

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: P312045

Luminaire Tested: **14FCZ2-29-UNV-L83050-RDP-CA125-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: P312045
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-29-UNV-L83050-RDP-CA125-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.125" 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: 1693.0 lumens
Efficiency: N/A
Efficacy: 71.1 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

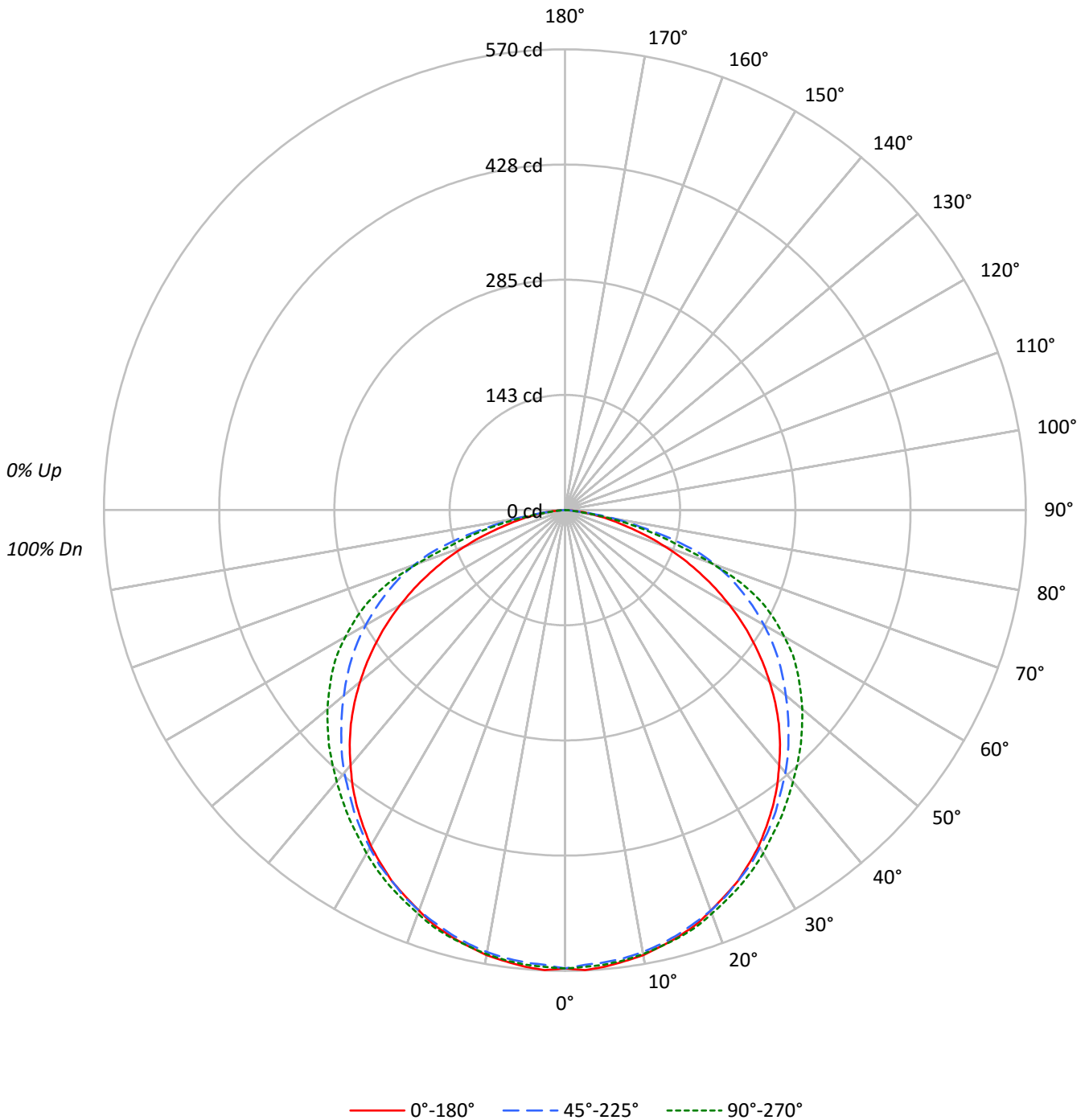
Input Watts (W): 23.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	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	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1526	1526	1526
5°	1532	1517	1525
10°	1528	1517	1524
15°	1521	1513	1524
20°	1510	1510	1521
25°	1503	1503	1523
30°	1491	1499	1524
35°	1472	1494	1529
40°	1449	1490	1541
45°	1424	1489	1569
50°	1383	1494	1605
55°	1333	1513	1650
60°	1266	1530	1686
65°	1170	1549	1708
70°	1040	1560	1529
75°	838	1402	1223
80°	656	982	798
85°	448	287	204



