

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: P312577

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-HRP-CP125-W2A-U-4000K**

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: P312577
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-CP125-W2A-U-4000K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB SHEET
Light Source: (168) 4000K 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: 3287.0 lumens
Efficiency: N/A
Efficacy: 86.3 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

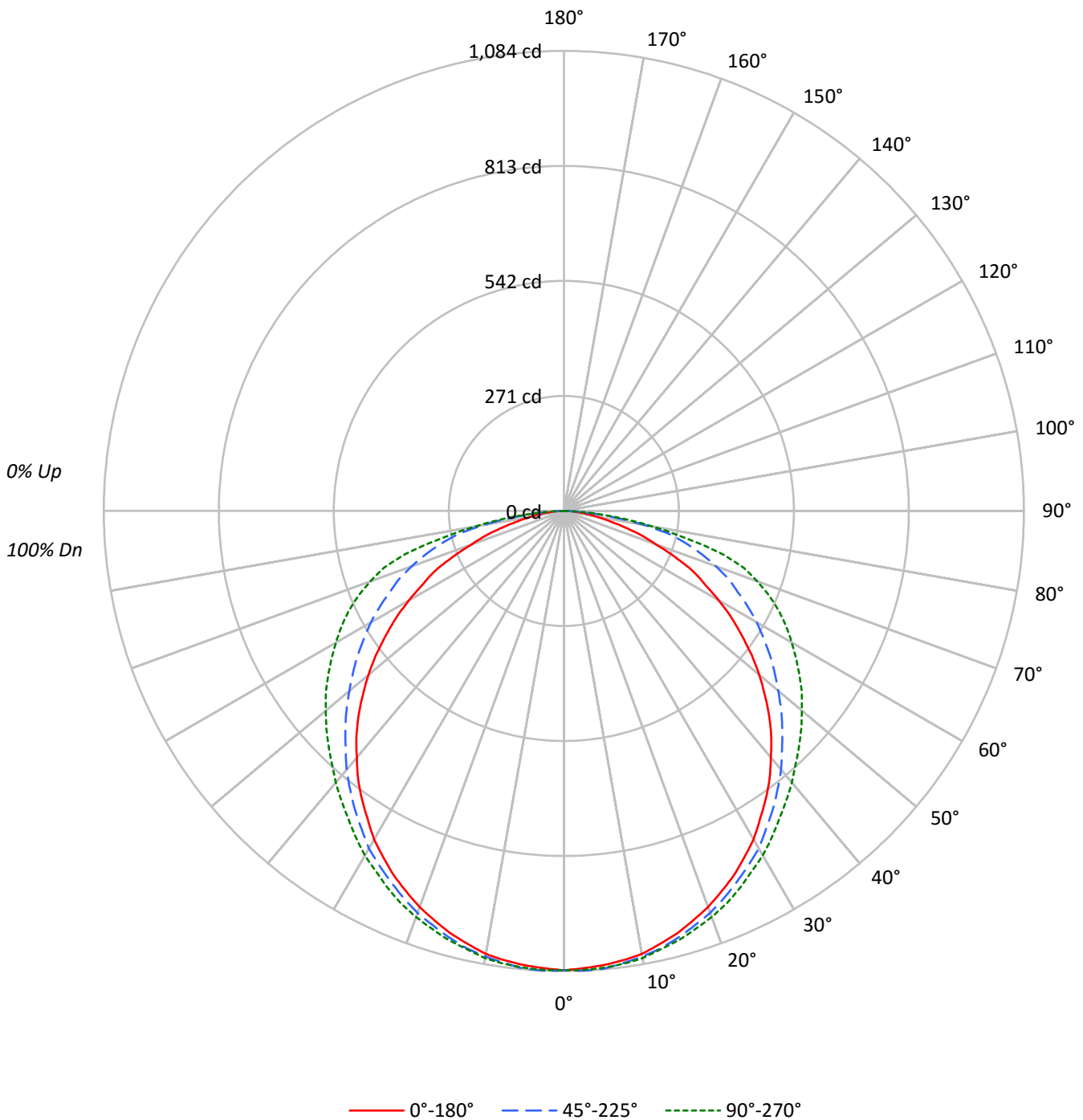
Input Watts (W): 38.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2913	2913	2913
5°	2901	2924	2918
10°	2895	2912	2923
15°	2871	2900	2917
20°	2844	2886	2916
25°	2814	2863	2912
30°	2777	2854	2912
35°	2725	2820	2909
40°	2666	2797	2935
45°	2604	2770	2983
50°	2517	2761	3064
55°	2403	2782	3181
60°	2265	2823	3337
65°	2139	2878	3564
70°	1827	3002	3818
75°	1530	3126	3967
80°	1254	3020	3310
85°	1087	2242	2433



