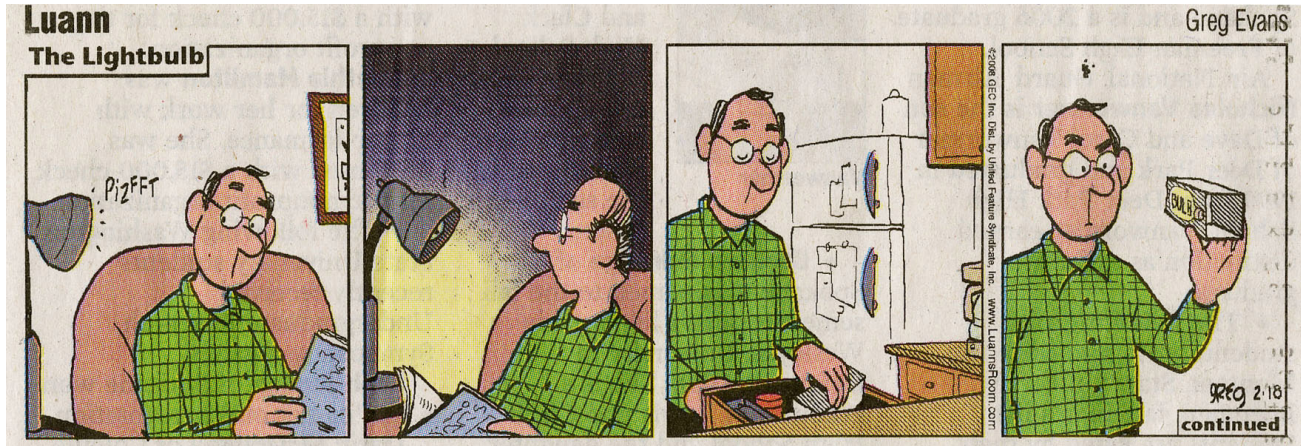


30 Multiple Choice Questions

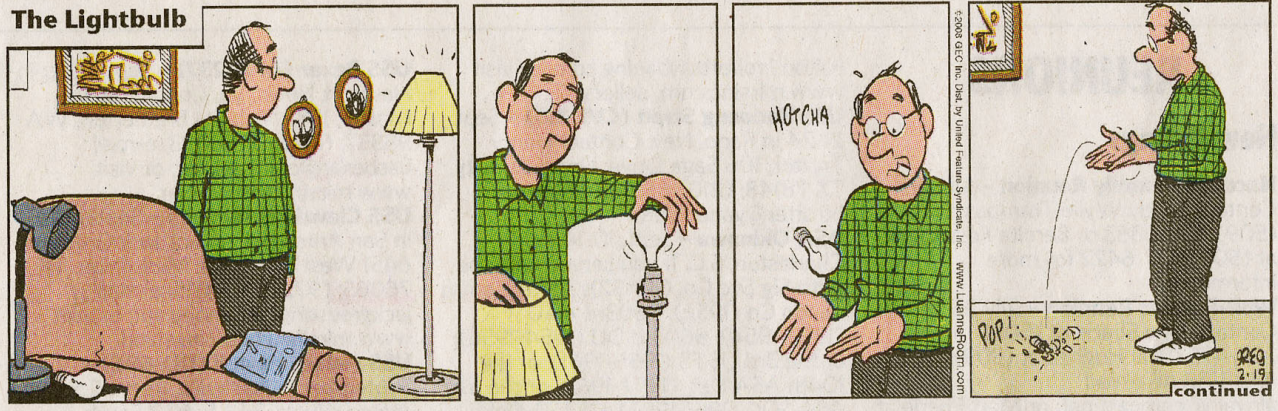


1. What's "the best text book in the universe"?
 - A. Sun Wind and Light
 - B. The Green Studio Handbook
 - C. MEEB
 - D. Heating Cooling and Lighting
2. Hagia Sophia and the US National Building Museum are similar in that they are both
 - A. adaptive reuses
 - B. daylighted by high clerestory windows
 - C. over 200 years old
 - D. all of the above
3. Renzo Piano's addition to Atlanta's High Museum employs a daylighting strategy most similar to
 - A. Botta's original SF MOMA scheme
 - B. Washington DC's National Portrait Gallery
 - C. LA's Broad Museum
 - D. none of the above
4. In daylighting design, designers have the most control over
 - A. senders
 - B. interveners
 - C. both of the above
 - D. receivers
5. Bernard Maybeck gave the Christ Science Church in Berkeley colored windows by
 - A. using stained glass
 - B. providing a clear view of the garden through ordinary glazing
 - C. proving an abstract view of the garden through semi-translucent industrial glazing
 - D. using colored opaque glass

