

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: P312047

Luminaire Tested: **14FCZ2-29-UNV-L83050-RDP-CA125-W2A-U-4000K**

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: P312047
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-4000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.125" ACRYLIC SHEET
Light Source: (168) 4000K 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: 1881.0 lumens
Efficiency: N/A
Efficacy: 77.4 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

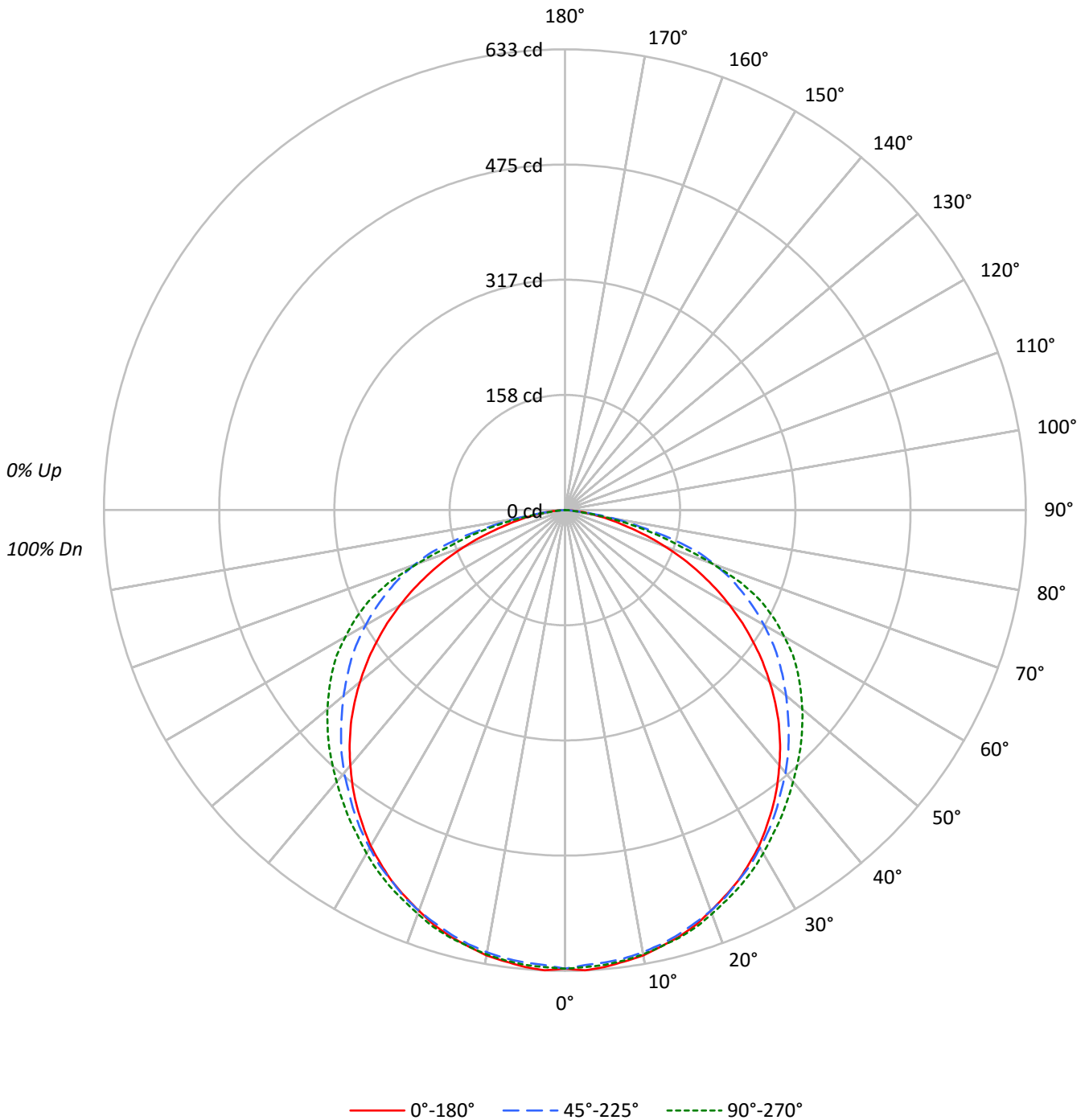
Input Watts (W): 24.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1695	1695	1695
5°	1702	1686	1694
10°	1697	1685	1693
15°	1690	1682	1694
20°	1678	1678	1690
25°	1670	1670	1692
30°	1656	1665	1693
35°	1635	1660	1698
40°	1610	1656	1713
45°	1582	1654	1744
50°	1537	1660	1783
55°	1481	1681	1833
60°	1407	1699	1873
65°	1300	1720	1898
70°	1156	1733	1699
75°	932	1557	1359
80°	728	1093	888
85°	500	318	225



