

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: P312063

Luminaire Tested: **14FCZ2-29-UNV-L83050-RDP-CP250-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: P312063
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-CP250-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.250" POLYCARB 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: 1769.0 lumens
Efficiency: N/A
Efficacy: 70.8 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

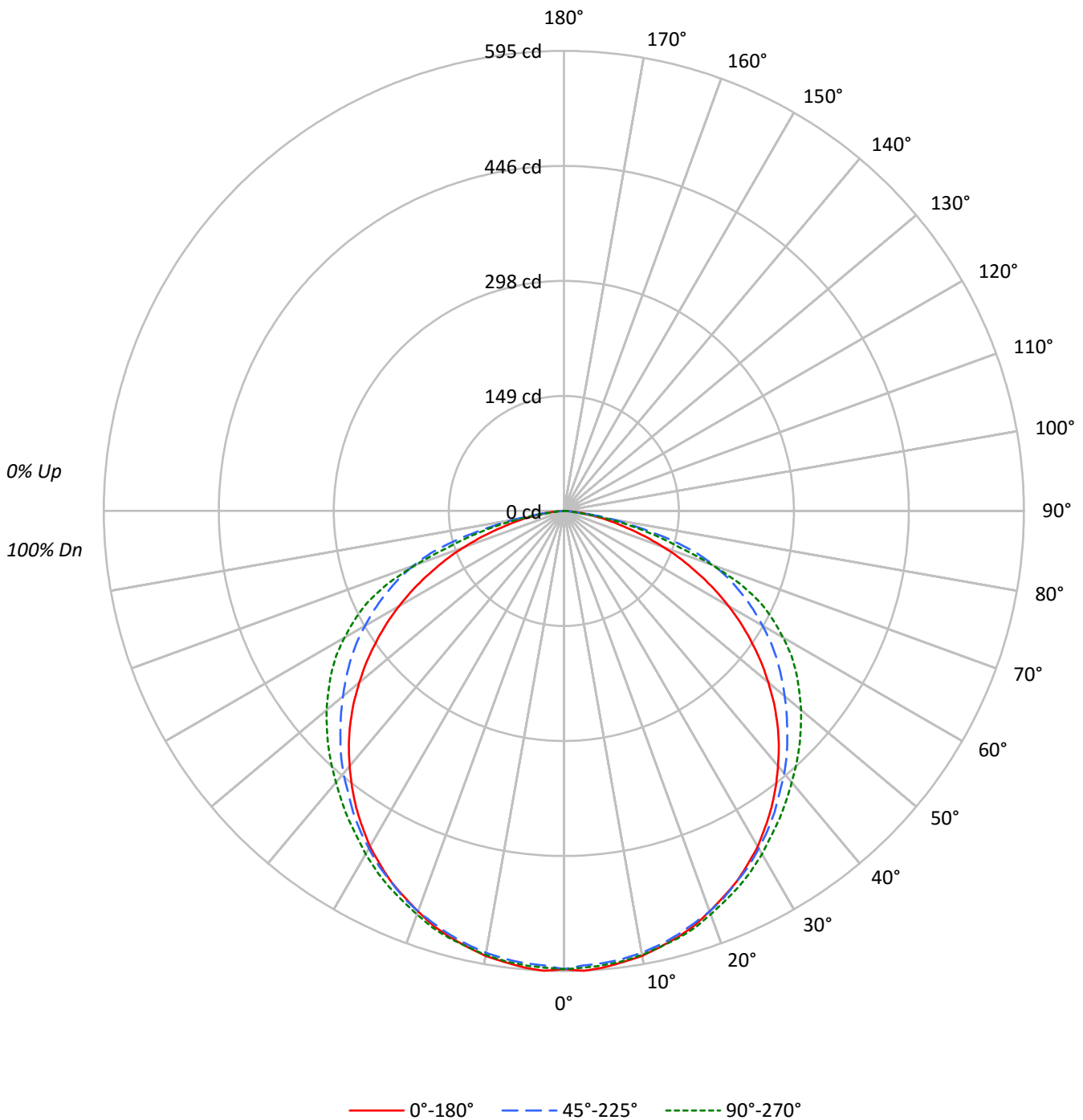
Input Watts (W): 25
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P312063

