Table 4 – ENERGY STAR Criteria, Reference Standards and Required Documentation for GU-24 Based Integrated Lamps

Note: Table 4 includes new additions to the program requirements for the Residential Light Fixtures Specification: Version 4.0, allowing GU-24 Based Integrated Lamps to earn the ENERGY STAR. Upon finalization this table will be inserted directly into its own section within the existing ENERGY STAR Program Requirements for Residential Light Fixtures document. Some language and page numbering will be revised after insertion.

Performance Characteristic	**ENERGY STAR Requirements**	**Methods of Measurement Reference Standards**	**Sample Size /Specific Requirements**
System Efficacy [1] Per Lamp Ballast Platform in Lumens Per Watt (LPW)	≥ 50 LPW for all lamp types below 30 total listed lamp watts. ≥ 60 LPW for all lamp types that are ≥ 30 total listed lamp watts.	IESNA LM-9; LM-66; ANSI C78.5	**For this test a sample size of 10 or more lamps must be used to demonstrate that at least 80% of the samples achieved the required system efficacy value.** Five samples should be tested base-up and five samples should be tested base-down unless specific use or position is restricted by the manufacturer. If position is restricted, the manufacturer must test all 10 samples in the restricted position. Provide: 1. a test report from a laboratory accredited by NVLAP or one of its MRA signatories; or 2. an EPA approved Platform Letter of Qualification that lists the lamp/ballast combination and the test result for this performance characteristic; or 3. EPA-approved documentation from an industry association, such as the NEMA/ALA matrices. **Note:** The NVLAP accredited laboratory used for this test must also have a scope of accreditation that includes the method of measurement reference standard for this performance characteristic.

Note: These efficacy tiers for GU-24 Based Integrated Lamps are unchanged from the RLF Specification: Version 4.0. The efficacy requirement related to double-ended linear lamps is removed as it is not applicable to the GU-24 Based Integrated Lamp. Testing sample size, the base up/base down testing requirement, reference standards, lab requirements, and pass/fail criteria are harmonized with CFL specification.

Note these efficacy requirements meet or exceed Title 24-2005.

[1] Take performance and electrical requirements at the end of the 100-hour aging period according to ANSI C78.5. The lamp efficacy shall be the average of the lesser of the lumens per watt measured in the base-up and base-down positions or other specified/restricted position. Use wattages placed on packaging to select proper specification efficacy in this table, not measured wattage.

Efficacies are based on measured values for lumens and wattages from pertinent test data. Wattages and lumens placed on packages may not be used in calculation and are not governed by this criterion.

Average Rated Lamp Life	The average rated life of the lamp must be ≥ 10,000 hours.	IESNA LM-40-01; LM-65-01; ANSI C78.5	**For this test a sample size of 10 or more lamps must be used.** Five (5) samples should be tested base-up and five (5) samples should be tested base-down, unless specific use or position appears on packaging. Provide: 1. a test report from a laboratory accredited by NVLAP or one of its MRA signatories; or 2. an EPA approved Platform Letter of Qualification that lists the lamp/ballast combination and the test result for this performance characteristic; or 3. EPA-approved documentation from an industry association, such as the NEMA/ALA matrices; or 4. a test report from an ISO 9000 registered facility. Manufacturers may obtain ENERGY STAR conditional qualification if at 40% of rated life 7 or more lamps are operational. o One sample failure, acceptable; o Two sample failures, requires submission of a product failure report from the manufacturer that describes in detail the specific reasons for sample product failures. o Three sample failures, does not qualify. In addition, manufacturers must supply a letter on letterhead from a NVLAP accredited laboratory, one of its MRA signatories, or an ISO 9000 registered facility demonstrating lamp life testing has begun and the date of testing completion. Conditional approval will be granted for a period of no longer than 325 days. **Note:** If the laboratory used for this test is accredited by NVLAP or one of its MRA signatories it must also have a scope of accreditation that includes the method of measurement reference standard for this performance characteristic. *Interim and final average rated lifetime tests must use the same samples.*
Note: The performance requirement is 10,000 hours average rated lamp life regardless of lamp type. Sample size and lab requirements remain unchanged from the RLF Specification: Version 4.0. However, the base up/base down testing requirement, reference standards, and pass/fail criteria are now harmonized with CFL specification.			
1,000-hour Lumen Maintenance	Average lumen output measurement of the 10 lamps tested must be greater than 90.0% of initial (100-hour) lumen output @ 1,000 hours of rated life, and no more	IESNA LM-40-01; IESNA LM-9-99; IESNA LM-65-01; IESNA LM-66-00; ANSI C78.5 Section 4.10	**For this test a sample size of 10 or more lamps must be used.** Five (5) samples should be tested base-up and five (5) samples should be tested base-down, unless specific use or position is restricted by the manufacturer. If position restricted, manufacturer must test all 10 samples in restricted position.

