

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: P311971

Luminaire Tested: **14FCZ2-44-UNV-L83050-HRP-CA125-W2A-U-3500K**

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: P311971
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-44-UNV-L83050-HRP-CA125-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 3500K 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: 3141.0 lumens
Efficiency: N/A
Efficacy: 82.0 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

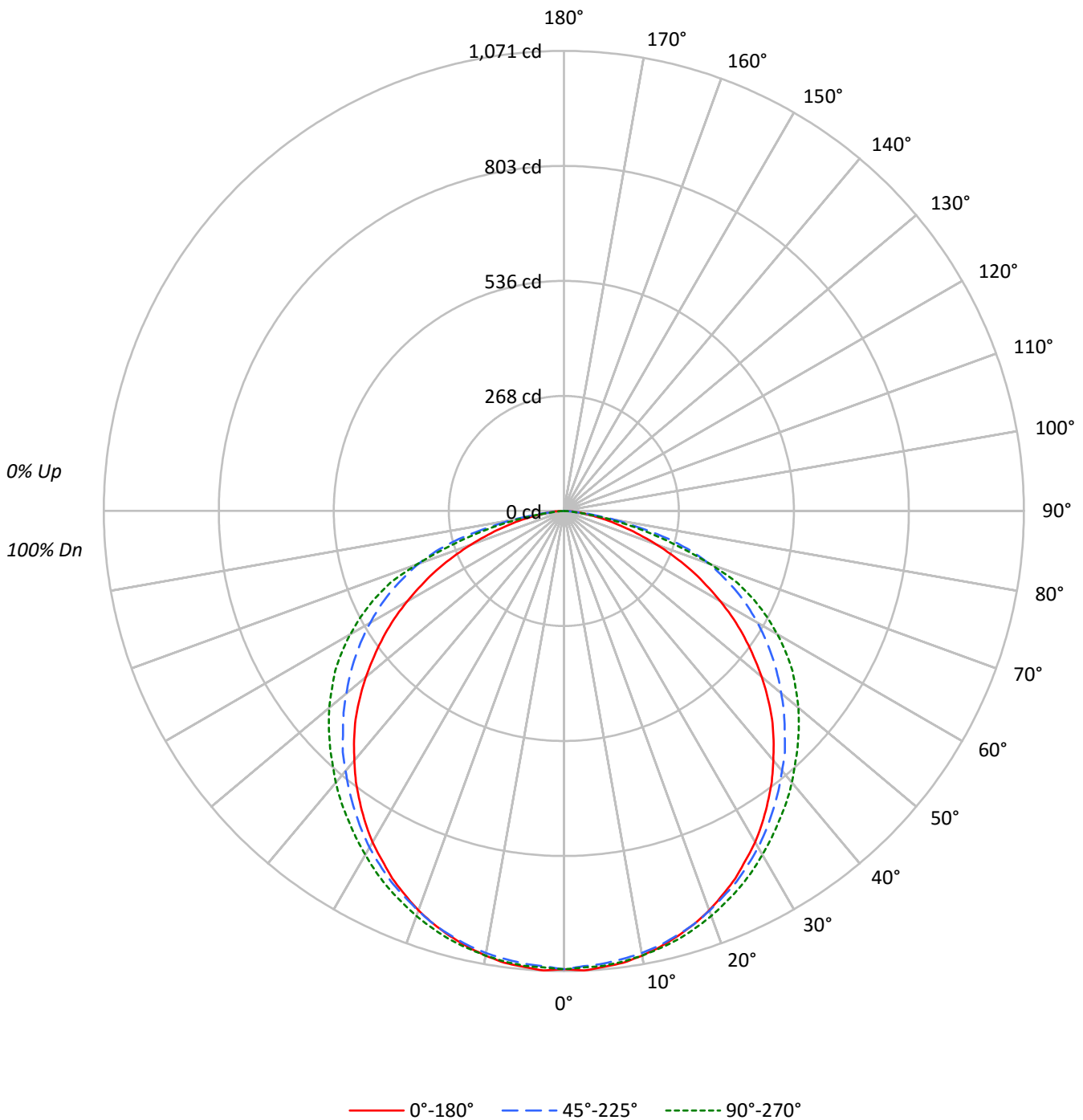
Input Watts (W): 38.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P311971

