

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: P311870

Luminaire Tested: **14FCZ2-25-UNV-L83050-HRP-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: P311870
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-L83050-HRP-CA125-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 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: 1674.0 lumens
Efficiency: N/A
Efficacy: 85.4 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

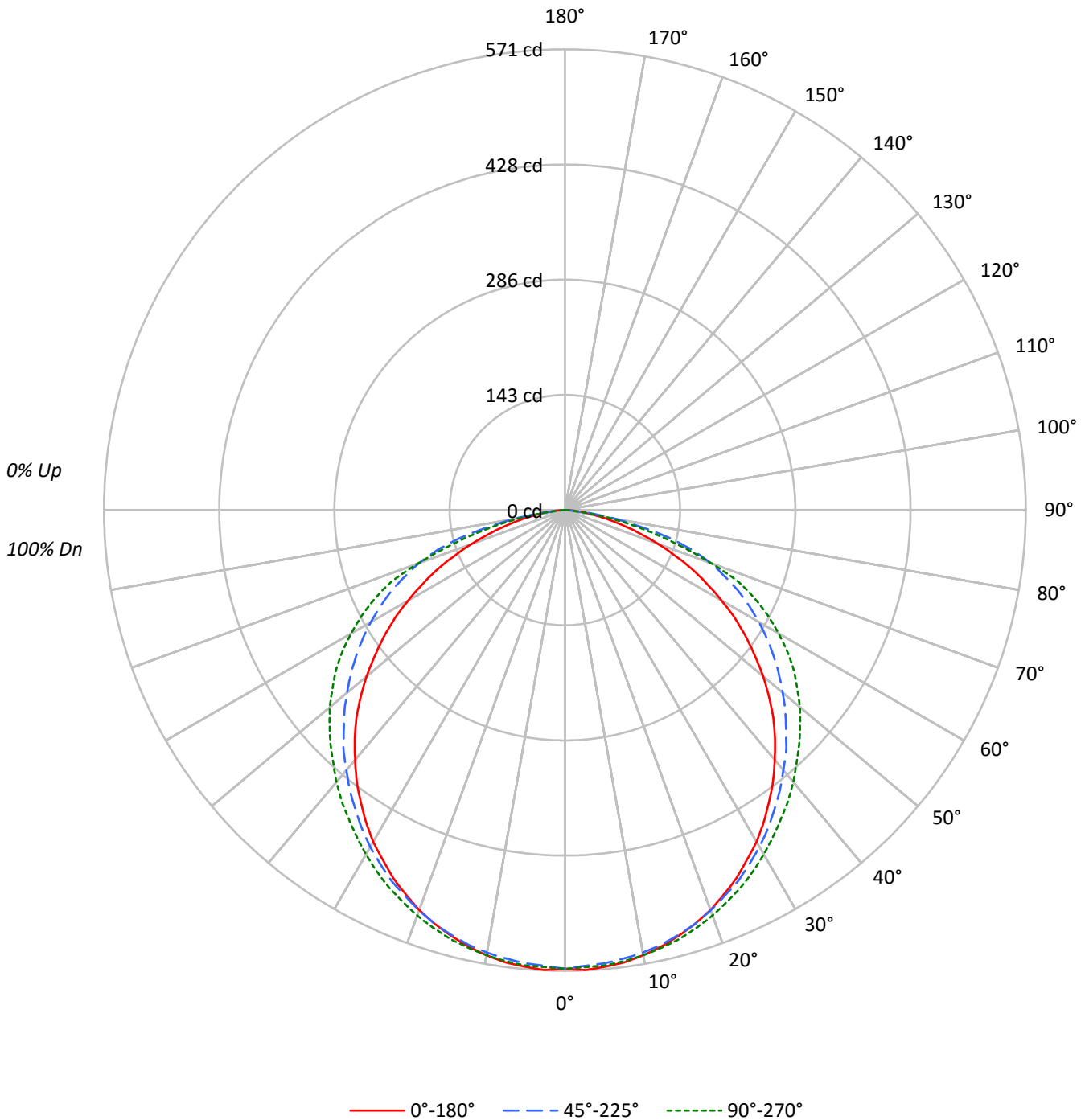
Input Watts (W): 19.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P311870

