

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: P308311

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-HRP-CP125-W2A-U-6500K**

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: P308311
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-CP125-W2A-U-6500K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" 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: 3157.0 lumens
Efficiency: N/A
Efficacy: 81.2 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

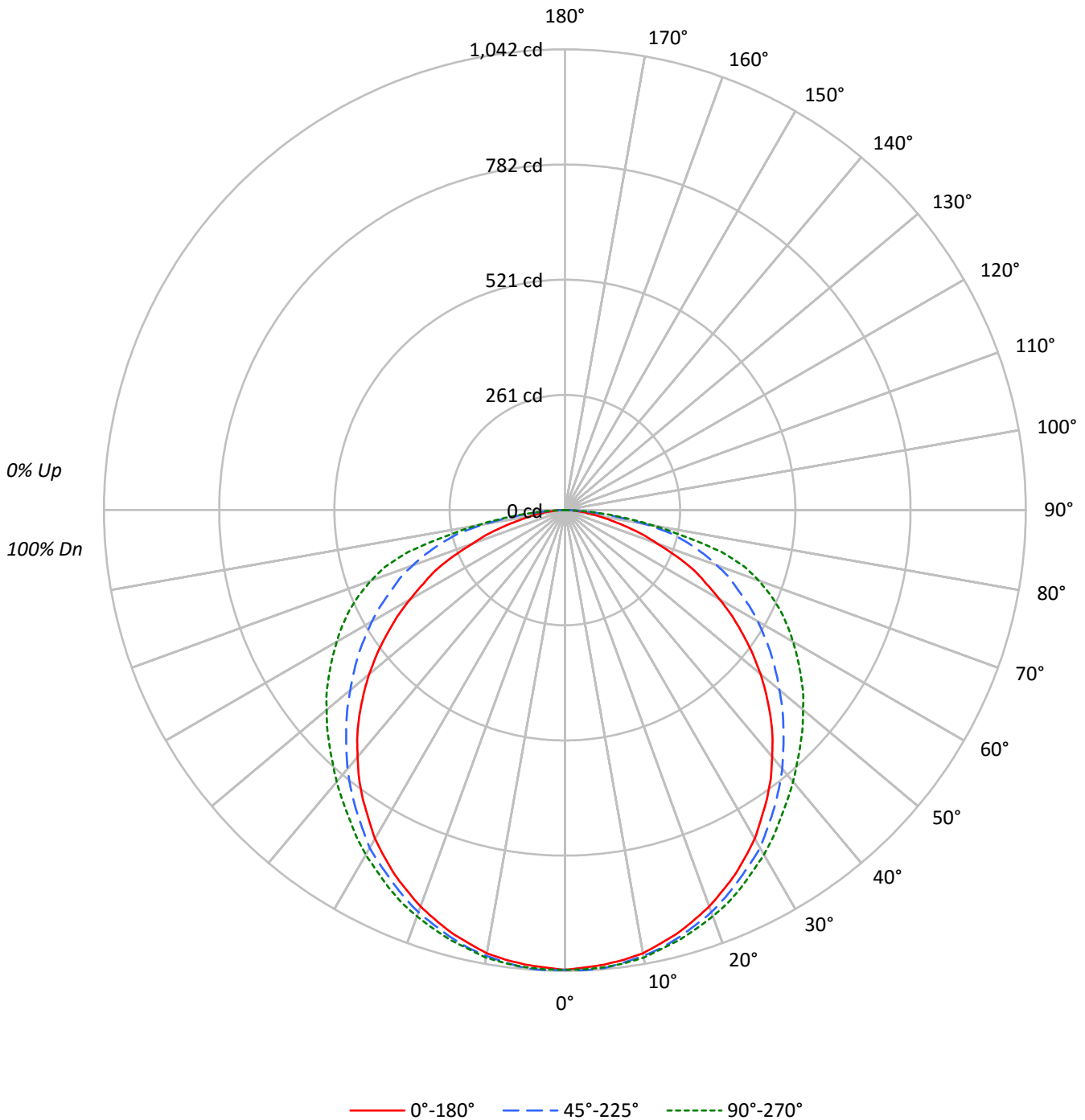
Input Watts (W): 38.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2798	2798	2798
5°	2787	2808	2803
10°	2781	2797	2808
15°	2757	2785	2802
20°	2732	2772	2800
25°	2702	2749	2797
30°	2667	2741	2797
35°	2617	2709	2794
40°	2560	2686	2819
45°	2501	2660	2865
50°	2418	2651	2943
55°	2308	2672	3055
60°	2176	2712	3205
65°	2054	2764	3424
70°	1755	2883	3666
75°	1470	3003	3810
80°	1204	2901	3178
85°	1047	2152	2337



