

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: P311977

Luminaire Tested: **14FCZ2-44-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: P311977
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-44-UNV-L83050-HRP-CP125-W2A-U-4000K
Description: 1'X4' 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: 3234.0 lumens
Efficiency: N/A
Efficacy: 82.5 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

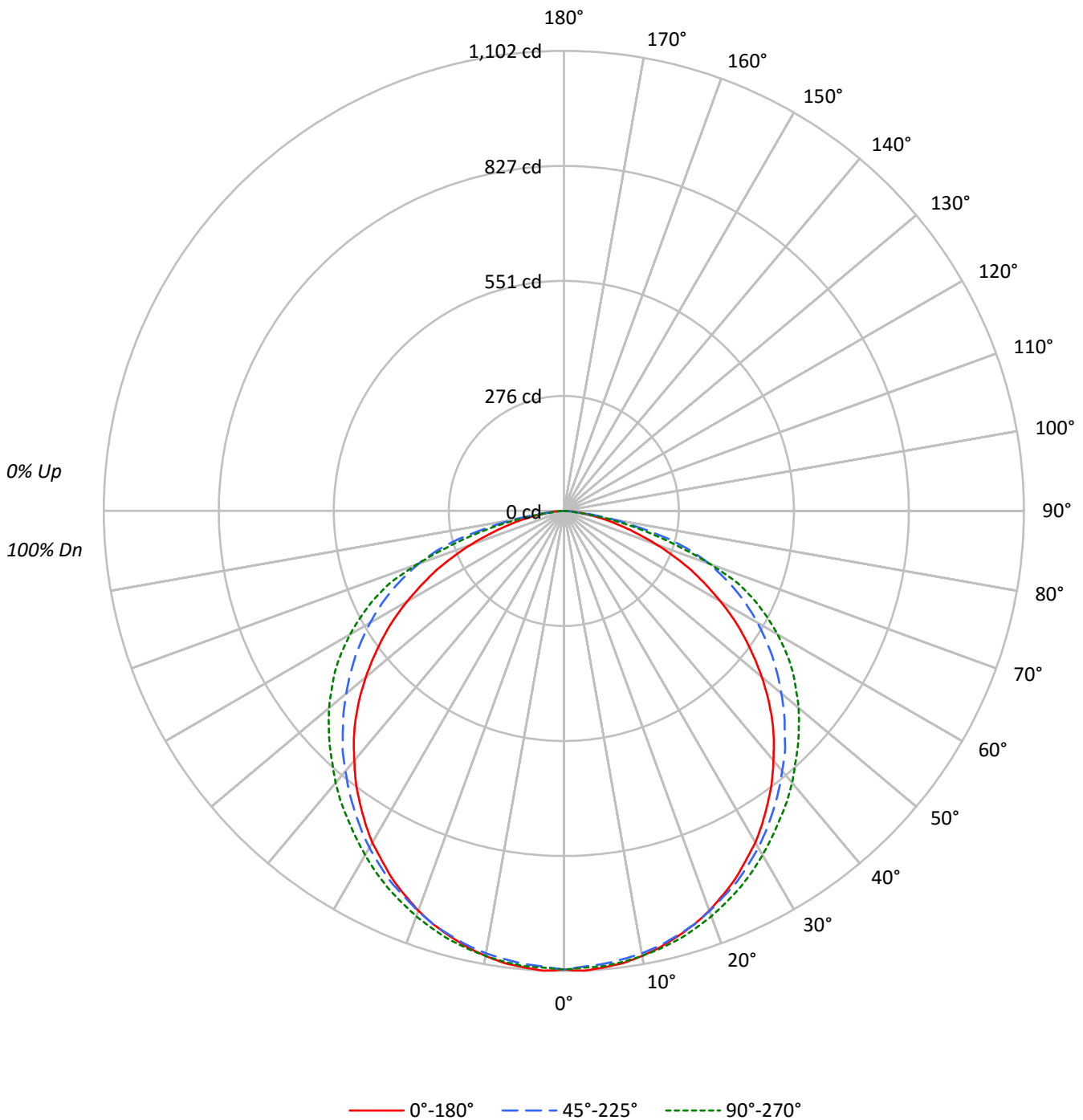
Input Watts (W): 39.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2956	2956	2956
5°	2964	2942	2956
10°	2957	2940	2957
15°	2938	2932	2961
20°	2918	2921	2959
25°	2887	2911	2959
30°	2850	2894	2958
35°	2800	2873	2963
40°	2744	2858	2987
45°	2686	2849	3019
50°	2593	2848	3074
55°	2481	2863	3139
60°	2331	2884	3180
65°	2150	2914	3199
70°	1873	2921	2944
75°	1544	2718	2379
80°	1213	1954	1592
85°	942	753	377



