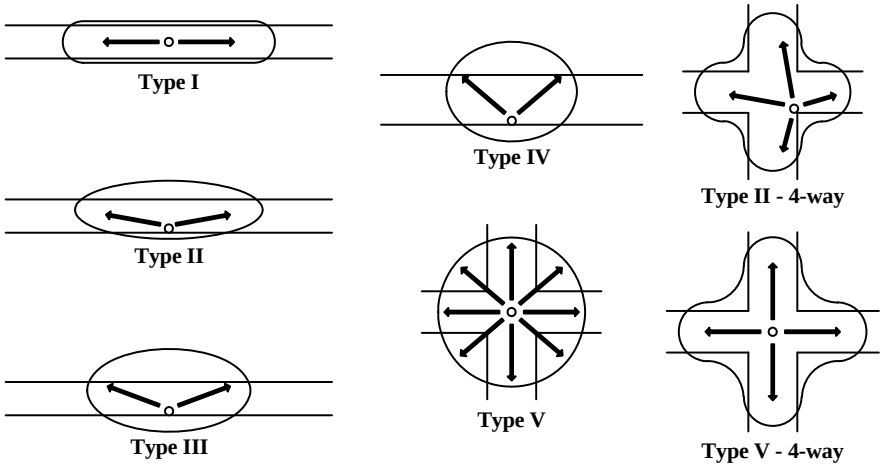

Figure 2-2: Light Distributions

2.3.4 Luminaire Cutoff Classification, Spill Light, and Sky Glow

The IESNA classifications of cutoff relate to the luminaire's light intensity near the horizontal. (For a more detailed discussion of luminaire cutoff classification refer to IESNA RP-8.) The classifications were developed to help recognize the level of glare associated with a luminaire. Community associations and astronomers, however, have adapted the classifications, in an effort to reduce sky glow. Sky glow produces a luminous haze and limits our ability to see the stars. Astronomers are concerned with sky glow, as they must filter it from their observations. The growth in popularity of amateur astronomy is producing an increased awareness of sky glow.

Some efforts to reduce sky glow are rather straightforward – use shields and visors on floodlights to limit up-light. Other attempts are not as simple as they seem. For example, eliminating high angle light (above horizontal) from street lighting fixtures so that they cast all light downward will dictate that fixtures are placed closer together, increasing energy demand and increasing light reflected from the ground, thus sky glow may actually intensify. When lighting is installed near a major astronomical observatory or an intrinsically dark area (National Park), sky glow must be limited to low levels. For areas where observatories are not a concern, addressing the two other objectionable issues, *glare* and *spill light*, will often reduce sky glow to acceptable levels.