

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: P312046

Luminaire Tested: **14FCZ2-29-UNV-L83050-RDP-CA125-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: P312046
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-3500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.125" ACRYLIC 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: 1792.0 lumens
Efficiency: N/A
Efficacy: 75.3 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

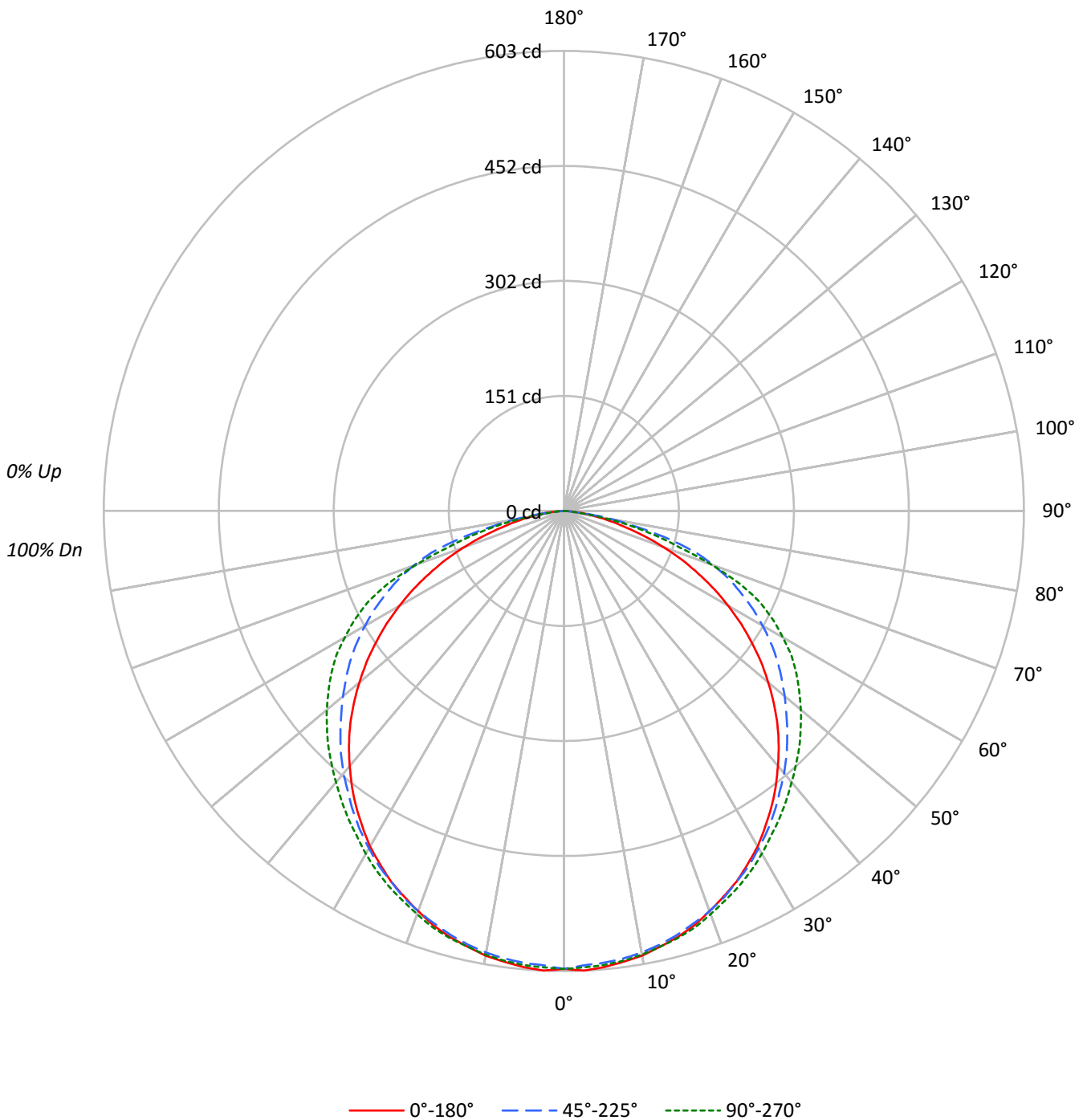
Input Watts (W): 23.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1615	1615	1615
5°	1621	1606	1614
10°	1617	1606	1613
15°	1610	1602	1614
20°	1599	1599	1611
25°	1591	1591	1612
30°	1578	1587	1613
35°	1558	1581	1618
40°	1533	1578	1632
45°	1507	1576	1661
50°	1464	1581	1698
55°	1411	1602	1746
60°	1340	1619	1785
65°	1238	1639	1808
70°	1101	1651	1618
75°	887	1484	1294
80°	694	1041	846
85°	475	303	216



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.8	3.2
10°-20°	163.0	9.1
20°-30°	248.2	13.8
30°-40°	302.3	16.9
40°-50°	320.7	17.9
50°-60°	302.7	16.9
60°-70°	244.4	13.6
70°-80°	132.6	7.4
80°-90°	21.5	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°	468.0	26.1
0°-40°	770.2	43.0
0°-60°	1393.6	77.8
0°-90°	1792.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1792.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	600	600	600	600	600	
5°	600	599	595	599	597	57
15°	578	576	575	579	579	163
25°	536	534	536	541	543	247
35°	474	477	481	491	492	297
45°	396	402	414	430	436	305
55°	301	313	341	364	372	269
65°	194	218	257	278	284	193
75°	85	124	143	129	124	93
85°	15	17	10	8	7	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	600.2	600.2	600.2	600.2	600.2
2.5°	603.0	600.2	596.0	600.2	598.8
5°	600.2	598.8	594.6	598.8	597.4
7.5°	596.0	596.0	591.8	594.6	594.6
10°	591.8	590.4	587.6	591.8	590.4
12.5°	584.8	583.4	582.0	586.2	584.8
15°	577.8	576.4	575.0	579.2	579.2
17.5°	569.4	568.0	566.6	572.2	572.2
20°	558.2	558.2	558.2	563.8	562.4
22.5°	547.0	547.0	548.4	554.0	552.6
25°	535.8	534.4	535.8	541.4	542.8
27.5°	521.8	523.2	524.6	530.2	531.6
30°	507.9	509.2	510.6	517.6	519.0
32.5°	491.1	493.9	496.7	505.1	505.1
35°	474.3	477.1	481.3	491.1	492.5
37.5°	456.1	458.9	464.5	475.7	478.5
40°	436.5	440.7	449.1	460.3	464.5
42.5°	416.9	422.5	432.3	444.9	450.5
45°	395.9	401.5	414.1	429.5	436.5
47.5°	373.5	380.5	395.9	415.5	421.1
50°	349.8	359.6	377.7	398.7	405.7
52.5°	326.0	337.2	359.6	381.9	388.9
55°	300.8	313.4	341.4	363.7	372.1
57.5°	275.6	289.6	321.8	345.6	354.0
60°	249.0	265.8	300.8	324.6	331.6
62.5°	222.4	242.0	279.8	303.6	309.2
65°	194.5	218.2	257.4	278.4	284.0
67.5°	167.9	195.9	235.0	250.4	250.4
70°	139.9	170.7	209.9	214.1	205.7
72.5°	111.9	146.9	181.9	166.5	159.5
75°	85.3	124.5	142.7	128.7	124.5
77.5°	64.4	100.7	100.7	92.3	89.5
80°	44.8	76.9	67.2	58.8	54.6
82.5°	29.4	43.4	35.0	28.0	23.8
85°	15.4	16.8	9.8	8.4	7.0
87.5°	5.6	2.8	1.4	2.8	1.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)