

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: P312548

Luminaire Tested: **22FCZ2-39HE-UNV-L83050-HRP-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: P312548
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-39HE-UNV-L83050-HRP-CA125-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. 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: 3017.0 lumens
Efficiency: N/A
Efficacy: 88.7 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

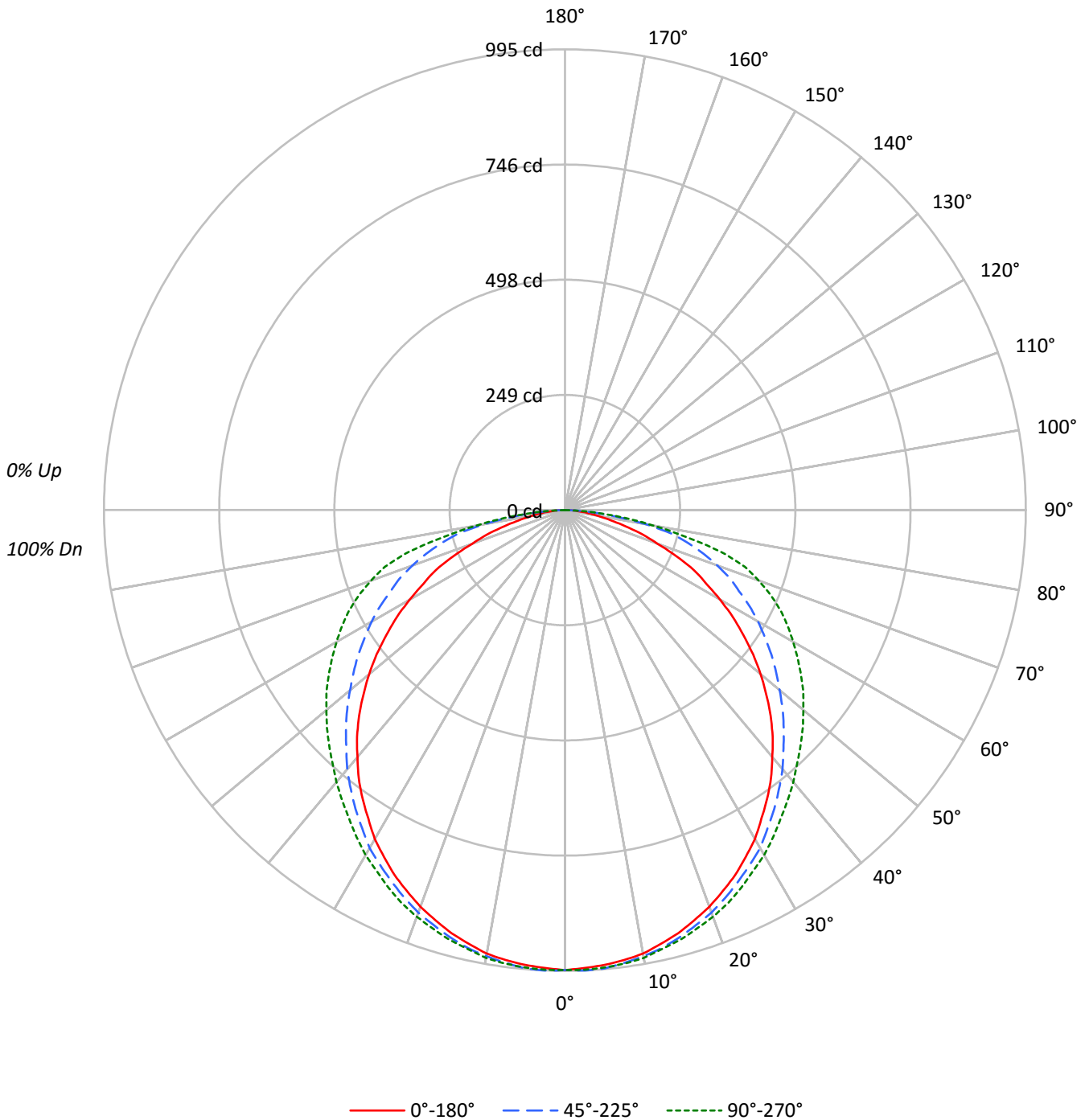
Input Watts (W): 34
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P312548

