

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: P312061

Luminaire Tested: **14FCZ2-29-UNV-L83050-RDP-CP250-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: P312061
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-3500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.250" POLYCARB 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: 1669.0 lumens
Efficiency: N/A
Efficacy: 70.1 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

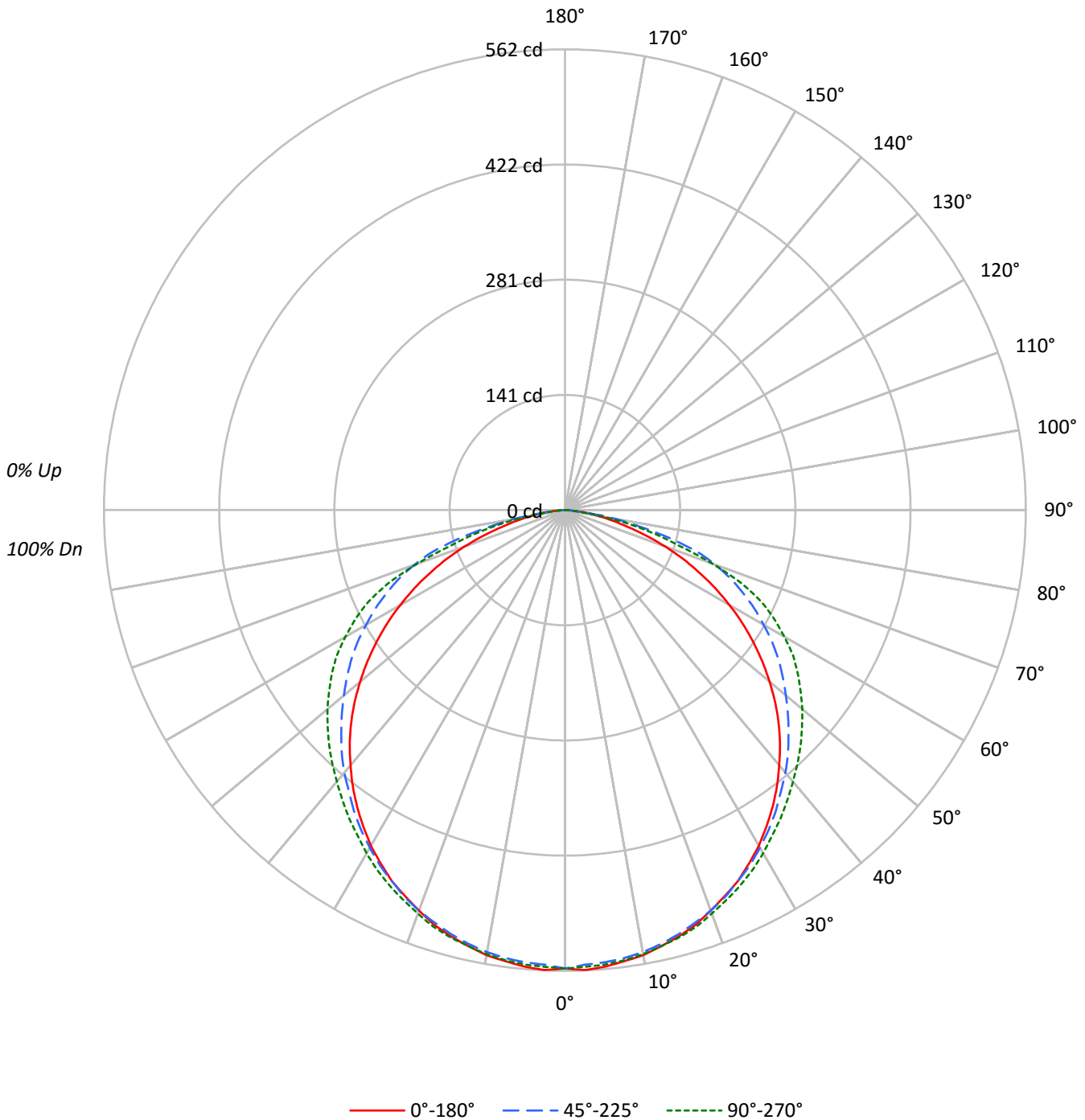
Input Watts (W): 23.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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CATALOG NUMBER: 14FC22-29-UNV-L83050-RDP-CP250-W2A-U-3500K

