

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: P310059

Luminaire Tested: **24FCZ2-40-UNV-L82765-RDP-CP125-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: P310059  
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-CP125-W2A-U-3000K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" 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**

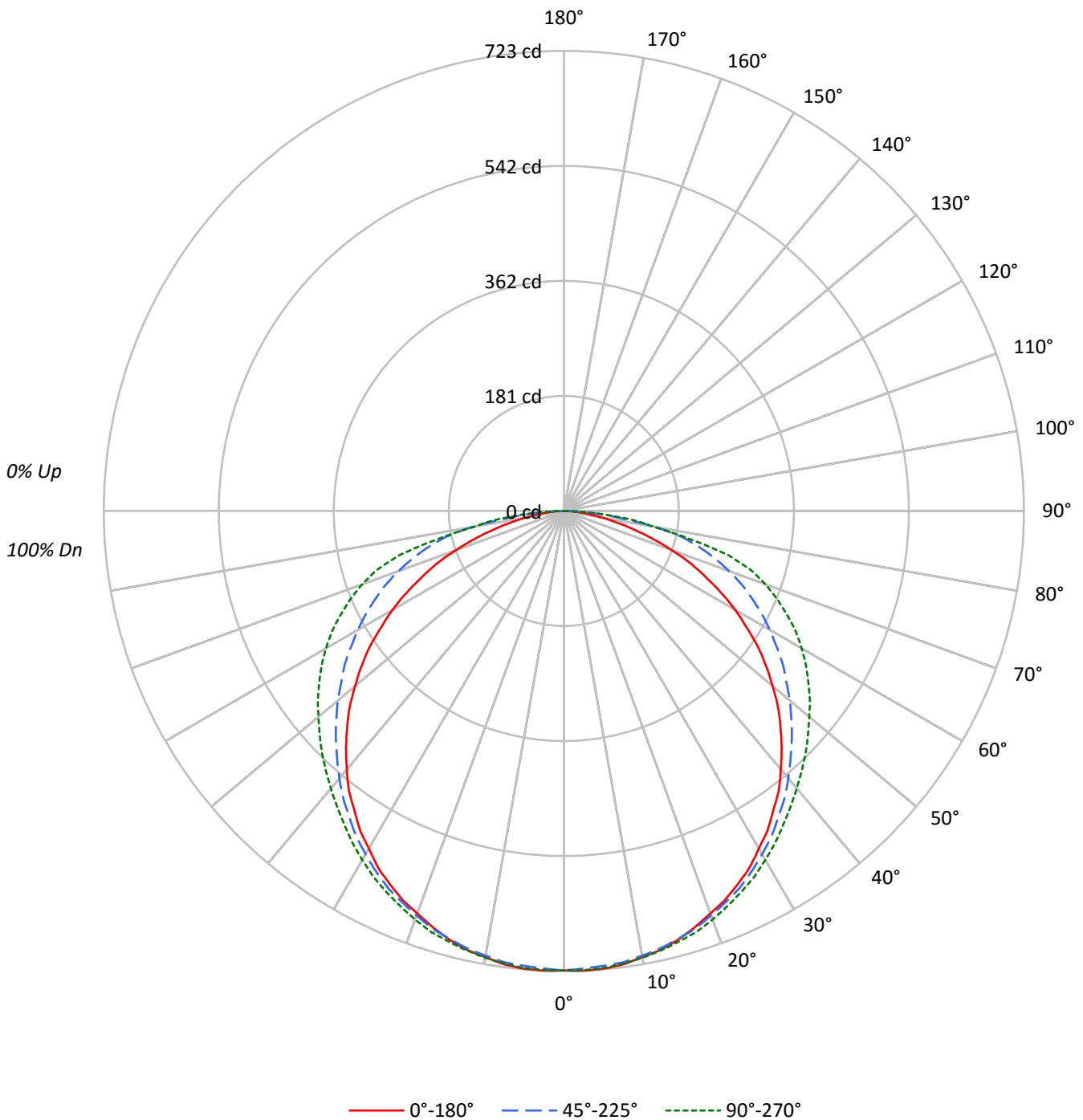
Lumens per Lamp: N/A  
Luminaire Lumens: 2296.0 lumens  
Efficiency: N/A  
Efficacy: 70.6 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 32.5  
Input Voltage (V): NR  
Input Current (A<sub>in</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	68	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°	971	971	971
5°	975	969	974
10°	972	969	974
15°	971	969	976
20°	964	969	978
25°	960	970	981
30°	952	968	984
35°	943	965	988
40°	932	964	1000
45°	917	964	1023
50°	896	970	1054
55°	874	986	1101
60°	837	1005	1161
65°	783	1040	1233
70°	712	1089	1326
75°	604	1148	1385
80°	477	1156	1120
85°	352	878	985