CATALOG NUMBER: 14FCZ2-44-UNV-L83050-HRP-CA125-W2A-U-3500K

Luminous Intensity Polar Plot





TEST NUMBER: P311971

CATALOG NUMBER: 14FCZ2-44-UNV-L83050-HRP-CA125-W2A-U-3500K

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	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	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	38	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2870	2870	2870
5°	2879	2857	2871
10°	2872	2855	2872
15°	2853	2848	2875
20°	2834	2837	2874
25°	2803	2827	2874
30°	2768	2811	2873
35°	2719	2790	2878
40°	2664	2775	2901
45°	2609	2766	2932
50°	2518	2766	2985
55°	2410	2780	3049
60°	2265	2801	3088
65°	2088	2830	3107
70°	1818	2836	2860
75°	1499	2639	2310
80°	1179	1898	1547
85°	914	732	367



TEST NUMBER: P311971

CATALOG NUMBER: 14FCZ2-44-UNV-L83050-HRP-CA125-W2A-U-3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.0	3.2
10°-20°	289.8	9.2
20°-30°	440.1	14.0
30°-40°	533.2	17.0
40°-50°	561.9	17.9
50°-60°	524.6	16.7
60°-70°	419.2	13.3
70°-80°	230.7	7.3
80°-90°	40.7	1.3
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°	830.8	26.5
0°-40°	1364.0	43.4
0°-60°	2450.4	78.0
0°-90°	3141.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3141.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1067	1067	1067	1067	1067	
5°	1066	1063	1058	1065	1063	101
15°	1024	1024	1022	1032	1032	289
25°	944	946	952	966	968	435
35°	828	836	849	871	876	518
45°	686	698	727	760	770	527
55°	514	539	593	634	650	458
65°	328	369	444	481	488	323
75°	144	206	254	228	222	155
85°	30	38	24	15	12	36
90°	0	0	0	0	0	



TEST NUMBER: P311971

CATALOG NUMBER: 14FC22-44-UNV-L83050-HRP-CA125-W2A-U-3500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1066.7	1066.7	1066.7	1066.7	1066.7
2.5°	1070.7	1067.7	1060.8	1066.7	1063.7
5°	1065.7	1062.7	1057.8	1064.7	1062.7
7.5°	1060.8	1056.8	1051.9	1059.8	1057.8
10°	1050.9	1047.9	1045.0	1051.9	1050.9
12.5°	1039.0	1038.1	1035.1	1043.0	1042.0
15°	1024.2	1024.2	1022.3	1032.1	1032.1
17.5°	1008.4	1007.4	1008.4	1019.3	1018.3
20°	989.7	989.7	990.6	1003.5	1003.5
22.5°	966.9	967.9	970.9	986.7	985.7
25°	944.2	946.2	952.1	966.0	967.9
27.5°	916.6	921.5	928.4	945.2	947.2
30°	890.9	893.9	904.7	920.5	924.5
32.5°	860.3	866.2	878.1	895.8	900.8
35°	827.7	835.6	849.4	871.1	876.1
37.5°	795.1	802.0	820.8	843.5	852.4
40°	758.5	770.4	790.1	815.8	825.7
42.5°	723.0	734.8	761.5	788.2	797.1
45°	685.5	698.3	726.9	759.5	770.4
47.5°	644.0	658.8	695.3	729.9	741.8
50°	601.5	620.3	660.8	699.3	713.1
52.5°	557.1	580.8	627.2	667.7	680.5
55°	513.6	539.3	592.6	634.1	649.9
57.5°	469.2	496.8	557.1	604.5	613.4
60°	420.8	454.3	520.5	562.0	573.8
62.5°	373.3	411.9	483.0	522.5	532.4
65°	327.9	369.4	444.5	481.0	487.9
67.5°	278.5	327.9	402.0	435.6	437.5
70°	231.1	288.4	360.5	376.3	363.5
72.5°	184.7	245.9	312.1	299.3	288.4
75°	144.2	206.4	253.8	228.2	222.2
77.5°	106.7	168.9	181.7	167.9	157.0
80°	76.1	133.3	122.5	104.7	99.8
82.5°	52.3	84.0	67.2	52.3	45.4
85°	29.6	37.5	23.7	14.8	11.9
87.5°	12.8	8.9	4.9	4.0	4.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)