

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: P312197

Luminaire Tested: **14FCZ2-29-UNV-L83050-CA125-W2A-U-4000K**

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: P312197
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-CA125-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 4000K 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: 2931.0 lumens
Efficiency: N/A
Efficacy: 120.6 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

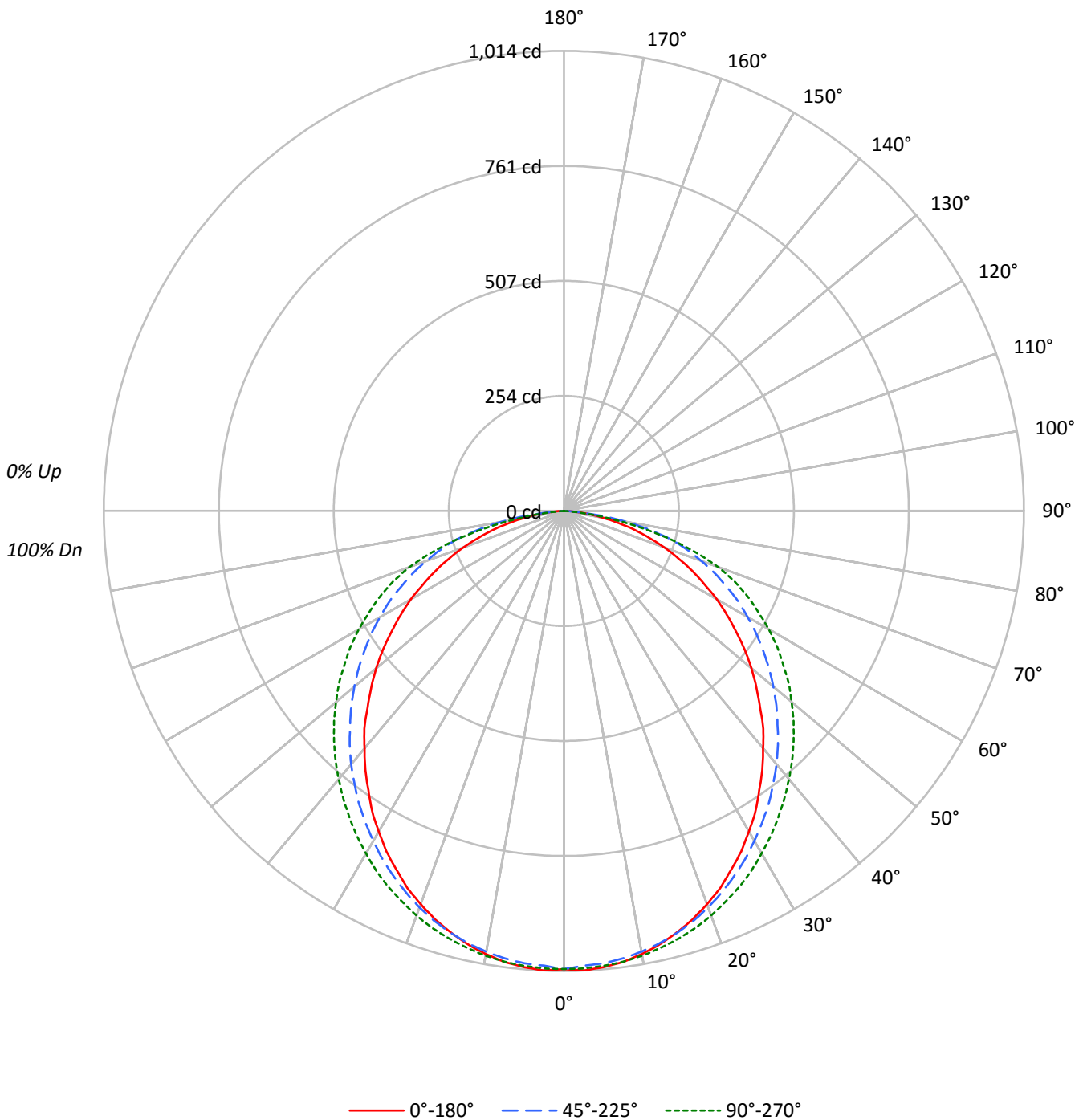
Input Watts (W): 24.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2717	2717	2717
5°	2726	2703	2719
10°	2709	2695	2720
15°	2680	2682	2718
20°	2641	2663	2718
25°	2591	2637	2715
30°	2534	2609	2709
35°	2467	2587	2707
40°	2401	2562	2711
45°	2328	2535	2726
50°	2260	2523	2744
55°	2174	2514	2769
60°	2096	2518	2807
65°	1989	2526	2851
70°	1866	2545	2849
75°	1692	2568	2575
80°	1387	2218	1833
85°	1028	1050	423



