

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: P311986

Luminaire Tested: **14FCZ2-44-UNV-L83050-HRP-CP250-W2A-U-3500K**

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: P311986
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-CP250-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
POLYCARB SHEET
Light Source: (168) 3500K 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: 2926.0 lumens
Efficiency: N/A
Efficacy: 76.4 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

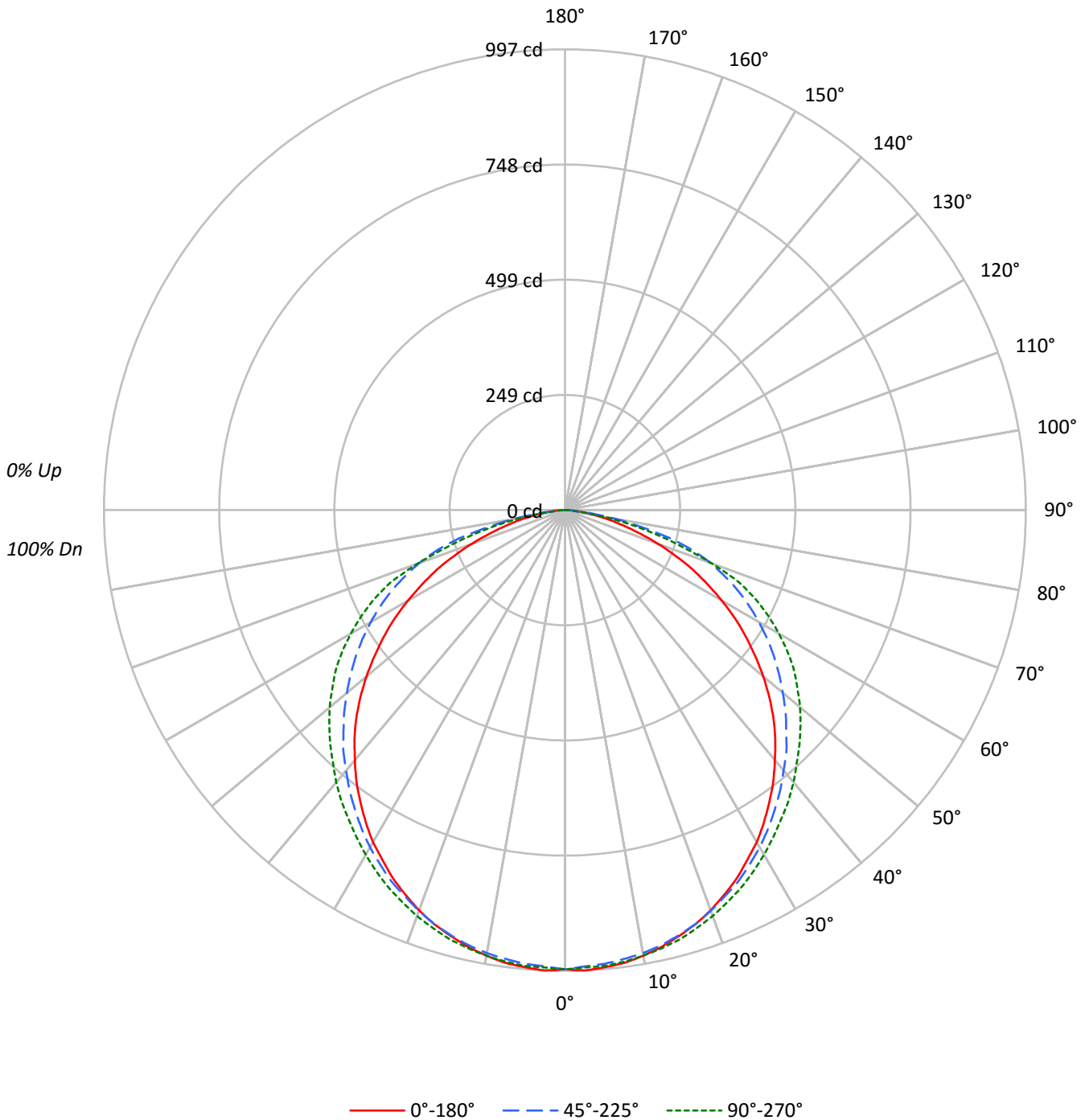
Input Watts (W): 38.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2674	2674	2674
5°	2682	2662	2674
10°	2675	2660	2675
15°	2658	2653	2679
20°	2640	2643	2677
25°	2612	2634	2677
30°	2579	2619	2676
35°	2533	2599	2681
40°	2482	2586	2702
45°	2430	2577	2731
50°	2346	2577	2781
55°	2244	2590	2840
60°	2110	2610	2877
65°	1945	2636	2894
70°	1694	2642	2664
75°	1396	2459	2152
80°	1097	1768	1440
85°	852	682	340



