

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: P312048

Luminaire Tested: **14FCZ2-29-UNV-L83050-RDP-CA125-W2A-U-4500K**

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: P312048
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-4500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.125" ACRYLIC SHEET
Light Source: (168) 4500K 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: 1899.0 lumens
Efficiency: N/A
Efficacy: 76.0 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

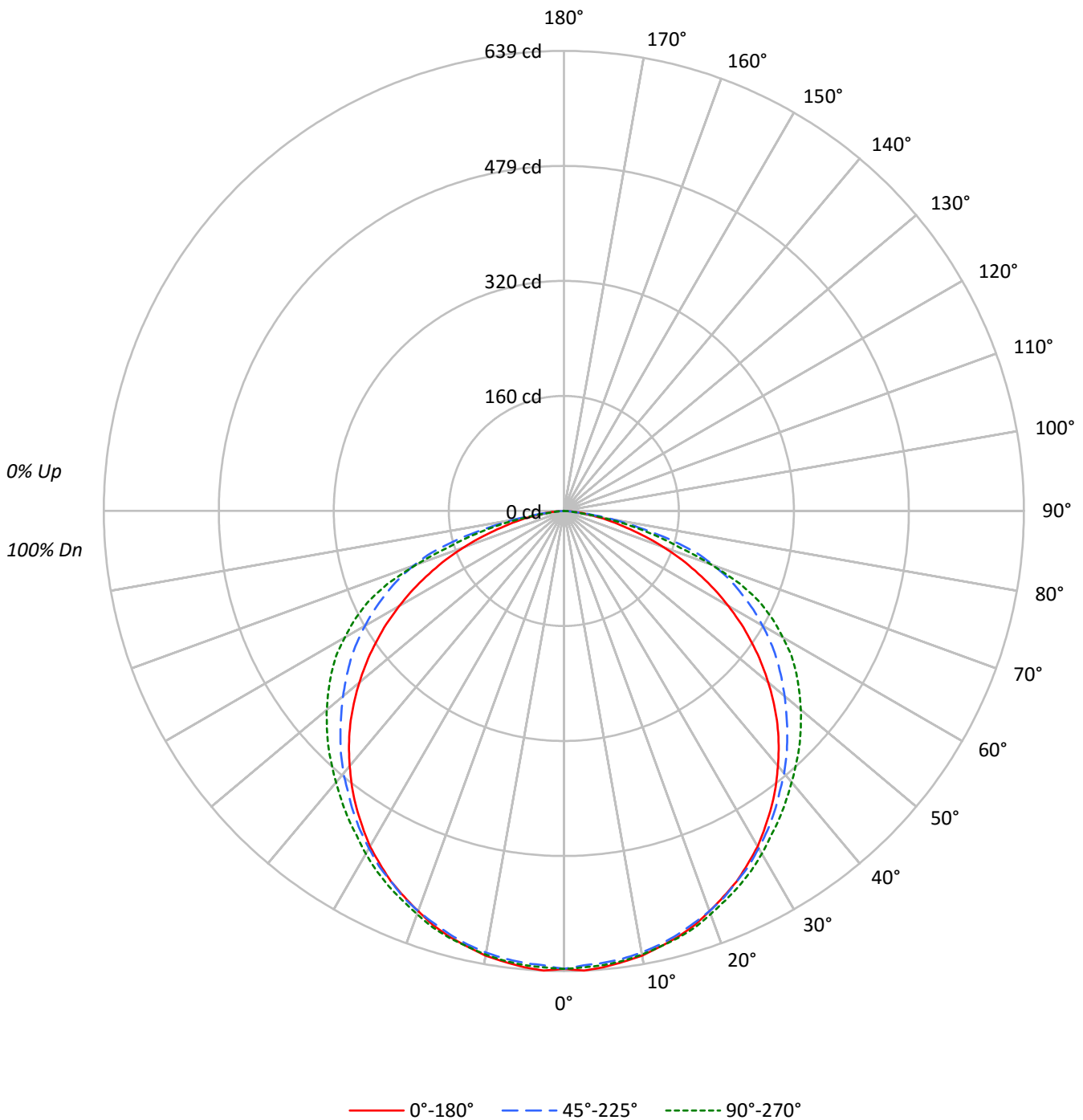
Input Watts (W): 25
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1711	1711	1711
5°	1718	1702	1710
10°	1714	1702	1709
15°	1706	1697	1710
20°	1694	1694	1707
25°	1686	1686	1708
30°	1672	1681	1709
35°	1651	1675	1714
40°	1625	1672	1729
45°	1597	1670	1760
50°	1551	1676	1800
55°	1496	1697	1850
60°	1420	1716	1891
65°	1312	1737	1917
70°	1167	1750	1714
75°	940	1572	1371
80°	735	1103	896
85°	503	321	228



