

RP-1 is both an ANSI standard and the IESNA (Illuminating Engineering Society of North America) recommended practice for office lighting. RP-1 sets guidelines for the lighting of office spaces. These recommendations address a wide range of topics; for a full copy of RP-1 please contact the IESNA.

**For general illumination levels, RP-1 categorizes the type of work performed and makes recommendations based on the tasks being performed:**

| Category | Task Performed   | Application                    | Recommended FC Level |
|----------|--|--------------------------------|----------------------|
| D        | Keyboard, Computer, #2 Pencil, Ball Point Pen, 2nd Generation Copy | Offices with Computers         | 20-50 FC             |
| E        | #3 Pencil, 6 Point Type, Thermal Print, 3rd Generation Copy        | Areas Performing Detailed Work | 50-100 FC            |

**For indirect lighting, RP-1 suggests the following:**

- The ceiling luminance should not exceed 10 times the average computer screen luminance
- The maximum ceiling luminance should not exceed 850 cd/m<sup>2</sup>
- The relationship between the ceiling luminance and the task luminance should be considered
- The luminaire itself may create contrast when seen against an illuminated ceiling; therefore, the luminaire finish and luminaire luminance should be considered
- Glossy finishes are not recommended
- Some luminaire luminance may be useful but is not required
- Luminaire luminance should never be greater than 850 cd/m<sup>2</sup>
- Maximum ceiling uniformity ratios are suggested (see table below)

| INDIRECT CEILING LUMINANCE RATIOS<br>(Large open-plan spaces; does not apply to private office) |   |  |
|---|---|--|
| Max/Min Ceiling Uniformity  | Application   | Caveat   |
| 8:1   | Typical installation using standard performance products            | 4:1 is more desirable, 2:1 is most preferable  |
| 10:1 or 12:1  | Acceptable for high performance products placed 12 to 15 feet apart | Acceptable if the gradient is smooth (gradual) so that visible contrast is not created in computer screens |

For direct/indirect lighting, the indirect component should meet the criteria for indirect lighting and the direct portion should meet the criteria for direct lighting. Note that small amounts of downlight such as perforated patterns which do not.

| Angle from Vertical | VDT Intensive | VDT Normal |
|---------------------|---------------|------------|
| 55°                 | 300 cd        | —          |
| 65°                 | 220 cd        | 300 cd     |
| 75°                 | 135 cd        | 185 cd     |
| 85°                 | 45 cd         | 60 cd      |

Note: The above description does not attempt to encapsulate the entire body of RP-1 (2004). RP-1 is available for purchase through the IESNA.