

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: P307038

Luminaire Tested: **14FCZ2-25-UNV-L82765-HRP-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: P307038
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-25-UNV-L82765-HRP-CA125-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 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: 1800.0 lumens
Efficiency: N/A
Efficacy: 90.0 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

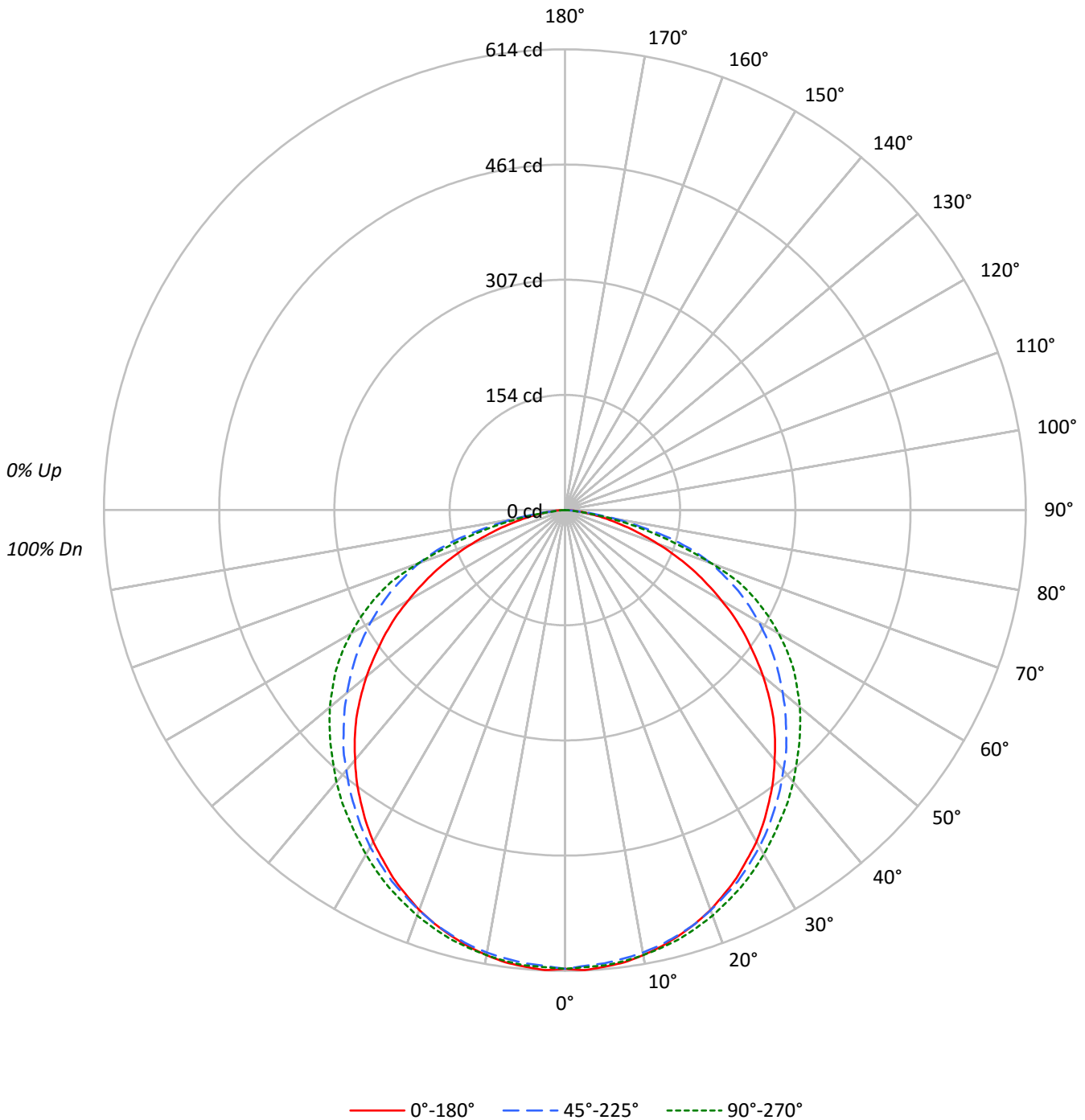
Input Watts (W): 20
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1645	1645	1645
5°	1650	1638	1645
10°	1646	1636	1646
15°	1635	1632	1648
20°	1624	1626	1647
25°	1607	1620	1647
30°	1586	1611	1646
35°	1558	1599	1649
40°	1527	1591	1662
45°	1495	1585	1680
50°	1443	1585	1711
55°	1381	1593	1747
60°	1298	1605	1770
65°	1196	1622	1780
70°	1042	1626	1639
75°	859	1513	1325
80°	676	1088	886
85°	525	420	210



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.9	3.2
10°-20°	166.1	9.2
20°-30°	252.2	14.0
30°-40°	305.6	17.0
40°-50°	322.0	17.9
50°-60°	300.6	16.7
60°-70°	240.2	13.3
70°-80°	132.2	7.3
80°-90°	23.3	1.3
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°	476.1	26.5
0°-40°	781.7	43.4
0°-60°	1404.3	78.0
0°-90°	1800.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1800.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	611	611	611	611	611	
5°	611	609	606	610	609	58
15°	587	587	586	592	592	166
25°	541	542	546	554	555	249
35°	474	479	487	499	502	297
45°	393	400	417	435	442	302
55°	294	309	340	363	372	263
65°	188	212	255	276	280	185
75°	83	118	146	131	127	89
85°	17	22	14	8	7	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	611.3	611.3	611.3	611.3	611.3
2.5°	613.6	611.9	607.9	611.3	609.6
5°	610.7	609.0	606.2	610.2	609.0
7.5°	607.9	605.6	602.8	607.3	606.2
10°	602.2	600.5	598.8	602.8	602.2
12.5°	595.4	594.9	593.2	597.7	597.1
15°	587.0	587.0	585.8	591.5	591.5
17.5°	577.9	577.3	577.9	584.1	583.6
20°	567.1	567.1	567.7	575.1	575.1
22.5°	554.1	554.7	556.4	565.4	564.9
25°	541.1	542.2	545.6	553.6	554.7
27.5°	525.3	528.1	532.0	541.7	542.8
30°	510.5	512.2	518.5	527.5	529.8
32.5°	493.0	496.4	503.2	513.4	516.2
35°	474.3	478.8	486.8	499.2	502.0
37.5°	455.6	459.6	470.4	483.4	488.5
40°	434.7	441.5	452.8	467.5	473.2
42.5°	414.3	421.1	436.4	451.7	456.8
45°	392.8	400.2	416.6	435.3	441.5
47.5°	369.0	377.5	398.5	418.3	425.1
50°	344.7	355.5	378.7	400.7	408.7
52.5°	319.2	332.8	359.4	382.6	390.0
55°	294.3	309.0	339.6	363.4	372.4
57.5°	268.9	284.7	319.2	346.4	351.5
60°	241.1	260.4	298.3	322.1	328.9
62.5°	214.0	236.0	276.8	299.4	305.1
65°	187.9	211.7	254.7	275.6	279.6
67.5°	159.6	187.9	230.4	249.6	250.7
70°	132.4	165.3	206.6	215.6	208.3
72.5°	105.8	140.9	178.9	171.5	165.3
75°	82.6	118.3	145.5	130.7	127.4
77.5°	61.1	96.8	104.1	96.2	90.0
80°	43.6	76.4	70.2	60.0	57.2
82.5°	30.0	48.1	38.5	30.0	26.0
85°	17.0	21.5	13.6	8.5	6.8
87.5°	7.4	5.1	2.8	2.3	2.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)