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.2	3.2
10°-20°	172.7	9.1
20°-30°	263.0	13.8
30°-40°	320.3	16.9
40°-50°	339.8	17.9
50°-60°	320.7	16.9
60°-70°	259.0	13.6
70°-80°	140.5	7.4
80°-90°	22.7	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°	495.9	26.1
0°-40°	816.2	43.0
0°-60°	1476.8	77.8
0°-90°	1899.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1899.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	636	636	636	636	636	
5°	636	634	630	634	633	60
15°	612	611	609	614	614	173
25°	568	566	568	574	575	261
35°	503	506	510	520	522	314
45°	420	426	439	455	463	323
55°	319	332	362	386	394	285
65°	206	231	273	295	301	204
75°	90	132	151	136	132	99
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°	636.0	636.0	636.0	636.0	636.0
2.5°	639.0	636.0	631.6	636.0	634.5
5°	636.0	634.5	630.1	634.5	633.1
7.5°	631.6	631.6	627.1	630.1	630.1
10°	627.1	625.6	622.7	627.1	625.6
12.5°	619.7	618.2	616.8	621.2	619.7
15°	612.3	610.8	609.3	613.8	613.8
17.5°	603.4	601.9	600.4	606.4	606.4
20°	591.5	591.5	591.5	597.5	596.0
22.5°	579.7	579.7	581.2	587.1	585.6
25°	567.8	566.3	567.8	573.8	575.2
27.5°	553.0	554.5	556.0	561.9	563.4
30°	538.2	539.7	541.1	548.6	550.0
32.5°	520.4	523.3	526.3	535.2	535.2
35°	502.6	505.6	510.0	520.4	521.9
37.5°	483.3	486.3	492.2	504.1	507.0
40°	462.6	467.0	475.9	487.8	492.2
42.5°	441.8	447.7	458.1	471.5	477.4
45°	419.6	425.5	438.8	455.1	462.6
47.5°	395.8	403.3	419.6	440.3	446.3
50°	370.6	381.0	400.3	422.5	429.9
52.5°	345.4	357.3	381.0	404.7	412.2
55°	318.8	332.1	361.7	385.5	394.4
57.5°	292.1	306.9	341.0	366.2	375.1
60°	263.9	281.7	318.8	344.0	351.4
62.5°	235.7	256.5	296.5	321.7	327.6
65°	206.1	231.3	272.8	295.0	301.0
67.5°	177.9	207.6	249.1	265.4	265.4
70°	148.3	180.9	222.4	226.8	217.9
72.5°	118.6	155.7	192.7	176.4	169.0
75°	90.4	131.9	151.2	136.4	131.9
77.5°	68.2	106.7	106.7	97.8	94.9
80°	47.4	81.5	71.2	62.3	57.8
82.5°	31.1	46.0	37.1	29.7	25.2
85°	16.3	17.8	10.4	8.9	7.4
87.5°	5.9	3.0	1.5	3.0	1.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)