

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: P311972

Luminaire Tested: **14FCZ2-44-UNV-L83050-HRP-CA125-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: P311972
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-CA125-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC 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: 3298.0 lumens
Efficiency: N/A
Efficacy: 84.1 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

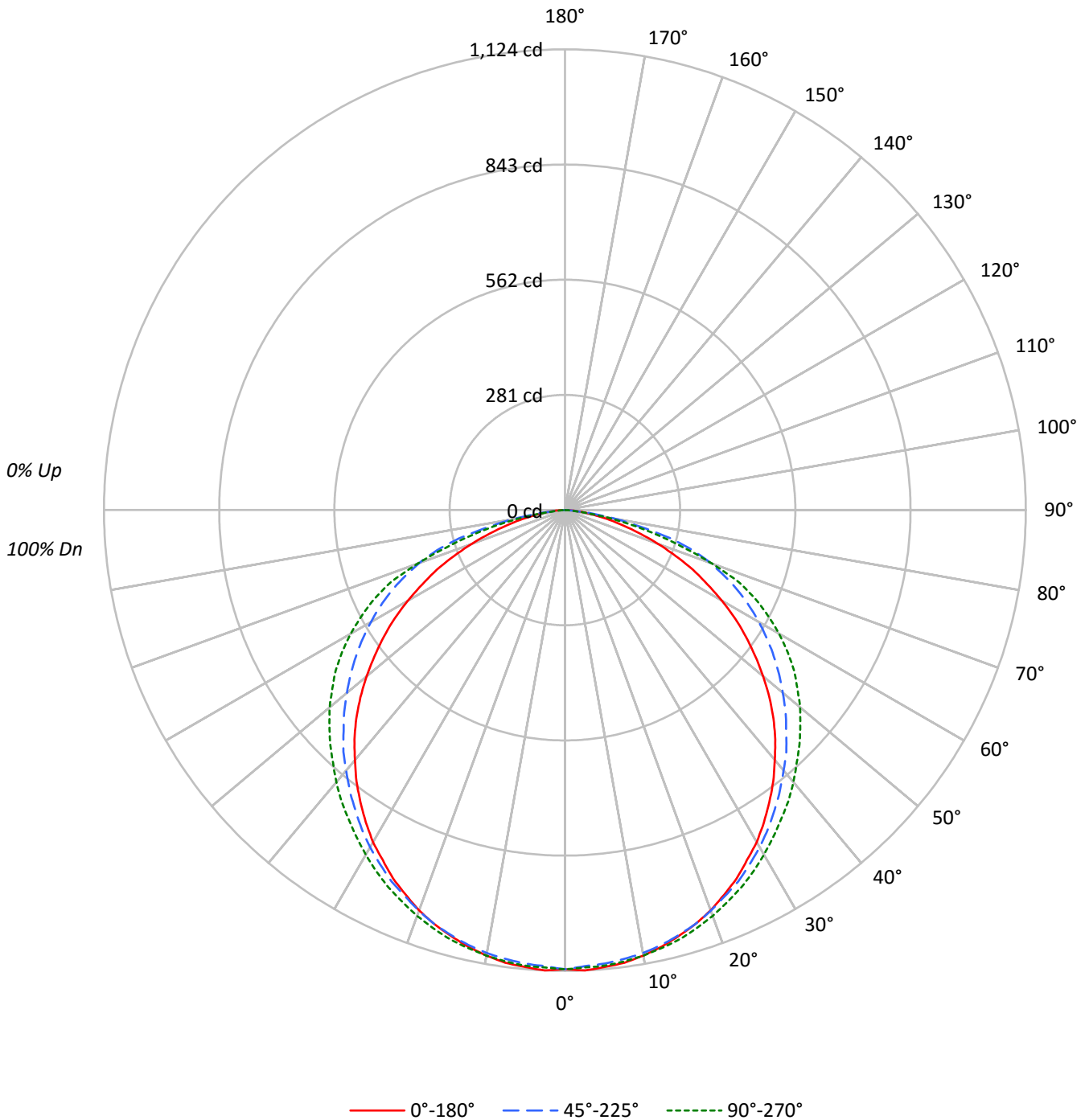
Input Watts (W): 39.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3014	3014	3014
5°	3023	3000	3014
10°	3015	2998	3015
15°	2996	2990	3019
20°	2976	2979	3017
25°	2944	2968	3018
30°	2907	2952	3016
35°	2855	2930	3022
40°	2798	2914	3046
45°	2739	2905	3078
50°	2644	2905	3135
55°	2530	2919	3202
60°	2378	2941	3243
65°	2192	2972	3262
70°	1910	2978	3002
75°	1574	2771	2426
80°	1238	1993	1623
85°	960	769	383



