

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: P307827

Luminaire Tested: **14FCZ2-20-UNV-L82765-S-CP250-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: P307827
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
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-S-CP250-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.250" POLYCARB 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: 1778.0 lumens
Efficiency: N/A
Efficacy: 108.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

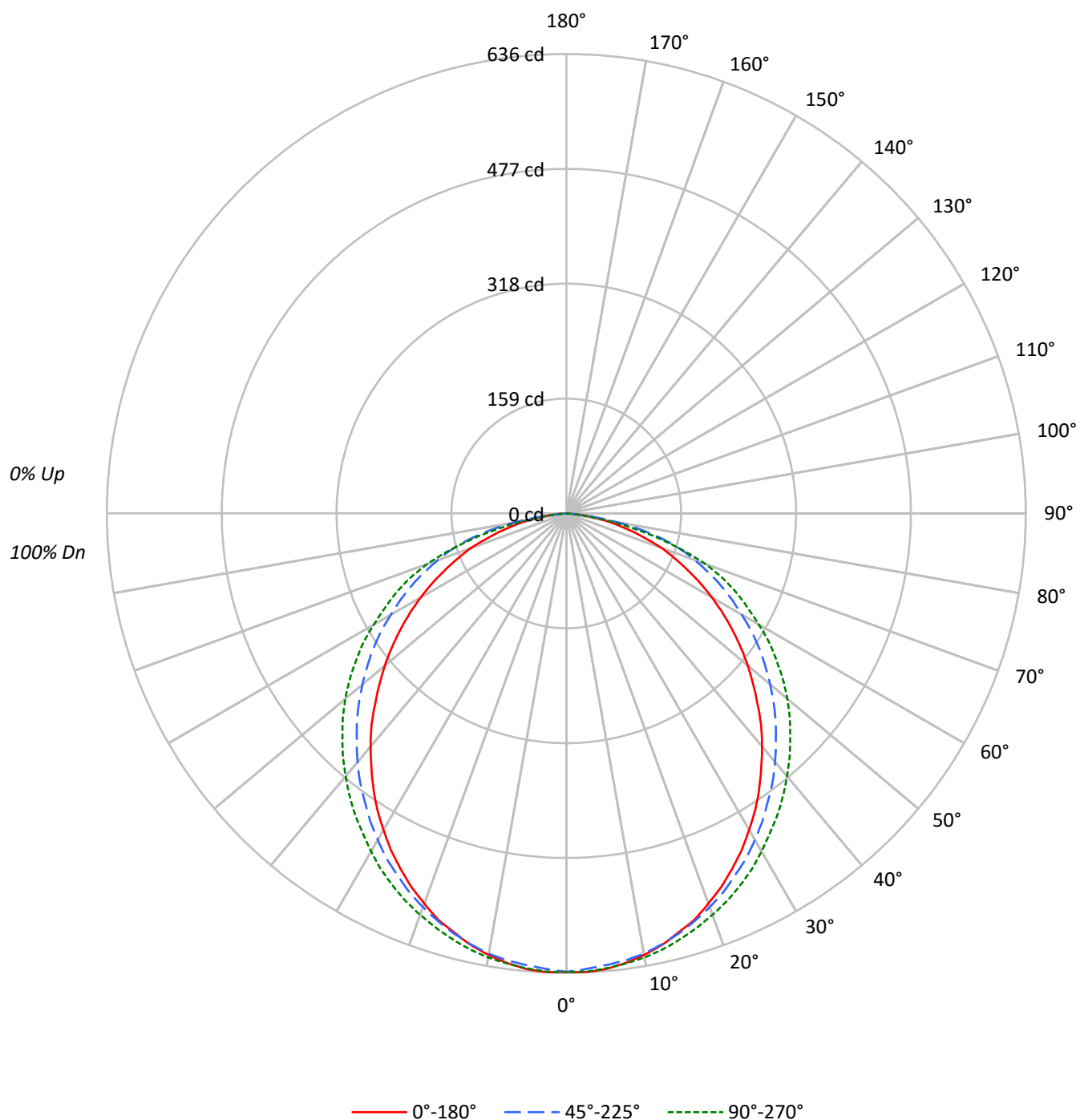
Input Watts (W): 16.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	106	102	98	94	97	94	91		94	91	89		84
2	99	90	84	78	96	89	82	77	85	80	75		82	77	73		70
3	90	79	71	65	87	78	70	64	75	68	63		72	66	62		58
4	82	70	61	55	80	69	61	54	66	59	53		64	58	53		50
5	76	63	54	47	74	62	53	47	59	52	46		57	51	46		43
6	70	56	47	41	68	55	47	41	54	46	40		52	45	40		38
7	65	51	42	36	63	50	42	36	49	41	36		47	41	35		33
8	60	47	38	32	59	46	38	32	45	37	32		43	37	32		30
9	56	43	35	29	55	42	34	29	41	34	29		40	33	29		27
10	53	40	32	26	52	39	31	26	38	31	26		37	31	26		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1708	1708	1708
5°	1710	1696	1707
10°	1696	1691	1705
15°	1672	1677	1699
20°	1646	1661	1694
25°	1612	1641	1688
30°	1572	1622	1679
35°	1529	1599	1674
40°	1480	1579	1669
45°	1426	1560	1667
50°	1373	1543	1672
55°	1315	1530	1667
60°	1252	1509	1656
65°	1179	1505	1656
70°	1109	1491	1609
75°	963	1458	1375
80°	778	1175	916
85°	516	408	272