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°	1504	1504	1504
5°	1510	1496	1503
10°	1506	1495	1503
15°	1499	1492	1503
20°	1489	1489	1500
25°	1482	1482	1501
30°	1470	1478	1502
35°	1451	1472	1507
40°	1428	1469	1520
45°	1404	1468	1547
50°	1364	1473	1582
55°	1314	1491	1626
60°	1248	1507	1662
65°	1153	1527	1684
70°	1025	1538	1507
75°	827	1382	1206
80°	646	969	787
85°	442	281	201



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.9	3.2
10°-20°	151.8	9.1
20°-30°	231.1	13.8
30°-40°	281.5	16.9
40°-50°	298.7	17.9
50°-60°	281.9	16.9
60°-70°	227.6	13.6
70°-80°	123.5	7.4
80°-90°	20.0	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°	435.8	26.1
0°-40°	717.4	43.0
0°-60°	1298.0	77.8
0°-90°	1669.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1669.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	559	559	559	559	559	
5°	559	558	554	558	556	53
15°	538	537	536	539	539	152
25°	499	498	499	504	506	230
35°	442	444	448	457	459	276
45°	369	374	386	400	406	284
55°	280	292	318	339	347	250
65°	181	203	240	259	264	179
75°	80	116	133	120	116	87
85°	14	16	9	8	6	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	559.0	559.0	559.0	559.0	559.0
2.5°	561.6	559.0	555.1	559.0	557.7
5°	559.0	557.7	553.8	557.7	556.4
7.5°	555.1	555.1	551.2	553.8	553.8
10°	551.2	549.9	547.3	551.2	549.9
12.5°	544.7	543.4	542.1	546.0	544.7
15°	538.1	536.8	535.5	539.4	539.4
17.5°	530.3	529.0	527.7	532.9	532.9
20°	519.9	519.9	519.9	525.1	523.8
22.5°	509.5	509.5	510.8	516.0	514.7
25°	499.1	497.7	499.1	504.3	505.6
27.5°	486.0	487.3	488.6	493.8	495.1
30°	473.0	474.3	475.6	482.1	483.4
32.5°	457.4	460.0	462.6	470.4	470.4
35°	441.7	444.3	448.2	457.4	458.7
37.5°	424.8	427.4	432.6	443.0	445.6
40°	406.5	410.4	418.3	428.7	432.6
42.5°	388.3	393.5	402.6	414.4	419.6
45°	368.8	374.0	385.7	400.0	406.5
47.5°	347.9	354.4	368.8	387.0	392.2
50°	325.8	334.9	351.8	371.4	377.9
52.5°	303.6	314.0	334.9	355.7	362.2
55°	280.1	291.9	317.9	338.8	346.6
57.5°	256.7	269.7	299.7	321.8	329.7
60°	231.9	247.6	280.1	302.3	308.8
62.5°	207.2	225.4	260.6	282.8	288.0
65°	181.1	203.3	239.8	259.3	264.5
67.5°	156.4	182.4	218.9	233.2	233.2
70°	130.3	159.0	195.5	199.4	191.5
72.5°	104.2	136.8	169.4	155.1	148.5
75°	79.5	116.0	132.9	119.9	116.0
77.5°	59.9	93.8	93.8	86.0	83.4
80°	41.7	71.7	62.5	54.7	50.8
82.5°	27.4	40.4	32.6	26.1	22.2
85°	14.3	15.6	9.1	7.8	6.5
87.5°	5.2	2.6	1.3	2.6	1.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)