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.5	3.1
10°-20°	281.8	8.9
20°-30°	427.1	13.5
30°-40°	515.7	16.3
40°-50°	541.9	17.2
50°-60°	509.9	16.2
60°-70°	425.2	13.5
70°-80°	281.7	8.9
80°-90°	75.1	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°	807.5	25.6
0°-40°	1323.2	41.9
0°-60°	2375.1	75.2
0°-90°	3157.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3157.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1040	1040	1040	1040	1040	
5°	1032	1034	1040	1040	1038	98
15°	990	994	1000	1004	1006	279
25°	910	916	926	938	942	419
35°	797	805	824	842	850	498
45°	657	667	699	735	753	506
55°	492	514	570	627	651	440
65°	323	350	434	506	538	314
75°	141	197	289	348	366	153
85°	34	52	70	76	76	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1039.6	1039.6	1039.6	1039.6	1039.6
2.5°	1035.6	1037.6	1041.6	1041.6	1039.6
5°	1031.6	1033.6	1039.6	1039.6	1037.6
7.5°	1025.6	1027.6	1031.6	1035.6	1033.6
10°	1017.7	1019.6	1023.6	1027.6	1027.6
12.5°	1003.7	1005.7	1013.7	1015.7	1015.7
15°	989.8	993.8	999.7	1003.7	1005.7
17.5°	971.9	975.8	983.8	991.8	991.8
20°	953.9	957.9	967.9	975.8	977.8
22.5°	932.0	938.0	948.0	957.9	961.9
25°	910.1	916.1	926.0	938.0	942.0
27.5°	884.2	890.2	904.1	918.1	920.1
30°	858.3	864.3	882.2	894.2	900.2
32.5°	826.5	834.4	852.4	870.3	876.3
35°	796.6	804.6	824.5	842.4	850.4
37.5°	764.7	772.7	794.6	816.5	826.5
40°	728.9	738.8	764.7	788.6	802.6
42.5°	695.0	705.0	730.9	762.7	776.7
45°	657.2	667.2	699.0	734.9	752.8
47.5°	617.4	629.3	667.2	711.0	728.9
50°	577.5	591.5	633.3	683.1	703.0
52.5°	535.7	553.6	601.4	655.2	679.1
55°	491.9	513.8	569.6	627.3	651.2
57.5°	450.1	470.0	535.7	597.5	623.3
60°	404.3	430.2	503.9	567.6	595.5
62.5°	360.5	388.3	470.0	537.7	567.6
65°	322.6	350.5	434.1	505.8	537.7
67.5°	272.8	310.7	404.3	472.0	503.9
70°	223.0	274.8	366.4	436.1	466.0
72.5°	185.2	235.0	328.6	398.3	426.2
75°	141.4	197.2	288.8	348.5	366.4
77.5°	105.5	163.3	246.9	276.8	278.8
80°	77.7	125.5	187.2	197.2	205.1
82.5°	53.8	87.6	121.5	133.4	137.4
85°	33.9	51.8	69.7	75.7	75.7
87.5°	17.9	19.9	23.9	23.9	23.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)