

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: P307614

Luminaire Tested: **14FCZ2-29-UNV-L82765-CA08-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: P307614
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-L82765-CA08-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.08" ACRYLIC 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: 2846.0 lumens
Efficiency: N/A
Efficacy: 117.6 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

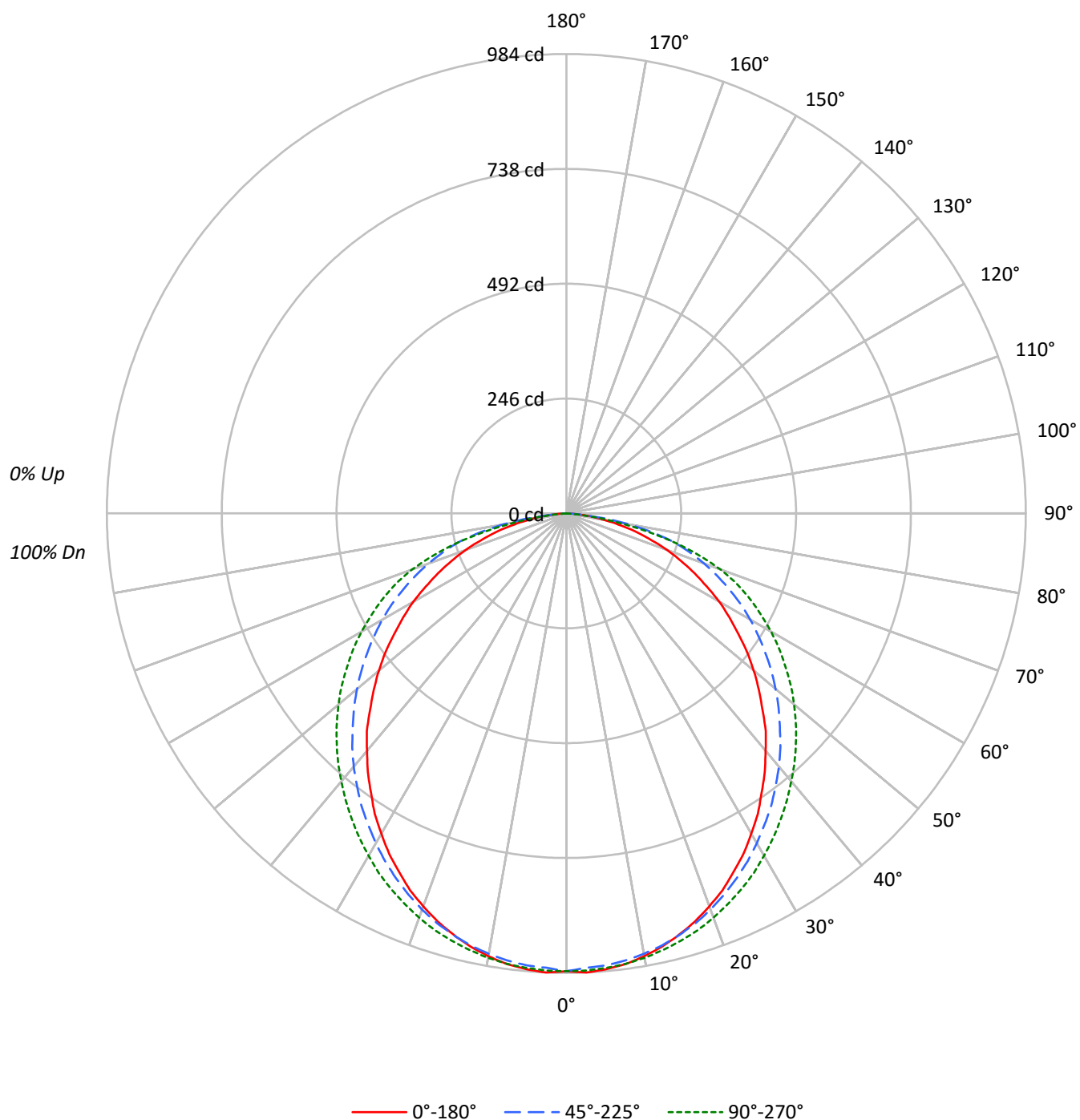
Input Watts (W): 24.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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°	2639	2639	2639
5°	2647	2625	2640
10°	2631	2617	2641
15°	2602	2604	2640
20°	2564	2586	2639
25°	2515	2561	2636
30°	2461	2534	2631
35°	2395	2512	2629
40°	2332	2488	2633
45°	2261	2461	2647
50°	2195	2449	2665
55°	2111	2441	2688
60°	2035	2446	2725
65°	1931	2453	2768
70°	1813	2471	2766
75°	1643	2494	2501
80°	1347	2154	1781
85°	1000	1019	411



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.8	3.3
10°-20°	265.0	9.3
20°-30°	399.2	14.0
30°-40°	479.1	16.8
40°-50°	499.4	17.5
50°-60°	462.3	16.2
60°-70°	373.5	13.1
70°-80°	227.7	8.0
80°-90°	47.0	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°	757.0	26.6
0°-40°	1236.1	43.4
0°-60°	2197.8	77.2
0°-90°	2846.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2846.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	980	980	980	980	980	
5°	980	977	972	979	977	93
15°	934	935	935	948	948	263
25°	847	852	862	884	888	390
35°	729	741	765	793	800	457
45°	594	612	647	683	696	459
55°	450	473	520	561	573	403
65°	303	333	385	424	435	300
75°	158	193	240	244	240	166
85°	32	48	33	18	13	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	980.5	980.5	980.5	980.5	980.5
2.5°	984.3	981.1	974.1	981.1	979.8
5°	979.8	977.3	971.6	978.6	977.3
7.5°	973.5	970.9	965.9	974.1	972.8
10°	962.7	961.4	957.6	967.1	966.5
12.5°	950.0	949.4	947.5	958.2	957.6
15°	934.1	934.8	934.8	947.5	947.5
17.5°	916.4	917.6	920.2	934.1	936.0
20°	895.4	898.0	903.0	918.9	921.4
22.5°	873.8	875.7	883.4	902.4	904.9
25°	847.2	852.3	862.4	884.0	887.8
27.5°	821.8	826.2	840.2	862.4	868.8
30°	792.0	799.0	815.5	839.6	846.6
32.5°	763.4	771.0	790.1	818.0	824.3
35°	729.2	740.6	764.7	792.6	800.2
37.5°	698.1	708.8	736.1	766.6	775.5
40°	663.8	677.1	708.2	740.6	749.5
42.5°	632.1	644.8	678.4	711.4	723.4
45°	594.0	611.8	646.7	682.8	695.5
47.5°	559.1	576.9	616.8	655.5	667.0
50°	524.2	543.2	585.1	625.1	636.5
52.5°	488.0	508.3	553.4	593.4	606.7
55°	449.9	473.4	520.4	561.0	573.0
57.5°	413.8	437.9	488.0	529.3	541.3
60°	378.2	403.0	454.4	493.7	506.4
62.5°	338.9	368.1	421.4	460.1	469.6
65°	303.3	333.2	385.2	423.9	434.7
67.5°	265.9	298.3	350.3	385.8	396.0
70°	230.4	264.0	314.1	347.1	351.6
72.5°	192.3	226.6	277.3	298.3	298.3
75°	158.0	192.9	239.9	243.7	240.5
77.5°	120.6	159.3	189.7	182.1	174.5
80°	86.9	125.0	139.0	125.0	114.9
82.5°	58.4	90.7	83.8	66.6	59.0
85°	32.4	48.2	33.0	18.4	13.3
87.5°	12.1	10.8	3.2	3.2	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)