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## NSCG Newsletter

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the different grades we could reduce lux levels.

Only the central front facing area of the tube was covered with the tinted "F" stop filter, the side areas were left only with the clear UV filter (see diagram on previous page). Thus the areas nearest to the light had the lux levels significantly reduced but the peripheral areas were still adequately lit. Suppliers of "F" stop filters are; CLE, 69 Haydens Road, Wimbledon SW19 1HQ.

*Bob Entwistle  
Ipswich Museum*

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### Light Meter Readings – Fact or Fiction?

The East Anglia Conservators Forum is an informal group that meets two or three times a year in the museums of members, either from private practice or both large and small museums.

Discussion topics vary from case studies to large issues such as pests.

At one meeting in November 1997 the focus was on lighting. Members were invited to bring their own light meters and compare the readings obtained by different types and makes of hand held light meter. Meters ranged from the twenty years old to the new such as the Novatron and Meaco digital UV and lux meters, and many reported that their equipment had recently been calibrated. About a dozen different meters were placed on a table and their lux readings compared. To our surprise the variations were considerable. The meters were moved to somewhere else in the room, and their readings taken again. The UV readings were compared, and these showed slightly less variation. There was no consensus as to the actual light reading in that place at that time.


Given that the recommended light levels are fairly precise at 50 lux for light sensitive organic material and 100 lux for inorganics, even a variation of 10% makes a difference for someone trying to place objects in an

exhibition environment where they will be subjected to light for some time. In the battle to reduce damaging ultra violet radiation on objects, having accurate data and reliable measuring equipment is fundamental. Yet these meters were giving wildly different readings, for lux seemingly in two clusters with some outliers. By a window, readings varied by several hundred lux. Incidentally, newer and more expensive models did not necessarily give more believable readings, or sit in the middle of a comfortable sounding cluster. My twenty-year-old AVO LM 4 meter gave readings similar to other, more recent and well-respected brands. Regarding the UV readings, the old style meters such as the Crawford 760 were as reliable as any. It is with considerable scepticism that I would contemplate the purchase of a new light meter.

Precise data was not gathered as this was just an informal meeting. However, many people's faith in their equipment was badly shaken. Anecdotal evidence obtained from subsequent discussions with colleagues indicates that even two of the same brand of meters, thus tested, gave two different readings. Does the variability of results depend therefore on the calibration, if it is not the type, or brand, of meter? Perhaps we can only rely on light meters to give us a relative picture of display conditions, and not an absolute reading we can trust. Is this good enough? Why not try this experiment yourselves if you think me unduly cynical. It would certainly make a good research topic, and a Which? style report would be welcome by all museum staff.

*Lynn Morrison  
Conservation Officer/Care of Collections*

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