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.0	3.2
10°-20°	298.4	9.2
20°-30°	453.1	14.0
30°-40°	549.0	17.0
40°-50°	578.5	17.9
50°-60°	540.1	16.7
60°-70°	431.6	13.3
70°-80°	237.5	7.3
80°-90°	41.9	1.3
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°	855.4	26.5
0°-40°	1404.4	43.4
0°-60°	2523.0	78.0
0°-90°	3234.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3234.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1098	1098	1098	1098	1098	
5°	1097	1094	1089	1096	1094	104
15°	1055	1055	1052	1063	1063	298
25°	972	974	980	995	997	448
35°	852	860	875	897	902	533
45°	706	719	748	782	793	543
55°	529	555	610	653	669	472
65°	338	380	458	495	502	332
75°	148	212	261	235	229	160
85°	30	39	24	15	12	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1098.3	1098.3	1098.3	1098.3	1098.3
2.5°	1102.4	1099.3	1092.2	1098.3	1095.2
5°	1097.3	1094.2	1089.1	1096.2	1094.2
7.5°	1092.2	1088.1	1083.0	1091.2	1089.1
10°	1082.0	1079.0	1075.9	1083.0	1082.0
12.5°	1069.8	1068.8	1065.7	1073.9	1072.9
15°	1054.6	1054.6	1052.5	1062.7	1062.7
17.5°	1038.3	1037.3	1038.3	1049.5	1048.5
20°	1019.0	1019.0	1020.0	1033.2	1033.2
22.5°	995.6	996.6	999.6	1015.9	1014.9
25°	972.2	974.2	980.3	994.6	996.6
27.5°	943.7	948.8	955.9	973.2	975.2
30°	917.3	920.3	931.5	947.8	951.8
32.5°	885.7	891.8	904.0	922.4	927.4
35°	852.2	860.3	874.6	896.9	902.0
37.5°	818.6	825.7	845.1	868.5	877.6
40°	781.0	793.2	813.5	840.0	850.2
42.5°	744.4	756.6	784.1	811.5	820.7
45°	705.7	719.0	748.5	782.0	793.2
47.5°	663.0	678.3	715.9	751.5	763.7
50°	619.3	638.6	680.3	720.0	734.2
52.5°	573.5	598.0	645.7	687.4	700.7
55°	528.8	555.2	610.2	652.9	669.1
57.5°	483.0	511.5	573.5	622.4	631.5
60°	433.2	467.8	535.9	578.6	590.8
62.5°	384.4	424.1	497.3	538.0	548.1
65°	337.6	380.3	457.6	495.2	502.4
67.5°	286.8	337.6	413.9	448.5	450.5
70°	238.0	296.9	371.2	387.4	374.2
72.5°	190.2	253.2	321.3	308.1	296.9
75°	148.5	212.5	261.4	234.9	228.8
77.5°	109.8	173.9	187.1	172.9	161.7
80°	78.3	137.3	126.1	107.8	102.7
82.5°	53.9	86.4	69.2	53.9	46.8
85°	30.5	38.6	24.4	15.3	12.2
87.5°	13.2	9.2	5.1	4.1	4.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)