

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: P307520

Luminaire Tested: **14FCZ2-20-UNV-L82765-CA08-W2A-U-2700K**

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: P307520
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-2700K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 2700K 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: 1843.0 lumens
Efficiency: N/A
Efficacy: 111.7 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

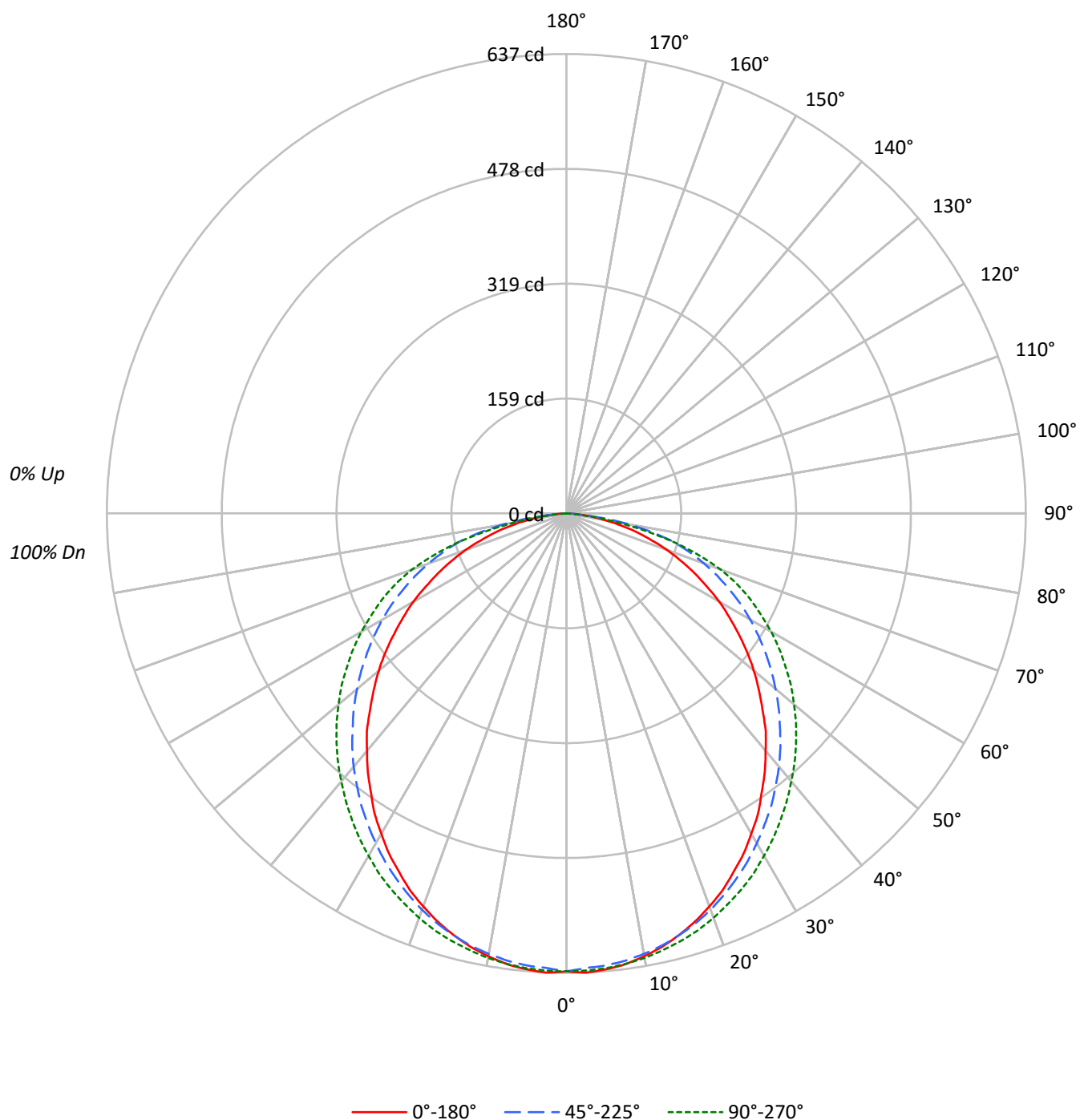
Input Watts (W): 16.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1709	1709	1709
5°	1714	1700	1710
10°	1703	1694	1710
15°	1685	1686	1709
20°	1661	1675	1709
25°	1629	1658	1707
30°	1594	1641	1703
35°	1551	1627	1702
40°	1510	1611	1705
45°	1464	1594	1714
50°	1421	1586	1726
55°	1367	1581	1741
60°	1318	1583	1765
65°	1251	1588	1792
70°	1174	1600	1792
75°	1064	1615	1620
80°	872	1395	1153
85°	648	661	266



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.1	3.3
10°-20°	171.6	9.3
20°-30°	258.5	14.0
30°-40°	310.2	16.8
40°-50°	323.4	17.5
50°-60°	299.4	16.2
60°-70°	241.9	13.1
70°-80°	147.5	8.0
80°-90°	30.5	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°	490.2	26.6
0°-40°	800.5	43.4
0°-60°	1423.2	77.2
0°-90°	1843.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1843.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	635	635	635	635	635	
5°	634	633	629	634	633	60
15°	605	605	605	614	614	171
25°	549	552	558	572	575	253
35°	472	480	495	513	518	296
45°	385	396	419	442	450	297
55°	291	307	337	363	371	261
65°	196	216	249	274	282	194
75°	102	125	155	158	156	107
85°	21	31	21	12	9	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	634.9	634.9	634.9	634.9	634.9
2.5°	637.4	635.3	630.8	635.3	634.5
5°	634.5	632.9	629.2	633.7	632.9
7.5°	630.4	628.8	625.5	630.8	630.0
10°	623.4	622.6	620.1	626.3	625.9
12.5°	615.2	614.8	613.6	620.5	620.1
15°	604.9	605.3	605.3	613.6	613.6
17.5°	593.4	594.2	595.9	604.9	606.2
20°	579.9	581.5	584.8	595.1	596.7
22.5°	565.9	567.1	572.0	584.4	586.0
25°	548.6	551.9	558.5	572.5	574.9
27.5°	532.2	535.1	544.1	558.5	562.6
30°	512.9	517.4	528.1	543.7	548.2
32.5°	494.4	499.3	511.6	529.7	533.8
35°	472.2	479.6	495.2	513.3	518.2
37.5°	452.0	459.0	476.7	496.4	502.2
40°	429.9	438.5	458.6	479.6	485.3
42.5°	409.3	417.5	439.3	460.7	468.5
45°	384.7	396.2	418.8	442.2	450.4
47.5°	362.0	373.6	399.4	424.5	431.9
50°	339.4	351.8	378.9	404.8	412.2
52.5°	316.0	329.2	358.3	384.2	392.9
55°	291.4	306.6	337.0	363.3	371.1
57.5°	267.9	283.6	316.0	342.7	350.5
60°	244.9	261.0	294.2	319.7	327.9
62.5°	219.4	238.4	272.9	297.9	304.1
65°	196.4	215.7	249.4	274.5	281.5
67.5°	172.2	193.1	226.8	249.9	256.4
70°	149.2	171.0	203.4	224.8	227.7
72.5°	124.5	146.7	179.6	193.1	193.1
75°	102.3	124.9	155.3	157.8	155.8
77.5°	78.1	103.1	122.9	117.9	113.0
80°	56.3	81.0	90.0	81.0	74.4
82.5°	37.8	58.8	54.2	43.1	38.2
85°	21.0	31.2	21.4	11.9	8.6
87.5°	7.8	7.0	2.1	2.1	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)