

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: P310752

Luminaire Tested: **24FCZ2-40-UNV-L82765-CP250-W2A-U-3000K**

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: P310752  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24FCZ2-40-UNV-L82765-CP250-W2A-U-3000K  
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.250" POLYCARB SHEET  
Light Source: (168) 3000K 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: 3243.0 lumens  
Efficiency: N/A  
Efficacy: 99.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

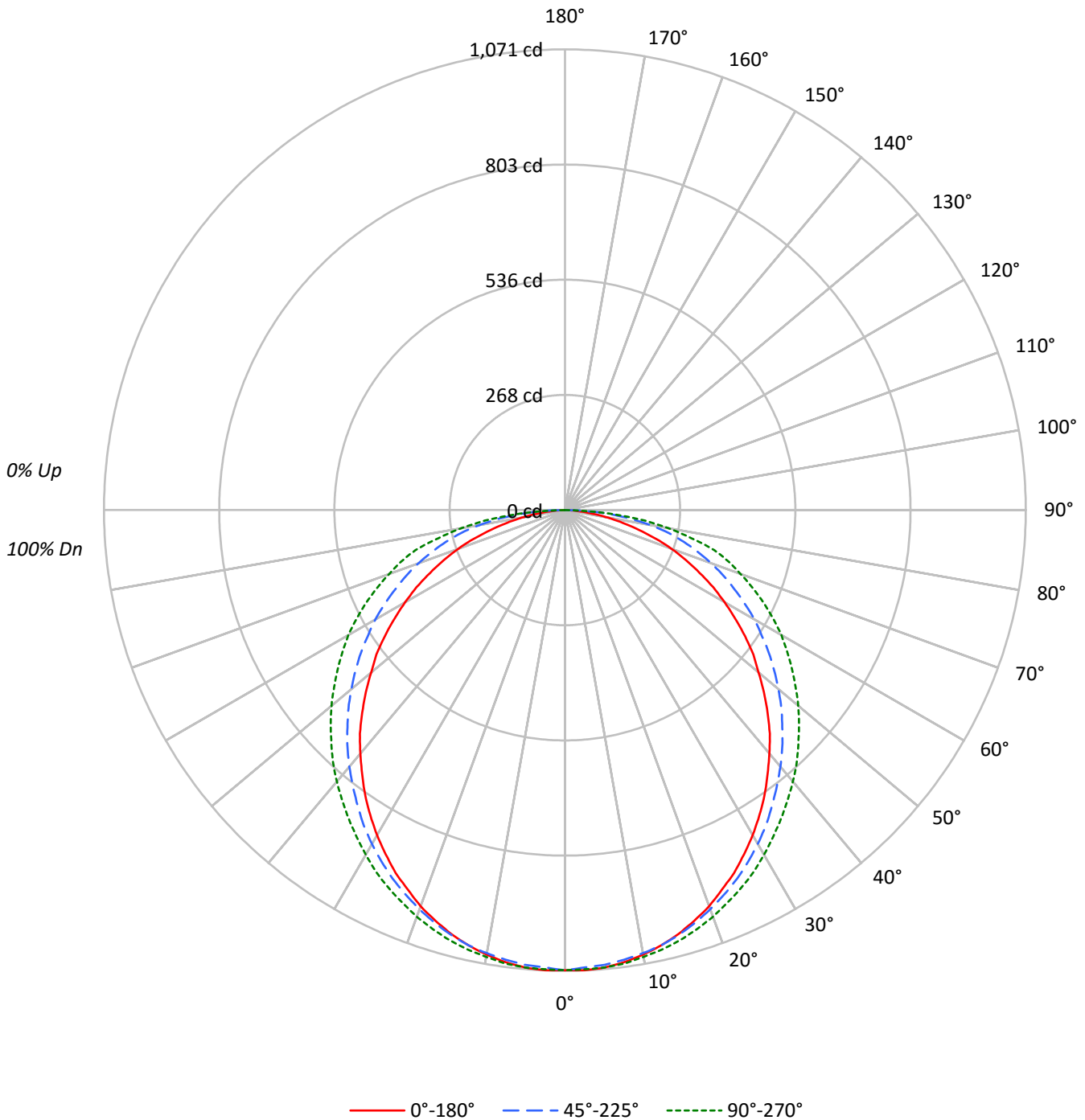
Input Watts (W): 32.5  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	100	96	92	96	92	89	92	89	87	88	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	37	31	57	45	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	25	35	29	24	23