Luann

The Lightbulb

Greg Evans



6. Weber's Law strongly relates to

- A. sensation
- B. perception
- C. stimulus
- D. the quantitative

7. To measure the brightness of a wall you should use

- A. a luminance meter
- B. an illuminance meter
- C. a light meter
- D. any of the above

8. The best source of light for daylighting a room is

- A. the sun
- B. the perfectly cloudy sky
- C. the sky with the sun blocked
- D. externally reflected light

9. A daylighted space with a high IRC

- A. will seem brighter than one with a lower IRC
- B. will mitigate opportunities for glare
- C. will have a positive effect on productivity
- D. all of the above

10. On a perfectly cloudy day

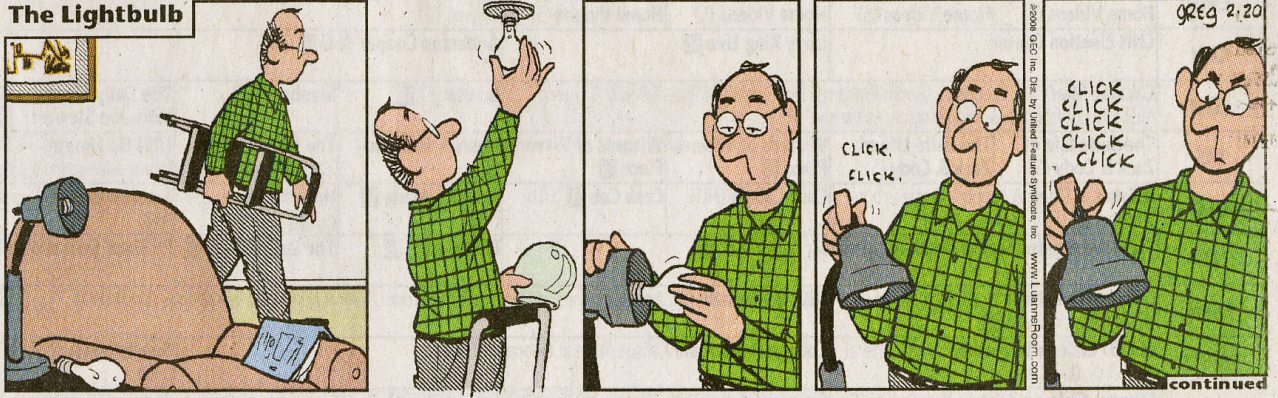
- A. the horizon is 3 times brighter than the zenith
- B. the zenith is twice as bright as the horizon
- C. the north and south building façades receive equal daylight
- D. none of the above

11. Luis Sullivan designed Chicago's Rookery and Buffalo's Ellicott Square to have central atria with a multiple story lightwell above their glazed roofs (skylights). The Rookery is a much brighter space because

- A. Frank Lloyd Wright remodeled it
- B. its lightwell is shallower
- C. it has a higher IRC
- D. its electrical lighting fixtures are brighter

Luann

The Lightbulb



12. The adage that informed the design of Phillip Johnson's New Canaan, CT, glass house

- A. daylight is cool, sunlight is warm
- B. sidelighting is best for tasks
- C. openings high in the space distribute light deeply
- D. workplaces should be close to the windows

13. Glare is best defined by

- A. contrast ratios greater than 1:3
- B. contrast ratios greater than 1:10
- C. contrast ratios greater than 1:100
- D. perception of visual discomfort

14. Glare can be mitigated by

- A. apertures in more than one surface
- B. splayed apertures
- C. high IRC
- D. all of the above

