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Hertfordshire AL4 8AN, UK

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## **Luminance and glare in indoor cattle-handling facilities**

*K Klinglmair\*<sup>†‡</sup>, KB Stevens<sup>‡</sup> and NG Gregory<sup>‡</sup>*

<sup>†</sup> Schickgasse 25/5/32, A1220 Wien, Austria

<sup>‡</sup> Department of Veterinary Clinical Sciences, Royal Veterinary College, Hawkshead Lane, North Mymms, Hatfield AL9 7TA, UK

\* Contact for correspondence and requests for reprints: [karin@yourmum.org](mailto:karin@yourmum.org)

### **Abstract**

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*This study examined the sources of glare and range in luminance levels in eleven UK cattle abattoirs, and the effect of reflected glare from a footbath on balking behaviour of cows in a milking parlour. At the abattoirs, the mean luminance levels decreased from 240,000 cd m<sup>-2</sup> outdoors to 100 cd m<sup>-2</sup> in the stunning pen. In five of the abattoirs, the luminance of the glare from wet floor surfaces was three times higher than the luminance from the surrounding darker areas, and the luminance of the glare from shiny metal surfaces was ten times higher than the luminance from the adjacent darker areas. In the glare study, frequency of balking increased significantly from 10 to 23% when reflected glare increased from 0 (no lightbulb) to 873 cd m<sup>-2</sup> (100 W bulb), but significantly fewer animals balked during the afternoon milking than at the morning milking times.*

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