

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: P307558

Luminaire Tested: **14FCZ2-20-UNV-L82765-CP250-W2A-U-3500K**

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: P307558
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-CP250-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.250" POLYCARB SHEET
Light Source: (168) 3500K 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

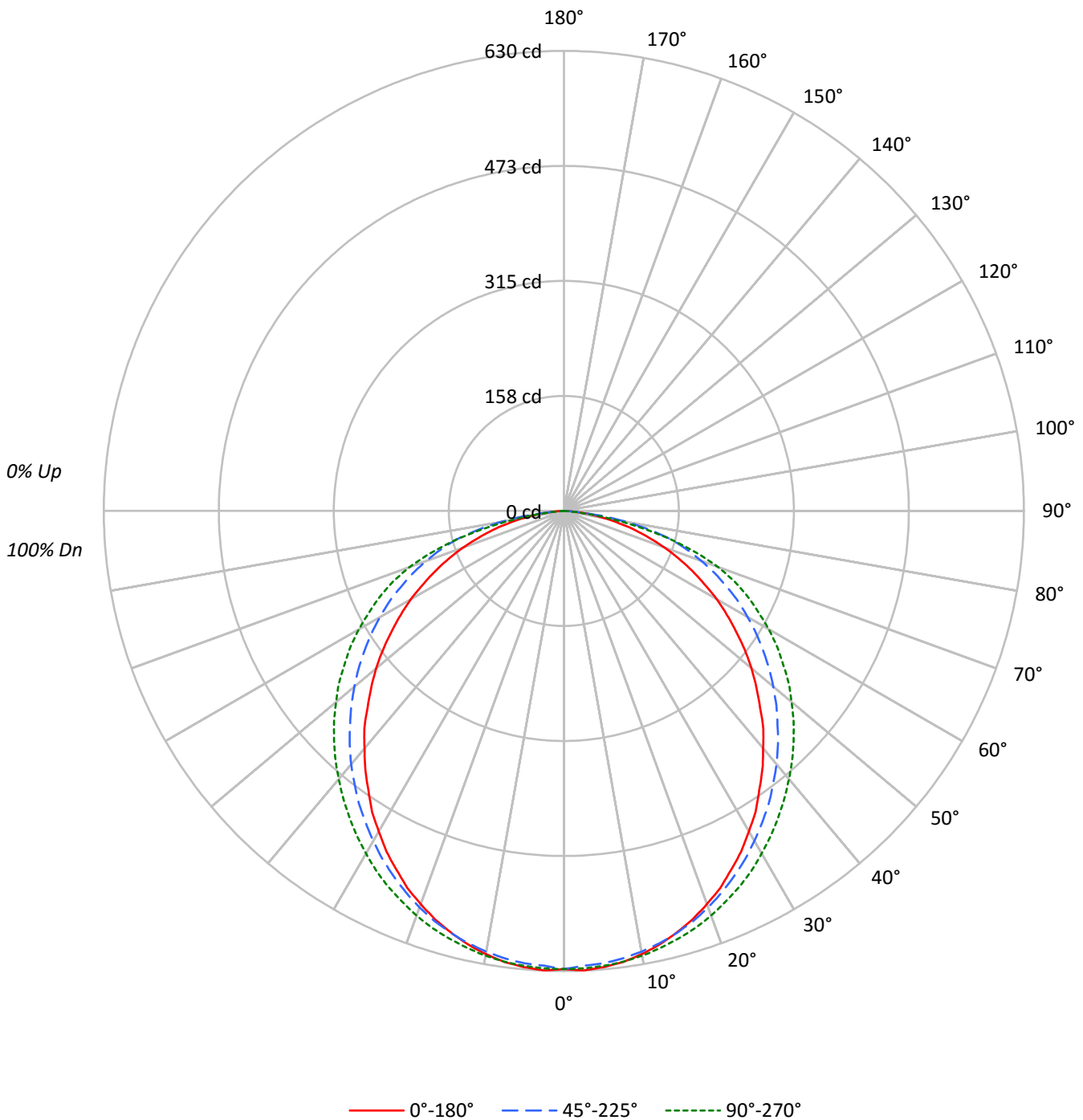
Lumens per Lamp: N/A
Luminaire Lumens: 1821.0 lumens
Efficiency: N/A
Efficacy: 109.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 16.6
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				10	0
RW	70	50	30	10	70	50	30	10	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	102	102	102	100
1	109	104	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1688	1688	1688
5°	1693	1679	1689
10°	1683	1674	1690
15°	1665	1666	1689
20°	1641	1655	1688
25°	1610	1638	1687
30°	1574	1621	1683
35°	1532	1607	1682
40°	1492	1592	1684
45°	1447	1575	1694
50°	1404	1567	1705
55°	1351	1562	1720
60°	1302	1565	1744
65°	1236	1570	1771
70°	1160	1581	1769
75°	1051	1596	1600
80°	862	1378	1139
85°	639	651	262



