Who Wants to be an ENERGY STAR?
Confident?
Point Values:

- 1st Set of 5 Questions – 10 pts.
- 2nd Set of 5 Questions – 20 pts.
- 3rd Set of 5 Questions – 30 pts.
- 4th Set of 5 Questions – 40 pts.
Lifelines

- “Ask a friend”
- Poll the audience
- Get a clue (50/50)
For Luminaires verification testing, in what orientation should light sources be tested?

A – All Lamps Base Down

B – How the light source is installed in the luminaire

C – All Lamps Base Up

D – All Lamps Horizontal
In the Lamps V1.0/1.1 Specification, can you use the tolerance in sections 9.2 (Light Output) and also in 10.1 (Lumen Maintenance)?

A - Yes, you can use as many tolerances as you want!

B - Yes, but it cannot be combined with any additional tolerances

C - No, must choose one or the other

D - Yes, using tolerances decreases the products’ risk of failure in testing
Which solid state lighting (SSL) retrofit kits are covered by the scope of the ENERGY STAR Luminaires Specification?

A - Retrofit kits designed to replace externally ballasted CFL downlights
B - Integrally ballasted GU24 based lamps
C - Linear tubes with integrated drivers
D - Zhaga book XII
10 pts.

To certify a 3-way lamp to the ENERGY STAR specification for Lamps V1.1, how should equivalency claims for the various light levels be handled?

A – There are no requirements for 3-way equivalency claims

B – You can use the old table from the CFL specification

C – They just need to meet the light output equivalency at the highest setting

D – 3-ways aren’t eligible under V1.1
What decorative shapes and sizes are allowable in the Lamps V1.1 specification?

**A** - Candle-light or Globe Shape Envelope

**B** - Shapes B, BA, C, CA, DC, G and F

**C** - Basic shapes specified in ANSI C79.1

**D** - A and B
20 pts.

For Lamps V1.1, what data can be shared among product variations?

A - Lumen Maintenance & Color Maintenance
B - A & C
C - Rapid Cycle Stress Test Data
D - Nothing – everything needs to have its own test
20 pts.

What lamp bases are allowed under the Lamps specification?

A - E26, E26d, E17, E11, E12, GU24, GU10, GU5.3, and GX5.3

B - LED lamps do not have bases

C - All screw and pin bases

D - Bases must be approved on an individual basis through ENERGY STAR
For the Center Beam Candle Power (CBCP) tool, should a certification body use the measured or reported value to evaluate the products?

A - Reported Value
B - Either Reported or Measured
C - Both Values – you can never be too sure
D - Measured Value
For standard lamp shapes, does EPA require compliance with Maximum Outline Dimensions detailed in ANSI lamp shape standards?

A - No, but lamps must fit within the outlined MOL and MOD

B - Yes, must follow all the dimensions – no exceptions

C - No, that would lead to a lot of boring identical lamps

D - No, outlined dimensions are just a recommendation
Do all certified ENERGY STAR luminaires have to ship with a lamp?

A - Yes – unless product is exempt

B - Only linear fluorescent luminaires have to

C - No

D - Yes – no exceptions
Can a recessed troffer fixture be certified as a downlight under the Luminaires specification?

A - Yes – it aims light downward, what’s the problem?

B - No – Luminaires specification excludes any types of recessed troffer fixtures

C - High bay fixtures are the only type that certify!

D - Yes – with a special request approval from ENERGY STAR
Is my decorative pendant luminaire categorized as a directional downlight or as a non-directional luminaire?

A - Directional downlight
B - Non-directional luminaire
C - Whichever you want
D - Needs to be evaluated by CB case-by-case based on performance and construction
30 pts.

Which of the following commercial luminaires are eligible?

A - Accent Lights & Downlights
B - Under cabinet shelf-mounted task lighting & Portable Desk Task Lights
C - Separable or Inseparable Directional SSL luminaires
D - All of the Above
For decorative lamps to certify to the Lamps specification, what value should be referenced if no ANSI maximum lamp space drawing exists for that specific lamp shape?

A - Ignore the maximum lamp space and comply with the minimum overall length

B - Diameter tolerance of +/- 15% of the nominal diameter is used

C - Apply a +5% tolerance to the maximum overall measured length

D - Consult Energy Star to receive a specific value to reference for your lamp
For solid state downlights, does the color angular uniformity requirement need to be met using every available trim option?

A - Yes, absolutely!
B - No – but must select a minimum of 3 trims to test
C - No – but only for angular uniformity and photometric requirements
D - No – allowed to conduct test on downlight only without the trim
Does a laboratory need to be accredited to all of the test methods in the Lighting Laboratory Guide?

A - No – minimum requirement is 75% of test methods

B - Yes – data will only be reviewed for certification when it comes from one laboratory

C - Yes – but solely for the purpose of uniformity in product certification

D - No – a subset of test data may be accepted from another EPA-recognized laboratory
40 pts.

What is the sample size for verification testing of a luminaire that has multiple identical light sources, e.g. a 3-light fixture?

A - 3 samples maximum, and only one is needed for some tests

B - The sample size will be a number of lamps combined (ex. For a 3-light fixture, sample size = 3 sets of 3 lamps; 9 lamps total)

C - The sample size is always just 1 individual light source from the fixture of identical lamps (ex. For a 3-light fixture, sample size = 1 lamp total)

D - One light source from each fixture sample regardless of total number of light sources
What tests for lighting products do not have to be undertaken in an EPA-recognized laboratory?

A – Dimming Tests
B – In-Situ Temperature Measurements
C – Color Angular Uniformity
D – A and B
Which are NOT allowable variations for luminaires?

A – Fixture power consumption
B – Ballast or Driver
C – Correlated Color Temperature
D – Finish
Which LED CCT of IES LM-80 report can support certification for end products of 5000K CCT?

A – 6500K
B – 3500K
C – 2700K
D – All of the Above
Winner!

We are ALL winners when we save energy!