

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: P307521

Luminaire Tested: **14FCZ2-20-UNV-L82765-CA08-W2A-U-3000K**

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: P307521
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: 14FCZ2-20-UNV-L82765-CA08-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 3000K 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: 1896.0 lumens
Efficiency: N/A
Efficacy: 115.6 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

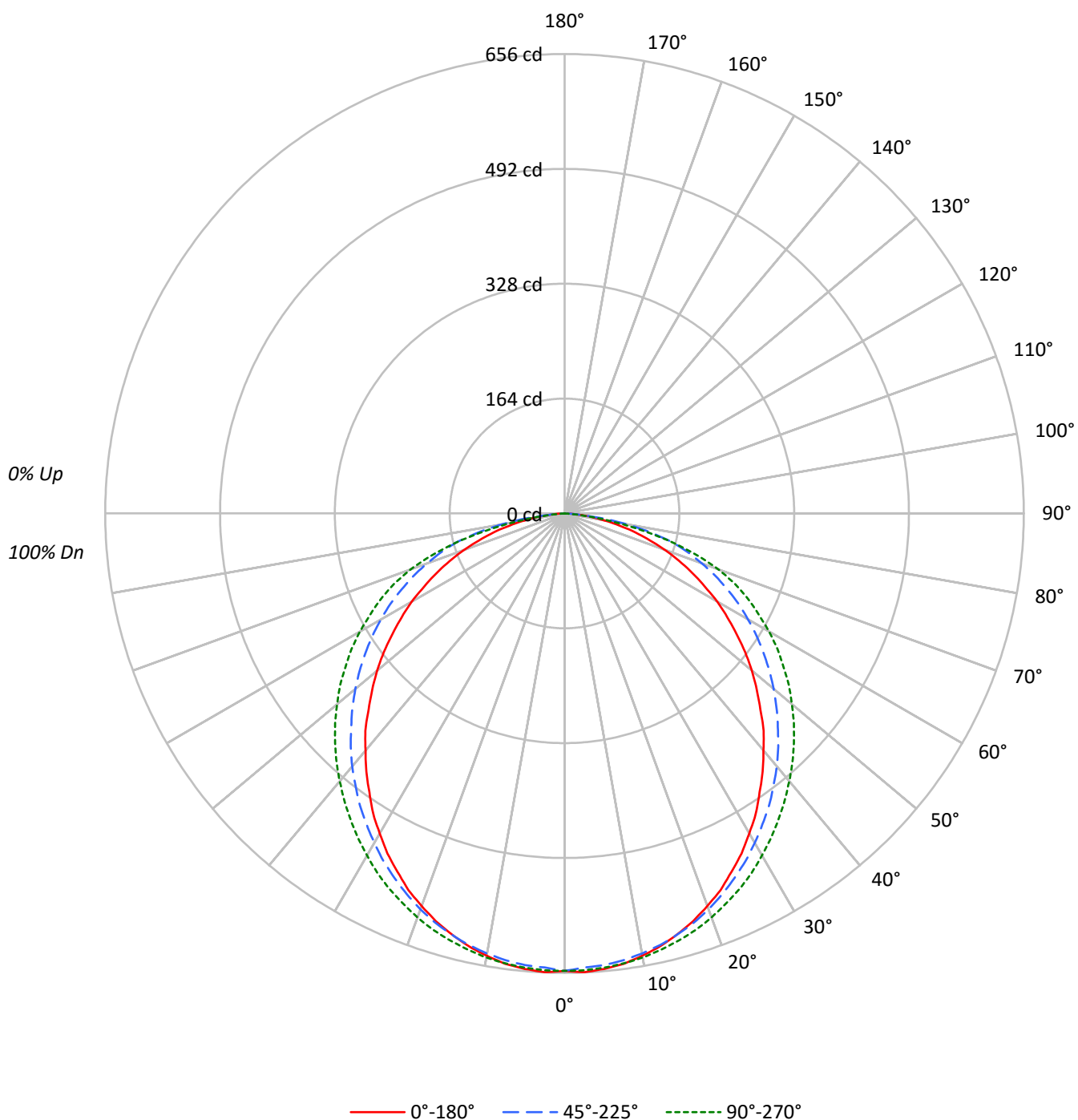
Input Watts (W): 16.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1758	1758	1758
5°	1763	1749	1759
10°	1752	1743	1759
15°	1734	1735	1758
20°	1708	1723	1758
25°	1676	1706	1756
30°	1639	1688	1753
35°	1596	1673	1751
40°	1553	1657	1754
45°	1506	1639	1764
50°	1462	1632	1775
55°	1406	1627	1791
60°	1356	1629	1816
65°	1287	1634	1844
70°	1208	1647	1843
75°	1095	1661	1666
80°	897	1435	1185
85°	667	679	275



