

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: P312203

Luminaire Tested: **14FCZ2-29-UNV-L83050-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: P312203
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-29-UNV-L83050-CP125-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, RIBBED LENS, 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: 2902.0 lumens
Efficiency: N/A
Efficacy: 116.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

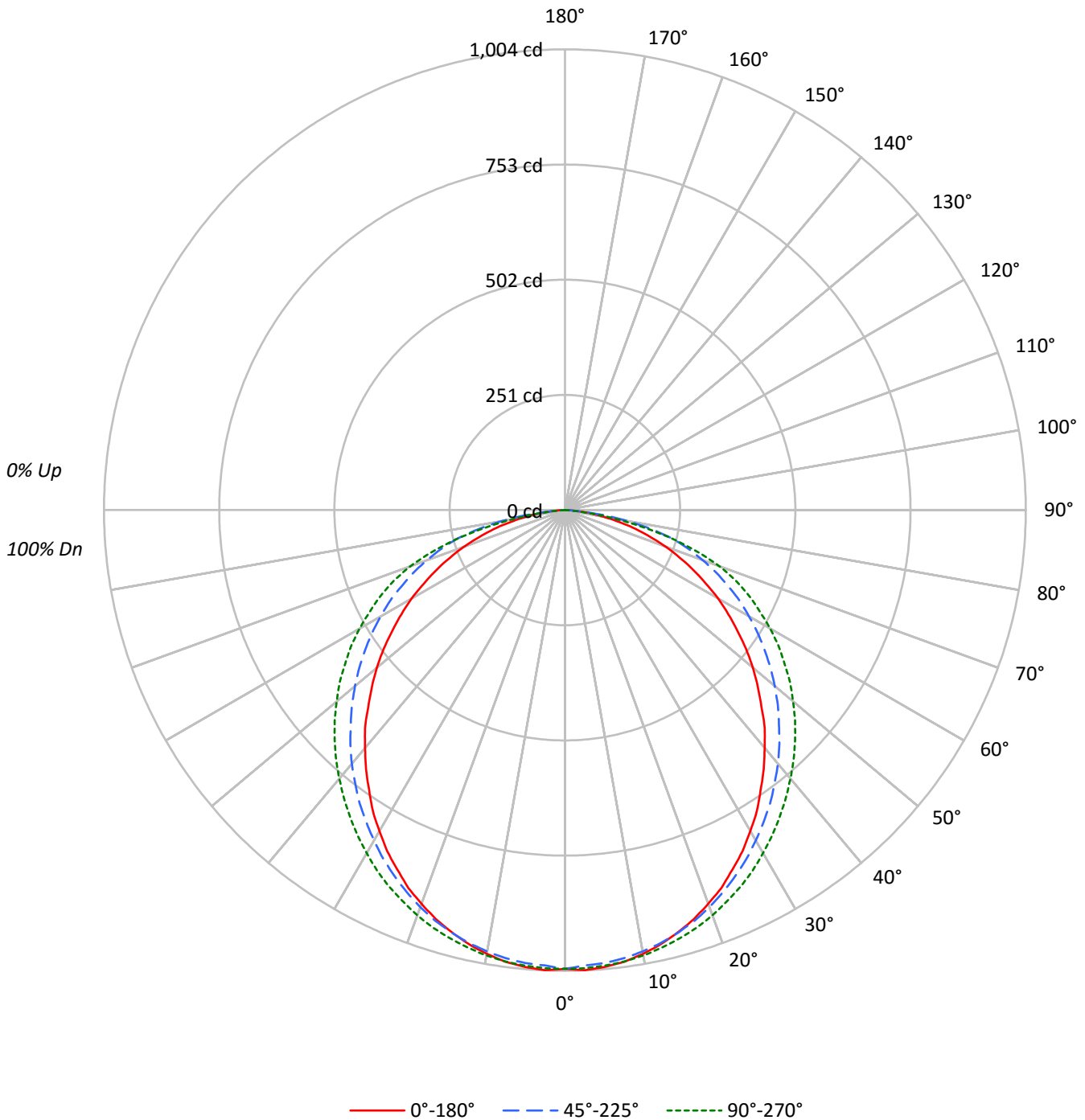
Input Watts (W): 25
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2690	2690	2690
5°	2699	2676	2692
10°	2682	2668	2693
15°	2654	2656	2691
20°	2615	2637	2691
25°	2565	2611	2688
30°	2509	2584	2682
35°	2442	2561	2681
40°	2378	2537	2684
45°	2305	2509	2699
50°	2238	2498	2717
55°	2152	2489	2741
60°	2076	2493	2779
65°	1969	2501	2823
70°	1848	2520	2821
75°	1675	2543	2549
80°	1375	2196	1815
85°	1019	1037	420



