

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: P312040

Luminaire Tested: **14FCZ2-29-UNV-L83050-RDP-CA08-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: P312040
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-CA08-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.08" 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: 1699.0 lumens
Efficiency: N/A
Efficacy: 71.4 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

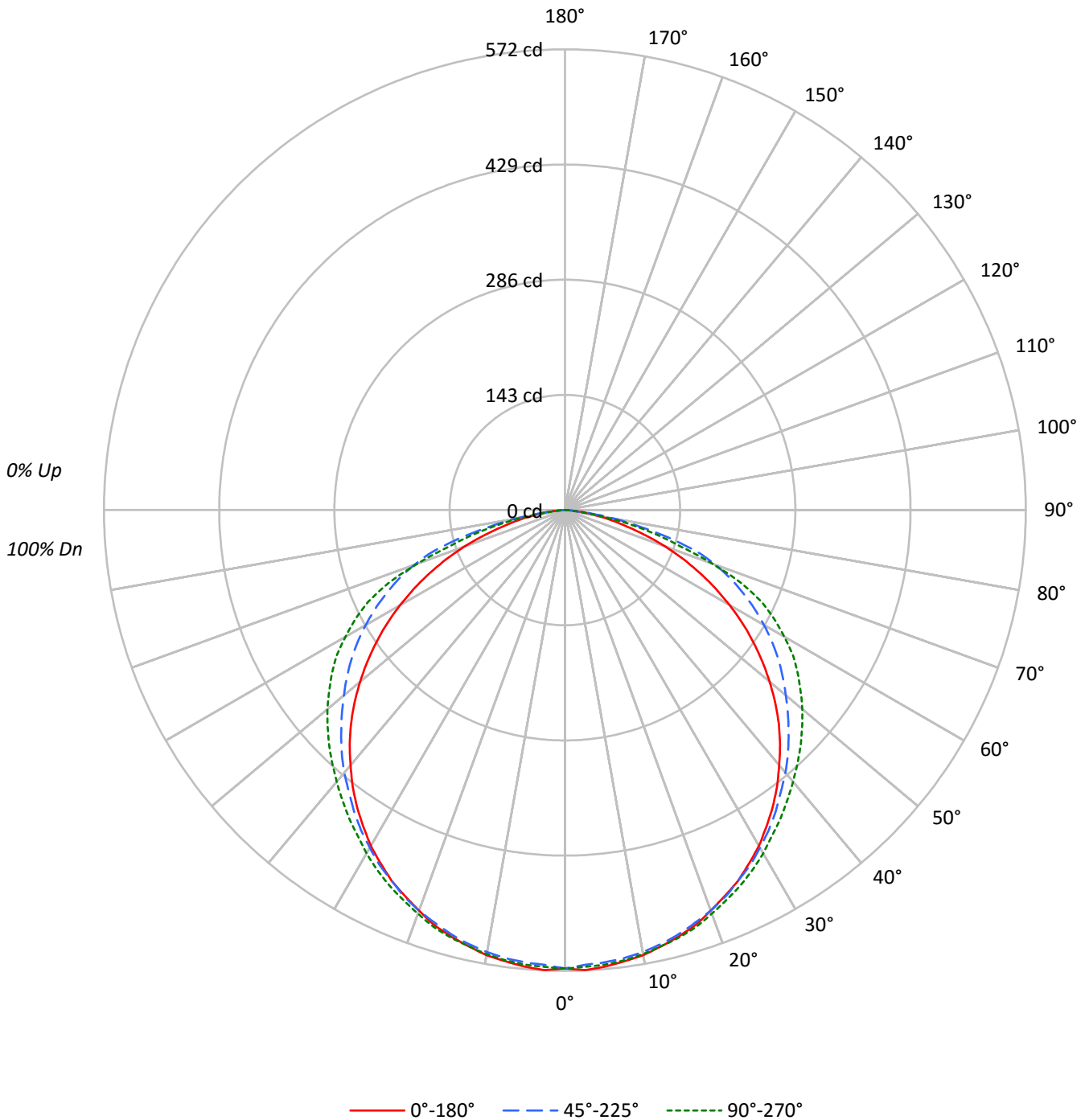
Input Watts (W): 23.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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°	1531	1531	1531
5°	1537	1523	1530
10°	1533	1522	1530
15°	1526	1519	1530
20°	1515	1515	1527
25°	1508	1508	1528
30°	1496	1504	1529
35°	1477	1499	1534
40°	1454	1496	1547
45°	1429	1494	1575
50°	1388	1499	1611
55°	1338	1518	1655
60°	1271	1535	1692
65°	1174	1554	1715
70°	1043	1566	1534
75°	841	1407	1228
80°	657	987	801
85°	451	287	204



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.9	3.2
10°-20°	154.5	9.1
20°-30°	235.3	13.8
30°-40°	286.6	16.9
40°-50°	304.1	17.9
50°-60°	287.0	16.9
60°-70°	231.7	13.6
70°-80°	125.7	7.4
80°-90°	20.3	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°	443.7	26.1
0°-40°	730.3	43.0
0°-60°	1321.3	77.8
0°-90°	1699.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1699.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	569	569	569	569	569	
5°	569	568	564	568	566	54
15°	548	546	545	549	549	155
25°	508	507	508	513	515	234
35°	450	452	456	466	467	281
45°	375	381	393	407	414	289
55°	285	297	324	345	353	255
65°	184	207	244	264	269	183
75°	81	118	135	122	118	88
85°	15	16	9	8	7	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	569.0	569.0	569.0	569.0	569.0
2.5°	571.7	569.0	565.1	569.0	567.7
5°	569.0	567.7	563.7	567.7	566.4
7.5°	565.1	565.1	561.1	563.7	563.7
10°	561.1	559.8	557.1	561.1	559.8
12.5°	554.4	553.1	551.8	555.8	554.4
15°	547.8	546.5	545.2	549.1	549.1
17.5°	539.9	538.5	537.2	542.5	542.5
20°	529.2	529.2	529.2	534.6	533.2
22.5°	518.6	518.6	520.0	525.3	523.9
25°	508.0	506.7	508.0	513.3	514.7
27.5°	494.8	496.1	497.4	502.7	504.0
30°	481.5	482.8	484.1	490.8	492.1
32.5°	465.6	468.2	470.9	478.8	478.8
35°	449.7	452.3	456.3	465.6	466.9
37.5°	432.4	435.1	440.4	451.0	453.6
40°	413.8	417.8	425.8	436.4	440.4
42.5°	395.3	400.6	409.9	421.8	427.1
45°	375.4	380.7	392.6	407.2	413.8
47.5°	354.2	360.8	375.4	393.9	399.3
50°	331.6	340.9	358.1	378.0	384.7
52.5°	309.1	319.7	340.9	362.1	368.7
55°	285.2	297.1	323.6	344.9	352.8
57.5°	261.3	274.6	305.1	327.6	335.6
60°	236.1	252.0	285.2	307.7	314.4
62.5°	210.9	229.5	265.3	287.8	293.1
65°	184.4	206.9	244.1	264.0	269.3
67.5°	159.2	185.7	222.8	237.4	237.4
70°	132.6	161.8	199.0	202.9	195.0
72.5°	106.1	139.3	172.4	157.8	151.2
75°	80.9	118.1	135.3	122.0	118.1
77.5°	61.0	95.5	95.5	87.5	84.9
80°	42.4	73.0	63.7	55.7	51.7
82.5°	27.9	41.1	33.2	26.5	22.5
85°	14.6	15.9	9.3	8.0	6.6
87.5°	5.3	2.7	1.3	2.7	1.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)