

PLANNING CONTROL

Document Title: Floodlighting Guidance



*“Securing a **Better** environment for all the people of **Birmingham**”*

GUIDELINES FOR THE INSTALLATION OF FLOODLIGHTING

1. SUPPLEMENTARY PLANNING GUIDANCE

1.1 Highway Safety

Floodlighting proposals which are detrimental to the safety of highway users including public footways and cycle routes or of railways, airports or canal operations will be refused.

1.2 Protecting Residential Amenity

- * The height and size of floodlighting columns and equipment should be kept to the minimum needed for operational purposes. Landscape measures should where appropriate screen the lighting installation from neighbouring residential property and adjoining green belt, green wedges or areas of nature conservation.
- * Where resultant lights from all existing sources and the proposed floodlights would be adjacent to the windows or gardens of dwellinghouses and flats, different obtrusive light limitations will apply to front and rear habitable room windows. Obtrusive light limitation standard E2 will apply to the rear habitable room windows and E3 will apply to the fronts of properties (see Appendix).
- * In order to secure satisfactory outlook from residential properties and prevent overshadowing the minimum distance of habitable room windows to floodlighting columns should normally be no closer than 12.5m from habitable room windows measured on a 90° arc from the centre of the window. Where the height of the column exceeds this distance separation should be no less than the height of the column.
- * The hours and number of occasions that the floodlights will be used should be stated and will be a material consideration in determining an application an / or the imposition of conditions.

1.3 Protecting Areas of Dark Landscape and Nature Conservation

- * Floodlights which will adjoin or are located in the green belt, green wedge, canal corridor and areas designated for nature conservation and which have an impact in terms of light trespass, the obtrusive light limitation standard E2 will apply.

1.4 Specific Design Guidelines

- * Floodlights should light downwards where possible and where there is no alternative to uplighting, shields and baffles will be required to avoid spill around the object being lit.
- * Floodlighting equipment should minimise the flood of light near to or above the horizontal to reduce potential glare.

- * The main floodlight beam should wherever possible be directed downwards below a 70' arc from the vertical column.
- * Floodlights should wherever possible use asymmetrical beams that permit the front glazing to be kept at or near parallel to the surface being lit.

1.5 Imposing of Planning Conditions

- * A standard condition restricting the hours, and in certain circumstances the times and dates floodlights can be used, will be imposed where the property is close to dwellings and areas of darker landscape. This will normally be no later than 2300 hours.

1.6 Use of Sustainable Materials and Measures to Minimise Energy Usage / CO2 Production

Sustainable materials capable of being recycled should be considered and measurers such as tree screens, earth bunds with natural vegetation should be actively considered. Low energy floodlights should be used and unnecessary energy usage / CO2 production should be avoided.

OBTRUSIVE LIGHT LIMITATION STANDARDS FOR EXTERIOR LIGHTING INSTALLATION

ENVIRONMENTAL ZONES

(It is anticipated that the following zones will be defined by the Local Planning authority)

E1: In :National Parks" "Areas of Outstanding natural beauty' or other Dark landscapes"

E2: Areas of "low district brightness" rural locations and in Birmingham include greenbelt green wedge canal corridor and areas designated for nature conservation and rear windows.

E3: Areas of "medium district brightness" (eg. in an urban location)

E4: Areas of "high district brightness" (eg in an urban centre with high night-time activity)

Environ mental Zones	Sky Glow UWLR (Max%)	Cumulative light into windows EV(Lux)		Source Intensity I (Kcd)		Cumulative building luminance L [cd / m ²]	
		Before curfew	After curfew	Before curfew ***	After curfew	Average Before curfew	Max Before curfew
E1	0	2	18*	0	0	0	0
E2	2.5	5(rw)	1(rw)	20	0.5	5	10
E3	5.0	10(fw)	5(fw)	30	1.0	10	60
E4	15.0	25	5	30	2.5	25	150

WHERE : UWLR (upward Waste Light Ratio) = Maximum permitted percentage of luminaire flux that goes directly into the sky.

- Ev = Vertical illuminance in Lux
- I = Light intensity in candelas
- L = Luminance in candelas per square metre
- FW = Front window standard
- RW = Rear window standard

- * Acceptable from public road lighting installation only.
- ** SOURCE INTENSITY - This applies to each source in the potentially obtrusive direction, outside of the area being lit. The figures given are for general guidance only and for some large sports lighting applications with limited mounting heights, may be difficult to achieve. However, if the aforementioned recommendations are followed then it should be possible to lower these figures.
- *** BUILDING LUMINANCE - This should be limited to avoid over-lighting and relate to the general district brightness. In this reference building luminance is applicable to buildings directly illuminated as a night time feature as adjacent to the illumination of buildings caused by spill light from adjacent floodlights or fixed to the building but used to light an adjacent area. After Curfew = period when floodlight use is not acceptable.

Source: derived from ILE Guidelines

ILE GUIDANCE NOTES FOR THE REDUCTION OF LIGHT POLLUTIONCHANGES FROM 1994 TO 2000 VERSIONS

VERSION	ENV ZONE	SKY GLOW MAX %	LIGHT INTO WINDOWS		SOURCE INTENSITY		BUILDING LUMINANCE	
			LUX BEFORE CURFEW	LUX AFTER CURFEW	KCD BEFORE CURFEW	KCD AFTER CURFEW	CD/M BEFORE AVG	CD/M CURFEW MAX
1994	E1	0	2	1	0	0	0	-
2000	E1	0	2	1	0	0	0	0
% change		0%	0%	0%	0%	0%	0%	NEW
1994	E2	5	5	1	50	0.5	5	-
2000	E2	2.5	5	1	20	0.5	5	10
% change		-50%	0%	0%	-60%	0%	0%	NEW
1994	E3	15	10	5	100	1	10	-
2000	E3	5	10	2	30	1	10	60
% change		-67%	0%	-60%	-70%	0%	0%	NEW
1994	E4	25	25	10	100	2.5	25	-
2000	E4	15	25	5	30	2.5	25	150
% change		-40	0	-50%	-70%	0%	0%	NEW

Source: ILE Guidelines