

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: P308328

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-HRP-CP250-W2A-U-5700K**

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: P308328
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: 22FCZ2-44HE-UNV-L82765-HRP-CP250-W2A-U-5700K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
POLYCARB SHEET
Light Source: (168) 3000K 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: 2991.0 lumens
Efficiency: N/A
Efficacy: 78.3 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

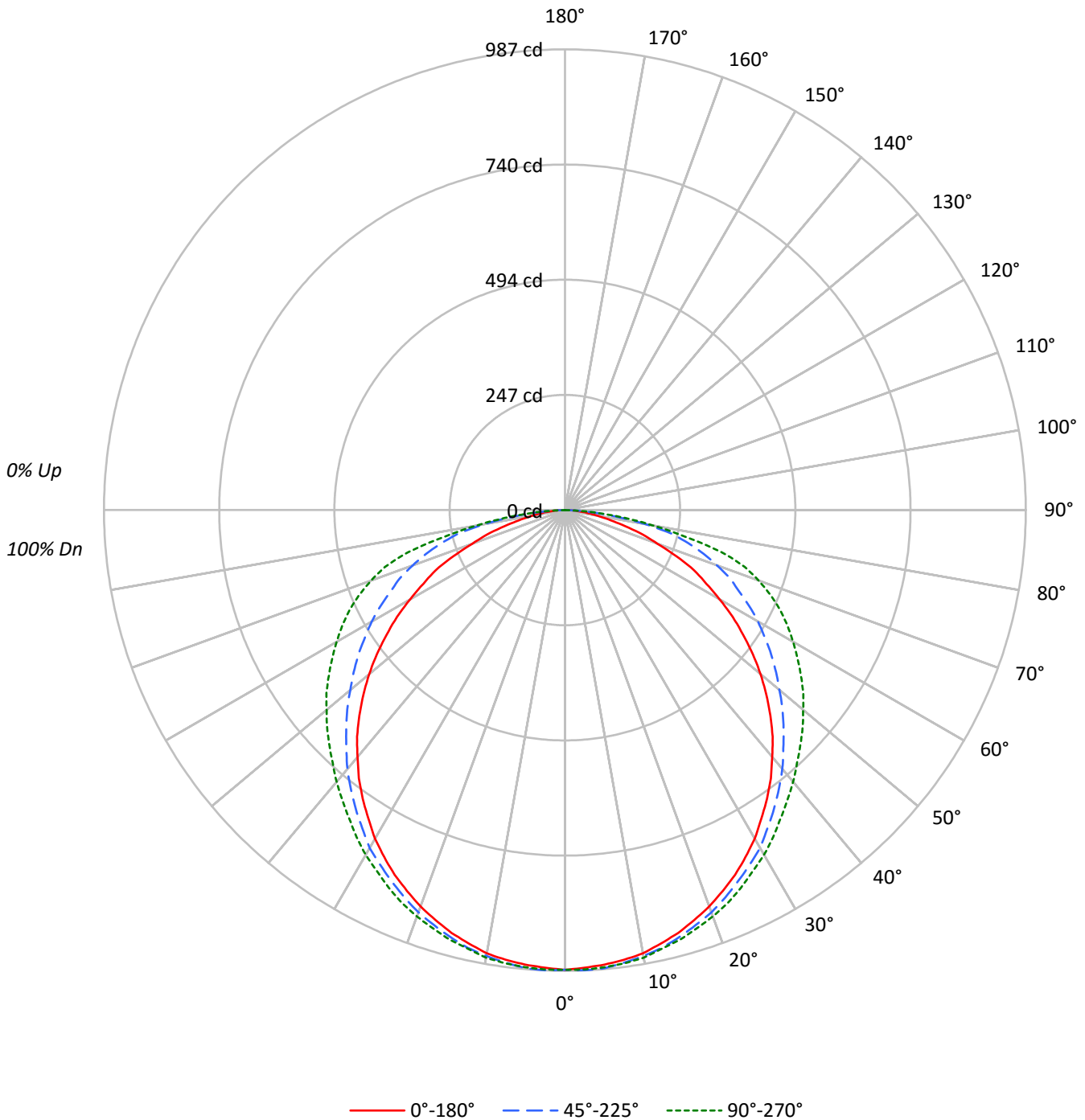
Input Watts (W): 38.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2650	2650	2650
5°	2640	2660	2655
10°	2634	2650	2660
15°	2612	2639	2654
20°	2588	2626	2653
25°	2560	2605	2650
30°	2527	2597	2650
35°	2479	2566	2647
40°	2426	2545	2671
45°	2369	2520	2714
50°	2291	2512	2788
55°	2186	2532	2895
60°	2061	2569	3036
65°	1947	2619	3244
70°	1662	2732	3474
75°	1393	2845	3610
80°	1141	2749	3011
85°	991	2038	2214



