

Title (en)  
Optical systems including reflectors

Title (de)  
Optische Systeme mit Reflektoren

Title (fr)  
Systèmes optiques utilisant des réflecteurs

Publication  
**EP 1300712 A2 20030409 (EN)**

Application  
**EP 02256927 A 20021007**

Priority  
GB 0123979 A 20011005

Abstract (en)

An optical system includes conical reflectors (32) axially aligned back to back with a xenon tube (35) located in the throat (36) formed by their truncated apices, for emitting light in two opposite directions. Each reflector (32) is enclosed by a transparent cover (33) that includes a central lens (37) for evening out axial light-distribution. Alternatively, a xenon tube (15) may be located between the apices of two mutually-inverted conical reflectors (16,17) at right angles to their common axis (18) for emitting light from their external reflective surfaces throughout 360 degrees. As further alternatives, a single conical or pyramidal reflector (3,10) may be used with a LED (1) as light source, and the systems may be used for reception of light. <IMAGE>

IPC 8 full level  
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Cited by  
IT201700085455A1; EP2287629A3; EP2413784A4; US8803967B2; US9344705B2; US10542919B2; US11147482B2; WO2010114736A1;  
US9629576B2; US9788764B2; US9814415B2; US9877670B2; US10070809B2; US10080515B2; US10959650B2; US10973442B2;  
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