

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: P309972

Luminaire Tested: **24FCZ2-35-UNV-L82765-RDP-CP125-W2A-U-4500K**

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: P309972  
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: 24FCZ2-35-UNV-L82765-RDP-CP125-W2A-U-4500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET  
Light Source: (168) 4500K 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**

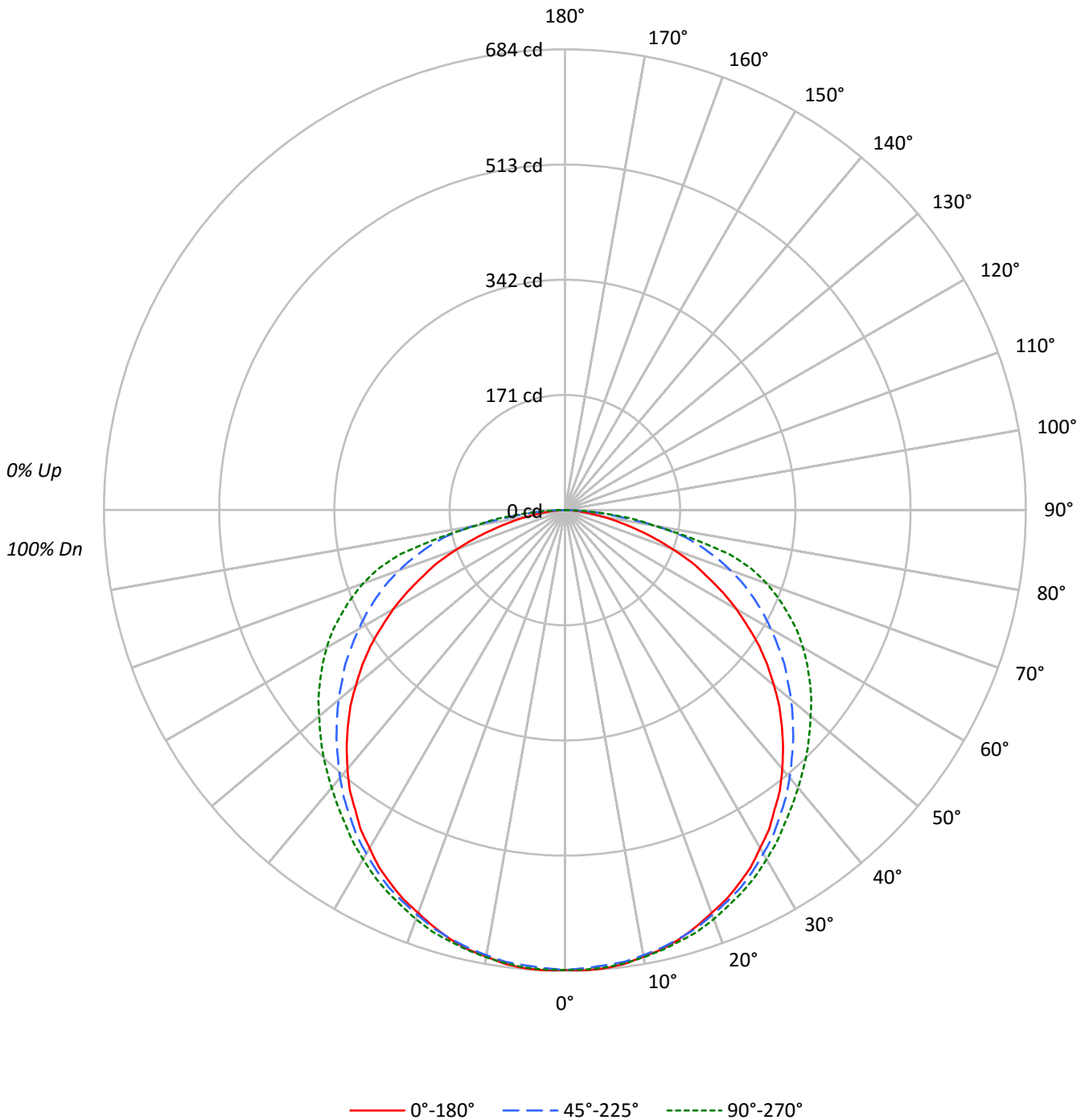
Lumens per Lamp: N/A  
Luminaire Lumens: 2171.0 lumens  
Efficiency: N/A  
Efficacy: 76.2 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 28.5  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	919	919	919
5°	922	916	921
10°	919	917	921
15°	918	917	923
20°	911	916	925
25°	908	918	927
30°	900	915	930
35°	891	913	934
40°	881	912	946
45°	867	912	967
50°	848	917	996
55°	826	932	1041
60°	791	950	1098
65°	741	984	1166
70°	673	1030	1254
75°	571	1086	1310
80°	450	1093	1060
85°	332	831	931