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.0	3.2
10°-20°	304.3	9.2
20°-30°	462.0	14.0
30°-40°	559.8	17.0
40°-50°	590.0	17.9
50°-60°	550.8	16.7
60°-70°	440.1	13.3
70°-80°	242.2	7.3
80°-90°	42.8	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°	872.3	26.5
0°-40°	1432.2	43.4
0°-60°	2572.9	78.0
0°-90°	3298.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3298.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1120	1120	1120	1120	1120	
5°	1119	1116	1111	1118	1116	106
15°	1075	1075	1073	1084	1084	304
25°	991	994	1000	1014	1016	456
35°	869	877	892	915	920	544
45°	720	733	763	798	809	554
55°	539	566	622	666	682	481
65°	344	388	467	505	512	339
75°	151	217	266	240	233	163
85°	31	39	25	16	12	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1120.0	1120.0	1120.0	1120.0	1120.0
2.5°	1124.2	1121.1	1113.8	1120.0	1116.9
5°	1119.0	1115.9	1110.7	1117.9	1115.9
7.5°	1113.8	1109.6	1104.5	1112.8	1110.7
10°	1103.4	1100.3	1097.2	1104.5	1103.4
12.5°	1091.0	1089.9	1086.8	1095.1	1094.1
15°	1075.4	1075.4	1073.4	1083.7	1083.7
17.5°	1058.8	1057.8	1058.8	1070.2	1069.2
20°	1039.1	1039.1	1040.2	1053.6	1053.6
22.5°	1015.3	1016.3	1019.4	1036.0	1035.0
25°	991.4	993.5	999.7	1014.2	1016.3
27.5°	962.4	967.6	974.8	992.5	994.5
30°	935.4	938.5	949.9	966.5	970.7
32.5°	903.3	909.5	921.9	940.6	945.8
35°	869.1	877.3	891.9	914.7	919.9
37.5°	834.8	842.1	861.8	885.6	895.0
40°	796.5	808.9	829.6	856.6	867.0
42.5°	759.1	771.6	799.6	827.6	836.9
45°	719.7	733.2	763.3	797.5	808.9
47.5°	676.2	691.7	730.1	766.4	778.8
50°	631.6	651.3	693.8	734.2	748.8
52.5°	584.9	609.8	658.5	701.0	714.5
55°	539.3	566.2	622.2	665.8	682.4
57.5°	492.6	521.6	584.9	634.7	644.0
60°	441.8	477.0	546.5	590.1	602.5
62.5°	392.0	432.5	507.1	548.6	559.0
65°	344.3	387.9	466.7	505.0	512.3
67.5°	292.4	344.3	422.1	457.3	459.4
70°	242.7	302.8	378.5	395.1	381.6
72.5°	193.9	258.2	327.7	314.2	302.8
75°	151.4	216.7	266.5	239.6	233.3
77.5°	112.0	177.3	190.8	176.3	164.9
80°	79.9	140.0	128.6	109.9	104.7
82.5°	55.0	88.1	70.5	55.0	47.7
85°	31.1	39.4	24.9	15.6	12.4
87.5°	13.5	9.3	5.2	4.1	4.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)