15. The graphic daylight design method for predicting daylighting

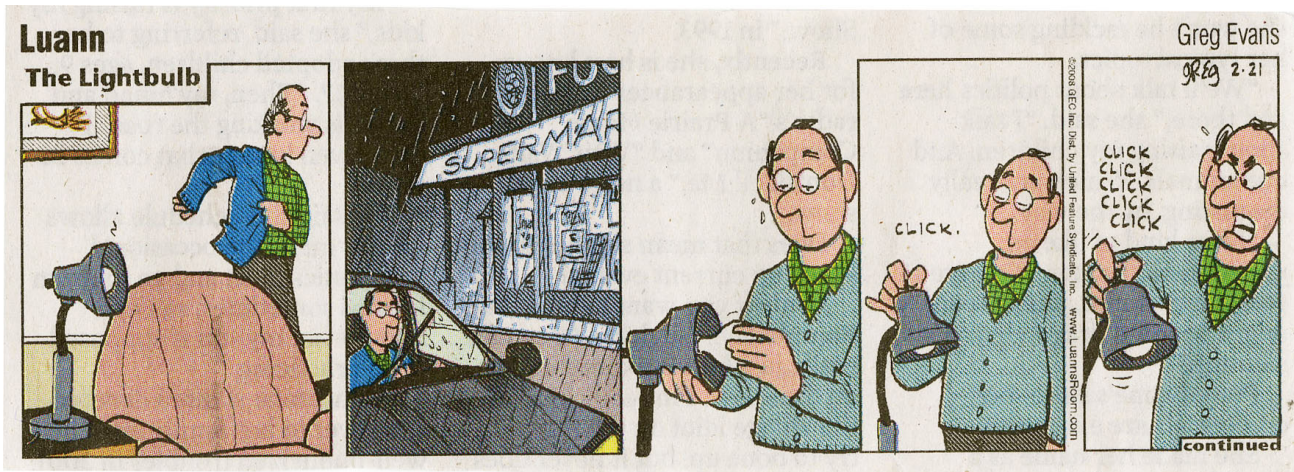
- A. calculates exact illumination at a point in space
- B. shows the relationship between light and architectural space
- C. only works for rectilinear rooms
- D. all of the above

16. The best feature of computer-based methods for predicting daylighting

- A. is accurate calculations of light levels
- B. ease of use
- C. visualization of illumination of the space
- D. all of the above

17. AGI-32 is superior to Sefaira in modeling daylighting design because

- A. AGI-32 calculates luminance of all surfaces
- B. AGI-32 can integrate electric and natural lighting effects
- C. AGI-32 can show sun penetration for specified sunny days
- D. none of the above



18. The rationale for using an artificial sky for physical daylighting model testing is

- A. the real sky is inconsistently luminous
- B. it's easier to avoid sunlight penetration
- C. it provides a comfortable space for experimentation
- D. all of the above

19. The daylighted artificial sky

- A. allows model photography under natural light
- B. is effective under any outdoor sky condition (except night)
- C. encourages an energy conserving mind-set
- D. all of the above

20. A physical daylighting model can be used

- A. to compare the real space to the modeled space
- B. to compare a remodeled space to the digital model of the remodel
- C. to check for glare using Culplite
- D. all of the above

21. The best daylighted space on Grand Avenue in LA is

- A. the upper gallery of the Broad Museum
- B. the nave of Our Lady of Angels Cathedral
- C. gallery A of LA MOCA
- D. Walt Disney Concert Hall auditorium

22. Electric lighting level guidelines were most reasonable

- A. in 1910
- B. before World War II
- C. in 1970
- D. today

23. Electric lighting schemes that integrate well with our circadian rhythms

- A. change color temperature over the course of the day
- B. promote high productivity
- C. promote good sleep habits
- D. all of the above

24. The incandescent lamp was so well liked that
- A. many new lamp types attempted to look like incandescents
 - B. new lamp types tried to adopt its spectral distribution of light
 - C. new lamp types attained better CRIs to gain market share
 - D. all of the above
25. The rationale for replacing low- and high-pressure sodium HIDs with LEDs
- A. is to save energy
 - B. is to provide higher quality light
 - C. is to provide more illumination
 - D. all of the above
26. Which of the following lamps has the highest potential for flicker?
- A. magnetic ballast CFLs
 - B. electronic ballast fluorescent tubes
 - C. mercury vapor lamps
 - D. improperly installed LEDs
27. A hallmark of high quality electric lighting is
- A. full spectrum light
 - B. high intensity light
 - C. high color temperature
 - D. all of the above
28. The most glare-free fixture for a room with a high IRC is
- A. direct
 - B. direct/indirect
 - C. indirect
 - D. any of the above
29. James Turrell creates illusionary artwork that depends on
- A. direct lighting
 - B. direct/indirect lighting
 - C. indirect lighting
 - D. candle light
30. The Lumen method for calculating electric light levels
- A. requires a luminous ceiling
 - B. is sensitive to surface reflectivity
 - C. can fairly accurately predict light levels in a proposed room
 - D. all of the above

