THE NATIONAL GALLERY

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GUIDELINES FOR LIGHTING FOR PHOTOGRAPHY AND TELEVISION

These conditions are for short term lighting, photography and television professional photographers and film crews are permitted to illuminate Objects at higher than normal light levels on the understanding that the following general rules are obeyed.

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General positioning of lights

Photographic lamps can generate considerable heat, some of which is emitted from the back of the fitting. For this reason the lamps must be kept well away from all Objects.

Camera and light stands

For safety reasons, lamp and camera stands must be placed or arranged so that the distance between them and any painting or frame is greater than the height of the lamp or camera stand, so that were they to fall, they would not make contact with any painting or frame. Tripods should be arranged with one leg pointing towards a painting being photographed, so that if it is knocked and topples over it could only fall to the left, right or away from the object.

Lamps

Illuminance should not exceed 1000 lux on either the painting being photographed / filmed or on any other painting in the field of the lighting: this illuminance is equivalent to 1/60th second at f4 using the equivalent of film rated at 100 ASA. For particularly sensitive objects, such as watercolour Objects and works on paper, the limit is reduced to 250 lux.

Time of exposure

The damage caused by light is proportional not only to the level of illumination but also to the length of time for which the object is exposed. For this reason the lighting should only be at the above intensities whilst photography or filming are in progress, or while the lights are being aimed. At all other times the photographic lights must be switched off or reduced significantly, below 250 lux for most Objects and below 50 lux for particularly sensitive objects, as described above.

Ultraviolet radiation

Ultraviolet (UV) radiation is particularly damaging and is not required for photography or filming. Because tungsten halogen and HMI lamps emit a significant amount of ultraviolet radiation, they must be fitted with an appropriate heat-stable filter. If the heat of the light sources precludes the use of ultraviolet-absorbing plastic film, a suitable filter must be used. Plain filters are not acceptable, since they do not absorb ultraviolet radiation in the 320 – 400nm region.

Flash photography

For authorised professional photography, electronic flash is permitted and is preferred to the use of photographic lamps, since the overall exposure of the Objects to light is greatly reduced. The maximum exposure for any painting in the field of the flash is 1250 lux seconds per frame; equivalent to f22 at 100 ASA. A supplementary ultraviolet filter must be fitted to the flash unit if the flash unit generates ultraviolet light.