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.4	3.3
10°-20°	169.6	9.3
20°-30°	255.4	14.0
30°-40°	306.5	16.8
40°-50°	319.5	17.5
50°-60°	295.8	16.2
60°-70°	239.0	13.1
70°-80°	145.7	8.0
80°-90°	30.1	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°	484.4	26.6
0°-40°	790.9	43.4
0°-60°	1406.2	77.2
0°-90°	1821.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1821.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	627	627	627	627	627	
5°	627	625	622	626	625	60
15°	598	598	598	606	606	168
25°	542	545	552	566	568	250
35°	466	474	489	507	512	292
45°	380	391	414	437	445	294
55°	288	303	333	359	367	258
65°	194	213	246	271	278	192
75°	101	123	154	156	154	106
85°	21	31	21	12	8	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	627.3	627.3	627.3	627.3	627.3
2.5°	629.8	627.7	623.3	627.7	626.9
5°	626.9	625.3	621.7	626.1	625.3
7.5°	622.9	621.2	618.0	623.3	622.5
10°	616.0	615.2	612.7	618.8	618.4
12.5°	607.9	607.4	606.2	613.1	612.7
15°	597.7	598.1	598.1	606.2	606.2
17.5°	586.3	587.1	588.8	597.7	598.9
20°	572.9	574.6	577.8	588.0	589.6
22.5°	559.1	560.3	565.2	577.4	579.0
25°	542.1	545.3	551.8	565.6	568.1
27.5°	525.8	528.7	537.6	551.8	555.9
30°	506.7	511.2	521.8	537.2	541.7
32.5°	488.5	493.3	505.5	523.4	527.5
35°	466.5	473.9	489.3	507.2	512.0
37.5°	446.7	453.6	471.0	490.5	496.2
40°	424.7	433.3	453.1	473.9	479.5
42.5°	404.4	412.5	434.1	455.2	462.9
45°	380.1	391.4	413.8	436.9	445.0
47.5°	357.7	369.1	394.7	419.4	426.8
50°	335.4	347.6	374.4	400.0	407.3
52.5°	312.2	325.2	354.1	379.7	388.2
55°	287.9	302.9	333.0	358.9	366.7
57.5°	264.7	280.2	312.2	338.6	346.4
60°	242.0	257.8	290.7	315.9	324.0
62.5°	216.8	235.5	269.6	294.4	300.5
65°	194.1	213.2	246.5	271.2	278.1
67.5°	170.1	190.8	224.1	246.9	253.4
70°	147.4	168.9	201.0	222.1	224.9
72.5°	123.0	145.0	177.4	190.8	190.8
75°	101.1	123.4	153.5	155.9	153.9
77.5°	77.1	101.9	121.4	116.5	111.7
80°	55.6	80.0	88.9	80.0	73.5
82.5°	37.4	58.1	53.6	42.6	37.8
85°	20.7	30.9	21.1	11.8	8.5
87.5°	7.7	6.9	2.0	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)