

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: P310216

Luminaire Tested: **24FCZ2-50HE-UNV-L82765-RDP-CP250-W2A-U-5000K**

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: P310216  
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: 24FCZ2-50HE-UNV-L82765-RDP-CP250-W2A-U-5000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" POLYCARB SHEET  
Light Source: (336) 5000K 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**

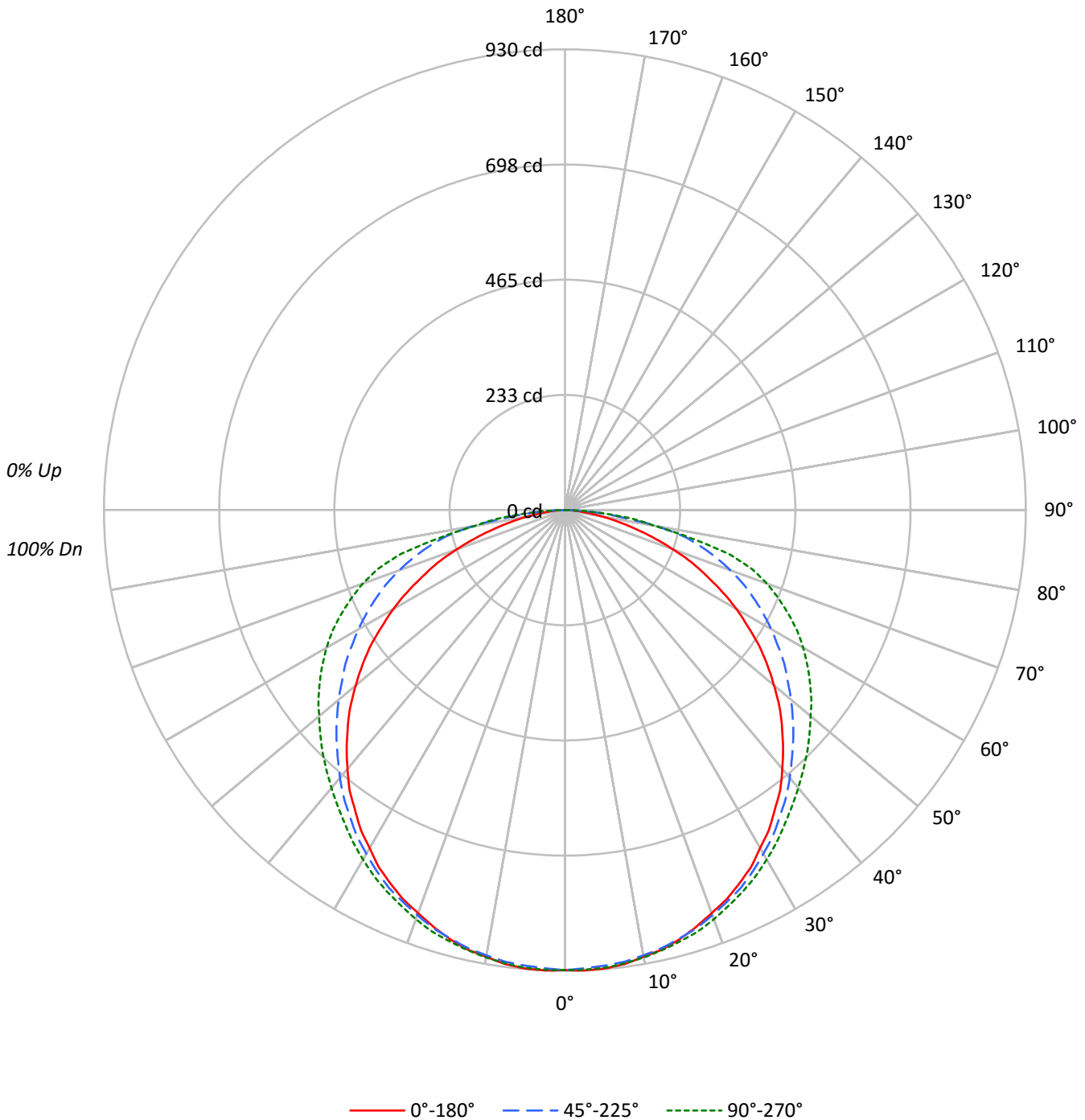
Lumens per Lamp: N/A  
Luminaire Lumens: 2953.0 lumens  
Efficiency: N/A  
Efficacy: 75.1 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 39.3  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	1249	1249	1249
5°	1254	1246	1252
10°	1251	1247	1253
15°	1249	1247	1255
20°	1240	1246	1258
25°	1235	1248	1261
30°	1224	1245	1265
35°	1213	1241	1270
40°	1199	1240	1286
45°	1179	1240	1315
50°	1153	1248	1355
55°	1124	1268	1416
60°	1076	1293	1494
65°	1007	1338	1585
70°	916	1400	1706
75°	777	1477	1782
80°	613	1487	1441
85°	452	1130	1266