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.6	3.3
10°-20°	270.2	9.3
20°-30°	407.1	14.0
30°-40°	488.5	16.8
40°-50°	509.2	17.5
50°-60°	471.4	16.2
60°-70°	380.9	13.1
70°-80°	232.2	8.0
80°-90°	47.9	1.7
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°	771.9	26.6
0°-40°	1260.4	43.4
0°-60°	2241.0	77.2
0°-90°	2902.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2902.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1000	1000	1000	1000	1000	
5°	999	996	991	998	996	95
15°	952	953	953	966	966	269
25°	864	869	879	901	905	398
35°	744	755	780	808	816	466
45°	606	624	659	696	709	468
55°	459	483	531	572	584	411
65°	309	340	393	432	443	306
75°	161	197	245	248	245	169
85°	33	49	34	19	14	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	999.7	999.7	999.7	999.7	999.7
2.5°	1003.6	1000.4	993.3	1000.4	999.1
5°	999.1	996.5	990.7	997.8	996.5
7.5°	992.6	990.0	984.9	993.3	992.0
10°	981.6	980.3	976.5	986.2	985.5
12.5°	968.7	968.0	966.1	977.1	976.5
15°	952.5	953.2	953.2	966.1	966.1
17.5°	934.4	935.7	938.3	952.5	954.5
20°	913.0	915.6	920.8	937.0	939.6
22.5°	891.0	893.0	900.7	920.2	922.7
25°	863.9	869.0	879.4	901.4	905.3
27.5°	838.0	842.5	856.7	879.4	885.9
30°	807.6	814.7	831.5	856.1	863.2
32.5°	778.4	786.2	805.6	834.1	840.6
35°	743.5	755.1	779.7	808.2	816.0
37.5°	711.8	722.8	750.6	781.7	790.7
40°	676.9	690.4	722.1	755.1	764.2
42.5°	644.5	657.4	691.7	725.4	737.7
45°	605.7	623.8	659.4	696.3	709.2
47.5°	570.1	588.2	629.0	668.4	680.1
50°	534.5	553.9	596.6	637.4	649.0
52.5°	497.6	518.3	564.3	605.0	618.6
55°	458.8	482.7	530.6	572.0	584.3
57.5°	421.9	446.5	497.6	539.7	552.0
60°	385.7	410.9	463.3	503.4	516.4
62.5°	345.5	375.3	429.7	469.1	478.8
65°	309.3	339.7	392.8	432.3	443.3
67.5°	271.1	304.1	357.2	393.4	403.8
70°	234.9	269.2	320.3	354.0	358.5
72.5°	196.1	231.0	282.8	304.1	304.1
75°	161.1	196.7	244.6	248.5	245.2
77.5°	122.9	162.4	193.5	185.7	177.9
80°	88.7	127.5	141.7	127.5	117.1
82.5°	59.5	92.5	85.4	67.9	60.2
85°	33.0	49.2	33.6	18.8	13.6
87.5°	12.3	11.0	3.2	3.2	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)