

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: P310050

Luminaire Tested: **24FCZ2-40-UNV-L82765-RDP-CA125-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: P310050  
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: 24FCZ2-40-UNV-L82765-RDP-CA125-W2A-U-3000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC 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**

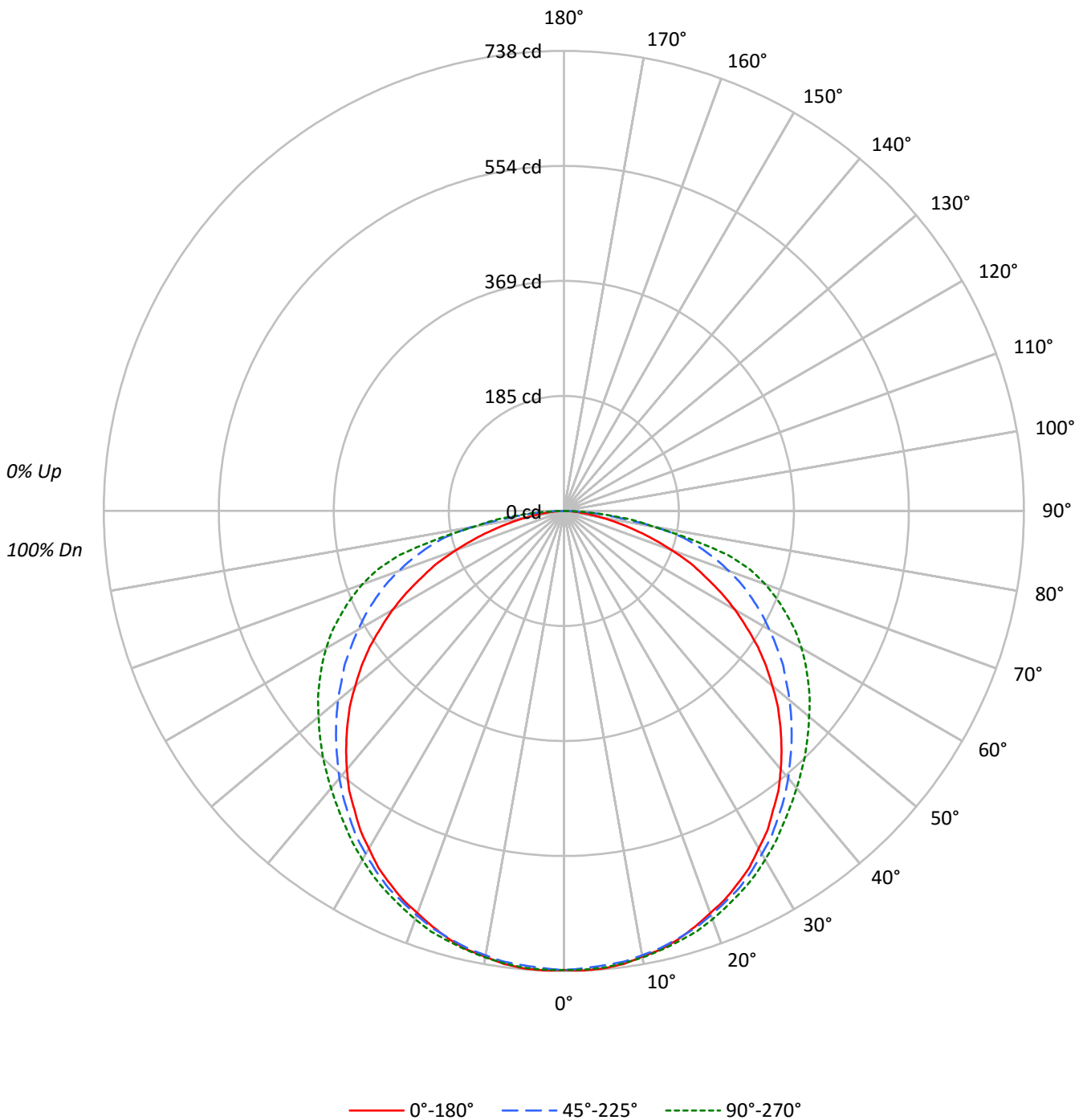
Lumens per Lamp: N/A  
Luminaire Lumens: 2342.0 lumens  
Efficiency: N/A  
Efficacy: 72.1 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 32.5  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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°	991	991	991
5°	995	988	993
10°	992	989	994
15°	990	989	995
20°	983	988	998
25°	980	990	1000
30°	971	987	1003
35°	962	985	1008
40°	951	983	1020
45°	935	984	1043
50°	914	990	1075
55°	891	1006	1123
60°	853	1025	1185
65°	799	1061	1258
70°	727	1111	1353
75°	616	1172	1413
80°	486	1179	1143
85°	358	897	1005