	than two (2) individual samples can have a lumen output measurement less than 85.0%.		Provide: 1. a test report from a laboratory accredited by NVLAP or one of its MRA signatories 2. an EPA approved Platform Letter of Qualification that lists the lamp/ballast combination and the test result for this performance characteristic; or 3. EPA-approved documentation from an industry association, such as the NEMA/ALA matrices. **Note:** The NVLAP accredited laboratory used for this test must also have a scope of accreditation that includes the method of measurement reference standard for this performance characteristic. *1,000 hour lumen maintenance and lumen maintenance at 40% of rated life tests must use the same samples.*
Lumen Maintenance at 40% of Rated Life	Average of the 10 samples tested must be greater than 80.0% of initial (100-hour) rating at 40% of model's rated life (Per ANSI C78.5, Section 4.10), and no more than three (3) individual samples can have a lumen output less than 75.0%.		

Note: The performance requirements for lumen maintenance have been revised to include a 1,000 hour lumen maintenance requirement to harmonize with the CFL specification. Sample size and lab requirements remain unchanged from remain unchanged from the RLF Specification: Version 4.0. However, the base up/base down testing requirement, reference standards, and pass/fail criteria are now harmonized with CFL specification.

Accelerated Life Test	TBD	TBD	TBD

Note: The LRC expects evaluation results on the ALT to be available in the fall of 2006. EPA will review LRC's ALT findings once available and will weigh its appropriateness against that of the Rapid Cycle test. EPA will evaluate whether the ALT is sufficient for reflector type GU-24 Based Integrated Lamps and will determine whether additional tests are necessary at that time.

Color Rendering Index	> 80	IESNA LM-58; CIE 13.3	**For this test, a sample of ten or more lamps must be used to demonstrate that at least 80% of the samples achieved the required color rendering index value.** Five (5) samples should be tested base-up and five (5) samples should be tested base-down, unless specific use or position is restricted by the manufacturer. If position restricted, manufacturer must test all 10 samples in restricted position. Provide: 1. a test report from a laboratory accredited by NVLAP or one of its MRA signatories; or 2. an EPA approved Platform Letter of Qualification that lists the lamp/ballast combination used and the test result for this performance characteristic; or 3. EPA-approved documentation from an industry association, such as the NEMA/ALA matrices.

			Note: The NVLAP accredited laboratory used for this test must also have a scope of accreditation that includes the method of measurement reference standard for this performance characteristic.
Note: The performance requirement for linear fluorescent lamps has been removed because it is not applicable to the integrated GU-24 Based Integrated Lamp. Sample size and lab requirements remain unchanged from the RLF Specification: Version 4.0. However, the base up/base down testing requirement and pass/fail criteria is now harmonized with CFL specification.			
Correlated Color Temperature	Lamps must have one of the following designated correlated color temperatures (CCT): 2700K, 3000K, 3500K, 4100K, 5000K, or 6500K.	IESNA LM-58; LM-16	**For this test, a sample of ten or more lamps must be used. Test results must demonstrate that at least 90% of the lamps tested fall within a 7-step ANSI Mac Adam ellipse.** Five (5) samples should be tested base-up and five (5) samples should be tested base-down, unless specific use or position is restricted by the manufacturer. If position restricted, manufacturer must test all 10 samples in restricted position. Provide: 1. a test report from a laboratory accredited by NVLAP, one of its MRA signatories; or 2. an EPA approved Platform Letter of Qualification that lists the lamp/ballast combination and the test result for this performance characteristic; or 3. EPA-approved documentation from an industry association, such as the NEMA/ALA matrices; or It is also intended that the lamp manufacturer will meet the following quality requirements during the production runs of each lamp model: 1. The lamp manufacturer is required to maintain color control such that a minimum of 90 percent of the ongoing production (as represented by samples tested from each production shift for the same color and when typically evaluated over 12 month period) will fall within the 7 step Mac Adam color ellipse associated with the designated (manufacturer declared) target color. 2. For the purposes of meeting color control the lamp manufacturer must maintain testing equipment calibrated to international practices and standards and must compile the ongoing color control data in a manner so that is can be easily reviewed upon EPA request. 3. At a minimum, the manufacturer's color

