

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: P311953

Luminaire Tested: **14FCZ2-39-UNV-L83050-HRP-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: P311953
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: 14FCZ2-39-UNV-L83050-HRP-CP125-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. 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: 2921.0 lumens
Efficiency: N/A
Efficacy: 83.7 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

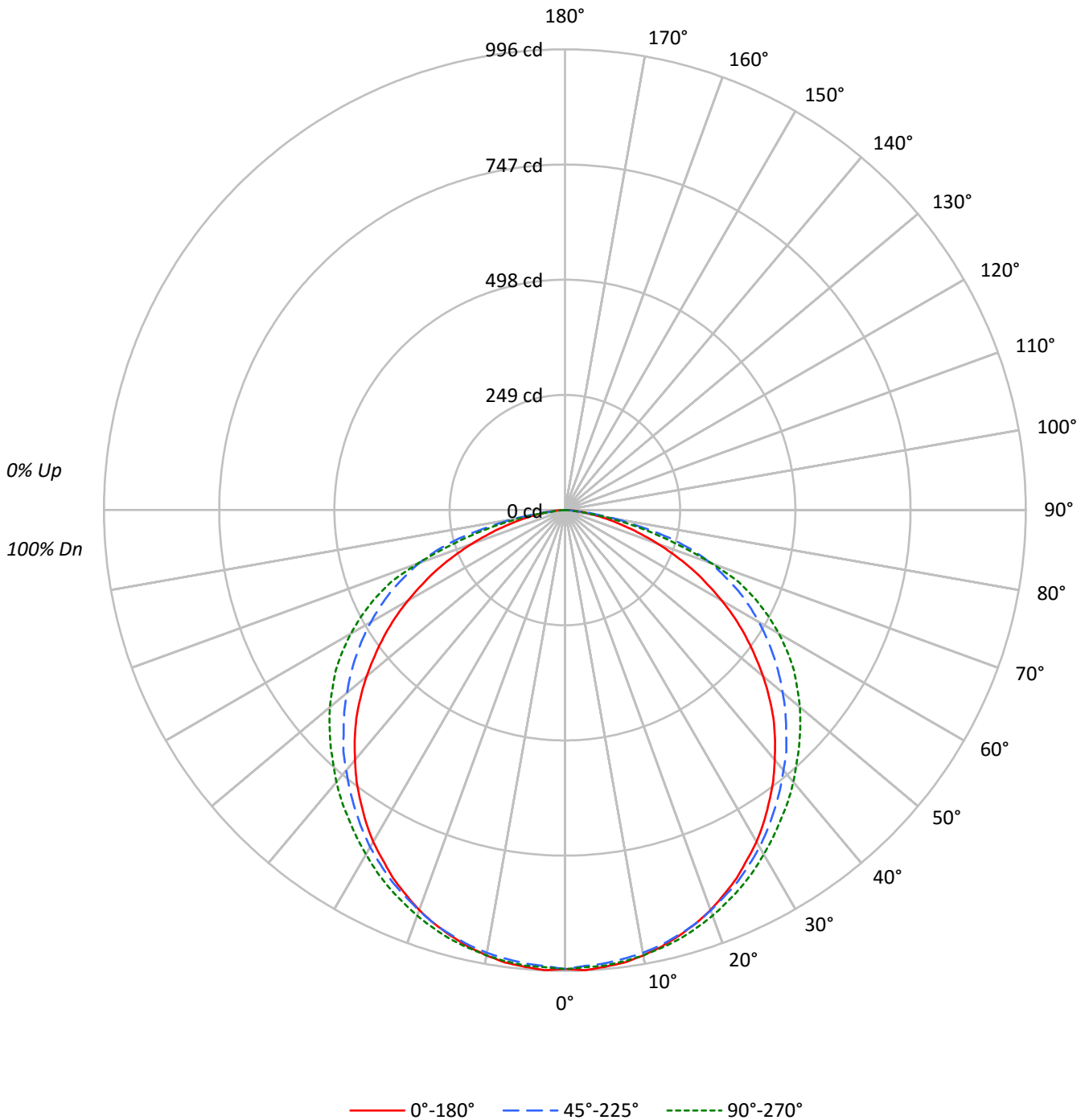
Input Watts (W): 34.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P311953

