

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: P311978

Luminaire Tested: **14FCZ2-44-UNV-L83050-HRP-CP125-W2A-U-4500K**

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: P311978
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-4500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB SHEET
Light Source: (168) 4500K 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: 3265.0 lumens
Efficiency: N/A
Efficacy: 81.2 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

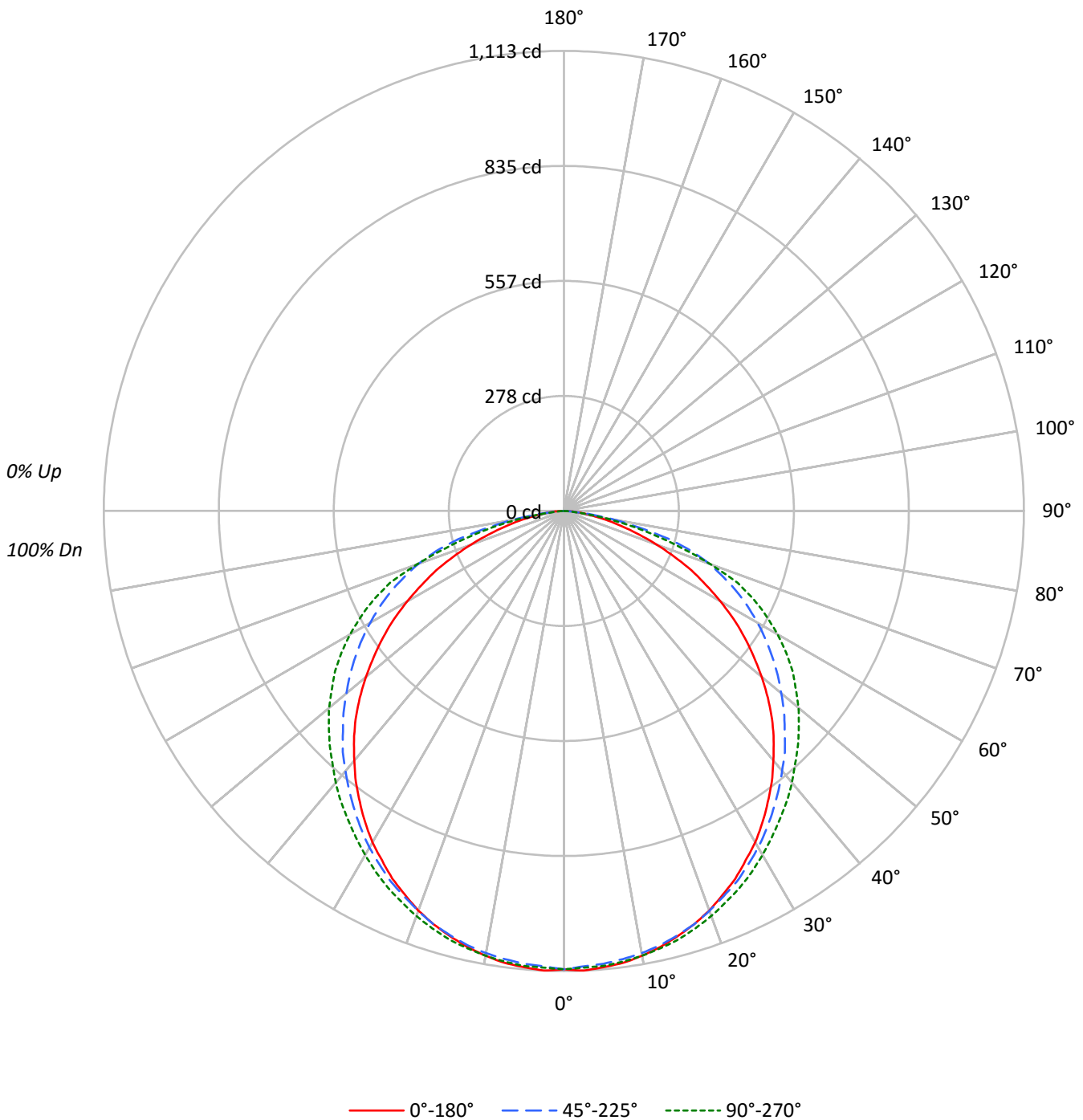
Input Watts (W): 40.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2984	2984	2984
5°	2992	2970	2984
10°	2985	2968	2985
15°	2966	2960	2989
20°	2946	2949	2987
25°	2914	2939	2987
30°	2878	2922	2986
35°	2826	2900	2992
40°	2770	2885	3015
45°	2712	2876	3048
50°	2617	2875	3103
55°	2505	2890	3170
60°	2354	2912	3210
65°	2171	2942	3230
70°	1890	2948	2972
75°	1559	2744	2402
80°	1226	1973	1607
85°	951	760	380



