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OLEDs for Lighting:
Can They Ever be Bright Enough?

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A potential limitation to using OLEDs for lighting is their low intensity emission per area, leading to high cost. We examine the fundamental limits to OLED brightness. Limitations to be considered include: thermal effects, triplet and singlet annihilation, exciton-polariton annihilation and injection and outcoupling. We consider the differences between single element and stacked devices in overcoming these fundamental problems. We also discuss the possibility for the use of organics in lasing applications, following recent advances in exciton management.