

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: P308301

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-HRP-CA125-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: P308301
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-CA125-W2A-U-5700K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" 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: 3211.0 lumens
Efficiency: N/A
Efficacy: 84.1 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

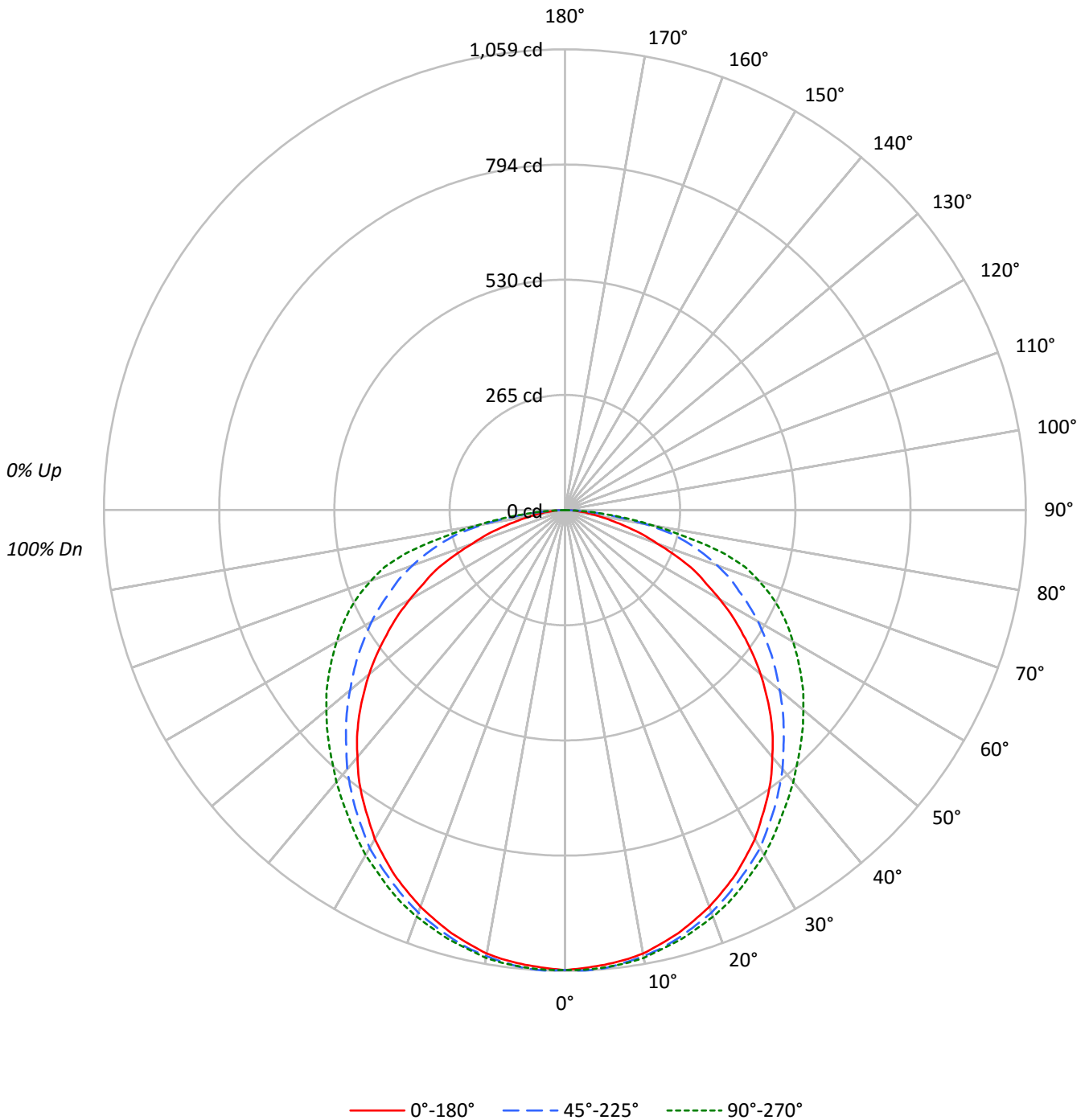
Input Watts (W): 38.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2845	2845	2845
5°	2834	2856	2851
10°	2828	2845	2856
15°	2805	2833	2850
20°	2778	2819	2848
25°	2749	2797	2845
30°	2713	2788	2845
35°	2662	2755	2841
40°	2604	2732	2868
45°	2544	2706	2914
50°	2459	2696	2993
55°	2347	2718	3108
60°	2213	2758	3259
65°	2089	2812	3482
70°	1785	2932	3729
75°	1495	3054	3875
80°	1224	2951	3233
85°	1062	2189	2377



