

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: P307615

Luminaire Tested: **14FCZ2-29-UNV-L82765-CA08-W2A-U-5000K**

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: P307615
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-5000K
Description: 1'X4' TROFFER LED MODULE, RIBBED LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 5000K 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: 2885.0 lumens
Efficiency: N/A
Efficacy: 118.2 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

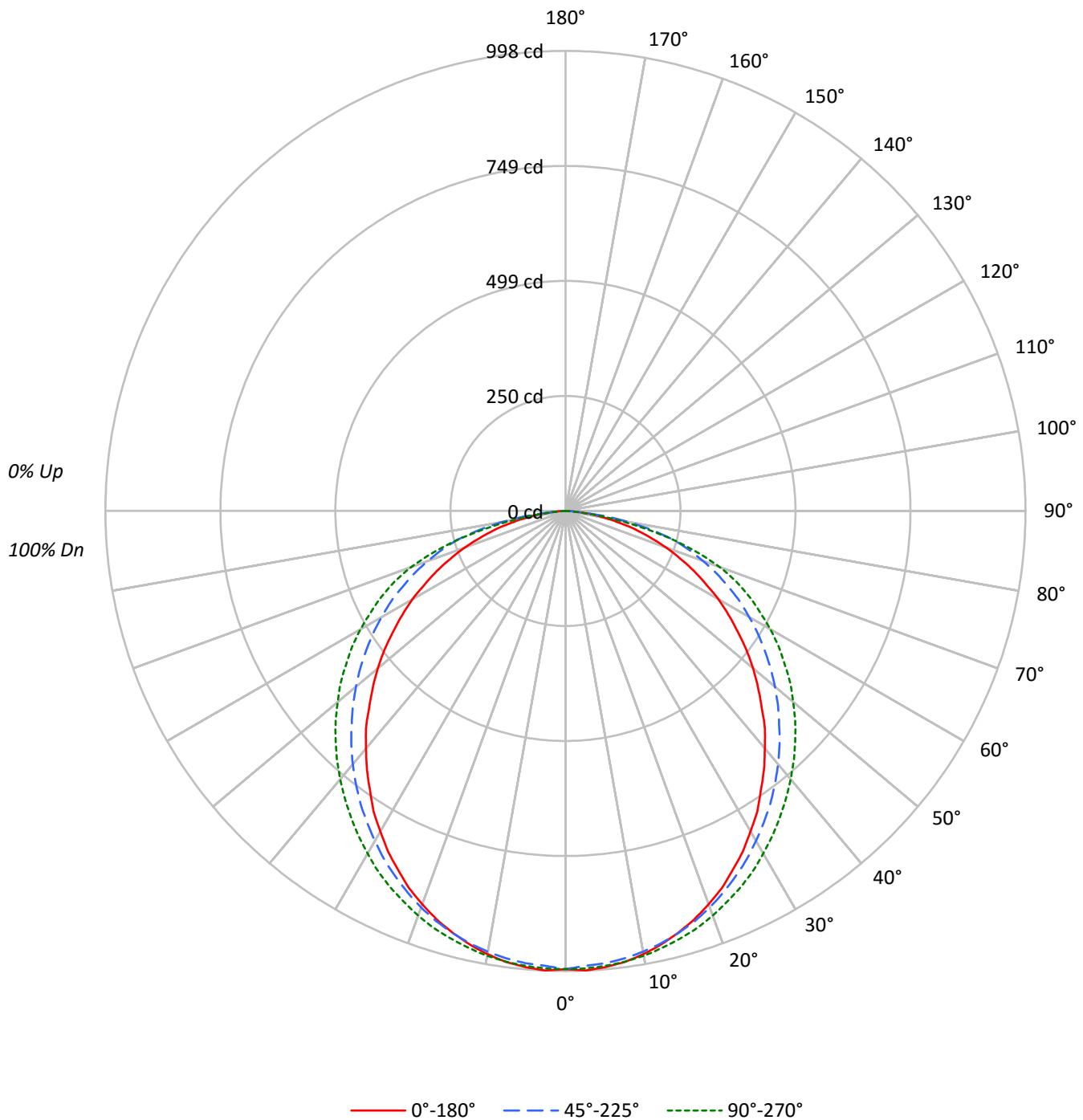
Input Watts (W): 24.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2675	2675	2675
5°	2683	2660	2676
10°	2667	2652	2677
15°	2638	2640	2676
20°	2599	2621	2675
25°	2550	2596	2672
30°	2495	2568	2667
35°	2428	2547	2665
40°	2364	2522	2669
45°	2291	2495	2683
50°	2225	2483	2701
55°	2140	2475	2725
60°	2063	2479	2763
65°	1958	2486	2806
70°	1837	2505	2804
75°	1666	2529	2535
80°	1365	2183	1804
85°	1013	1034	417