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.7	3.2
10°-20°	154.0	9.1
20°-30°	234.5	13.8
30°-40°	285.6	16.9
40°-50°	303.0	17.9
50°-60°	285.9	16.9
60°-70°	230.9	13.6
70°-80°	125.2	7.4
80°-90°	20.3	1.2
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°	442.1	26.1
0°-40°	727.7	43.0
0°-60°	1316.6	77.8
0°-90°	1693.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1693.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	567	567	567	567	567	
5°	567	566	562	566	564	54
15°	546	545	543	547	547	154
25°	506	505	506	512	513	233
35°	448	451	455	464	465	280
45°	374	379	391	406	412	288
55°	284	296	322	344	352	254
65°	184	206	243	263	268	182
75°	81	118	135	122	118	88
85°	14	16	9	8	7	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	567.0	567.0	567.0	567.0	567.0
2.5°	569.7	567.0	563.1	567.0	565.7
5°	567.0	565.7	561.7	565.7	564.4
7.5°	563.1	563.1	559.1	561.7	561.7
10°	559.1	557.8	555.1	559.1	557.8
12.5°	552.5	551.2	549.8	553.8	552.5
15°	545.9	544.6	543.2	547.2	547.2
17.5°	538.0	536.6	535.3	540.6	540.6
20°	527.4	527.4	527.4	532.7	531.3
22.5°	516.8	516.8	518.1	523.4	522.1
25°	506.2	504.9	506.2	511.5	512.8
27.5°	493.0	494.3	495.7	500.9	502.3
30°	479.8	481.1	482.4	489.0	490.4
32.5°	463.9	466.6	469.2	477.2	477.2
35°	448.1	450.7	454.7	463.9	465.3
37.5°	430.9	433.5	438.8	449.4	452.0
40°	412.4	416.3	424.3	434.9	438.8
42.5°	393.9	399.2	408.4	420.3	425.6
45°	374.1	379.3	391.2	405.8	412.4
47.5°	352.9	359.5	374.1	392.6	397.8
50°	330.4	339.7	356.9	376.7	383.3
52.5°	308.0	318.5	339.7	360.8	367.4
55°	284.2	296.1	322.5	343.7	351.6
57.5°	260.4	273.6	304.0	326.5	334.4
60°	235.3	251.1	284.2	306.6	313.3
62.5°	210.2	228.7	264.3	286.8	292.1
65°	183.7	206.2	243.2	263.0	268.3
67.5°	158.6	185.0	222.1	236.6	236.6
70°	132.2	161.3	198.3	202.2	194.3
72.5°	105.7	138.8	171.8	157.3	150.7
75°	80.6	117.6	134.8	121.6	117.6
77.5°	60.8	95.2	95.2	87.2	84.6
80°	42.3	72.7	63.4	55.5	51.5
82.5°	27.8	41.0	33.0	26.4	22.5
85°	14.5	15.9	9.3	7.9	6.6
87.5°	5.3	2.6	1.3	2.6	1.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)