The emphasis given to maintenance factors in this list arises from the fact that the lighting recommendations are made in terms of minimum maintained values. Table 16.7 sets out typical luminaire maintenance factors to be applied for different locations, luminaires and cleaning intervals. In this table, high pollution generally occurs in the centre of large urban areas and heavy industrial areas; medium pollution occurs in semi-urban, residential and light industrial areas while low pollution occurs in rural areas. Luminaires are classified by the protection against foreign objects and dust number used in the IP system (see Table 4.10).

Table 16.7 Typical luminaire maintenance factors

Luminaire IP class/pollution level	Cleaning interval = 12 months	Cleaning interval = 18 months	Cleaning interval = 24 months	Cleaning interval = 36 months
IP2X/High	0.53	0.48	0.45	0.42
IP2X/Medium	0.62	0.58	0.56	0.53
IP2X/Low	0.82	0.80	0.79	0.78
IP5X/High	0.89	0.87	0.84	0.76
IP5X/Medium	0.90	0.88	0.86	0.82
IP5X/Low	0.92	0.91	0.90	0.88
IP6X/High	0.91	0.90	0.88	0.83
IP6X/Medium	0.92	0.91	0.89	0.87
IP6X/Low	0.93	0.92	0.91	0.90

The reflection properties of a road surface are quantified by an *r*-table. This consists of a matrix of values of $q \cos^3 \gamma$, where q is the luminance coefficient of the pavement material and γ is the angle of incidence of light from the upward vertical, in degrees (see Figure 16.1). This quantity is called the reduced luminance coefficient (*r*). The two dimensions of the *r*-table are the angle β, the angle between the vertical plane of incidence and the vertical plane of observation and the tangent of the angle γ, the angle of incidence from the upward vertical (see Figure 16.1). Each cell in the *r*-table contains a value for the reduced luminance coefficient multiplied by 10,000.