			quality control program must maintain the following information for a 3-year period: a. Test dates and sample size (minimum of two lamps per production shift) b. Test results (x,y) for each sample lamp measured c. Test results (all x,y data) for sample lamps plotted graphically against the designated seven step color ellipse and available for review at least on a quarterly basis d. Records to substantiate that 90 percent of the (x,y) data points fall within the applicable seven (7) step Mac Adam ellipse. Manufacturers are encouraged to exceed this target.

Note: This performance characteristic remains unchanged from the RLF Specification: Version 4.0. However, the base up/base down testing requirement, NVLAP accredited testing requirement are now harmonized with CFL specification.

Base	Lamp/Ballast Base configuration must utilize the GU-24 base.	http://www.lrc.rpi.edu/programs/lightingTransformation/lineVoltage/index.asp	No supplemental documentation is required.

Note: This Section references the LRC's "Line-Voltage Socket Design Competition." EPA intends to replace this reference with the appropriate GU-24 ANSI standard reference once it is finalized and released.

Lamp/Lampholder Compatibility	Lamps Compliant with an ANSI-IEC Standard (for lamp dimensions and electrical parameters)	ANSI C78.5-2003	No supplemental documentation is required.
	~~Lamps Not Compliant with an ANSI-IEC Standard (for lamp dimensions and electrical parameters)~~	~~ANSI C78.901-2001; ANSI C78.81-2001 (used as a reference for the format and type of information required on a custom lamp specification sheet)~~	~~Provide a manufacturer lamp specification sheet that describes the following (use the ANSI lamp data sheets found in ANSI C78.901 and C78.81 as a reference for the format and type of information requested):~~ ~~1. Lamp Description, including:~~ ~~• Lamp Model Number~~ ~~• Nominal Wattage~~ ~~• Bulb Designation / Lamp Size (i.e., T4, T5, T8, etc.)~~ ~~• Lamp Base Type as defined by ANSI C81.61 or IEC 60061-1(i.e., 2G13, GR10q, etc.)~~ ~~• Starting Circuit Application (i.e., rapid start, preheat, etc.)~~ ~~2. Dimensional Characteristics, including diagram~~ ~~3. Lamp Operating Characteristics, including:~~

			~~• Approximate wattage (W)~~ ~~• Voltage(V)~~ ~~Current (A)~~
Note: The requirement for non-standardized lamp specification sheets is not relevant to self-ballasted lamps and has been removed. The ANSI C78.5 reference is included as a general reference.			
Lamp Labeling	A manufacturer designation that encompasses the lamp manufacturer name, wattage, correlated color temperature, and color rendering index must be labeled on the lamp or lamp base.	No Standard Available	Provide a copy of the actual language that is included on the base of the lamp.
Note: This performance characteristic is in harmony with Version 4.0 of the RLF Specification.			
General Ballast Requirement	Ballasts are required to meet the general requirement of ANSI C78.5, in addition to the specific requirements listed below.	ANSI C78.5	No supplemental documentation is required.
Note: This section is included as a general reference.			
Lamp Start Time	The time needed after switching on the lamp to start continuously and remain illuminated must be one second or less.	ANSI C78.5 Section 4.7, for test conditions and methodology	**For this test a sample size of 10 or more lamps must be used to demonstrate that at least 80% of the samples achieved the required lamp start time.** Five (5) samples should be tested base-up and five (5) samples should be tested base-down, unless specific use or position is restricted by the manufacturer. If position restricted, manufacturer must test all 10 samples in restricted position. Provide: 1. a test report from a laboratory accredited by NVLAP or one of its MRA signatories; or 2. an EPA approved Platform Letter of Qualification that lists the lamp/ballast combination and the test result for this performance characteristic; or 3. EPA-approved documentation from an industry association, such as the NEMA/ALA matrices.~~; or~~ ~~4. a test report from an OSHA NRTL laboratory.~~
Note: The performance requirement remains unchanged from the RLF Version 4.0 specification; however testing sample size, the base up/base down testing requirement, reference standards, lab requirements and pass/fail criteria are harmonized with CFL specification.			