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.2	3.1
10°-20°	286.6	8.9
20°-30°	434.4	13.5
30°-40°	524.6	16.3
40°-50°	551.2	17.2
50°-60°	518.6	16.2
60°-70°	432.4	13.5
70°-80°	286.5	8.9
80°-90°	76.4	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°	821.3	25.6
0°-40°	1345.9	41.9
0°-60°	2415.7	75.2
0°-90°	3211.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3211.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1057	1057	1057	1057	1057	
5°	1049	1051	1057	1057	1055	100
15°	1007	1011	1017	1021	1023	284
25°	926	932	942	954	958	426
35°	810	818	839	857	865	507
45°	668	679	711	747	766	515
55°	500	523	579	638	662	448
65°	328	356	442	514	547	319
75°	144	200	294	354	373	156
85°	34	53	71	77	77	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1057.3	1057.3	1057.3	1057.3	1057.3
2.5°	1053.3	1055.3	1059.4	1059.4	1057.3
5°	1049.2	1051.3	1057.3	1057.3	1055.3
7.5°	1043.2	1045.2	1049.2	1053.3	1051.3
10°	1035.1	1037.1	1041.1	1045.2	1045.2
12.5°	1020.9	1022.9	1031.0	1033.0	1033.0
15°	1006.7	1010.8	1016.8	1020.9	1022.9
17.5°	988.5	992.5	1000.6	1008.7	1008.7
20°	970.2	974.3	984.4	992.5	994.6
22.5°	948.0	954.0	964.2	974.3	978.3
25°	925.7	931.8	941.9	954.0	958.1
27.5°	899.4	905.4	919.6	933.8	935.8
30°	873.0	879.1	897.3	909.5	915.6
32.5°	840.6	848.7	866.9	885.2	891.2
35°	810.2	818.3	838.6	856.8	864.9
37.5°	777.8	785.9	808.2	830.5	840.6
40°	741.4	751.5	777.8	802.1	816.3
42.5°	706.9	717.1	743.4	775.8	790.0
45°	668.4	678.6	711.0	747.4	765.7
47.5°	627.9	640.1	678.6	723.1	741.4
50°	587.4	601.6	644.1	694.8	715.0
52.5°	544.9	563.1	611.7	666.4	690.7
55°	500.3	522.6	579.3	638.1	662.4
57.5°	457.8	478.0	544.9	607.7	634.0
60°	411.2	437.5	512.5	577.3	605.6
62.5°	366.6	395.0	478.0	546.9	577.3
65°	328.1	356.5	441.6	514.5	546.9
67.5°	277.5	316.0	411.2	480.1	512.5
70°	226.9	279.5	372.7	443.6	474.0
72.5°	188.4	239.0	334.2	405.1	433.5
75°	143.8	200.5	293.7	354.5	372.7
77.5°	107.4	166.1	251.2	281.6	283.6
80°	79.0	127.6	190.4	200.5	208.6
82.5°	54.7	89.1	123.6	135.7	139.8
85°	34.4	52.7	70.9	77.0	77.0
87.5°	18.2	20.3	24.3	24.3	24.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)