CATALOG NUMBER: 22FCZ2-39HE-UNV-L83050-HRP-CA125-W2A-U-4500K

Luminous Intensity Polar Plot





TEST NUMBER: P312548

CATALOG NUMBER: 22FCZ2-39HE-UNV-L83050-HRP-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	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2673	2673	2673
5°	2663	2684	2679
10°	2657	2673	2683
15°	2635	2662	2678
20°	2611	2649	2676
25°	2583	2628	2673
30°	2549	2620	2673
35°	2501	2588	2670
40°	2447	2567	2694
45°	2390	2542	2738
50°	2310	2534	2812
55°	2206	2554	2920
60°	2079	2591	3063
65°	1963	2642	3272
70°	1677	2755	3504
75°	1405	2870	3641
80°	1150	2772	3037
85°	1000	2056	2232



TEST NUMBER: P312548

CATALOG NUMBER: 22FCZ2-39HE-UNV-L83050-HRP-CA125-W2A-U-4500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.2	3.1
10°-20°	269.3	8.9
20°-30°	408.2	13.5
30°-40°	492.9	16.3
40°-50°	517.9	17.2
50°-60°	487.3	16.2
60°-70°	406.3	13.5
70°-80°	269.2	8.9
80°-90°	71.7	2.4
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°	771.7	25.6
0°-40°	1264.5	41.9
0°-60°	2269.7	75.2
0°-90°	3017.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3017.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	994	994	994	994	994	
5°	986	988	994	994	992	94
15°	946	950	955	959	961	267
25°	870	876	885	896	900	400
35°	761	769	788	805	813	476
45°	628	638	668	702	719	484
55°	470	491	544	600	622	421
65°	308	335	415	483	514	300
75°	135	188	276	333	350	147
85°	32	50	67	72	72	38
90°	0	0	0	0	0	



TEST NUMBER: P312548

CATALOG NUMBER: 22FC22-39HE-UNV-L83050-HRP-CA125-W2A-U-4500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	993.5	993.5	993.5	993.5	993.5
2.5°	989.7	991.6	995.4	995.4	993.5
5°	985.9	987.8	993.5	993.5	991.6
7.5°	980.1	982.0	985.9	989.7	987.8
10°	972.5	974.4	978.2	982.0	982.0
12.5°	959.2	961.1	968.7	970.6	970.6
15°	945.9	949.7	955.4	959.2	961.1
17.5°	928.8	932.6	940.2	947.8	947.8
20°	911.6	915.4	924.9	932.6	934.5
22.5°	890.7	896.4	905.9	915.4	919.2
25°	869.8	875.5	885.0	896.4	900.2
27.5°	845.0	850.7	864.0	877.4	879.3
30°	820.3	826.0	843.1	854.5	860.2
32.5°	789.8	797.4	814.6	831.7	837.4
35°	761.3	768.9	787.9	805.0	812.7
37.5°	730.8	738.4	759.4	780.3	789.8
40°	696.6	706.1	730.8	753.7	767.0
42.5°	664.2	673.7	698.5	728.9	742.2
45°	628.1	637.6	668.0	702.3	719.4
47.5°	590.0	601.4	637.6	679.4	696.6
50°	551.9	565.2	605.2	652.8	671.8
52.5°	512.0	529.1	574.8	626.1	649.0
55°	470.1	491.0	544.3	599.5	622.3
57.5°	430.1	449.2	512.0	571.0	595.7
60°	386.3	411.1	481.5	542.4	569.1
62.5°	344.5	371.1	449.2	513.9	542.4
65°	308.3	335.0	414.9	483.4	513.9
67.5°	260.7	296.9	386.3	451.1	481.5
70°	213.2	262.6	350.2	416.8	445.3
72.5°	177.0	224.6	314.0	380.6	407.3
75°	135.1	188.4	276.0	333.1	350.2
77.5°	100.9	156.1	236.0	264.5	266.4
80°	74.2	119.9	178.9	188.4	196.0
82.5°	51.4	83.7	116.1	127.5	131.3
85°	32.4	49.5	66.6	72.3	72.3
87.5°	17.1	19.0	22.8	22.8	22.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)