Run-up Time	Non-amalgam: Average of 10 samples tested must be less than 1.0 minute per ANSI C78.5, Section 3.11 and 4.8.	ANSI C78.5, Section 3.11 and 4.8	**For this test a sample size of 10 or more lamps must be used to demonstrate that at least 80% of the samples achieved the required run-up time.** Five (5) samples should be tested base-up and five (5) samples should be tested base-down, unless specific use or position is restricted by the manufacturer. If position restricted, manufacturer must test all 10 samples in restricted position. Provide: 1. a test report from a laboratory accredited by NVLAP or one of its MRA signatories; or 2. an EPA approved Platform Letter of Qualification that lists the lamp/ballast combination and the test result for this performance characteristic; or 3. EPA-approved documentation from an industry association, such as the NEMA/ALA matrices. **Note 1:** The NVLAP accredited laboratory used for this test must also have a scope of accreditation that includes the method of measurement reference standard for this performance characteristic. **Note 2:** Partners must specify if their product contains amalgam mercury during the qualification submission process to be eligible for this requirement.
	Amalgam: Average of 10 samples tested must be less than 3.0 minutes.	ANSI C78.5, Section 3.11 and 4.8	
Note: This is a new requirement that is added based on applicability to self-ballasted lamps and the intent to harmonize with the CFL specification where appropriate. By only allowing NVLAP accredited labs to conduct this test, this specification remains equal to or more stringent than the CFL spec.			
Power Factor	> 0.5	ANSI C82.11-3.3.1	**For this test a sample size of 10 or more lamps must be used to demonstrate that at least 80% of the samples achieved the required power factor.** Five (5) samples should be tested base-up and five (5) samples should be tested base-down, unless specific use or position is restricted by the manufacturer. If position is restricted, the manufacturer must test all 10 samples in the restricted position. Provide: 1. a test report from a laboratory accredited by NVLAP or one of its MRA signatories; or 2. an EPA approved Platform Letter of Qualification that lists the lamp/ballast combination and the test result for this performance characteristic; or 3. EPA-approved documentation from an industry association, such as the

			NEMA/ALA matrices. ~~4. a test report from the manufacturer~~

Note: The power factor requirement remains unchanged from the RLF Version 4.0 specification; however testing sample size, reference standard, the base up/base down testing requirement, and pass/fail criteria are harmonized with CFL specification.

~~Lamp Current Crest Factor~~	~~< 1.7~~	~~ANSI C82.11-3.3.3 and 5.6 ANSI C82.1-5.6.1~~	~~**For this test a sample size of 10 or more lamps must be used to demonstrate that at least 80% of the samples achieved the required lamp current crest factor.**~~ ~~Provide:~~ ~~1. a test report from a laboratory accredited by NVLAP or one of its MRA signatories; or~~ ~~2. an EPA approved Platform Letter of Qualification that lists the lamp/ballast combination used in the fixture and the test result for this performance characteristic; or~~ ~~3. EPA-approved documentation from an industry association, such as the NEMA/ALA matrices; or~~ ~~4. a test report from an OSHA NRTL laboratory.~~

Note: Requirements regarding Lamp Current Crest Factor have been struck for integrated ballasts. Because the lamp and ballast are integrated into a single product, concerns about proper operation of the ballast with alternate lamps are eliminated. In addition, the manufacturer has the ability to completely control compatibility between the selected components. Finally, testing for lamp current crest factor in integrated products is not practical as it would require disassembly of the lamp from the ballast prior to testing.

~~Maximum Measured Ballast Case Temperature During Normal Operation Inside Fixtures~~	~~Lighting Research Center (LRC) "Proposed Durability Testing Method: Temperature" available at http://www.lrc.rpi.edu/programs/lightingTransformation/pdf/durabilityTestingFinalReport.pdf~~	~~http://www.lrc.rpi.edu/programs/lightingTransformation/pdf/durabilityTestingFinalReport.pdf~~	~~**For this test a sample size of 10 or more lamps must be used to demonstrate that at least 80% of the samples achieved the required lamp current crest factor.**~~ ~~Laboratory test results must be produced using the fixture with the highest operating temperature among all fixtures being qualified, the specific ballast that will operate in the fixture, and a lamp with the same wattage and lamp type (e.g., triple-tube, quad-tube, spiral) that will operate in the fixture. For this test, a sample of one or more fixtures must be used.~~ ~~The supplemental documentation should include the following:~~ ~~• Fixture model(s) tested~~ ~~• Lamp model(s) and ballast model(s) tested~~ ~~• Measured maximum ballast case temperatures~~ ~~• Ambient temperature~~ ~~• Test procedure, including description of fixture installation, thermocouple location(s), and time that elapsed before readings were taken.~~ ~~• Ballast Manufacturer Maximum Recommended Case Temperature During Normal Operation Inside the~~