CATALOG NUMBER: 14FCZ2-39-UNV-L83050-HRP-CP125-W2A-U-4500K

Luminous Intensity Polar Plot





TEST NUMBER: P311953

CATALOG NUMBER: 14FCZ2-39-UNV-L83050-HRP-CP125-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	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°	2669	2669	2669
5°	2677	2657	2670
10°	2670	2655	2670
15°	2654	2649	2674
20°	2635	2638	2672
25°	2607	2629	2673
30°	2574	2614	2671
35°	2529	2595	2676
40°	2478	2581	2697
45°	2426	2573	2726
50°	2342	2573	2776
55°	2241	2586	2836
60°	2106	2605	2872
65°	1941	2632	2889
70°	1691	2638	2659
75°	1394	2455	2149
80°	1096	1765	1438
85°	852	679	340



TEST NUMBER: P311953

CATALOG NUMBER: 14FCZ2-39-UNV-L83050-HRP-CP125-W2A-U-4500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.9	3.2
10°-20°	269.5	9.2
20°-30°	409.2	14.0
30°-40°	495.9	17.0
40°-50°	522.5	17.9
50°-60°	487.8	16.7
60°-70°	389.8	13.3
70°-80°	214.5	7.3
80°-90°	37.9	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°	772.6	26.5
0°-40°	1268.5	43.4
0°-60°	2278.8	78.0
0°-90°	2921.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2921.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	992	992	992	992	992	
5°	991	988	984	990	988	94
15°	952	952	951	960	960	269
25°	878	880	885	898	900	404
35°	770	777	790	810	815	482
45°	637	649	676	706	716	490
55°	478	502	551	590	604	426
65°	305	344	413	447	454	300
75°	134	192	236	212	207	144
85°	28	35	22	14	11	34
90°	0	0	0	0	0	



TEST NUMBER: P311953

CATALOG NUMBER: 14FCZ2-39-UNV-L83050-HRP-CP125-W2A-U-4500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	992.0	992.0	992.0	992.0	992.0
2.5°	995.7	992.9	986.5	992.0	989.2
5°	991.1	988.3	983.7	990.1	988.3
7.5°	986.5	982.8	978.2	985.6	983.7
10°	977.3	974.5	971.8	978.2	977.3
12.5°	966.3	965.3	962.6	969.9	969.0
15°	952.5	952.5	950.7	959.8	959.8
17.5°	937.8	936.9	937.8	947.9	947.0
20°	920.3	920.3	921.3	933.2	933.2
22.5°	899.2	900.1	902.9	917.6	916.7
25°	878.1	879.9	885.4	898.3	900.1
27.5°	852.4	857.0	863.4	879.0	880.8
30°	828.5	831.2	841.4	856.0	859.7
32.5°	800.0	805.5	816.6	833.1	837.7
35°	769.7	777.1	789.9	810.1	814.7
37.5°	739.4	745.8	763.3	784.4	792.7
40°	705.4	716.4	734.8	758.7	767.9
42.5°	672.3	683.4	708.2	733.0	741.2
45°	637.4	649.4	676.0	706.3	716.4
47.5°	598.9	612.6	646.6	678.8	689.8
50°	559.4	576.8	614.5	650.3	663.2
52.5°	518.0	540.1	583.3	620.9	632.9
55°	477.6	501.5	551.1	589.7	604.4
57.5°	436.3	462.0	518.0	562.1	570.4
60°	391.3	422.5	484.1	522.6	533.7
62.5°	347.2	383.0	449.1	485.9	495.1
65°	304.9	343.5	413.3	447.3	453.7
67.5°	259.0	304.9	373.8	405.1	406.9
70°	214.9	268.2	335.3	350.0	338.0
72.5°	171.8	228.7	290.2	278.3	268.2
75°	134.1	192.0	236.1	212.2	206.7
77.5°	99.2	157.1	169.0	156.1	146.0
80°	70.7	124.0	113.9	97.4	92.8
82.5°	48.7	78.1	62.5	48.7	42.3
85°	27.6	34.9	22.0	13.8	11.0
87.5°	11.9	8.3	4.6	3.7	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)