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.1	3.2
10°-20°	269.9	9.2
20°-30°	409.9	14.0
30°-40°	496.7	17.0
40°-50°	523.4	17.9
50°-60°	488.6	16.7
60°-70°	390.5	13.3
70°-80°	214.9	7.3
80°-90°	37.9	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°	773.9	26.5
0°-40°	1270.7	43.4
0°-60°	2282.7	78.0
0°-90°	2926.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2926.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	994	994	994	994	994	
5°	993	990	985	992	990	94
15°	954	954	952	962	962	269
25°	880	881	887	900	902	405
35°	771	778	791	812	816	482
45°	638	650	677	708	718	491
55°	478	502	552	591	605	427
65°	306	344	414	448	454	301
75°	134	192	236	212	207	145
85°	28	35	22	14	11	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	993.7	993.7	993.7	993.7	993.7
2.5°	997.4	994.6	988.2	993.7	990.9
5°	992.8	990.0	985.4	991.8	990.0
7.5°	988.2	984.5	979.9	987.2	985.4
10°	979.0	976.2	973.4	979.9	979.0
12.5°	967.9	967.0	964.2	971.6	970.7
15°	954.1	954.1	952.3	961.5	961.5
17.5°	939.4	938.5	939.4	949.5	948.6
20°	921.9	921.9	922.8	934.8	934.8
22.5°	900.8	901.7	904.4	919.2	918.2
25°	879.6	881.4	887.0	899.8	901.7
27.5°	853.8	858.4	864.9	880.5	882.4
30°	829.9	832.7	842.8	857.5	861.2
32.5°	801.4	806.9	817.9	834.5	839.1
35°	771.0	778.4	791.3	811.5	816.1
37.5°	740.7	747.1	764.6	785.7	794.0
40°	706.6	717.7	736.1	760.0	769.2
42.5°	673.5	684.5	709.4	734.2	742.5
45°	638.5	650.5	677.2	707.5	717.7
47.5°	599.9	613.7	647.7	679.9	691.0
50°	560.3	577.8	615.5	651.4	664.3
52.5°	518.9	541.0	584.2	622.0	633.9
55°	478.4	502.4	552.0	590.7	605.4
57.5°	437.0	462.8	518.9	563.1	571.4
60°	392.0	423.2	484.9	523.5	534.6
62.5°	347.8	383.7	449.9	486.7	495.9
65°	305.5	344.1	414.0	448.1	454.5
67.5°	259.5	305.5	374.5	405.8	407.6
70°	215.3	268.7	335.8	350.5	338.6
72.5°	172.1	229.1	290.7	278.8	268.7
75°	134.3	192.3	236.5	212.5	207.0
77.5°	99.4	157.3	169.3	156.4	146.3
80°	70.8	124.2	114.1	97.5	92.9
82.5°	48.8	78.2	62.6	48.8	42.3
85°	27.6	35.0	22.1	13.8	11.0
87.5°	12.0	8.3	4.6	3.7	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)