			~~Fixture(s)~~ • ~~Ballast Hot Spot Location Diagram from the ballast manufacturer~~ ~~Provide a test report from:~~ ~~1. a laboratory accredited by NVLAP or one of its MRA signatories; or~~ ~~2. an OSHA NRTL laboratory; or~~ ~~3. the fixture or ballast manufacturer~~
Note: This section has been struck in favor of the Accelerated Life Test, which takes temperature into account. EPA may modify this requirement based on LRC's ALT conclusions. EPA will evaluate whether the ALT is sufficient for reflector and covered type GU-24 Based Integrated Lamps and will determine whether additional tests are necessary at that time.			
Electromagnetic and Radio Frequency Interference	Ballast must meet FCC requirements for consumer use, FCC 47 CFR Part 2 (Equipment Authorization) and Part 18 (Consumer Emission Limits)	FCC 47 CFR Part 2 and Part 18	**For this test, one unit per model must be tested.** Provide: 1. a test report from a laboratory accredited by NVLAP or one of its MRA signatories; or 2. an EPA approved Platform Letter of Qualification that lists the lamp/ballast combination and the test result for this performance characteristic; or 3. EPA-approved documentation from an industry association, such as the NEMA/ALA matrices; or 4. a test report from the manufacturer
Note: Part 2 of FCC 47 CFR was added to harmonize with the CFL spec. This section is related to product type approval through the FCC.			
Ballast Frequency	20 to 33 kHz or > 40 kHz	Oscilloscope instruction manual	**For this test a sample size of 10 or more lamps must be used to demonstrate that at least 80% of the samples achieved the required lamp current crest factor.** Five (5) samples should be tested base-up and five (5) samples should be tested base-down, unless specific use or position is restricted by the manufacturer. If position is restricted, the manufacturer must test all 10 samples in the restricted position. Provide: 1. a test report from a laboratory accredited by NVLAP or one of its MRA signatories; or 2. an EPA approved Platform Letter of Qualification that lists the lamp/ballast combination used in the fixture and the test result for this performance characteristic; or 3. EPA-approved documentation from an industry association, such as the NEMA/ALA matrices; or

			4. a test report from the manufacturer
Note: The performance requirement remains unchanged from the RLF Version 4.0 specification; however testing sample size, the base up/base down testing requirement, lab requirements and pass/fail criteria are harmonized with CFL specification.			
Transient Protection	Per ANSI/IEEE C62.41 (01-May-1991), Category A, 7 strikes Note: One failure to meet 7 strikes will result in test failure and therefore, failure to meet the criteria.	Per ANSI/IEEE C62.41 (01-May-1991), Category A	**For this test a sample size of 10 or more lamps must be used to demonstrate that at least 90% of the samples must achieve 7 strikes.** Five (5) samples should be tested base-up and five (5) samples should be tested base-down, unless specific use or position is restricted by the manufacturer. If position is restricted, the manufacturer must test all 10 samples in the restricted position. (*Must be unique sample for this test only)*. Provide: 1. a test report from a laboratory accredited by NVLAP or one of its MRA signatories; or 2. an EPA approved Platform Letter of Qualification that lists the lamp/ballast combination and the test result for this performance characteristic; or 3. EPA-approved documentation from an industry association, such as the NEMA/ALA matrices; or 4. a test report from the manufacturer
Note: The performance requirement for this test has been changed so that it is appropriate for self-ballasted lamps. In addition, the testing sample size and the base up/base down testing requirement are harmonized with CFL specification. However, the testing requirements remain in harmony with the RLF Version 4.0 specification.			
End of Life Protection	All ballasts that operate lamps sized T5 and smaller must contain an end of life protection circuit.	IEC 61347-2-3 Amendment 1 to Edition 1 2004-06 (or ANSI C82.11-2005, upon its release)	**For this test a sample size of 10 or more lamps must be used to demonstrate that at least 80% of the samples achieve end of life.** Five (5) samples should be tested base-up and five (5) samples should be tested base-down, unless specific use or position is restricted by the manufacturer. If position is restricted, the manufacturer must test all 10 samples in the restricted position. For all ballasts that that operate T4 and/or T5 sized lamps, demonstrate that the ballast is in compliance with the referenced standards by providing: 1. a test report from a laboratory accredited by NVLAP or one of its MRA signatories; or 2. an EPA approved Platform Letter of Qualification that lists the lamp/ballast combination and the test result for this performance characteristic; or 3. EPA-approved documentation from an