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.8	3.0
10°-20°	186.4	8.6
20°-30°	285.0	13.1
30°-40°	348.4	16.0
40°-50°	371.4	17.1
50°-60°	355.1	16.4
60°-70°	300.8	13.9
70°-80°	202.1	9.3
80°-90°	57.0	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°	536.2	24.7
0°-40°	884.6	40.7
0°-60°	1611.0	74.2
0°-90°	2171.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2171.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	683	683	683	683	683	
5°	683	682	678	682	682	65
15°	659	659	658	663	662	186
25°	612	614	618	624	625	282
35°	543	547	556	566	569	340
45°	456	463	479	500	508	351
55°	352	365	397	429	444	314
65°	233	256	309	350	366	231
75°	110	150	209	244	252	118
85°	22	44	54	58	60	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	682.7	682.7	682.7	682.7	682.7
2.5°	683.8	683.8	680.6	682.7	682.7
5°	682.7	681.6	678.4	681.6	681.6
7.5°	679.5	678.4	676.3	679.5	678.4
10°	673.0	673.0	670.9	674.1	674.1
12.5°	667.6	666.6	665.5	669.8	668.7
15°	659.0	659.0	658.0	663.3	662.3
17.5°	648.3	649.3	650.4	654.7	655.8
20°	636.4	638.6	639.6	646.1	646.1
22.5°	625.6	626.7	628.9	635.3	635.3
25°	611.6	613.8	618.1	623.5	624.6
27.5°	597.6	598.7	604.1	611.6	612.7
30°	579.3	582.6	589.0	597.6	598.7
32.5°	563.2	566.4	574.0	582.6	584.7
35°	542.7	547.0	555.7	566.4	568.6
37.5°	524.4	527.7	538.4	550.3	553.5
40°	501.8	508.3	519.0	533.0	538.4
42.5°	479.2	485.7	498.6	516.9	523.3
45°	455.5	463.0	479.2	499.7	508.3
47.5°	431.8	440.4	458.7	482.4	492.1
50°	404.9	415.7	438.3	465.2	476.0
52.5°	379.0	392.0	416.7	446.9	460.9
55°	352.1	365.0	397.4	428.6	443.7
57.5°	322.0	339.2	374.7	410.3	426.4
60°	294.0	310.1	353.2	392.0	408.1
62.5°	263.8	285.4	331.7	372.6	388.7
65°	232.6	256.3	309.1	350.0	366.1
67.5°	204.6	230.4	286.4	327.4	343.5
70°	171.2	203.5	261.7	302.6	318.7
72.5°	140.0	175.5	235.8	275.7	290.7
75°	109.8	149.7	208.9	244.4	252.0
77.5°	81.8	123.8	180.9	196.0	190.6
80°	58.1	99.1	141.1	133.5	136.8
82.5°	37.7	75.4	87.2	99.1	102.3
85°	21.5	44.2	53.8	58.1	60.3
87.5°	9.7	16.2	21.5	21.5	20.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)