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

	0°	45°	90°
0°	1439	1439	1439
5°	1442	1433	1442
10°	1433	1429	1441
15°	1421	1424	1442
20°	1403	1414	1440
25°	1382	1404	1439
30°	1356	1393	1438
35°	1329	1379	1439
40°	1298	1368	1448
45°	1267	1359	1460
50°	1230	1356	1482
55°	1199	1358	1512
60°	1152	1369	1563
65°	1100	1384	1620
70°	1041	1426	1710
75°	928	1488	1868
80°	792	1576	1909
85°	565	1561	1828



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.2	3.1
10°-20°	289.4	8.9
20°-30°	437.1	13.5
30°-40°	526.9	16.2
40°-50°	553.1	17.1
50°-60°	517.5	16.0
60°-70°	427.3	13.2
70°-80°	291.2	9.0
80°-90°	99.3	3.1
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°	827.8	25.5
0°-40°	1354.6	41.8
0°-60°	2425.2	74.8
0°-90°	3243.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3243.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1070	1070	1070	1070	1070	
5°	1067	1066	1061	1067	1067	101
15°	1020	1021	1022	1033	1035	288
25°	931	935	946	964	969	428
35°	809	818	839	867	876	506
45°	666	680	714	753	767	514
55°	511	532	579	626	644	456
65°	345	374	435	490	509	343
75°	179	220	286	340	359	190
85°	37	72	101	114	118	46
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1069.5	1069.5	1069.5	1069.5	1069.5
2.5°	1070.6	1069.5	1064.1	1069.5	1068.4
5°	1067.4	1066.3	1060.9	1067.4	1067.4
7.5°	1059.8	1059.8	1054.4	1062.0	1063.1
10°	1049.1	1049.1	1045.8	1054.4	1054.4
12.5°	1036.2	1036.2	1036.2	1044.8	1045.8
15°	1020.0	1021.1	1022.2	1032.9	1035.1
17.5°	1000.7	1002.8	1006.0	1018.9	1021.1
20°	980.2	982.4	987.7	1002.8	1006.0
22.5°	954.4	959.8	967.3	984.5	987.7
25°	930.7	935.0	945.8	964.1	969.4
27.5°	901.7	908.1	922.1	941.5	949.0
30°	872.6	879.1	896.3	918.9	925.3
32.5°	841.4	851.1	869.4	893.1	900.6
35°	809.1	817.7	839.3	867.2	875.8
37.5°	773.6	785.5	809.1	839.3	850.0
40°	739.2	752.1	779.0	811.3	824.2
42.5°	704.8	717.7	747.8	784.4	797.3
45°	666.0	680.0	714.4	753.2	767.2
47.5°	627.3	644.5	682.2	723.1	738.1
50°	587.5	606.8	647.7	690.8	708.0
52.5°	552.0	570.3	613.3	659.6	675.7
55°	511.1	531.5	578.9	626.2	644.5
57.5°	469.1	491.7	542.3	593.9	612.2
60°	428.2	453.0	508.9	560.6	581.0
62.5°	388.4	413.2	471.3	525.1	545.5
65°	345.4	374.4	434.7	489.6	508.9
67.5°	304.5	335.7	399.2	453.0	472.4
70°	264.7	294.8	362.6	415.3	434.7
72.5°	221.6	256.1	323.9	378.7	399.2
75°	178.6	219.5	286.2	340.0	359.4
77.5°	138.8	180.8	247.5	291.6	301.3
80°	102.2	145.3	203.4	234.6	246.4
82.5°	65.6	108.7	154.9	177.5	187.2
85°	36.6	72.1	101.1	114.1	118.4
87.5°	15.1	31.2	40.9	46.3	46.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)