			industry association, such as the NEMA/ALA matrices; or 4. a test report from the ballast manufacturer For all ballasts that operate T3 and smaller sized lamps, provide from the ballast manufacturer a circuit diagram and an accompanying engineering description outlining the scheme that is used to achieve the end of life function within the ballast.
Note: While EPA investigated referencing UL 1993 EOL standards to meet this requirement, research determined that the ANSI/IEC standard currently referenced in the RLF Version 4.0 specification is more stringent. Therefore, this reference has been maintained for use with this revision.			
Dimming	GU-24 Based Integrated Lamps that utilize dimmable ballasts shall be dimmable from 100% to 30%, or less, of maximum light output.	No Standard Available	No supplemental documentation required.
Note: While torchiere will not be a likely application, the 100-30% dimming requirement remains to maintain quality requirements and harmonize with Version 4.0 of the RLF Specification.			
Safety – Ballast and "Non Edison Base Fluorescent Adapters"	The cover page of a safety test report or a general coverage statement must be provided to demonstrate compliance with UL 1993.	UL 1993	Provide the cover page of a safety test report or a general coverage statement from an OSHA NRTL laboratory.
Note: This safety requirement references UL 1993. EPA understands from discussions with UL that the requirements of UL 1993 are applicable to products using a GU-24 base. EPA intends to work with UL to formalize inclusion of GU-24 in UL 1993.			
Warranty	Warranty or limited warranty statement must cover at least a minimum of 24 months, or 2 years, from date of purchase	No Standard Available	Provide an electronic draft of specific product packaging and warranty language for each GU-24 Based Integrated Lamp. Packaging must include the following information to be reviewed for qualification requirements: - Model number - Wattage - Lumen output (must be 100 hour average) - Average rated lifetime - Target correlated color temperature - Warranty - 800 number, or address, or web address - Equivalency to incandescent (if applicable – see table below) - Starting temperature - Electromagnetic interference - Known incompatibility with controls and application exceptions
Product Packaging for Consumer Awareness Requirements	Product packaging must state "Warranty" or "Limited Warranty" and have an "800" number, or mailing address, or web site address (if applicable) for consumer complaint resolution.	No Standard Available	
	(Product Packaging Language): In English, or	No Standard Available	

	English with additional languages. For products that will be sold in Canada, packaging must include both English and French.		
	(FTC Labeling Requirements): ENERGY STAR qualified compact fluorescent lamps and lamp systems must comply with the labeling requirements of the U.S. Federal Trade Commission Packaging Laws - FTC 16CFR Part 305.1-.19.8	No Standard Available	

Note: The warranty and product packaging for consumer awareness requirements language has been modified from Version 4.0 of the RLF Specification to more closely apply to GU24 Based Integrated Lamps.

Table 5 - CFL/Incandescent Equivalency Chart

If displaying an incandescent equivalence for commonly used A-shaped bulbs, the CFL's initial 100-hour luminous flux or lumen output must meet or exceed the following levels. The table shows typical luminous flux for A-shaped, soft white, incandescent bulbs. Based on research conducted by NLPIP (www.lrc.rpi.edu/NLPIP/Online/index.html), luminous flux varies considerably among bulbs. The table below is intended to aid in consumer choice and in no way supersedes or replaces any requirement for product performance contained in this specification. If the luminous flux falls outside of the range, either do not display an incandescent equivalence or display the lower incandescent wattage equivalence.

A-Shaped Incandescent bulb (Watts)	**Typical Luminous Flux (Lumens)** **Lumens must be 100 hr, initial values for CFLs** **Note: excludes globes, reflectors, or decorative CFLs**
25	Minimum of 250
40	Minimum of 450
60	Minimum of 800
75	Minimum of 1,100
100	Minimum of 1,600
125	Minimum of 2,000
150	Minimum of 2,600