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.3	3.1
10°-20°	267.0	8.9
20°-30°	404.7	13.5
30°-40°	488.6	16.3
40°-50°	513.4	17.2
50°-60°	483.1	16.2
60°-70°	402.8	13.5
70°-80°	266.9	8.9
80°-90°	71.1	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°	765.0	25.6
0°-40°	1253.6	41.9
0°-60°	2250.2	75.2
0°-90°	2991.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2991.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	985	985	985	985	985	
5°	977	979	985	985	983	93
15°	938	942	947	951	953	264
25°	862	868	877	889	892	397
35°	755	762	781	798	806	472
45°	623	632	662	696	713	480
55°	466	487	540	594	617	417
65°	306	332	411	479	509	297
75°	134	187	274	330	347	145
85°	32	49	66	72	72	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	984.9	984.9	984.9	984.9	984.9
2.5°	981.1	983.0	986.8	986.8	984.9
5°	977.4	979.2	984.9	984.9	983.0
7.5°	971.7	973.6	977.4	981.1	979.2
10°	964.1	966.0	969.8	973.6	973.6
12.5°	950.9	952.8	960.4	962.3	962.3
15°	937.7	941.5	947.2	950.9	952.8
17.5°	920.8	924.5	932.1	939.6	939.6
20°	903.8	907.5	917.0	924.5	926.4
22.5°	883.0	888.7	898.1	907.5	911.3
25°	862.3	867.9	877.4	888.7	892.5
27.5°	837.7	843.4	856.6	869.8	871.7
30°	813.2	818.9	835.8	847.2	852.8
32.5°	783.0	790.6	807.5	824.5	830.2
35°	754.7	762.3	781.1	798.1	805.7
37.5°	724.5	732.1	752.8	773.6	783.0
40°	690.6	700.0	724.5	747.2	760.4
42.5°	658.5	667.9	692.5	722.6	735.8
45°	622.6	632.1	662.3	696.2	713.2
47.5°	584.9	596.2	632.1	673.6	690.6
50°	547.2	560.4	600.0	647.2	666.0
52.5°	507.5	524.5	569.8	620.8	643.4
55°	466.0	486.8	539.6	594.3	617.0
57.5°	426.4	445.3	507.5	566.0	590.6
60°	383.0	407.5	477.4	537.7	564.1
62.5°	341.5	367.9	445.3	509.4	537.7
65°	305.7	332.1	411.3	479.2	509.4
67.5°	258.5	294.3	383.0	447.2	477.4
70°	211.3	260.4	347.2	413.2	441.5
72.5°	175.5	222.6	311.3	377.4	403.8
75°	134.0	186.8	273.6	330.2	347.2
77.5°	100.0	154.7	234.0	262.3	264.2
80°	73.6	118.9	177.4	186.8	194.3
82.5°	50.9	83.0	115.1	126.4	130.2
85°	32.1	49.1	66.0	71.7	71.7
87.5°	17.0	18.9	22.6	22.6	22.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)