

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: P307344

Luminaire Tested: **14FCZ2-29-UNV-L82765-RDP-CA08-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: P307344
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-CA08-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.08" ACRYLIC 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: 1827.0 lumens
Efficiency: N/A
Efficacy: 75.5 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

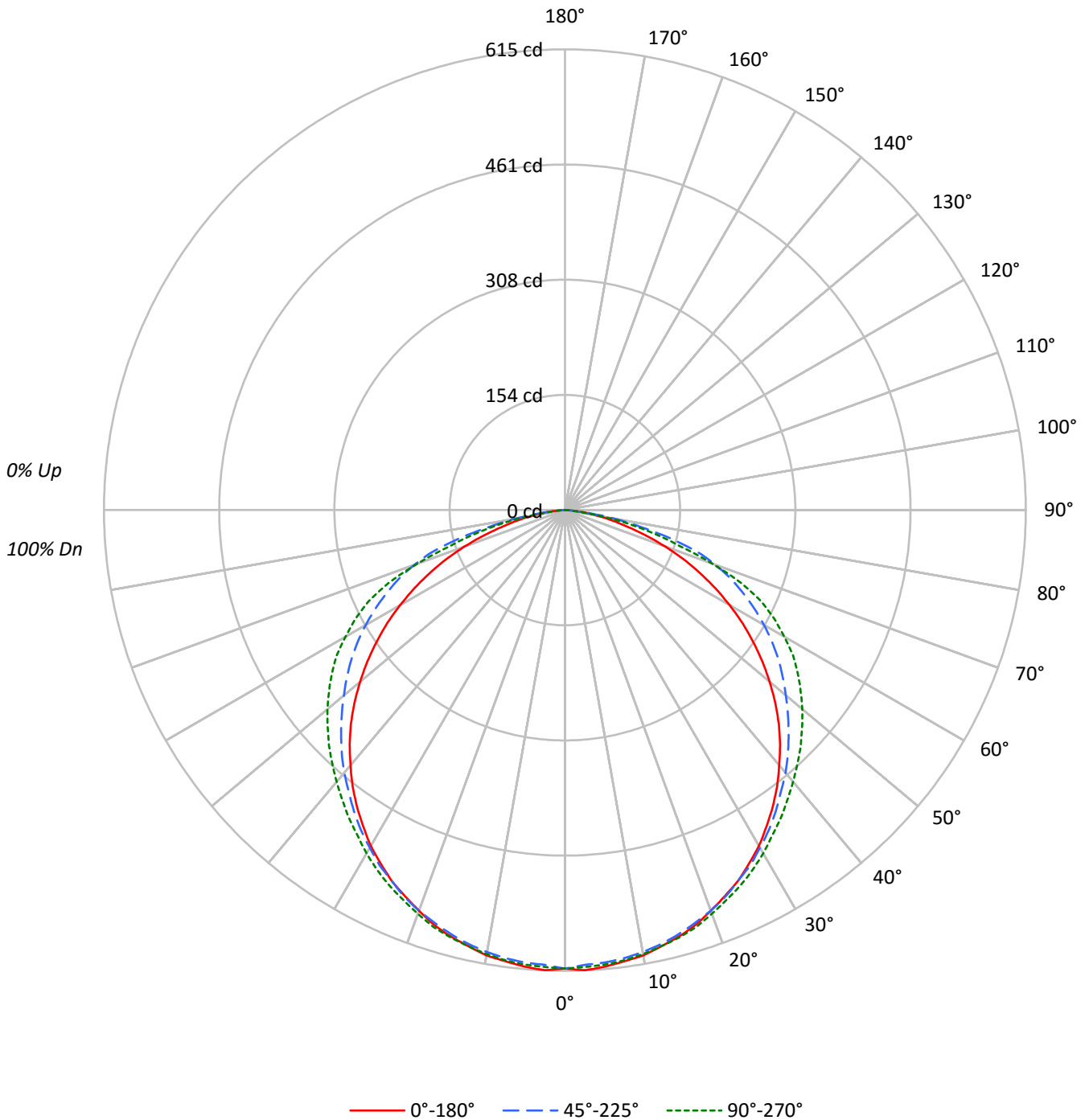
Input Watts (W): 24.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1647	1647	1647
5°	1653	1638	1645
10°	1649	1637	1645
15°	1641	1633	1645
20°	1630	1630	1642
25°	1622	1622	1643
30°	1609	1618	1644
35°	1588	1612	1649
40°	1563	1609	1664
45°	1536	1607	1694
50°	1493	1612	1732
55°	1439	1633	1780
60°	1366	1651	1819
65°	1263	1671	1844
70°	1122	1684	1650
75°	905	1513	1319
80°	707	1062	862
85°	485	309	219



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.9	3.2
10°-20°	166.2	9.1
20°-30°	253.0	13.8
30°-40°	308.2	16.9
40°-50°	327.0	17.9
50°-60°	308.6	16.9
60°-70°	249.2	13.6
70°-80°	135.1	7.4
80°-90°	21.9	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°	477.1	26.1
0°-40°	785.3	43.0
0°-60°	1420.8	77.8
0°-90°	1827.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1827.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	612	612	612	612	612	
5°	612	610	606	610	609	58
15°	589	588	586	590	590	166
25°	546	545	546	552	553	252
35°	484	486	491	501	502	302
45°	404	409	422	438	445	311
55°	307	320	348	371	379	274
65°	198	222	262	284	290	196
75°	87	127	146	131	127	95
85°	16	17	10	9	7	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	611.9	611.9	611.9	611.9	611.9
2.5°	614.8	611.9	607.6	611.9	610.5
5°	611.9	610.5	606.2	610.5	609.1
7.5°	607.6	607.6	603.4	606.2	606.2
10°	603.4	601.9	599.1	603.4	601.9
12.5°	596.2	594.8	593.4	597.6	596.2
15°	589.1	587.7	586.2	590.5	590.5
17.5°	580.5	579.1	577.7	583.4	583.4
20°	569.1	569.1	569.1	574.8	573.4
22.5°	557.7	557.7	559.1	564.8	563.4
25°	546.3	544.9	546.3	552.0	553.4
27.5°	532.0	533.5	534.9	540.6	542.0
30°	517.8	519.2	520.6	527.8	529.2
32.5°	500.7	503.5	506.4	514.9	514.9
35°	483.5	486.4	490.7	500.7	502.1
37.5°	465.0	467.8	473.6	485.0	487.8
40°	445.0	449.3	457.9	469.3	473.6
42.5°	425.1	430.8	440.7	453.6	459.3
45°	403.7	409.4	422.2	437.9	445.0
47.5°	380.8	388.0	403.7	423.6	429.3
50°	356.6	366.6	385.1	406.5	413.6
52.5°	332.3	343.8	366.6	389.4	396.5
55°	306.7	319.5	348.0	370.9	379.4
57.5°	281.0	295.3	328.1	352.3	360.9
60°	253.9	271.0	306.7	330.9	338.0
62.5°	226.8	246.8	285.3	309.5	315.2
65°	198.3	222.5	262.5	283.8	289.6
67.5°	171.2	199.7	239.6	255.3	255.3
70°	142.6	174.0	214.0	218.2	209.7
72.5°	114.1	149.8	185.4	169.7	162.6
75°	87.0	126.9	145.5	131.2	126.9
77.5°	65.6	102.7	102.7	94.1	91.3
80°	45.6	78.4	68.5	59.9	55.6
82.5°	30.0	44.2	35.7	28.5	24.2
85°	15.7	17.1	10.0	8.6	7.1
87.5°	5.7	2.9	1.4	2.9	1.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)