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.5	3.0
10°-20°	197.1	8.6
20°-30°	301.4	13.1
30°-40°	368.5	16.0
40°-50°	392.7	17.1
50°-60°	375.5	16.4
60°-70°	318.1	13.9
70°-80°	213.8	9.3
80°-90°	60.3	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°	567.0	24.7
0°-40°	935.5	40.7
0°-60°	1703.8	74.2
0°-90°	2296.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2296.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	722	722	722	722	722	
5°	722	721	718	721	721	69
15°	697	697	696	702	700	197
25°	647	649	654	659	660	298
35°	574	578	588	599	601	360
45°	482	490	507	528	538	372
55°	372	386	420	453	469	332
65°	246	271	327	370	387	244
75°	116	158	221	258	266	124
85°	23	47	57	62	64	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	722.0	722.0	722.0	722.0	722.0
2.5°	723.2	723.2	719.7	722.0	722.0
5°	722.0	720.9	717.5	720.9	720.9
7.5°	718.6	717.5	715.2	718.6	717.5
10°	711.8	711.8	709.5	712.9	712.9
12.5°	706.1	704.9	703.8	708.4	707.2
15°	697.0	697.0	695.8	701.5	700.4
17.5°	685.6	686.7	687.9	692.4	693.6
20°	673.1	675.3	676.5	683.3	683.3
22.5°	661.7	662.8	665.1	671.9	671.9
25°	646.9	649.1	653.7	659.4	660.5
27.5°	632.1	633.2	638.9	646.9	648.0
30°	612.7	616.1	622.9	632.1	633.2
32.5°	595.6	599.0	607.0	616.1	618.4
35°	574.0	578.5	587.6	599.0	601.3
37.5°	554.6	558.0	569.4	581.9	585.4
40°	530.7	537.5	548.9	563.7	569.4
42.5°	506.8	513.6	527.3	546.6	553.5
45°	481.7	489.7	506.8	528.4	537.5
47.5°	456.7	465.8	485.1	510.2	520.5
50°	428.2	439.6	463.5	492.0	503.4
52.5°	400.9	414.5	440.7	472.6	487.4
55°	372.4	386.1	420.2	453.3	469.2
57.5°	340.5	358.7	396.3	433.9	451.0
60°	310.9	328.0	373.5	414.5	431.6
62.5°	279.0	301.8	350.8	394.0	411.1
65°	246.0	271.0	326.8	370.1	387.2
67.5°	216.4	243.7	302.9	346.2	363.3
70°	181.1	215.2	276.7	320.0	337.1
72.5°	148.0	185.6	249.4	291.5	307.5
75°	116.2	158.3	220.9	258.5	266.5
77.5°	86.6	131.0	191.3	207.3	201.6
80°	61.5	104.8	149.2	141.2	144.6
82.5°	39.9	79.7	92.2	104.8	108.2
85°	22.8	46.7	56.9	61.5	63.8
87.5°	10.2	17.1	22.8	22.8	21.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)