

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: P307379

Luminaire Tested: **14FCZ2-29-UNV-L82765-RDP-CP250-W2A-U-4000K**

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: P307379
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-L82765-RDP-CP250-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.250" POLYCARB SHEET
Light Source: (168) 4000K 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: 1666.0 lumens
Efficiency: N/A
Efficacy: 69.1 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

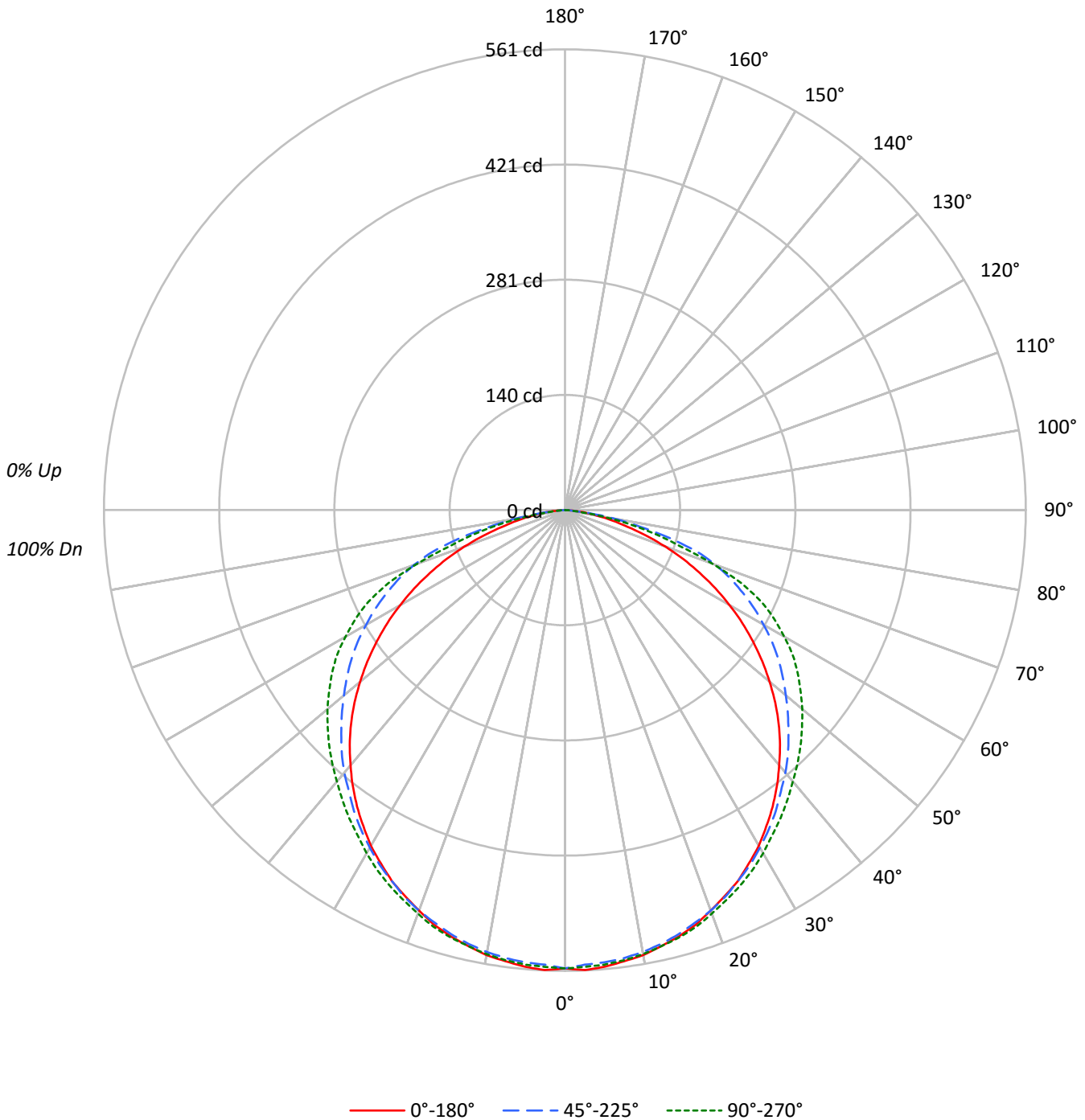
Input Watts (W): 24.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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°	1502	1502	1502
5°	1507	1493	1500
10°	1503	1493	1500
15°	1497	1489	1500
20°	1486	1486	1497
25°	1479	1479	1499
30°	1467	1475	1499
35°	1448	1470	1504
40°	1426	1467	1517
45°	1401	1465	1544
50°	1361	1470	1579
55°	1312	1489	1623
60°	1246	1505	1659
65°	1151	1524	1681
70°	1024	1535	1504
75°	824	1380	1204
80°	645	967	786
85°	442	281	201



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.8	3.2
10°-20°	151.5	9.1
20°-30°	230.7	13.8
30°-40°	281.0	16.9
40°-50°	298.1	17.9
50°-60°	281.4	16.9
60°-70°	227.2	13.6
70°-80°	123.2	7.4
80°-90°	19.9	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°	435.1	26.1
0°-40°	716.1	43.0
0°-60°	1295.6	77.8
0°-90°	1666.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1666.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	558	558	558	558	558	
5°	558	557	553	557	555	53
15°	537	536	535	538	538	152
25°	498	497	498	503	505	229
35°	441	444	447	456	458	276
45°	368	373	385	399	406	283
55°	280	291	317	338	346	250
65°	181	203	239	259	264	179
75°	79	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°	558.0	558.0	558.0	558.0	558.0
2.5°	560.6	558.0	554.1	558.0	556.7
5°	558.0	556.7	552.8	556.7	555.4
7.5°	554.1	554.1	550.2	552.8	552.8
10°	550.2	548.9	546.3	550.2	548.9
12.5°	543.7	542.4	541.1	545.0	543.7
15°	537.2	535.9	534.6	538.5	538.5
17.5°	529.4	528.1	526.8	532.0	532.0
20°	519.0	519.0	519.0	524.2	522.9
22.5°	508.6	508.6	509.9	515.1	513.8
25°	498.2	496.9	498.2	503.4	504.7
27.5°	485.1	486.4	487.7	493.0	494.3
30°	472.1	473.4	474.7	481.2	482.5
32.5°	456.5	459.1	461.7	469.5	469.5
35°	440.9	443.5	447.4	456.5	457.8
37.5°	424.0	426.6	431.8	442.2	444.8
40°	405.8	409.7	417.5	427.9	431.8
42.5°	387.6	392.8	401.9	413.6	418.8
45°	368.1	373.3	385.0	399.3	405.8
47.5°	347.3	353.8	368.1	386.3	391.5
50°	325.2	334.3	351.2	370.7	377.2
52.5°	303.1	313.5	334.3	355.1	361.6
55°	279.6	291.3	317.4	338.2	346.0
57.5°	256.2	269.2	299.2	321.3	329.1
60°	231.5	247.1	279.6	301.8	308.3
62.5°	206.8	225.0	260.1	282.2	287.4
65°	180.8	202.9	239.3	258.8	264.0
67.5°	156.1	182.1	218.5	232.8	232.8
70°	130.1	158.7	195.1	199.0	191.2
72.5°	104.1	136.6	169.1	154.8	148.3
75°	79.3	115.8	132.7	119.7	115.8
77.5°	59.8	93.6	93.6	85.8	83.2
80°	41.6	71.5	62.4	54.6	50.7
82.5°	27.3	40.3	32.5	26.0	22.1
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)