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Registration No. CNAS L5415

Accreditation Criteria: ISO/IEC 17025, requirements of EPA ENERGY STAR® Program and relevant requirements of

CHINA NATIONAL ACCREDITATION SERVICE FOR CONFORMITY ASSESSMENT

**CNAS** 

SCHEDULE OF ACCREDITATION CERTIFICATE

Date of Issue: 2017-10-30 Date of Expiry: 2023-12-22

## SCHEDULE 6 ACCREDITED ENERGY STAR TESTING SCOPE

3.0	T4 Obi4		Item/Parameter	Standard or Method Note
Nº	Test Object	№	Item/ Parameter	Standard or Method Note
五、En	nergy star			
				American National Standard for Lighting Equipment -Harmonic
	5	1	Power Factor	Emission Limits—Related Power Quality Requirements ANSI C82.77-10-2014 4
		2	Color Rendering (CRI)	Method of Measuring and Specifying Color Rendering of Light Sources CIE Pub. No. 13.3-1995 6
1	Directional Solid-	3	CCT	Colorimetry CIE Pub. No. 15:2004 7
	State Lamp	4	Ambient Temperature Life Test	Ambient Temperature Life Test Method, September 2015 ENERGY STAR Ambient Temperature Life Test Method Sept 2015 8
		5	Elevated Temperature Life Test	Elevated Temperature Life Test Method, September 2015 ENERGY STAR Elevated Temperature Life Test Method Sept 2015 7 Option B
	G	6	Elevated Temperature Light Output Ratio	Elevated Temperature Light Output Ratio Test Method, September 2015 ENERGY STAR Elevated Temperature Light Output Ratio Test Method Sept 2015 7



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№	Test Object	Item/Parameter			NT /
		No	Item/ Parameter	Standard or Method	Note
		7	Source Start Time	Start Time Test Method, September 2015 ENERGY STAR Start Time Test Method Sept 2015 7	
		8	Standby Power Consumption	Household electrical appliances -Measurement of standby power IEC 62301:2011 5.0	
	CHI	NA NA 9	Center Beam Intensity	Photometric Testing of Reflector Type Lamps IES LM-20-13 7.0	
	5	10	Zonal Lumen Distribution, Color Angular Uniformity, Luminaire Photometry	Electrical and Photometric Measurements of Solid-State Lighting Products IES LM-79-08 9.0	
		11	Light Source Life, Lumen Maintenance	IES Approved Method: Measuring Luminous Flux and Color Maintenance of LED Packages, Arrays and Modules ANSI/IES LM-80- 15 7.0	
		12	Efficacy, Light Output, Lumen Maintenance, CCT, CRI, Color Maintenance, Light Source Life	Characterization of LED Light Engines and LED Lamps for Electrical and Photometric Properties as a Function of Temperature IES LM-82-12 6.0	
		13	Lumen Maintenance	Measuring Luminous Flux and Color Maintenance of LED Lamps, Light Engines, and Luminaires IES LM-84-14 7.0	
		14	Efficacy, Light Output, CCT, CRI, Color Maintenance, Lumen Maintenance, Power Factor, Standby Power Consumption	Energy Conservation Program: Test Procedures for Integrated Light- Emitting Diode Lamps US DOE 81 FR 43403 III	大量
2	Omnidirectional & Decorative Solid- State Lamp	1	Power Factor	American National Standard for Lighting Equipment -Harmonic Emission Limits—Related Power Quality Requirements ANSI C82.77-10-2014 4	拥章



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	Test Object	Item/Parameter			
№		№	Item/ Parameter	Standard or Method	Note
		2	Color Rendering (CRI)	Method of Measuring and Specifying Color Rendering of Light Sources CIE Pub. No. 13.3-1995 6	
		3	CCT	Colorimetry CIE Pub. No. 15:2004 7	
	CHI	NA NA 4	Ambient Temperature Life Test	Ambient Temperature Life Test Method, September 2015 ENERGY STAR Ambient Temperature Life Test Method Sept 2015 7	
		5	Elevated Temperature Life Test	Elevated Temperature Life Test Method, September 2015 ENERGY STAR Elevated Temperature Life Test Method Sept 2015 7	Except for: Option B
		6	Source Start Time	Start Time Test Method, September 2015 ENERGY STAR Start Time Test Method Sept 2015 7	
		7	Standby Power Consumption	Household electrical appliances -Measurement of standby power IEC 62301:2011 5.0	
		8	Zonal Lumen Distribution, Color Angular Uniformity, Luminaire Photometry	Electrical and Photometric Measurements of Solid-State Lighting Products IES LM-79-08 9.0	5
		9	Light Source Life, Lumen Maintenance	IES Approved Method: Measuring Luminous Flux and Color Maintenance of LED Packages, Arrays and Modules ANSI/IES LM-80- 15 7.0	
		10	Lumen Maintenance	Measuring Luminous Flux and Color Maintenance of LED Lamps, Light Engines, and Luminaires IES LM-84-14 7.0	
		11	Efficacy, Light Output, CCT, CRI, Color Maintenance, Lumen Maintenance, Power Factor, Standby Power Consumption	Energy Conservation Program: Test Procedures for Integrated Light- Emitting Diode Lamps US DOE 81 FR 43403 III	
3	Directional Compact Fluorescent Lamp	1	Power Factor	American National Standard for Lighting Equipment -Harmonic Emission Limits—Related Power Quality Requirements ANSI C82.77-10-2014 4	▼川早



