



0m 5m 10m 15m 20m 25m

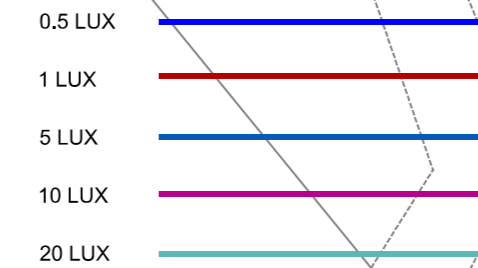
CALCULATION RESULTS
REF: P25023-LRA-PL-C02-V1

Grid 1
Results - Horizontal Illuminance (lux)
Eav= 7380
Emv= 2501
Emax= 37454
Emv/Emax= 0.07
Emv/Eav= 0.34
Emax/Eav= 5.06

Ev at House no. 3
Results - Horizontal Illuminance (lux)
Eav= 149
Emv= 0.46
Emax= 3.25
Emv/Emax= 0.14
Emv/Eav= 0.31
Emax/Eav= 2.18

Ev at House no. 3
Results - Horizontal Illuminance (lux)
Eav= 0.81
Emv= 0.45
Emax= 1.50
Emv/Emax= 0.30
Emv/Eav= 0.56
Emax/Eav= 1.87

KEY TO ISOLUX CONTOURS



KEY TO LUMINAIRE SYMBOLS

- Type 'A'
Proposed new LED floodlight mounted on existing 6m column at 10° upward tilt from the horizontal
Luminaire: Carbon8 Lighting 'Discuss 200W' c/w cool white (5000K) LEDs and type 'T4-B' optic. Flux: 33.95klm
- Type 'B'
Proposed new LED floodlight mounted on existing 6m column at 10° upward tilt above the horizontal
Luminaire: Carbon8 Lighting 'Discuss 150W' c/w cool white (5000K) LEDs and type 'T4-B' optic, and the suppliers front shroud. Flux: 22.47klm
- Type 'C'
Proposed new LED floodlight mounted on existing 7m column (6metre with a 1m extension) at 10° upward tilt above the horizontal
Luminaire: Carbon8 Lighting 'Discuss 150W' c/w cool white (5000K) LEDs and type 'T4-B' optic. Flux: 22.47klm

DESIGN NOTES

This lighting design re-uses the existing column positions in accordance with the previously installed lighting layout designed by others.

Although no formal design drawings for the existing installation are available, information supplied by the client, supported by on-site assessment, indicates that the current system provides approximately 70 lx average horizontal illuminance with 28% uniformity across the playing area. However, the existing scheme also produces up to 17 lx vertical illuminance on the windows of No. 5 Oakley Hill, located to the east.

The proposed design improves the lighting performance on the pitch compared to the existing installation, while also significantly reducing obtrusive light at the two adjacent residential properties.

Light spill into the residential dwellings is calculated by positioning 6 metre high vertical illuminance grids on the rear elevations of the property, as shown on the drawing.

The predicted vertical illuminance at these properties falls well within the limits defined in ILP Guidance Note GN01: The Reduction of Obtrusive Light for an Environmental Zone E3, namely:

- 10 lx pre-curfew
- 2 lx post-curfew

The lighting is programmed to switch off from 21:30, ensuring no post-curfew light spill. The calculated results confirm that the pre-curfew limit is comfortably achieved. All lighting calculations have been performed with a maintenance factor of 1.0, representing initial performance at commissioning (i.e., day-one output with all luminaires operating at full power).

The installation of new floodlighting will require new capability of load calculations to confirm that these lights can be safely accommodated on the existing columns

GENERAL NOTES

1. This drawing must be printed in colour
2. No element of this design may be purchased or constructed until approval is granted by the overseeing authority
3. Do not scale from this drawing

P01	First issue	SDL	DPL	27.02.26
Rev.	DESCRIPTION	DRWN	CHK	DATE



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CLIENT/CUSTOMER

CHAPMAN LILY PLANNING

PROJECT

COBHAM SPORTS CLUB
WIMBORNE

TITLE

LIGHTING
CALCULATION

DRAWN	SCALE	DATE
SDL	1: 250 @ A2	27.02.26

DRAWING NUMBER	ISSUE
P25023-DRG-PL-03	P01

DO NOT SCALE FROM THIS DRAWING

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