CATALOG NUMBER: 14FCZ2-29-UNV-L83050-RDP-CP250-W2A-U-4500K

Luminous Intensity Polar Plot





TEST NUMBER: P312063

CATALOG NUMBER: 14FCZ2-29-UNV-L83050-RDP-CP250-W2A-U-4500K

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°	1594	1594	1594
5°	1600	1586	1593
10°	1596	1585	1592
15°	1589	1581	1593
20°	1578	1578	1590
25°	1571	1571	1591
30°	1558	1566	1592
35°	1538	1561	1597
40°	1514	1557	1611
45°	1487	1556	1640
50°	1446	1561	1677
55°	1393	1581	1724
60°	1323	1598	1762
65°	1223	1618	1785
70°	1087	1630	1597
75°	875	1465	1278
80°	685	1027	835
85°	469	299	213



TEST NUMBER: P312063

CATALOG NUMBER: 14FCZ2-29-UNV-L83050-RDP-CP250-W2A-U-4500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.1	3.2
10°-20°	160.9	9.1
20°-30°	245.0	13.8
30°-40°	298.4	16.9
40°-50°	316.6	17.9
50°-60°	298.8	16.9
60°-70°	241.2	13.6
70°-80°	130.9	7.4
80°-90°	21.2	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°	462.0	26.1
0°-40°	760.4	43.0
0°-60°	1375.7	77.8
0°-90°	1769.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1769.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	592	592	592	592	592	
5°	592	591	587	591	590	56
15°	570	569	568	572	572	161
25°	529	528	529	534	536	244
35°	468	471	475	485	486	293
45°	391	396	409	424	431	301
55°	297	309	337	359	367	265
65°	192	215	254	275	280	190
75°	84	123	141	127	123	92
85°	15	17	10	8	7	20
90°	0	0	0	0	0	



TEST NUMBER: P312063

CATALOG NUMBER: 14FCZ2-29-UNV-L83050-RDP-CP250-W2A-U-4500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	592.5	592.5	592.5	592.5	592.5
2.5°	595.2	592.5	588.3	592.5	591.1
5°	592.5	591.1	587.0	591.1	589.7
7.5°	588.3	588.3	584.2	587.0	587.0
10°	584.2	582.8	580.1	584.2	582.8
12.5°	577.3	575.9	574.5	578.7	577.3
15°	570.4	569.0	567.6	571.8	571.8
17.5°	562.1	560.7	559.3	564.9	564.9
20°	551.1	551.1	551.1	556.6	555.2
22.5°	540.0	540.0	541.4	546.9	545.5
25°	529.0	527.6	529.0	534.5	535.9
27.5°	515.1	516.5	517.9	523.4	524.8
30°	501.3	502.7	504.1	511.0	512.4
32.5°	484.8	487.5	490.3	498.6	498.6
35°	468.2	470.9	475.1	484.8	486.1
37.5°	450.2	453.0	458.5	469.6	472.3
40°	430.9	435.0	443.3	454.4	458.5
42.5°	411.6	417.1	426.8	439.2	444.7
45°	390.8	396.4	408.8	424.0	430.9
47.5°	368.7	375.7	390.8	410.2	415.7
50°	345.3	354.9	372.9	393.6	400.5
52.5°	321.8	332.8	354.9	377.0	383.9
55°	296.9	309.4	337.0	359.1	367.4
57.5°	272.1	285.9	317.6	341.1	349.4
60°	245.8	262.4	296.9	320.4	327.3
62.5°	219.6	238.9	276.2	299.7	305.2
65°	192.0	215.4	254.1	274.8	280.4
67.5°	165.7	193.4	232.0	247.2	247.2
70°	138.1	168.5	207.2	211.3	203.0
72.5°	110.5	145.0	179.5	164.3	157.4
75°	84.2	122.9	140.9	127.1	122.9
77.5°	63.5	99.4	99.4	91.2	88.4
80°	44.2	76.0	66.3	58.0	53.9
82.5°	29.0	42.8	34.5	27.6	23.5
85°	15.2	16.6	9.7	8.3	6.9
87.5°	5.5	2.8	1.4	2.8	1.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)