

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: P312571

Luminaire Tested: **22FCZ2-44HE-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: P312571
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-L83050-HRP-CA125-W2A-U-3500K
Description: 2'X2' 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: 3193.0 lumens
Efficiency: N/A
Efficacy: 85.8 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

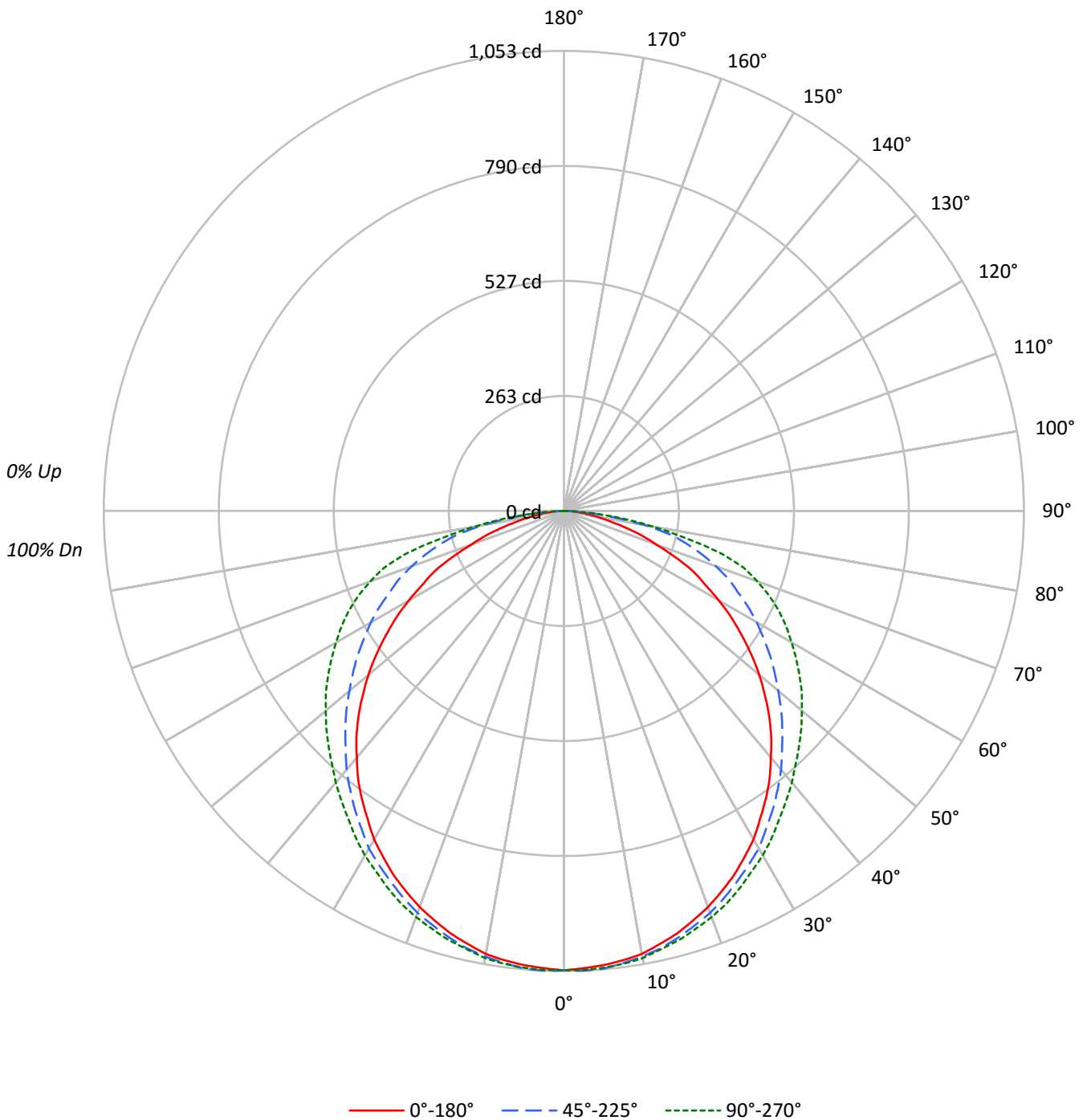
Input Watts (W): 37.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2829	2829	2829
5°	2818	2840	2835
10°	2813	2829	2840
15°	2789	2817	2834
20°	2763	2803	2832
25°	2733	2781	2829
30°	2697	2773	2829
35°	2647	2739	2825
40°	2590	2717	2851
45°	2530	2691	2898
50°	2445	2681	2977
55°	2334	2703	3090
60°	2201	2743	3241
65°	2078	2796	3463
70°	1775	2916	3708
75°	1487	3037	3853
80°	1218	2934	3216
85°	1056	2177	2362



