
IEC 825-1 Amendment laser classification (10 diodes)

- $AEL = 7 \cdot 10^{-4} t^{0,75} C_4 C_6 J$
- $C_4(820 \text{ nm}) = 10^{0.002(\lambda-700\text{nm})} = 1.74$
- $C_6(\alpha) = \alpha / \alpha_{\min} = 12 \text{ mrad} / 11 \text{ mrad} = 1.09$
 - $\alpha_{\text{hor}} = 22.5 \text{ mrad}$ $\alpha_{\text{ver}} = \alpha_{\min} = 1.5 \text{ mrad}$
 - $\alpha = (\alpha_{\text{hor}} + \alpha_{\text{ver}}) / 2 = 12 \text{ mrad}$
- $t = 100 \text{ s}$
- $AEL = 42 \text{ mJ}$
- **$P_{\max} = 0.42 \text{ mW}$ $P_{\text{channel}} = 42 \text{ }\mu\text{W} = -13.8 \text{ dBm}$**
- Measurement with aperture of 20 mm at 100 mm distance (50 % of the integral optical power passes the aperture)