

Test #1

SP 2020

True or False (A for True and B for False)

1. ____ Color Rendering Index describe the way light makes colored objects look.
2. ____ CRI establishes is a rating system used to determine the color-rendering ability of a light source.
3. ____ The **higher** the Color Temperature, the cooler the light source appears.
4. ____ The Color Temperature of incandescent light is considered to be relatively **warm**.
5. ____ **Candlepower** is a unit of luminous intensity emitted in a specific direction by a source and is measured in candelas.
6. ____ **Candlepower Curve** depicts the amount of luminous intensity generated in each direction by a light source in a plane through the center of the source.
7. ____ The Illuminating Engineering Society of North America (IES) makes light level recommendations for various types of visual tasks in various types of facilities.
8. ____ The light meter students are using this semester measures light levels in footcandles.
9. ____ As persons age they generally need **more** light to see to perform a same visual task.
10. ____ The IES makes different recommendations for light levels based on anticipated visual ages of observers
11. ____ The IES uses categories of visual ages including whereas at least half of end-users are **<25, 25-65, or >65**.
12. ____ It is advisable to appraise, match and specify materials using the light sources that will be present in the completed installation.
13. ____ What we perceive as **light** is a narrow band of **electromagnetic energy**.
14. ____ What we perceive as **color** is the result of the size, geometry, radiance and background of materials reflecting or transmitting energy in particular regions of the visible spectrum.
15. ____ Only wavelengths in the range of 380-760 nanometers stimulate receptors in the eye that permit vision.
16. ____ White light sources emit **no** energy at visible wavelengths.
17. ____ With light, the body resets its internal circadian clock and synchronizes it to local time.
18. ____ Non-visual effects of light include: Melatonin secretion, body temperature, cortisol secretion, heart rate, alertness and overall circadian regulation.
19. ____ Nonvisual effects demand that design considerations include interaction between light and endocrine systems, sleep cycles and mood.
20. ____ Color temperature is a measure of the **surface temperature** of an actual lamp.
21. ____ To provide accurate color perception, the light source must **emit** the wavelengths that the object **reflects**.

22. ____ The aging eyes of a 60-year-old require up to 4x **less** light for the same task than they did as a 20-year-old.
23. ____ **Glare** often becomes a particularly debilitating factor as we age.
24. ____ To be successful, eldercare facilities must provide environmental conditions and quality of light for aging eyes.
25. ____ When designing for older adults, is essential to give careful consideration to the design of both daylighting and electric light systems as well as to the materials used within the visual environment.
26. ____ When electric lighting is properly designed older people experience an improved quality of light that includes enhanced contact with others, increased appetite, improved physical condition, reduced loneliness, increased self-confidence, elevated mood, and reduced anxiety.
27. ____ A common mistake when providing light for buildings is to select the luminaires **first**.
28. ____ Selecting luminaires should be the **last** step in the lighting design process.
29. ____ What is most important is not what makes the light, but rather which **objects and surfaces** receive it.
30. ____ The key to successful lighting design is to **first** select luminaires and then, only after they are installed, discover what the effects in an interior space may be.
31. ____ Objects which are **highly** sensitive to light should be illuminated to relatively lower light levels than objects with **no** sensitivity to light
32. ____ The color of an object or surface is determined by its reflected or transmitted light.
33. ____ Color is a physical property inherent only in the objects we see.
34. ____ Lux is the unit of **illuminance** in the International Systems of Units
35. ____ **Excessive** contrast or luminance is distracting and annoying.
36. ____ The negative side of brightness is called glare.
37. ____ Footcandles are a unit of **illuminance**.
38. ____ Watts are a unit of **illuminance**.
39. ____ To roughly convert from footcandles to lux **divide** by 10.
40. ____ **Dynamic** Electric Lighting consists of two settings: on and off.
41. ____ **Dynamic** lighting could allow a person to remain active yet would not inhibit the melatonin secretion that creates the right biological state for sleep.
42. ____ Seasonal affective disorder (SAD) is a **mood** disorder in which people experience a recurrence of depressive symptoms during particular seasons of the year.
43. ____ In the future, Light Therapy may be prescribed for SAD but is **not** yet available.

44. ____ A luminaire is a lighting fixture.
45. ____ If all objects and surfaces in a room receive equal emphasis from light, pleasant **contrasts** will be created.
46. ____ A principal characteristic of daylight is that there is **no** variability.
47. ____ An "A" shaped lamp has a familiar teardrop shape.
48. ____ A filament found in an incandescent lamp is a length of tungsten wire.
49. ____ A watt is a measure of **light**.
50. ____ A watt is a measure of electric power consumed.
51. ____ A "T" lamp is a tubular shape.
52. ____ A "G" lamp is globe shaped.
53. ____ Lamp efficacy is the **ratio** of **light** produced (in lumens) to **electricity** used (in watts.)
54. ____ The emotional stimulation provided by carefully controlled sparkle, highlight and shadows is significant in interiors.
55. ____ Sharp highlights and dark shadows create a dramatic setting and strengthen impressions of texture and form.
56. ____ An exterior shield that shades a skylight from direct sun but allows daylight to penetrate **increases** the heat load.
57. ____ Shadows may be extremely distracting and even hazardous in some interior applications such as those on an assembly line.
58. ____ Lighting **cannot** alter perception of texture.
59. ____ When buildings use glazing to admit daylight, a single layer of **ordinary** glass exposed to the sun also admits warming radiant energy-heat.
60. ____ Orientation is a primary method for managing solar heat radiation because the sun strikes differently oriented surfaces with widely varying intensity.
61. ____ Grazing light from luminaires located **far away** from a surface being lighted, strengthens highlights and shadows.
62. ____ Draperies, shades and screens are available in a wide range of materials that vary in their openness of weave and surface reflectivity.
63. ____ Shading devices used on the inside of a building reflect some of the radiant heat energy back outdoors, thus reducing energy gain from the sun.
64. ____ Motorized controls may be linked to home or building automation systems so that shades move a pre-set times or at specific illuminance values.

65. ____ Motorized controls can combine the control of daylight with electric light so that sun-filtering or light-blocking fabrics and electric lights are adjusted at the same time.

66. ____ Fixed awnings and building overhangs cannot shade direct sunlight and cannot reduce glare through the upper area of windows.

67. ____ The impression of a room's largeness or smallness **cannot** be affected by the intensity and uniformity of the lighting at the room perimeter.

68. A **cool** atmosphere implies friendliness or coziness.

69. A **warm** atmosphere implies efficiency and neatness.

70. The color properties of the light source **cannot** alter the appearance of people and their complexions.