

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: P308287

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-HRP-CA08-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: P308287
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-CA08-W2A-U-3500K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC 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: 3019.0 lumens
Efficiency: N/A
Efficacy: 80.7 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

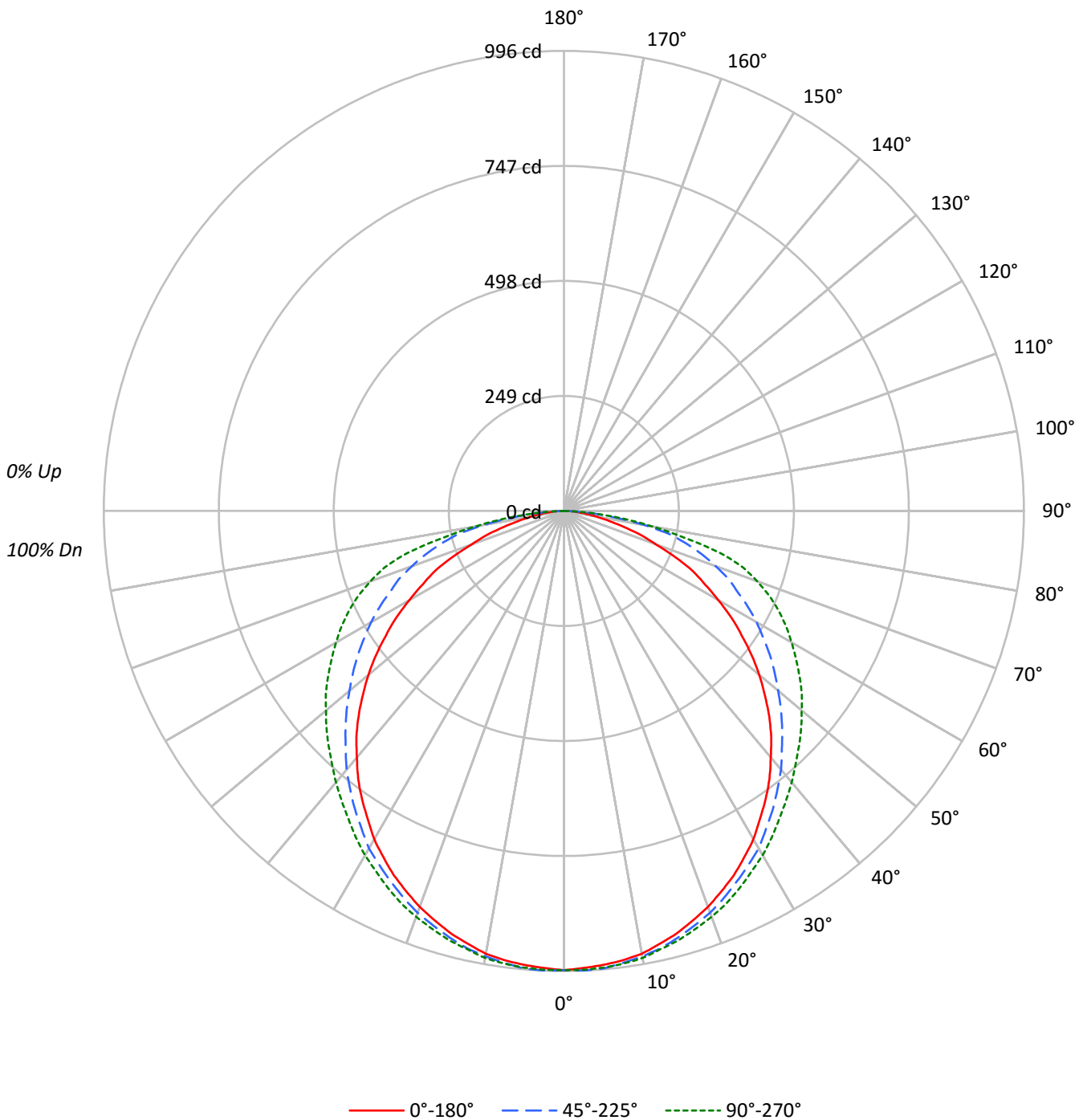
Input Watts (W): 37.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2675	2675	2675
5°	2665	2685	2680
10°	2659	2675	2685
15°	2637	2663	2679
20°	2612	2651	2678
25°	2584	2629	2675
30°	2550	2622	2675
35°	2503	2590	2671
40°	2448	2569	2696
45°	2392	2544	2740
50°	2312	2535	2815
55°	2207	2556	2922
60°	2081	2593	3064
65°	1964	2644	3274
70°	1678	2757	3506
75°	1406	2871	3643
80°	1151	2774	3040
85°	1000	2059	2235



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.2	3.1
10°-20°	269.5	8.9
20°-30°	408.5	13.5
30°-40°	493.2	16.3
40°-50°	518.2	17.2
50°-60°	487.6	16.2
60°-70°	406.6	13.5
70°-80°	269.4	8.9
80°-90°	71.8	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°	772.2	25.6
0°-40°	1265.4	41.9
0°-60°	2271.2	75.2
0°-90°	3019.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3019.0	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	956	960	962	267
25°	870	876	886	897	901	401
35°	762	769	788	806	813	476
45°	628	638	668	703	720	484
55°	470	491	545	600	623	421
65°	308	335	415	484	514	300
75°	135	188	276	333	350	147
85°	32	50	67	72	72	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	994.1	994.1	994.1	994.1	994.1
2.5°	990.3	992.2	996.0	996.0	994.1
5°	986.5	988.4	994.1	994.1	992.2
7.5°	980.8	982.7	986.5	990.3	988.4
10°	973.2	975.1	978.9	982.7	982.7
12.5°	959.8	961.7	969.4	971.3	971.3
15°	946.5	950.3	956.0	959.8	961.7
17.5°	929.4	933.2	940.8	948.4	948.4
20°	912.2	916.0	925.6	933.2	935.1
22.5°	891.3	897.0	906.5	916.0	919.8
25°	870.3	876.0	885.6	897.0	900.8
27.5°	845.6	851.3	864.6	878.0	879.9
30°	820.8	826.5	843.7	855.1	860.8
32.5°	790.3	798.0	815.1	832.2	838.0
35°	761.8	769.4	788.4	805.6	813.2
37.5°	731.3	738.9	759.9	780.8	790.3
40°	697.0	706.6	731.3	754.2	767.5
42.5°	664.7	674.2	698.9	729.4	742.7
45°	628.5	638.0	668.5	702.7	719.9
47.5°	590.4	601.8	638.0	679.9	697.0
50°	552.3	565.6	605.6	653.2	672.3
52.5°	512.3	529.4	575.1	626.6	649.4
55°	470.4	491.3	544.7	599.9	622.8
57.5°	430.4	449.5	512.3	571.3	596.1
60°	386.6	411.4	481.8	542.8	569.4
62.5°	344.7	371.4	449.5	514.2	542.8
65°	308.5	335.2	415.2	483.7	514.2
67.5°	260.9	297.1	386.6	451.4	481.8
70°	213.3	262.8	350.4	417.1	445.6
72.5°	177.1	224.7	314.2	380.9	407.6
75°	135.2	188.5	276.1	333.3	350.4
77.5°	100.9	156.2	236.2	264.7	266.6
80°	74.3	120.0	179.0	188.5	196.2
82.5°	51.4	83.8	116.2	127.6	131.4
85°	32.4	49.5	66.7	72.4	72.4
87.5°	17.1	19.0	22.9	22.9	22.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)