

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: P312198

Luminaire Tested: **14FCZ2-29-UNV-L83050-CA125-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: P312198
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-4500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.125" ACRYLIC 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: 2959.0 lumens
Efficiency: N/A
Efficacy: 118.4 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

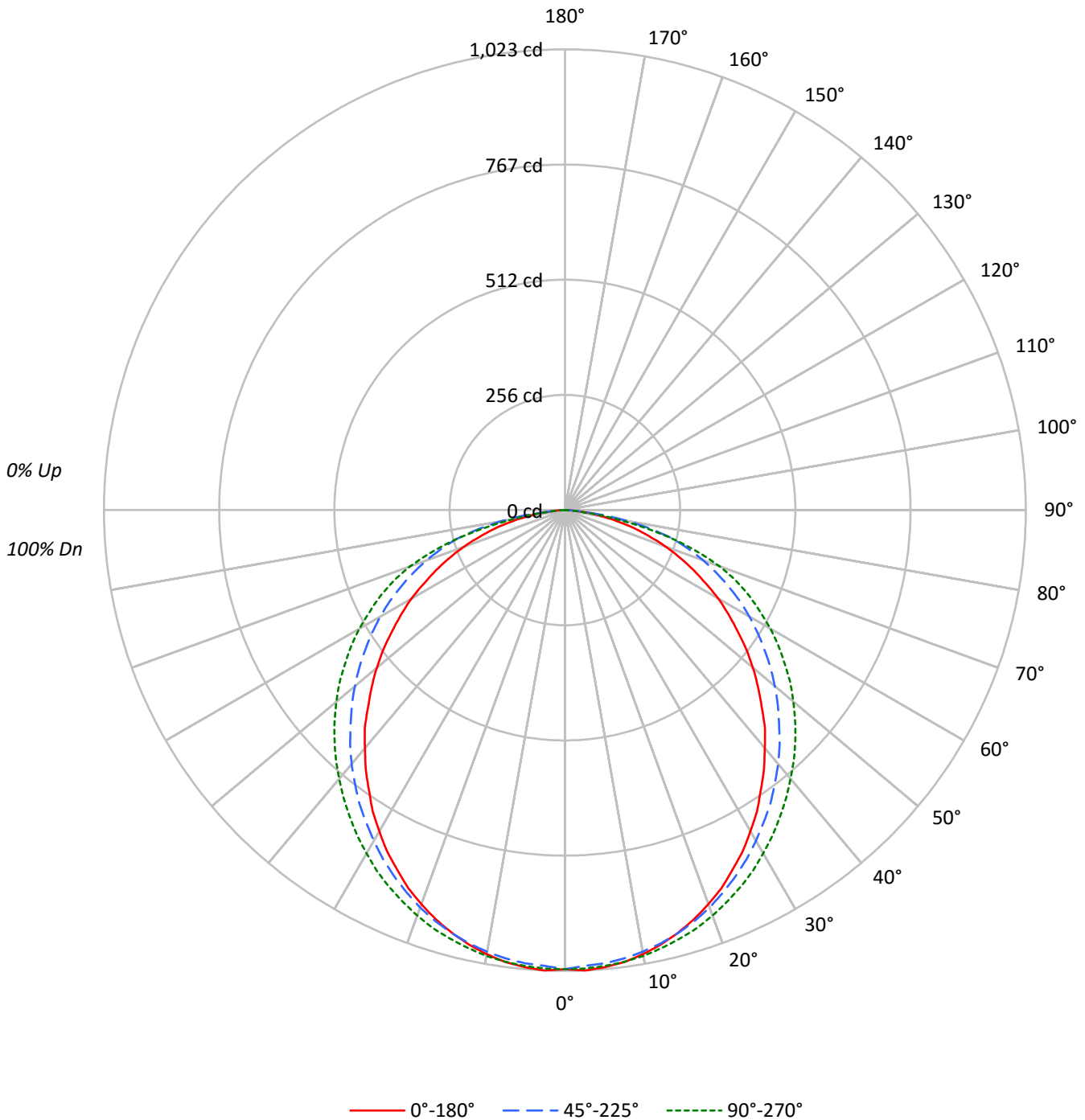
Input Watts (W): 25
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P312198