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.8	3.3
10°-20°	176.6	9.3
20°-30°	266.0	14.0
30°-40°	319.2	16.8
40°-50°	332.7	17.5
50°-60°	308.0	16.2
60°-70°	248.8	13.1
70°-80°	151.7	8.0
80°-90°	31.3	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°	504.3	26.6
0°-40°	823.5	43.4
0°-60°	1464.1	77.2
0°-90°	1896.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1896.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	653	653	653	653	653	
5°	653	651	647	652	651	62
15°	622	623	623	631	631	175
25°	564	568	574	589	592	260
35°	486	493	509	528	533	304
45°	396	408	431	455	463	306
55°	300	315	347	374	382	269
65°	202	222	257	282	290	200
75°	105	128	160	162	160	111
85°	22	32	22	12	9	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	653.2	653.2	653.2	653.2	653.2
2.5°	655.7	653.6	649.0	653.6	652.8
5°	652.8	651.1	647.3	651.9	651.1
7.5°	648.5	646.8	643.5	649.0	648.1
10°	641.3	640.5	638.0	644.3	643.9
12.5°	632.9	632.5	631.2	638.4	638.0
15°	622.3	622.7	622.7	631.2	631.2
17.5°	610.5	611.3	613.0	622.3	623.6
20°	596.5	598.2	601.6	612.2	613.9
22.5°	582.2	583.4	588.5	601.2	602.9
25°	564.4	567.8	574.5	588.9	591.5
27.5°	547.5	550.4	559.7	574.5	578.8
30°	527.6	532.3	543.3	559.3	564.0
32.5°	508.6	513.7	526.3	544.9	549.2
35°	485.8	493.4	509.4	528.0	533.1
37.5°	465.0	472.2	490.4	510.7	516.6
40°	442.2	451.1	471.8	493.4	499.3
42.5°	421.1	429.5	451.9	473.9	482.0
45°	395.7	407.5	430.8	454.9	463.4
47.5°	372.5	384.3	410.9	436.7	444.3
50°	349.2	361.9	389.8	416.4	424.0
52.5°	325.1	338.6	368.7	395.3	404.2
55°	299.7	315.4	346.7	373.7	381.8
57.5°	275.6	291.7	325.1	352.6	360.6
60°	252.0	268.5	302.7	328.9	337.4
62.5°	225.8	245.2	280.7	306.5	312.8
65°	202.1	222.0	256.6	282.4	289.6
67.5°	177.1	198.7	233.4	257.0	263.8
70°	153.5	175.9	209.3	231.3	234.2
72.5°	128.1	150.9	184.8	198.7	198.7
75°	105.3	128.5	159.8	162.3	160.2
77.5°	80.3	106.1	126.4	121.3	116.3
80°	57.9	83.3	92.6	83.3	76.5
82.5°	38.9	60.5	55.8	44.4	39.3
85°	21.6	32.1	22.0	12.3	8.9
87.5°	8.0	7.2	2.1	2.1	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)