

D-Poster

Night-time light spill calculation

A simulation was produced, in order to determine the effect of light spill on potential nearby buildings.

Simulation data

Panel size: 6m x 3m
Luminaire: D-Poster
Zero ambient light
Screen output level: 3%

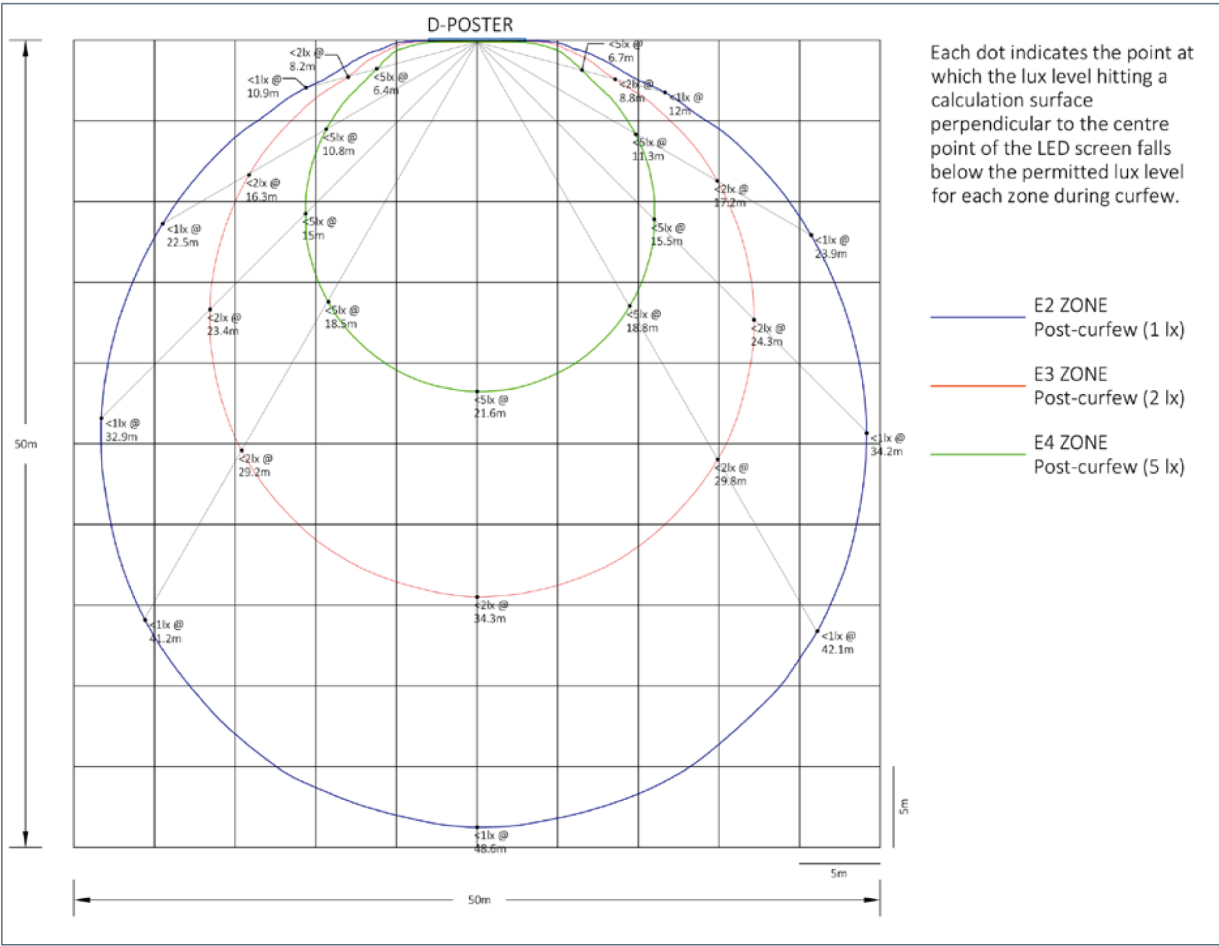
Comments

The ILP limits light intrusion into windows to a certain lux level, depending on the environmental zone in question. In zone E3, for example, the permissible level is 10 lux pre-curfew and 2 lux post-curfew (curfew is currently defined as 23:00).

The graph to the right shows that at a 3% dimming level, the amount of light intrusion directly in front of the D-Poster is less than 1 lux at a distance of 48.6m. This corresponds to the limit for a building in zone E2. The distances decrease to 34.3m for zone E3 and 21.6m for zone E4.

These results are based on a building directly facing the D-Poster - if buildings are at differing offsets to the D-Poster, then the distances become shorter, as shown.

**Comparable level of luminance to a traditional externally illuminated 48-sheet.*



Environmental Zone	Lighting Environment	Light intrusion at windows (pre-curfew)	Light intrusion at windows (post-curfew)	Maximum Nighttime Illuminance of illuminated advertisements	D-Poster Output requires
E1	Intrinsically dark	2 Lux	0	0cd/m2	N/A
E2	Low district brightness	5 Lux	1 Lux	200cd/m2	3%*
E3	Medium district brightness	10 Lux	2 Lux	300cd/m2	5%
E4	High District Brightness	25 Lux	5 Lux	300cd/m2	5%