5°	705.9	715.4	734.4	761.4	770.9
45°	671.0	682.1	705.9	736.0	748.7
47.5°	636.1	648.8	675.7	710.6	724.9
50°	596.4	612.3	645.6	685.3	701.1
52.5°	558.4	577.4	613.9	658.3	678.9
55°	518.7	537.7	585.3	631.3	653.5
57.5°	474.3	499.7	552.0	604.4	628.2
60°	433.0	456.8	520.3	577.4	601.2
62.5°	388.6	420.4	488.6	548.8	572.6
65°	342.6	377.5	455.3	515.5	539.3
67.5°	301.4	339.5	421.9	482.2	506.0
70°	252.2	299.8	385.5	445.7	469.5
72.5°	206.2	258.6	347.4	406.1	428.3
75°	161.8	220.5	307.7	360.1	371.2
77.5°	120.6	182.4	266.5	288.7	280.8
80°	85.7	145.9	207.8	196.7	201.5
82.5°	55.5	111.0	128.5	145.9	150.7
85°	31.7	65.0	79.3	85.7	88.8
87.5°	14.3	23.8	31.7	31.7	30.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)