CATALOG NUMBER: 14FCZ2-29-UNV-L83050-CA125-W2A-U-4500K

Luminous Intensity Polar Plot





TEST NUMBER: P312198

CATALOG NUMBER: 14FC22-29-UNV-L83050-CA125-W2A-U-4500K

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°	2743	2743	2743
5°	2752	2729	2745
10°	2735	2720	2746
15°	2706	2708	2744
20°	2666	2689	2743
25°	2615	2662	2741
30°	2559	2634	2735
35°	2490	2612	2733
40°	2424	2586	2737
45°	2350	2559	2752
50°	2282	2547	2771
55°	2195	2538	2795
60°	2116	2542	2834
65°	2008	2550	2878
70°	1884	2570	2876
75°	1708	2593	2600
80°	1401	2239	1850
85°	1037	1059	429



TEST NUMBER: P312198

CATALOG NUMBER: 14FCZ2-29-UNV-L83050-CA125-W2A-U-4500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.5	3.3
10°-20°	275.5	9.3
20°-30°	415.1	14.0
30°-40°	498.1	16.8
40°-50°	519.2	17.5
50°-60°	480.6	16.2
60°-70°	388.3	13.1
70°-80°	236.8	8.0
80°-90°	48.9	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°	787.1	26.6
0°-40°	1285.2	43.4
0°-60°	2285.0	77.2
0°-90°	2959.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2959.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1019	1019	1019	1019	1019	
5°	1019	1016	1010	1017	1016	97
15°	971	972	972	985	985	274
25°	881	886	897	919	923	406
35°	758	770	795	824	832	475
45°	618	636	672	710	723	477
55°	468	492	541	583	596	419
65°	315	346	400	441	452	312
75°	164	201	249	253	250	173
85°	34	50	34	19	14	41
90°	0	0	0	0	0	



TEST NUMBER: P312198

CATALOG NUMBER: 14FCZ2-29-UNV-L83050-CA125-W2A-U-4500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1019.4	1019.4	1019.4	1019.4	1019.4
2.5°	1023.3	1020.0	1012.8	1020.0	1018.7
5°	1018.7	1016.1	1010.1	1017.4	1016.1
7.5°	1012.1	1009.5	1004.2	1012.8	1011.5
10°	1000.9	999.6	995.6	1005.5	1004.9
12.5°	987.7	987.1	985.1	996.3	995.6
15°	971.2	971.9	971.9	985.1	985.1
17.5°	952.7	954.1	956.7	971.2	973.2
20°	931.0	933.6	938.9	955.4	958.0
22.5°	908.5	910.5	918.4	938.2	940.9
25°	880.8	886.1	896.7	919.1	923.1
27.5°	854.4	859.1	873.6	896.7	903.3
30°	823.4	830.7	847.8	872.9	880.2
32.5°	793.7	801.7	821.4	850.5	857.1
35°	758.1	770.0	795.1	824.1	832.0
37.5°	725.8	737.0	765.4	797.0	806.3
40°	690.1	704.0	736.3	770.0	779.2
42.5°	657.2	670.4	705.3	739.6	752.2
45°	617.6	636.0	672.3	709.9	723.1
47.5°	581.3	599.8	641.3	681.6	693.4
50°	545.0	564.8	608.3	649.9	661.8
52.5°	507.4	528.5	575.3	616.9	630.8
55°	467.8	492.2	541.0	583.3	595.8
57.5°	430.2	455.3	507.4	550.3	562.8
60°	393.2	419.0	472.4	513.3	526.5
62.5°	352.3	382.7	438.1	478.4	488.2
65°	315.4	346.4	400.5	440.7	452.0
67.5°	276.5	310.1	364.2	401.2	411.7
70°	239.5	274.5	326.6	360.9	365.5
72.5°	199.9	235.5	288.3	310.1	310.1
75°	164.3	200.6	249.4	253.4	250.1
77.5°	125.4	165.6	197.3	189.4	181.4
80°	90.4	130.0	144.5	130.0	119.4
82.5°	60.7	94.4	87.1	69.3	61.4
85°	33.6	50.1	34.3	19.1	13.9
87.5°	12.5	11.2	3.3	3.3	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)