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.0	3.3
10°-20°	268.7	9.3
20°-30°	404.7	14.0
30°-40°	485.7	16.8
40°-50°	506.2	17.5
50°-60°	468.6	16.2
60°-70°	378.6	13.1
70°-80°	230.8	8.0
80°-90°	47.7	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°	767.4	26.6
0°-40°	1253.1	43.4
0°-60°	2227.9	77.2
0°-90°	2885.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2885.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	994	994	994	994	994	
5°	993	991	985	992	991	94
15°	947	948	948	960	960	267
25°	859	864	874	896	900	396
35°	739	751	775	804	811	463
45°	602	620	656	692	705	465
55°	456	480	528	569	581	409
65°	308	338	390	430	441	304
75°	160	196	243	247	244	168
85°	33	49	34	19	14	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	993.9	993.9	993.9	993.9	993.9
2.5°	997.8	994.5	987.5	994.5	993.2
5°	993.2	990.7	984.9	992.0	990.7
7.5°	986.8	984.2	979.1	987.5	986.2
10°	975.9	974.6	970.7	980.4	979.7
12.5°	963.0	962.4	960.4	971.4	970.7
15°	946.9	947.6	947.6	960.4	960.4
17.5°	928.9	930.2	932.8	946.9	948.9
20°	907.7	910.3	915.4	931.5	934.1
22.5°	885.8	887.7	895.5	914.8	917.3
25°	858.8	863.9	874.2	896.1	900.0
27.5°	833.1	837.6	851.7	874.2	880.7
30°	802.8	809.9	826.6	851.1	858.2
32.5°	773.9	781.6	800.9	829.2	835.6
35°	739.1	750.7	775.2	803.5	811.2
37.5°	707.6	718.6	746.2	777.1	786.1
40°	672.9	686.4	717.9	750.7	759.7
42.5°	640.7	653.6	687.7	721.1	733.4
45°	602.1	620.1	655.5	692.2	705.1
47.5°	566.7	584.8	625.3	664.5	676.1
50°	531.4	550.7	593.1	633.6	645.2
52.5°	494.7	515.3	561.0	601.5	615.0
55°	456.1	479.9	527.5	568.7	580.9
57.5°	419.4	443.9	494.7	536.5	548.7
60°	383.4	408.5	460.6	500.5	513.3
62.5°	343.5	373.1	427.1	466.4	476.0
65°	307.5	337.7	390.5	429.7	440.7
67.5°	269.5	302.3	355.1	391.1	401.4
70°	233.5	267.6	318.4	351.9	356.4
72.5°	194.9	229.7	281.1	302.3	302.3
75°	160.2	195.6	243.2	247.0	243.8
77.5°	122.2	161.5	192.3	184.6	176.9
80°	88.1	126.7	140.9	126.7	116.4
82.5°	59.2	92.0	84.9	67.5	59.8
85°	32.8	48.9	33.5	18.7	13.5
87.5°	12.2	10.9	3.2	3.2	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)