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	Togt Object	Item/Parameter			<b>3</b> .7
№	Test Object	№	Item/ Parameter	Standard or Method	Note
		2	Color Rendering (CRI)	Method of Measuring and Specifying Color Rendering of Light Sources CIE Pub. No. 13.3-1995 6	
		3	CCT	Colorimetry CIE Pub. No. 15:2004 7	
	CHI	NA NA 4	Elevated Temperature Life Test	Elevated Temperature Life Test Method, September 2015 ENERGY STAR Elevated Temperature Life Test Method Sept 2015 7	Except for: Option B
		5	Source Run-up Time	Run-Up Time Test Method, September 2015 ENERGY STAR Run Up Time Test Method Sept 2015 7	
		6	Source Start Time	Start Time Test Method, September 2015 ENERGY STAR Start Time Test Method Sept 2015 7	
		7	Standby Power Consumption	Household electrical appliances -Measurement of standby power IEC 62301:2011 5.0	
		8	Center Beam Intensity	Photometric Testing of Reflector Type Lamps IES LM-20-13 7.0	
		9	Light Source Life, Lumen Maintenance	Life Testing of Compact Fluorescent Lamps IES LM-65-14 6.0	
		10	Efficacy, Light Output, Lumen Maintenance, CCT, CRI	Electrical and Photometric Measurements of Single-Ended Compact Fluorescent Lamps IES LM-66-14 6.0	
		11	Efficacy, Lumen Maintenance, Rapid Cycle Stress Test, Lifetime	Uniform Test Method for Measuring the Energy Consumption of Medium Base Compact Fluorescent Lamps US DOE 10 CFR Part 430 Appendix W to Subpart B Appendix W to Subpart B	家山山
		12	Efficacy, Light Output, CCT, CRI, Power Factor, Start Time, Standby Power Consumption	Energy Conservation Program: Test Procedure for Compact Fluorescent Lamps US DOE 81 FR 59385 III	是 2000 20
4	Omnidirectional & Decorative Compact Fluorescent Lamp	1	Power Factor	American National Standard for Lighting Equipment -Harmonic Emission Limits—Related Power Quality Requirements ANSI C82.77-10-2014 4	15川早



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	Test Object	Item/Parameter			
N₂		№	Item/ Parameter	Standard or Method	Note
		2	Color Rendering (CRI)	Method of Measuring and Specifying Color Rendering of Light Sources CIE Pub. No. 13.3-1995 6	
		3	CCT	Colorimetry CIE Pub. No. 15:2004 7	
	CHI	NA NA 4	Elevated Temperature Life Test	Elevated Temperature Life Test Method, September 2015 ENERGY STAR Elevated Temperature Life Test Method Sept 2015 7	Except for: Option B
		5	Source Run-up Time	Run-Up Time Test Method, September 2015 ENERGY STAR Run Up Time Test Method Sept 2015 7	
		6	Source Start Time	Start Time Test Method, September 2015 ENERGY STAR Start Time Test Method Sept 2015 7	
		7	Standby Power Consumption	Household electrical appliances -Measurement of standby power IEC 62301:2011 5.0	
		8	Light Source Life, Lumen Maintenance	Life Testing of Compact Fluorescent Lamps IES LM-65-14 6.0	
		9	Efficacy, Light Output, Lumen Maintenance, CCT, CRI	Electrical and Photometric Measurements of Single-Ended Compact Fluorescent Lamps IES LM-66-14 6.0	
		10	Efficacy, Lumen Maintenance, Rapid Cycle Stress Test, Lifetime	Uniform Test Method for Measuring the Energy Consumption of Medium Base Compact Fluorescent Lamps US DOE 10 CFR Part 430 Appendix W to Subpart B Appendix W to Subpart B	
		11	Efficacy, Light Output, CCT, CRI, Power Factor, Start Time, Standby Power Consumption	Energy Conservation Program: Test Procedure for Compact Fluorescent Lamps US DOE 81 FR 59385 III	R. J.
5	Directional Solid-	1	Power Factor	American National Standard for Lighting Equipment -Harmonic Emission Limits—Related Power Quality Requirements ANSI C82.77-10-2014 4	专用章
	State Luminaire	2	Color Rendering (CRI)	Method of Measuring and Specifying Color Rendering of Light Sources CIE Pub. No. 13.3-1995 6	