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.6	3.1
10°-20°	293.4	8.9
20°-30°	444.7	13.5
30°-40°	537.0	16.3
40°-50°	564.2	17.2
50°-60°	530.9	16.2
60°-70°	442.7	13.5
70°-80°	293.3	8.9
80°-90°	78.2	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°	840.7	25.6
0°-40°	1377.7	41.9
0°-60°	2472.9	75.2
0°-90°	3287.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3287.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1082	1082	1082	1082	1082	
5°	1074	1076	1082	1082	1080	102
15°	1030	1035	1041	1045	1047	291
25°	948	954	964	977	981	436
35°	829	838	858	877	885	519
45°	684	695	728	765	784	527
55°	512	535	593	653	678	458
65°	336	365	452	527	560	327
75°	147	205	301	363	382	160
85°	35	54	73	79	79	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1082.4	1082.4	1082.4	1082.4	1082.4
2.5°	1078.2	1080.3	1084.4	1084.4	1082.4
5°	1074.1	1076.2	1082.4	1082.4	1080.3
7.5°	1067.9	1069.9	1074.1	1078.2	1076.2
10°	1059.6	1061.6	1065.8	1069.9	1069.9
12.5°	1045.0	1047.1	1055.4	1057.5	1057.5
15°	1030.5	1034.7	1040.9	1045.0	1047.1
17.5°	1011.9	1016.0	1024.3	1032.6	1032.6
20°	993.2	997.4	1007.7	1016.0	1018.1
22.5°	970.4	976.6	987.0	997.4	1001.5
25°	947.6	953.8	964.2	976.6	980.8
27.5°	920.6	926.9	941.4	955.9	958.0
30°	893.7	899.9	918.6	931.0	937.2
32.5°	860.5	868.8	887.5	906.1	912.3
35°	829.4	837.7	858.4	877.1	885.4
37.5°	796.2	804.5	827.3	850.1	860.5
40°	758.9	769.3	796.2	821.1	835.6
42.5°	723.7	734.0	761.0	794.2	808.7
45°	684.3	694.6	727.8	765.1	783.8
47.5°	642.8	655.2	694.6	740.2	758.9
50°	601.3	615.8	659.4	711.2	731.9
52.5°	557.8	576.4	626.2	682.2	707.1
55°	512.2	535.0	593.0	653.2	678.0
57.5°	468.6	489.3	557.8	622.1	649.0
60°	420.9	447.9	524.6	591.0	620.0
62.5°	375.3	404.3	489.3	559.8	591.0
65°	335.9	364.9	452.0	526.7	559.8
67.5°	284.1	323.5	420.9	491.4	524.6
70°	232.2	286.1	381.5	454.1	485.2
72.5°	192.8	244.7	342.1	414.7	443.7
75°	147.2	205.3	300.7	362.9	381.5
77.5°	109.9	170.0	257.1	288.2	290.3
80°	80.9	130.6	194.9	205.3	213.6
82.5°	56.0	91.2	126.5	138.9	143.1
85°	35.2	53.9	72.6	78.8	78.8
87.5°	18.7	20.7	24.9	24.9	24.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)