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.5	3.3
10°-20°	272.9	9.3
20°-30°	411.2	14.0
30°-40°	493.4	16.8
40°-50°	514.3	17.5
50°-60°	476.1	16.2
60°-70°	384.7	13.1
70°-80°	234.5	8.0
80°-90°	48.4	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°	779.7	26.6
0°-40°	1273.0	43.4
0°-60°	2263.4	77.2
0°-90°	2931.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2931.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1010	1010	1010	1010	1010	
5°	1009	1006	1001	1008	1006	96
15°	962	963	963	976	976	271
25°	872	878	888	910	914	402
35°	751	763	788	816	824	470
45°	612	630	666	703	716	473
55°	463	488	536	578	590	415
65°	312	343	397	437	448	309
75°	163	199	247	251	248	171
85°	33	50	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°	1009.7	1009.7	1009.7	1009.7	1009.7
2.5°	1013.7	1010.4	1003.2	1010.4	1009.1
5°	1009.1	1006.5	1000.6	1007.8	1006.5
7.5°	1002.5	999.9	994.7	1003.2	1001.9
10°	991.4	990.1	986.2	996.0	995.4
12.5°	978.4	977.7	975.8	986.9	986.2
15°	962.0	962.7	962.7	975.8	975.8
17.5°	943.7	945.0	947.7	962.0	964.0
20°	922.2	924.8	930.0	946.3	949.0
22.5°	899.9	901.9	909.7	929.4	932.0
25°	872.5	877.7	888.2	910.4	914.3
27.5°	846.4	850.9	865.3	888.2	894.7
30°	815.6	822.8	839.8	864.7	871.8
32.5°	786.2	794.1	813.7	842.4	849.0
35°	750.9	762.7	787.5	816.3	824.1
37.5°	718.9	730.0	758.1	789.5	798.6
40°	683.6	697.3	729.4	762.7	771.8
42.5°	650.9	664.0	698.6	732.6	745.1
45°	611.7	630.0	666.0	703.2	716.3
47.5°	575.8	594.1	635.3	675.1	686.9
50°	539.8	559.4	602.6	643.7	655.5
52.5°	502.6	523.5	569.9	611.1	624.8
55°	463.4	487.6	535.9	577.7	590.2
57.5°	426.1	451.0	502.6	545.1	557.5
60°	389.5	415.0	467.9	508.5	521.5
62.5°	349.0	379.1	434.0	473.8	483.6
65°	312.4	343.1	396.7	436.6	447.7
67.5°	273.8	307.2	360.8	397.4	407.8
70°	237.2	271.9	323.5	357.5	362.1
72.5°	198.0	233.3	285.6	307.2	307.2
75°	162.7	198.7	247.0	251.0	247.7
77.5°	124.2	164.0	195.4	187.6	179.7
80°	89.5	128.7	143.1	128.7	118.3
82.5°	60.1	93.5	86.3	68.6	60.8
85°	33.3	49.7	34.0	19.0	13.7
87.5°	12.4	11.1	3.3	3.3	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)