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.6	3.2
10°-20°	171.1	9.1
20°-30°	260.5	13.8
30°-40°	317.3	16.9
40°-50°	336.6	17.9
50°-60°	317.7	16.9
60°-70°	256.5	13.6
70°-80°	139.2	7.4
80°-90°	22.5	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°	491.2	26.1
0°-40°	808.5	43.0
0°-60°	1462.8	77.8
0°-90°	1881.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1881.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	630	630	630	630	630	
5°	630	628	624	628	627	60
15°	606	605	604	608	608	171
25°	562	561	562	568	570	259
35°	498	501	505	516	517	311
45°	416	422	435	451	458	320
55°	316	329	358	382	391	282
65°	204	229	270	292	298	202
75°	90	131	150	135	131	98
85°	16	18	10	9	7	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	630.0	630.0	630.0	630.0	630.0
2.5°	632.9	630.0	625.6	630.0	628.5
5°	630.0	628.5	624.1	628.5	627.1
7.5°	625.6	625.6	621.2	624.1	624.1
10°	621.2	619.7	616.8	621.2	619.7
12.5°	613.8	612.4	610.9	615.3	613.8
15°	606.5	605.0	603.6	608.0	608.0
17.5°	597.7	596.2	594.8	600.6	600.6
20°	585.9	585.9	585.9	591.8	590.3
22.5°	574.2	574.2	575.7	581.5	580.1
25°	562.4	561.0	562.4	568.3	569.8
27.5°	547.8	549.2	550.7	556.6	558.0
30°	533.1	534.5	536.0	543.4	544.8
32.5°	515.5	518.4	521.3	530.1	530.1
35°	497.8	500.8	505.2	515.5	516.9
37.5°	478.7	481.7	487.5	499.3	502.2
40°	458.2	462.6	471.4	483.1	487.5
42.5°	437.6	443.5	453.8	467.0	472.9
45°	415.6	421.5	434.7	450.8	458.2
47.5°	392.1	399.4	415.6	436.2	442.0
50°	367.1	377.4	396.5	418.5	425.9
52.5°	342.2	353.9	377.4	400.9	408.2
55°	315.7	328.9	358.3	381.8	390.6
57.5°	289.3	304.0	337.8	362.7	371.5
60°	261.4	279.0	315.7	340.7	348.0
62.5°	233.5	254.1	293.7	318.7	324.5
65°	204.1	229.1	270.2	292.2	298.1
67.5°	176.2	205.6	246.7	262.9	262.9
70°	146.9	179.2	220.3	224.7	215.9
72.5°	117.5	154.2	190.9	174.8	167.4
75°	89.6	130.7	149.8	135.1	130.7
77.5°	67.6	105.7	105.7	96.9	94.0
80°	47.0	80.8	70.5	61.7	57.3
82.5°	30.8	45.5	36.7	29.4	25.0
85°	16.2	17.6	10.3	8.8	7.3
87.5°	5.9	2.9	1.5	2.9	1.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)