

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: P307110

Luminaire Tested: **14FCZ2-29-UNV-L82765-HRP-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: P307110
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
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-HRP-CP250-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 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: 2004.0 lumens
Efficiency: N/A
Efficacy: 82.8 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

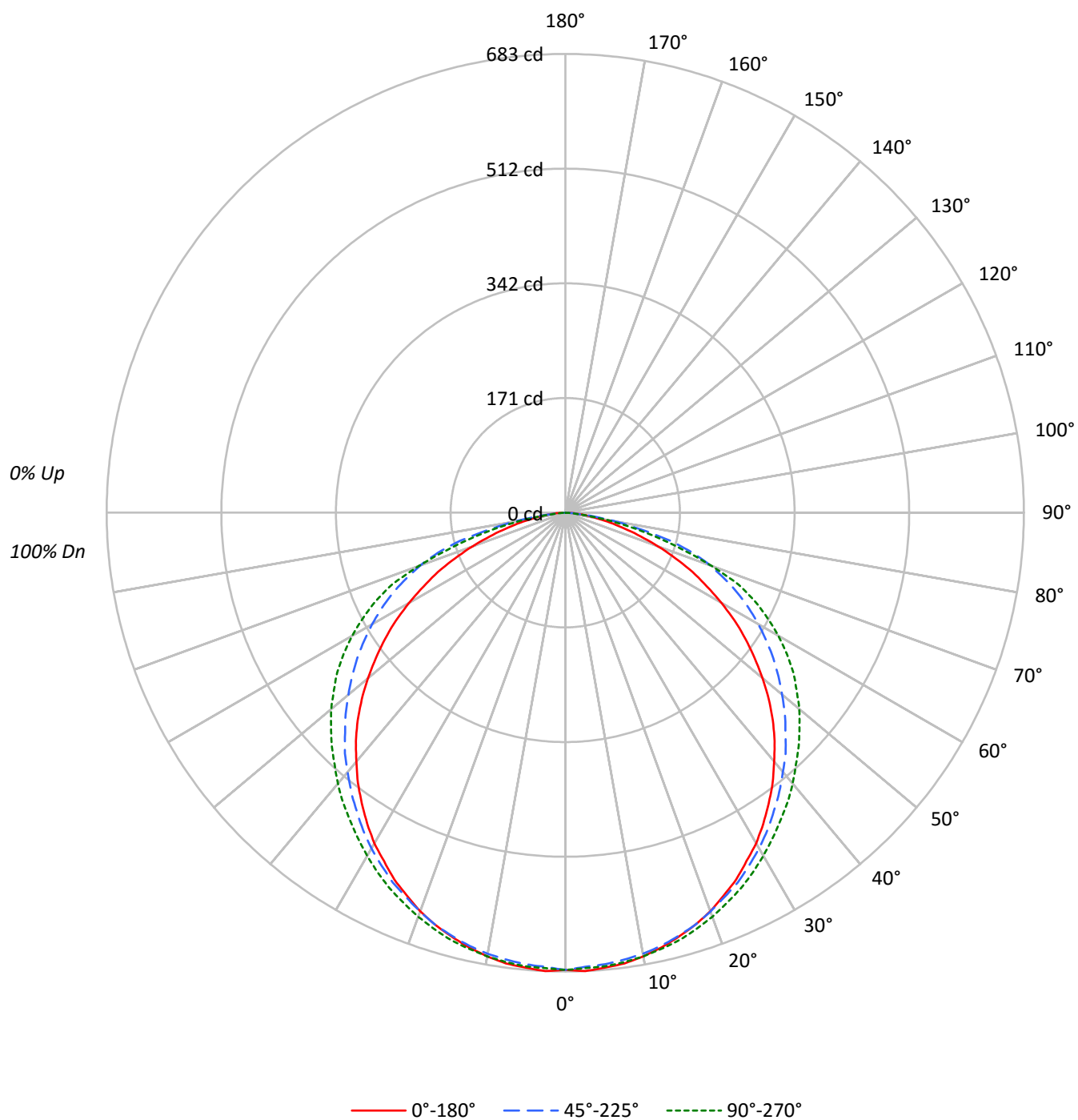
Input Watts (W): 24.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P307110

