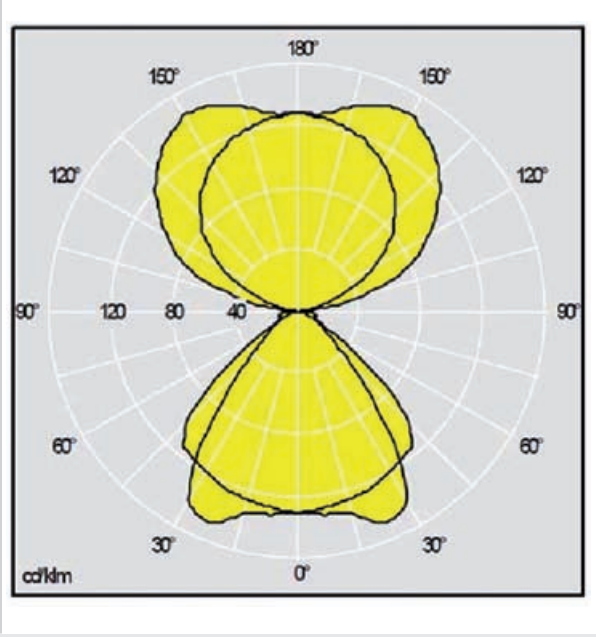

Figure 95
Light distribution of typical direct/indirect luminaire.

NOTE 3 For outdoor Lighting applications it must be considered that ULOR is a 'not wanted' emission of light due to light pollution mitigating standards, and may be only used in outdoor applications below covered sites, e.g. car-shade structures, pedestrian underpasses, gazebos, tents, etc.

NOTE 4 Some manufacturers are claiming phenomenal LOR up to 99%. This is because the manufacturer is being misleading with the definition of 'lamp' and classifying it as most of the luminaire. In fairness, it is hard to apply the term 'LOR' to LED fittings because the light source and luminaire are so interlinked. The term is more meaningful with future-proof luminaires where the LEDs come on small replaceable modules.

Luminaire Efficacy Rating (LER) is the single Figure of merit the National Electrical Manufacturers Association has defined to help address problems with lighting manufacturers' efficiency claims and is designed to allow robust comparison between lighting types. It is given by the product of luminaire efficiency (EFF) times total rated lamp output in lumens (TLL) times ballast factor (BF), divided by the input power in watts (IP):

$$LER = EFF \times TLL \times BF / IP$$