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.9	3.4
10°-20°	170.5	9.6
20°-30°	255.8	14.4
30°-40°	305.2	17.2
40°-50°	315.5	17.7
50°-60°	288.0	16.2
60°-70°	226.7	12.8
70°-80°	132.0	7.4
80°-90°	24.3	1.4
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°	486.3	27.4
0°-40°	791.5	44.5
0°-60°	1395.0	78.5
0°-90°	1778.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1778.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	635	635	635	635	635	
5°	633	631	628	633	632	60
15°	600	601	602	610	610	169
25°	543	546	553	566	569	250
35°	466	472	487	505	510	291
45°	375	387	410	433	438	289
55°	280	295	326	350	355	251
65°	185	204	236	255	260	184
75°	93	115	140	138	132	98
85°	17	24	13	11	9	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	634.7	634.7	634.7	634.7	634.7
2.5°	635.6	633.8	631.2	635.6	634.7
5°	633.0	631.2	627.7	633.0	632.1
7.5°	627.7	625.9	624.1	629.4	628.5
10°	620.6	619.7	618.8	625.0	624.1
12.5°	611.8	611.8	610.9	618.0	618.0
15°	600.3	601.2	602.1	610.0	610.0
17.5°	589.8	588.9	591.5	600.3	601.2
20°	574.8	576.5	580.1	590.6	591.5
22.5°	559.8	561.5	567.7	578.3	580.9
25°	543.0	545.7	552.7	566.0	568.6
27.5°	525.4	528.9	538.6	552.7	555.4
30°	506.0	511.3	521.9	537.7	540.4
32.5°	486.6	491.9	505.1	521.0	524.5
35°	465.5	471.6	486.6	505.1	509.5
37.5°	443.4	451.4	469.0	487.5	492.8
40°	421.4	430.2	449.6	469.0	475.2
42.5°	399.3	408.2	429.3	451.4	457.5
45°	374.7	387.0	409.9	432.8	438.1
47.5°	350.9	364.1	389.6	412.6	419.6
50°	327.9	341.2	368.5	392.3	399.3
52.5°	304.1	318.2	347.3	372.0	378.2
55°	280.3	295.3	326.2	350.0	355.3
57.5°	256.5	272.4	304.1	327.1	333.2
60°	232.7	249.5	280.3	303.3	307.7
62.5°	208.9	226.6	258.3	278.6	283.0
65°	185.1	204.5	236.3	254.8	260.1
67.5°	162.2	181.6	212.5	230.1	234.5
70°	141.0	158.7	189.5	202.8	204.5
72.5°	114.6	136.6	166.6	173.7	169.3
75°	92.6	114.6	140.2	137.5	132.2
77.5°	70.5	92.6	109.3	100.5	93.4
80°	50.2	72.3	75.8	62.6	59.1
82.5°	32.6	50.2	42.3	32.6	26.4
85°	16.7	23.8	13.2	10.6	8.8
87.5°	5.3	3.5	1.8	1.8	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)