

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: P312192

Luminaire Tested: **14FCZ2-29-UNV-L83050-CA08-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: P312192
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-29-UNV-L83050-CA08-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.08" 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: 2942.0 lumens
Efficiency: N/A
Efficacy: 121.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

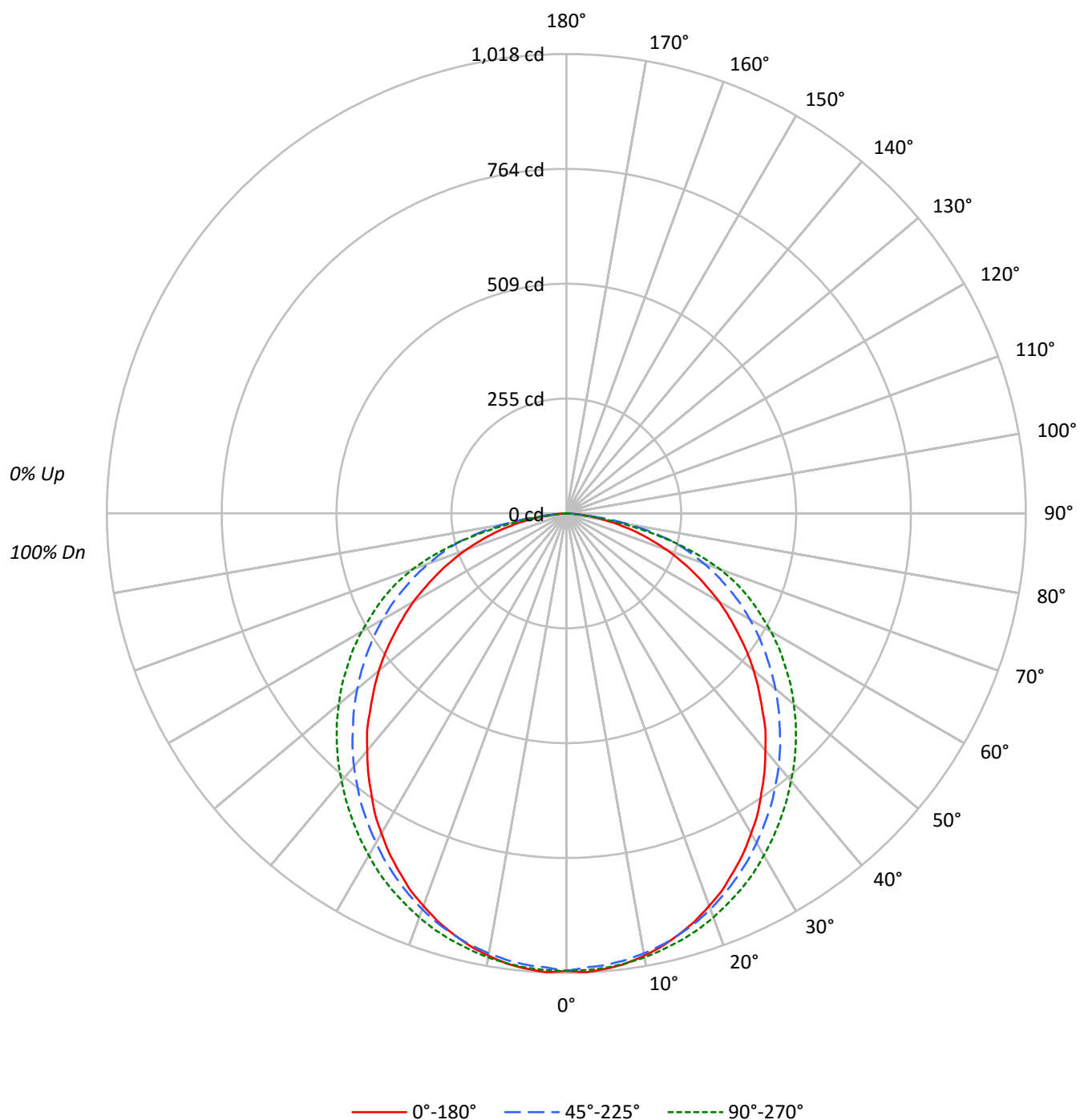
Input Watts (W): 24.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	109	104	99	95	106	101	97	94	97	94	91		93	90	88		83
2	98	90	83	77	96	88	82	76	84	79	74		81	77	73		69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		58
4	82	70	61	54	79	68	60	53	66	58	53		63	57	52		49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		32
8	60	46	37	32	58	45	37	31	44	37	31		43	36	31		29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		26
10	52	39	31	26	51	39	31	26	37	30	26		37	30	25		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2727	2727	2727
5°	2736	2713	2729
10°	2719	2705	2730
15°	2690	2692	2729
20°	2651	2673	2728
25°	2600	2647	2725
30°	2544	2619	2719
35°	2476	2597	2717
40°	2410	2572	2721
45°	2337	2544	2736
50°	2269	2532	2755
55°	2182	2524	2779
60°	2104	2528	2817
65°	1997	2535	2862
70°	1873	2555	2859
75°	1698	2578	2585
80°	1393	2227	1839
85°	1034	1053	426