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NC.	Tost Object		Item/Parameter		<b>3</b> 1 4
№	Test Object	No	Item/ Parameter	Standard or Method	Note
		3	ССТ	Colorimetry CIE Pub. No. 15:2004 7	
		4	Source Start Time	Start Time Test Method, September 2015 ENERGY STAR Start Time Test Method Sept 2015 7	6
	CHI	NA NA	Standby Power Consumption	Household electrical appliances -Measurement of standby power IEC 62301:2011 5.0	
		6	Color Angular Uniformity	Guide to Spectroradiometric Measurements IES LM-58-13 7.0	
		7	Zonal Lumen Distribution, Color Angular Uniformity, Luminaire Photometry	Electrical and Photometric Measurements of Solid-State Lighting Products IES LM-79-08 9.0	
		8	Lumen Maintenance	Measuring Luminous Flux and Color Maintenance of LED Lamps, Light Engines, and Luminaires IES LM-84-14 7.0	G
		1	Power Factor	American National Standard for Lighting Equipment -Harmonic Emission Limits—Related Power Quality Requirements ANSI C82.77-10-2014 4	
		2	Color Rendering (CRI)	Method of Measuring and Specifying Color Rendering of Light Sources CIE Pub. No. 13.3-1995 6	
	Non-directional Solid-State	3	CCT	Colorimetry CIE Pub. No. 15:2004 7	
6	Luminaires and	4	Source Start Time	Start Time Test Method, September 2015 ENERGY STAR Start Time Test Method Sept 2015 7	RY AL
	Subcomponents	5	Standby Power Consumption	Household electrical appliances -Measurement of standby power IEC 62301:2011 5.0	展
		6	Zonal Lumen Distribution, Color Angular Uniformity, Luminaire Photometry	Electrical and Photometric Measurements of Solid-State Lighting Products IES LM-79-08 9.0	拥章



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<b>D</b> C	Test Object	Item/Parameter			N-4-
№		N₂	Item/ Parameter	Standard or Method	Note
			Efficacy, Light Output, Lumen Maintenance,	Characterization of LED Light Engines and LED Lamps for Electrical	
	СНІ	7 NA NA	CCT, CRI, Color Maintenance, Light Source Life	and Photometric Properties as a Function of Temperature IES LM-82-12 6.0 ON SERVICE FOR CONFORMITY ASSESSMENT	
		8	Lumen Maintenance OF	Measuring Luminous Flux and Color Maintenance of LED Lamps, Light Engines, and Luminaires IES LM-84-14 7.0	
7	LED Packages, Arrays, and Modules	1	Light Source Life, Lumen Maintenance	IES Approved Method: Measuring Luminous Flux and Color Maintenance of LED Packages, Arrays and Modules ANSI/IES LM-80-15 7.0	
		1	Operating Frequency	Method of Measurement of Fluorescent Lamp Ballasts ANSI C82.2-2002 6	
		2	Power Factor	American National Standard for Lighting Equipment -Harmonic Emission Limits—Related Power Quality Requirements ANSI C82.77-10-2014 4	
		3	Color Rendering (CRI)	Method of Measuring and Specifying Color Rendering of Light Sources CIE Pub. No. 13.3-1995 6	
8	Directional	4	ССТ	Colorimetry CIE Pub. No. 15:2004 7	
0	Fluorescent Luminaire	5	Source Run-up Time	Run-Up Time Test Method, September 2015 ENERGY STAR Run Up Time Test Method Sept 2015 7	
		6	Source Start Time	Start Time Test Method, September 2015 ENERGY STAR Start Time Test Method Sept 2015 7	RY CONTRACTOR
		7	Standby Power Consumption	Household electrical appliances -Measurement of standby power IEC 62301:2011 5.0	根
		8	Luminous Efficacy, Light Output, Lumen Maintenance, CCT, CRI	Electric and Photometric Measurements of Fluorescent Lamps IES LM-9-09 7.0	拥章



