

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: P312140

Luminaire Tested: **14FCZ2-20-UNV-L83050-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: P312140
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-L83050-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: 1898.0 lumens
Efficiency: N/A
Efficacy: 115.0 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

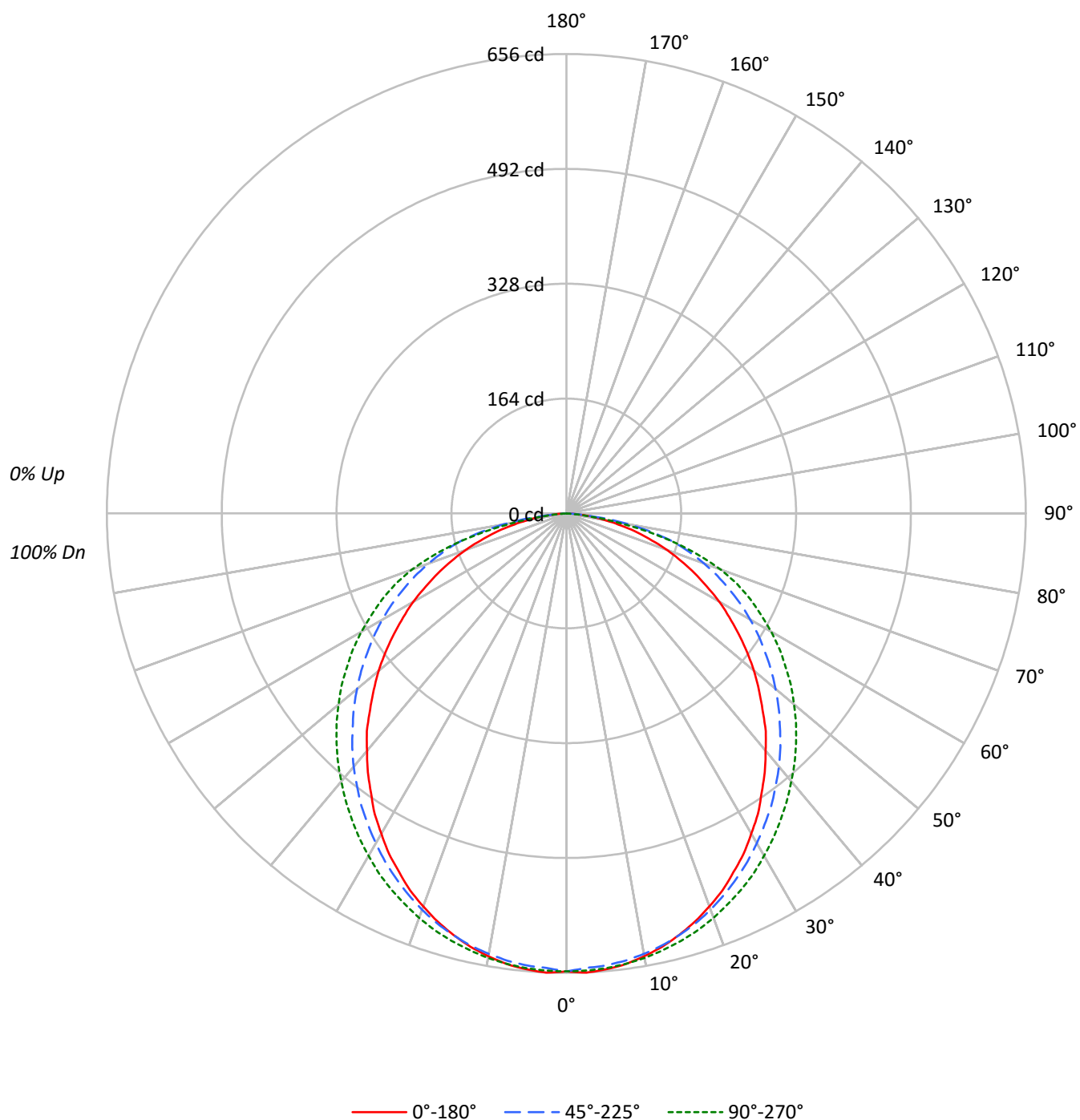
Input Watts (W): 16.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1760	1760	1760
5°	1765	1750	1761
10°	1754	1745	1761
15°	1736	1737	1760
20°	1710	1725	1760
25°	1678	1708	1758
30°	1641	1690	1754
35°	1598	1675	1753
40°	1555	1659	1756
45°	1507	1641	1765
50°	1464	1634	1777
55°	1408	1628	1793
60°	1357	1631	1817
65°	1288	1636	1846
70°	1209	1648	1845
75°	1096	1664	1668
80°	899	1437	1187
85°	667	679	275



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.9	3.3
10°-20°	176.7	9.3
20°-30°	266.2	14.0
30°-40°	319.5	16.8
40°-50°	333.0	17.5
50°-60°	308.3	16.2
60°-70°	249.1	13.1
70°-80°	151.9	8.0
80°-90°	31.4	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°	504.9	26.6
0°-40°	824.4	43.4
0°-60°	1465.7	77.2
0°-90°	1898.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1898.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	654	654	654	654	654	
5°	653	652	648	653	652	62
15°	623	623	623	632	632	176
25°	565	568	575	590	592	260
35°	486	494	510	529	534	305
45°	396	408	431	455	464	306
55°	300	316	347	374	382	269
65°	202	222	257	283	290	200
75°	105	129	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°	653.9	653.9	653.9	653.9	653.9
2.5°	656.4	654.3	649.6	654.3	653.4
5°	653.4	651.8	647.9	652.6	651.8
7.5°	649.2	647.5	644.1	649.6	648.8
10°	642.0	641.2	638.6	645.0	644.6
12.5°	633.6	633.1	631.9	639.1	638.6
15°	623.0	623.4	623.4	631.9	631.9
17.5°	611.1	612.0	613.7	623.0	624.2
20°	597.2	598.8	602.2	612.8	614.5
22.5°	582.8	584.0	589.1	601.8	603.5
25°	565.0	568.4	575.1	589.5	592.1
27.5°	548.1	551.0	560.3	575.1	579.4
30°	528.2	532.8	543.8	559.9	564.6
32.5°	509.1	514.2	526.9	545.5	549.8
35°	486.3	493.9	510.0	528.6	533.7
37.5°	465.5	472.7	490.9	511.2	517.2
40°	442.7	451.6	472.3	493.9	499.8
42.5°	421.5	430.0	452.4	474.4	482.5
45°	396.1	408.0	431.3	455.4	463.8
47.5°	372.9	384.7	411.4	437.2	444.8
50°	349.6	362.3	390.2	416.9	424.5
52.5°	325.5	339.0	369.0	395.7	404.6
55°	300.1	315.7	347.0	374.1	382.2
57.5°	275.9	292.0	325.5	353.0	361.0
60°	252.2	268.7	303.0	329.3	337.7
62.5°	226.0	245.5	281.0	306.8	313.2
65°	202.3	222.2	256.9	282.7	289.9
67.5°	177.3	198.9	233.6	257.3	264.1
70°	153.6	176.1	209.5	231.5	234.5
72.5°	128.2	151.1	184.9	198.9	198.9
75°	105.4	128.7	160.0	162.5	160.4
77.5°	80.4	106.2	126.5	121.5	116.4
80°	58.0	83.4	92.7	83.4	76.6
82.5°	38.9	60.5	55.9	44.4	39.4
85°	21.6	32.2	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)