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	88.1	3.0
10°-20°	253.5	8.6
20°-30°	387.7	13.1
30°-40°	473.9	16.0
40°-50°	505.1	17.1
50°-60°	483.0	16.4
60°-70°	409.1	13.9
70°-80°	275.0	9.3
80°-90°	77.6	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°	729.3	24.7
0°-40°	1203.2	40.7
0°-60°	2191.3	74.2
0°-90°	2953.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2953.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	929	929	929	929	929	
5°	929	927	923	927	927	88
15°	896	896	895	902	901	253
25°	832	835	841	848	850	383
35°	738	744	756	770	773	462
45°	620	630	652	680	691	478
55°	479	496	540	583	604	427
65°	316	349	420	476	498	314
75°	149	204	284	332	343	160
85°	29	60	73	79	82	36
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	928.6	928.6	928.6	928.6	928.6
2.5°	930.1	930.1	925.7	928.6	928.6
5°	928.6	927.2	922.8	927.2	927.2
7.5°	924.2	922.8	919.8	924.2	922.8
10°	915.5	915.5	912.5	916.9	916.9
12.5°	908.1	906.7	905.2	911.1	909.6
15°	896.4	896.4	894.9	902.3	900.8
17.5°	881.8	883.2	884.7	890.6	892.0
20°	865.7	868.6	870.0	878.8	878.8
22.5°	851.0	852.5	855.4	864.2	864.2
25°	832.0	834.9	840.8	848.1	849.5
27.5°	812.9	814.4	821.7	832.0	833.4
30°	788.0	792.4	801.2	812.9	814.4
32.5°	766.0	770.4	780.7	792.4	795.3
35°	738.2	744.1	755.8	770.4	773.4
37.5°	713.3	717.7	732.4	748.5	752.9
40°	682.6	691.3	706.0	725.0	732.4
42.5°	651.8	660.6	678.2	703.1	711.9
45°	619.6	629.8	651.8	679.6	691.3
47.5°	587.4	599.1	624.0	656.2	669.4
50°	550.7	565.4	596.1	632.8	647.4
52.5°	515.6	533.2	566.8	607.9	626.9
55°	479.0	496.5	540.5	583.0	603.5
57.5°	438.0	461.4	509.7	558.1	580.0
60°	399.9	421.8	480.4	533.2	555.1
62.5°	358.9	388.2	451.1	506.8	528.8
65°	316.4	348.6	420.4	476.0	498.0
67.5°	278.3	313.5	389.6	445.3	467.2
70°	232.9	276.8	355.9	411.6	433.6
72.5°	190.4	238.7	320.8	375.0	395.5
75°	149.4	203.6	284.2	332.5	342.7
77.5°	111.3	168.4	246.1	266.6	259.3
80°	79.1	134.8	191.9	181.6	186.0
82.5°	51.3	102.5	118.6	134.8	139.1
85°	29.3	60.1	73.2	79.1	82.0
87.5°	13.2	22.0	29.3	29.3	27.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)