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20	Test Object	Item/Parameter			NT. A.
Nº		No	Item/ Parameter	Standard or Method	Note
		9	Luminous Efficacy, Light Output, Zonal Lumen Distribution	Photometric Testing of Outdoor Fluorescent Luminaires IES LM-10-96 6.0-7.0	
	СНІ	NA10IA	Light Source Life, Lumen Maintenance	Life Testing of Fluorescent Lamps IES LM-40-10 6.0/IENT	
		11	Luminous Efficacy, OF Light Output, Zonal Lumen Distribution	Photometric Testing of Indoor Fluorescent Luminaires IES LM-41-14 7.0	
		12	Light Source Life, Lumen Maintenance	Life Testing of Compact Fluorescent Lamps IES LM-65-14 6.0	
		13	Efficacy, Light Output, Lumen Maintenance, CCT, CRI	Electrical and Photometric Measurements of Single-Ended Compact Fluorescent Lamps IES LM-66-14 6.0	
		1	Operating Frequency	Method of Measurement of Fluorescent Lamp Ballasts ANSI C82.2-2002 6	
		2	Power Factor	American National Standard for Lighting Equipment -Harmonic Emission Limits—Related Power Quality Requirements ANSI C82.77- 10-2014 4	
	Non-Directional	3	Color Rendering (CRI)	Method of Measuring and Specifying Color Rendering of Light Sources CIE Pub. No. 13.3-1995 6	
9	Fluorescent Luminaire	4	ССТ	Colorimetry CIE Pub. No. 15:2004 7	
		5	Source Run-up Time	Run-Up Time Test Method, September 2015 ENERGY STAR Run Up Time Test Method Sept 2015 7	THE WAY
		6	Source Start Time	Start Time Test Method, September 2015 ENERGY STAR Start Time Test Method Sept 2015 7	弘
		7	Standby Power Consumption	Household electrical appliances -Measurement of standby power IEC 62301:2011 5.0	開章



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20	Test Object	Item/Parameter			N
№		№	Item/ Parameter	Standard or Method	Note
	CE	8	Luminous Efficacy, Light Output, Lumen Maintenance, CCT, CRI	Electric and Photometric Measurements of Fluorescent Lamps IES LM-9-09 7.0	<u></u>
	СНІ	NA9NA	Light Source Life, Lumen Maintenance	Life Testing of Fluorescent Lamps IES LM-40-10 6.0	
		10	Light Source Life, Lumen Maintenance	Life Testing of Compact Fluorescent Lamps IES LM-65-14 6.0	
		11	Efficacy, Light Output, Lumen Maintenance, CCT, CRI	Electrical and Photometric Measurements of Single-Ended Compact Fluorescent Lamps IES LM-66-14 6.0	
	Chil	1	Color Rendering (CRI)	Method of Measuring and Specifying Color Rendering of Light Sources CIE Pub. No. 13.3-1995 6	
		2	CCT	Colorimetry CIE Pub. No. 15:2004 7	C
10	CSD -Fluorescent	3	Luminous Efficacy, Light Output, Lumen Maintenance, CCT, CRI	Electric and Photometric Measurements of Fluorescent Lamps IES LM-9-09 7.0	
10	Lamp	4	Light Source Life, Lumen Maintenance	Life Testing of Fluorescent Lamps IES LM-40-10 6.0	
		5	Light Source Life, Lumen Maintenance	Life Testing of Compact Fluorescent Lamps IES LM-65-14 6.0	
		6	Efficacy, Light Output, Lumen Maintenance, CCT, CRI	Electrical and Photometric Measurements of Single-Ended Compact Fluorescent Lamps IES LM-66-14 6.0	RAY SAM
11	Decorative Light Strings	1	Input Power	ENERGY STAR® Program Requirements Product Specification for Decorative Light Strings Eligibility Criteria Version 1.5 ENERGY STAR® Program Requirements Product Specification for Decorative Light Strings Eligibility Criteria Version 1.5 Annex A	開章



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3.0	Total Object		Item/Parameter	C4dd	Note
№	Test Object	№	Item/ Parameter	Standard or Method	Note
		2	Over-Voltage	ENERGY STAR® Program Requirements Product Specification for Decorative Light Strings Eligibility Criteria Version 1.5 ENERGY STAR® Program Requirements Product Specification for Decorative Light Strings Eligibility Criteria Version 1.5 Annex A	5
	CHI	NA NA	Reliability Testing E OF	ENERGY STAR® Program Requirements Product Specification for Decorative Light Strings Eligibility Criteria Version 1.5 ENERGY STAR® Program Requirements Product Specification for Decorative Light Strings Eligibility Criteria Version 1.5 Annex A	
		4	Weathering Testing	ENERGY STAR® Program Requirements Product Specification for Decorative Light Strings Eligibility Criteria Version 1.5 ENERGY STAR® Program Requirements Product Specification for Decorative Light Strings Eligibility Criteria Version 1.5 Annex A	
		5	Light Output	ENERGY STAR® Program Requirements Product Specification for Decorative Light Strings Eligibility Criteria Version 1.5 ENERGY STAR® Program Requirements Product Specification for Decorative Light Strings Eligibility Criteria Version 1.5 Annex A	S

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