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.0	3.2
10°-20°	301.2	9.2
20°-30°	457.4	14.0
30°-40°	554.3	17.0
40°-50°	584.0	17.9
50°-60°	545.3	16.7
60°-70°	435.7	13.3
70°-80°	239.8	7.3
80°-90°	42.3	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°	863.6	26.5
0°-40°	1417.9	43.4
0°-60°	2547.2	78.0
0°-90°	3265.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3265.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1109	1109	1109	1109	1109	
5°	1108	1105	1100	1107	1105	105
15°	1065	1065	1063	1073	1073	301
25°	982	984	990	1004	1006	452
35°	860	869	883	906	911	538
45°	712	726	756	790	801	548
55°	534	561	616	659	676	477
65°	341	384	462	500	507	336
75°	150	215	264	237	231	161
85°	31	39	25	15	12	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1108.8	1108.8	1108.8	1108.8	1108.8
2.5°	1112.9	1109.8	1102.7	1108.8	1105.7
5°	1107.8	1104.7	1099.6	1106.8	1104.7
7.5°	1102.7	1098.5	1093.4	1101.6	1099.6
10°	1092.4	1089.3	1086.2	1093.4	1092.4
12.5°	1080.1	1079.0	1076.0	1084.2	1083.1
15°	1064.7	1064.7	1062.6	1072.9	1072.9
17.5°	1048.2	1047.2	1048.2	1059.5	1058.5
20°	1028.7	1028.7	1029.8	1043.1	1043.1
22.5°	1005.1	1006.1	1009.2	1025.6	1024.6
25°	981.5	983.6	989.7	1004.1	1006.1
27.5°	952.8	957.9	965.1	982.5	984.6
30°	926.1	929.1	940.4	956.9	961.0
32.5°	894.2	900.4	912.7	931.2	936.3
35°	860.4	868.6	882.9	905.5	910.7
37.5°	826.5	833.7	853.2	876.8	886.0
40°	788.5	800.8	821.3	848.0	858.3
42.5°	751.5	763.8	791.6	819.3	828.5
45°	712.5	725.9	755.6	789.5	800.8
47.5°	669.4	684.8	722.8	758.7	771.0
50°	625.2	644.8	686.8	726.9	741.3
52.5°	579.0	603.7	651.9	694.0	707.4
55°	533.9	560.6	616.0	659.1	675.6
57.5°	487.7	516.4	579.0	628.3	637.6
60°	437.4	472.3	541.1	584.2	596.5
62.5°	388.1	428.1	502.0	543.1	553.4
65°	340.9	384.0	462.0	500.0	507.2
67.5°	289.5	340.9	417.9	452.8	454.8
70°	240.2	299.8	374.7	391.2	377.8
72.5°	192.0	255.6	324.4	311.1	299.8
75°	149.9	214.6	263.9	237.2	231.0
77.5°	110.9	175.6	188.9	174.5	163.2
80°	79.1	138.6	127.3	108.8	103.7
82.5°	54.4	87.3	69.8	54.4	47.2
85°	30.8	39.0	24.6	15.4	12.3
87.5°	13.3	9.2	5.1	4.1	4.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)