CATALOG NUMBER: 14FCZ2-29-UNV-L82765-HRP-CP250-W2A-U-4500K

Luminous Intensity Polar Plot





TEST NUMBER: P307110

CATALOG NUMBER: 14FCZ2-29-UNV-L82765-HRP-CP250-W2A-U-4500K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				0
RW	70	50	30	10	70	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		100
1	109	104	100	96	106	102	98	94	97	94	91		93	91	88		84
2	99	90	83	78	96	88	82	77	85	79	75		82	77	73		69
3	90	79	71	64	87	77	70	64	74	68	62		72	66	61		58
4	82	70	61	54	80	68	60	54	66	59	53		64	57	52		49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		42
6	69	56	47	40	68	55	46	40	53	45	40		51	45	39		37
7	64	51	42	36	63	50	41	35	48	41	35		47	40	35		33
8	60	46	38	32	58	45	37	32	44	37	31		43	36	31		29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		26
10	52	39	31	26	51	38	31	26	37	30	26		37	30	25		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1831	1831	1831
5°	1837	1823	1831
10°	1832	1822	1832
15°	1821	1817	1835
20°	1808	1810	1833
25°	1789	1804	1834
30°	1766	1794	1833
35°	1735	1780	1836
40°	1700	1771	1851
45°	1664	1765	1870
50°	1607	1765	1905
55°	1537	1774	1945
60°	1445	1787	1970
65°	1332	1806	1982
70°	1161	1810	1825
75°	957	1684	1474
80°	752	1210	986
85°	584	466	235



TEST NUMBER: P307110

CATALOG NUMBER: 14FCZ2-29-UNV-L82765-HRP-CP250-W2A-U-4500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.4	3.2
10°-20°	184.9	9.2
20°-30°	280.8	14.0
30°-40°	340.2	17.0
40°-50°	358.5	17.9
50°-60°	334.7	16.7
60°-70°	267.5	13.3
70°-80°	147.2	7.3
80°-90°	26.0	1.3
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°	530.1	26.5
0°-40°	870.3	43.4
0°-60°	1563.4	78.0
0°-90°	2004.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2004.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	681	681	681	681	681	
5°	680	678	675	679	678	65
15°	654	654	652	658	658	184
25°	602	604	608	616	618	277
35°	528	533	542	556	559	330
45°	437	446	464	485	492	336
55°	328	344	378	405	415	293
65°	209	236	284	307	311	206
75°	92	132	162	146	142	99
85°	19	24	15	10	8	23
90°	0	0	0	0	0	



TEST NUMBER: P307110

CATALOG NUMBER: 14FCZ2-29-UNV-L82765-HRP-CP250-W2A-U-4500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	680.6	680.6	680.6	680.6	680.6
2.5°	683.1	681.2	676.8	680.6	678.7
5°	679.9	678.0	674.9	679.3	678.0
7.5°	676.8	674.3	671.1	676.2	674.9
10°	670.5	668.6	666.7	671.1	670.5
12.5°	662.9	662.3	660.4	665.4	664.8
15°	653.5	653.5	652.2	658.5	658.5
17.5°	643.4	642.8	643.4	650.3	649.7
20°	631.4	631.4	632.0	640.2	640.2
22.5°	616.9	617.6	619.4	629.5	628.9
25°	602.4	603.7	607.5	616.3	617.6
27.5°	584.8	587.9	592.3	603.1	604.3
30°	568.4	570.3	577.2	587.3	589.8
32.5°	548.9	552.6	560.2	571.6	574.7
35°	528.1	533.1	541.9	555.8	558.9
37.5°	507.3	511.7	523.7	538.2	543.8
40°	484.0	491.5	504.1	520.5	526.8
42.5°	461.3	468.8	485.9	502.9	508.5
45°	437.3	445.5	463.8	484.6	491.5
47.5°	410.9	420.3	443.6	465.7	473.2
50°	383.8	395.7	421.6	446.2	455.0
52.5°	355.4	370.5	400.1	426.0	434.2
55°	327.7	344.1	378.1	404.6	414.6
57.5°	299.3	317.0	355.4	385.7	391.3
60°	268.4	289.9	332.1	358.6	366.1
62.5°	238.2	262.8	308.1	333.4	339.7
65°	209.2	235.7	283.6	306.9	311.3
67.5°	177.7	209.2	256.5	277.9	279.2
70°	147.5	184.0	230.0	240.1	231.9
72.5°	117.8	156.9	199.1	190.9	184.0
75°	92.0	131.7	162.0	145.6	141.8
77.5°	68.1	107.8	115.9	107.1	100.2
80°	48.5	85.1	78.1	66.8	63.6
82.5°	33.4	53.6	42.9	33.4	29.0
85°	18.9	23.9	15.1	9.5	7.6
87.5°	8.2	5.7	3.2	2.5	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)