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.7	3.1
10°-20°	285.0	8.9
20°-30°	432.0	13.5
30°-40°	521.6	16.3
40°-50°	548.1	17.2
50°-60°	515.7	16.2
60°-70°	430.0	13.5
70°-80°	284.9	8.9
80°-90°	75.9	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°	816.7	25.6
0°-40°	1338.3	41.9
0°-60°	2402.2	75.2
0°-90°	3193.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3193.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1051	1051	1051	1051	1051	
5°	1043	1045	1051	1051	1049	99
15°	1001	1005	1011	1015	1017	282
25°	920	926	937	949	953	424
35°	806	814	834	852	860	504
45°	665	675	707	743	761	512
55°	498	520	576	634	659	445
65°	326	354	439	512	544	318
75°	143	199	292	352	371	155
85°	34	52	70	76	76	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1051.4	1051.4	1051.4	1051.4	1051.4
2.5°	1047.4	1049.4	1053.4	1053.4	1051.4
5°	1043.4	1045.4	1051.4	1051.4	1049.4
7.5°	1037.3	1039.3	1043.4	1047.4	1045.4
10°	1029.3	1031.3	1035.3	1039.3	1039.3
12.5°	1015.2	1017.2	1025.2	1027.2	1027.2
15°	1001.1	1005.1	1011.1	1015.2	1017.2
17.5°	982.9	987.0	995.0	1003.1	1003.1
20°	964.8	968.8	978.9	987.0	989.0
22.5°	942.7	948.7	958.8	968.8	972.9
25°	920.5	926.5	936.6	948.7	952.7
27.5°	894.3	900.4	914.5	928.6	930.6
30°	868.1	874.2	892.3	904.4	910.4
32.5°	835.9	844.0	862.1	880.2	886.3
35°	805.7	813.7	833.9	852.0	860.1
37.5°	773.5	781.5	803.7	825.8	835.9
40°	737.2	747.3	773.5	797.6	811.7
42.5°	703.0	713.0	739.2	771.4	785.5
45°	664.7	674.8	707.0	743.2	761.4
47.5°	624.4	636.5	674.8	719.1	737.2
50°	584.1	598.2	640.5	690.9	711.0
52.5°	541.8	560.0	608.3	662.7	686.8
55°	497.5	519.7	576.1	634.5	658.6
57.5°	455.2	475.4	541.8	604.3	630.4
60°	408.9	435.1	509.6	574.1	602.2
62.5°	364.6	392.8	475.4	543.8	574.1
65°	326.3	354.5	439.1	511.6	543.8
67.5°	275.9	314.2	408.9	477.4	509.6
70°	225.6	278.0	370.6	441.1	471.3
72.5°	187.3	237.7	332.3	402.8	431.0
75°	143.0	199.4	292.1	352.5	370.6
77.5°	106.8	165.2	249.8	280.0	282.0
80°	78.6	126.9	189.3	199.4	207.5
82.5°	54.4	88.6	122.9	135.0	139.0
85°	34.2	52.4	70.5	76.5	76.5
87.5°	18.1	20.1	24.2	24.2	24.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)