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.9	3.3
10°-20°	274.0	9.3
20°-30°	412.7	14.0
30°-40°	495.3	16.8
40°-50°	516.2	17.5
50°-60°	477.9	16.2
60°-70°	386.1	13.1
70°-80°	235.4	8.0
80°-90°	48.6	1.7
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°	782.6	26.6
0°-40°	1277.8	43.4
0°-60°	2271.9	77.2
0°-90°	2942.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2942.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1014	1014	1014	1014	1014	
5°	1013	1010	1004	1012	1010	96
15°	966	966	966	979	979	272
25°	876	881	892	914	918	404
35°	754	766	790	819	827	472
45°	614	632	668	706	719	475
55°	465	489	538	580	592	417
65°	314	344	398	438	449	310
75°	163	199	248	252	249	172
85°	34	50	34	19	14	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1013.5	1013.5	1013.5	1013.5	1013.5
2.5°	1017.5	1014.2	1007.0	1014.2	1012.9
5°	1012.9	1010.2	1004.3	1011.6	1010.2
7.5°	1006.3	1003.7	998.4	1007.0	1005.7
10°	995.2	993.8	989.9	999.8	999.1
12.5°	982.0	981.4	979.4	990.6	989.9
15°	965.6	966.3	966.3	979.4	979.4
17.5°	947.3	948.6	951.2	965.6	967.6
20°	925.6	928.2	933.5	949.9	952.5
22.5°	903.3	905.3	913.2	932.8	935.5
25°	875.8	881.0	891.5	913.8	917.8
27.5°	849.5	854.1	868.6	891.5	898.1
30°	818.7	825.9	843.0	867.9	875.1
32.5°	789.2	797.0	816.7	845.6	852.2
35°	753.8	765.6	790.5	819.4	827.2
37.5°	721.6	732.8	761.0	792.5	801.6
40°	686.2	700.0	732.1	765.6	774.7
42.5°	653.4	666.5	701.3	735.4	747.8
45°	614.0	632.4	668.5	705.9	719.0
47.5°	577.9	596.3	637.6	677.7	689.5
50°	541.9	561.5	604.8	646.2	658.0
52.5°	504.5	525.5	572.0	613.4	627.1
55°	465.1	489.4	537.9	579.9	592.4
57.5°	427.7	452.6	504.5	547.1	559.6
60°	391.0	416.6	469.7	510.4	523.5
62.5°	350.3	380.5	435.6	475.6	485.4
65°	313.6	344.4	398.2	438.2	449.4
67.5°	274.9	308.3	362.1	398.9	409.3
70°	238.1	272.9	324.7	358.8	363.4
72.5°	198.8	234.2	286.7	308.3	308.3
75°	163.3	199.4	248.0	251.9	248.6
77.5°	124.6	164.7	196.1	188.3	180.4
80°	89.9	129.2	143.7	129.2	118.7
82.5°	60.4	93.8	86.6	68.9	61.0
85°	33.5	49.9	34.1	19.0	13.8
87.5°	12.5	11.2	3.3	3.3	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)