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.9	3.0
10°-20°	201.1	8.6
20°-30°	307.5	13.1
30°-40°	375.9	16.0
40°-50°	400.6	17.1
50°-60°	383.0	16.4
60°-70°	324.5	13.9
70°-80°	218.1	9.3
80°-90°	61.5	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°	578.4	24.7
0°-40°	954.3	40.7
0°-60°	1737.9	74.2
0°-90°	2342.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2342.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	736	736	736	736	736	
5°	736	735	732	735	735	70
15°	711	711	710	716	714	200
25°	660	662	667	673	674	304
35°	586	590	599	611	613	367
45°	491	500	517	539	548	379
55°	380	394	429	462	479	338
65°	251	276	333	378	395	249
75°	118	162	225	264	272	127
85°	23	48	58	63	65	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	736.5	736.5	736.5	736.5	736.5
2.5°	737.7	737.7	734.2	736.5	736.5
5°	736.5	735.3	731.8	735.3	735.3
7.5°	733.0	731.8	729.5	733.0	731.8
10°	726.0	726.0	723.7	727.2	727.2
12.5°	720.2	719.1	717.9	722.6	721.4
15°	710.9	710.9	709.8	715.6	714.4
17.5°	699.3	700.5	701.6	706.3	707.5
20°	686.5	688.9	690.0	697.0	697.0
22.5°	674.9	676.1	678.4	685.4	685.4
25°	659.8	662.1	666.8	672.6	673.8
27.5°	644.7	645.9	651.7	659.8	661.0
30°	625.0	628.5	635.4	644.7	645.9
32.5°	607.5	611.0	619.2	628.5	630.8
35°	585.5	590.1	599.4	611.0	613.4
37.5°	565.7	569.2	580.8	593.6	597.1
40°	541.3	548.3	559.9	575.0	580.8
42.5°	516.9	523.9	537.8	557.6	564.6
45°	491.4	499.5	516.9	539.0	548.3
47.5°	465.8	475.1	494.9	520.4	530.9
50°	436.8	448.4	472.8	501.8	513.5
52.5°	408.9	422.8	449.6	482.1	497.2
55°	379.9	393.8	428.7	462.3	478.6
57.5°	347.3	365.9	404.3	442.6	460.0
60°	317.1	334.6	381.0	422.8	440.3
62.5°	284.6	307.8	357.8	401.9	419.4
65°	250.9	276.5	333.4	377.5	395.0
67.5°	220.7	248.6	309.0	353.1	370.6
70°	184.7	219.6	282.3	326.4	343.9
72.5°	151.0	189.4	254.4	297.4	313.6
75°	118.5	161.5	225.4	263.7	271.8
77.5°	88.3	133.6	195.2	211.4	205.6
80°	62.7	106.9	152.2	144.0	147.5
82.5°	40.7	81.3	94.1	106.9	110.4
85°	23.2	47.6	58.1	62.7	65.1
87.5°	10.5	17.4	23.2	23.2	22.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)