CATALOG NUMBER: 14FCZ2-25-UNV-L83050-HRP-CA125-W2A-U-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P311870

CATALOG NUMBER: 14FCZ2-25-UNV-L83050-HRP-CA125-W2A-U-3000K

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°	1530	1530	1530
5°	1534	1523	1530
10°	1530	1522	1530
15°	1521	1518	1533
20°	1510	1512	1531
25°	1494	1507	1532
30°	1475	1498	1531
35°	1449	1487	1534
40°	1420	1479	1546
45°	1390	1474	1563
50°	1342	1474	1591
55°	1284	1482	1625
60°	1207	1493	1646
65°	1113	1508	1656
70°	969	1511	1524
75°	800	1407	1231
80°	628	1012	824
85°	488	389	195



TEST NUMBER: P311870

CATALOG NUMBER: 14FCZ2-25-UNV-L83050-HRP-CA125-W2A-U-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.8	3.2
10°-20°	154.4	9.2
20°-30°	234.5	14.0
30°-40°	284.2	17.0
40°-50°	299.5	17.9
50°-60°	279.6	16.7
60°-70°	223.4	13.3
70°-80°	122.9	7.3
80°-90°	21.7	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°	442.8	26.5
0°-40°	727.0	43.4
0°-60°	1306.0	78.0
0°-90°	1674.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1674.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	568	568	568	568	568	
5°	568	566	564	567	566	54
15°	546	546	545	550	550	154
25°	503	504	507	515	516	232
35°	441	445	453	464	467	276
45°	365	372	387	405	411	281
55°	274	287	316	338	346	244
65°	175	197	237	256	260	172
75°	77	110	135	122	118	83
85°	16	20	13	8	6	19
90°	0	0	0	0	0	



TEST NUMBER: P311870

CATALOG NUMBER: 14FC22-25-UNV-L83050-HRP-CA125-W2A-U-3000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	568.5	568.5	568.5	568.5	568.5
2.5°	570.6	569.0	565.3	568.5	566.9
5°	568.0	566.4	563.8	567.4	566.4
7.5°	565.3	563.2	560.6	564.8	563.8
10°	560.1	558.5	556.9	560.6	560.1
12.5°	553.8	553.2	551.7	555.9	555.3
15°	545.9	545.9	544.8	550.1	550.1
17.5°	537.4	536.9	537.4	543.2	542.7
20°	527.4	527.4	528.0	534.8	534.8
22.5°	515.3	515.9	517.4	525.9	525.3
25°	503.2	504.3	507.4	514.8	515.9
27.5°	488.5	491.1	494.8	503.8	504.8
30°	474.8	476.4	482.2	490.6	492.7
32.5°	458.5	461.6	468.0	477.4	480.1
35°	441.1	445.3	452.7	464.3	466.9
37.5°	423.7	427.4	437.4	449.5	454.3
40°	404.3	410.6	421.1	434.8	440.1
42.5°	385.3	391.6	405.8	420.1	424.8
45°	365.3	372.2	387.4	404.8	410.6
47.5°	343.2	351.1	370.6	389.0	395.3
50°	320.6	330.6	352.2	372.7	380.1
52.5°	296.9	309.5	334.3	355.8	362.7
55°	273.7	287.4	315.8	337.9	346.4
57.5°	250.0	264.8	296.9	322.1	326.9
60°	224.2	242.1	277.4	299.5	305.8
62.5°	199.0	219.5	257.4	278.5	283.7
65°	174.8	196.9	236.9	256.4	260.0
67.5°	148.4	174.8	214.2	232.1	233.2
70°	123.2	153.7	192.1	200.6	193.7
72.5°	98.4	131.1	166.3	159.5	153.7
75°	76.9	110.0	135.3	121.6	118.4
77.5°	56.8	90.0	96.9	89.5	83.7
80°	40.5	71.1	65.3	55.8	53.2
82.5°	27.9	44.7	35.8	27.9	24.2
85°	15.8	20.0	12.6	7.9	6.3
87.5°	6.8	4.7	2.6	2.1	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)