

Table of Contents

1. **Fundamentals of Light and Lighting**
 - Nature and properties of light
 - Light and radiation
 - Units and quantities used in lighting
 - Photometry and measurements
2. **Colour and Vision**
 - Colour and colour perception
 - Human vision
 - Visual performance
 - Colour rendering and colour temperature
3. **Measurement and Calculation of Lighting**
 - Photometric measurements
 - Illumination calculations
 - Luminous intensity and luminous flux
 - Lighting efficiency
4. **Electric Lamps**
 - Principles of electric light sources
 - Incandescent lamps
 - Discharge lamps
 - Fluorescent lamps
 - High-intensity discharge lamps
 - Lamp characteristics and performance
5. **Lamp Construction and Operation**
 - Lamp components
 - Electrical characteristics
 - Starting and operating conditions
 - Lamp life and maintenance
6. **Luminaires**
 - Types and construction of luminaires
 - Optical control of light
 - Reflectors and diffusers
 - Light distribution
 - Luminaire efficiency
7. **Lighting Circuits and Control**
 - Electrical circuits for lighting
 - Control equipment
 - Ballasts and starting devices
 - Switching and dimming systems
8. **Interior Lighting**
 - Principles of interior lighting
 - Lighting levels and uniformity
 - Commercial and public buildings
 - Offices and working areas
9. **Industrial Lighting**
 - Lighting requirements in industrial buildings
 - Workplace illumination
 - Safety and visual comfort
 - Special industrial applications

10. Display and Decorative Lighting

- Display lighting
- Shop and commercial lighting
- Architectural and decorative lighting
- Lighting effects

11. Entertainment Lighting

- Theatre and stage lighting
- Special lighting effects
- Lighting for entertainment spaces

12. Exterior Lighting

- Outdoor lighting principles
- Floodlighting
- Road lighting
- Navigation lighting

13. Lighting Design and Applications

- Selection of lamps and luminaires
- Lighting calculations
- Energy and efficiency considerations
- Practical lighting design