

CALCULATED DIRECT LIGHT

Horizontal Illuminance (Lux) (Adopted road and pathway, post top columns only)	
E min.	1.0
E ave.	7.7
E max.	19

CALCULATED ASSESSMENT (LIGHTSPILL, GLARE AND SKYGLOW)

Bat Commuting and Foraging Locations  
(Limiting threshold subject to specialist ecology confirmation. For this assessment 1.0 Lux is applied).

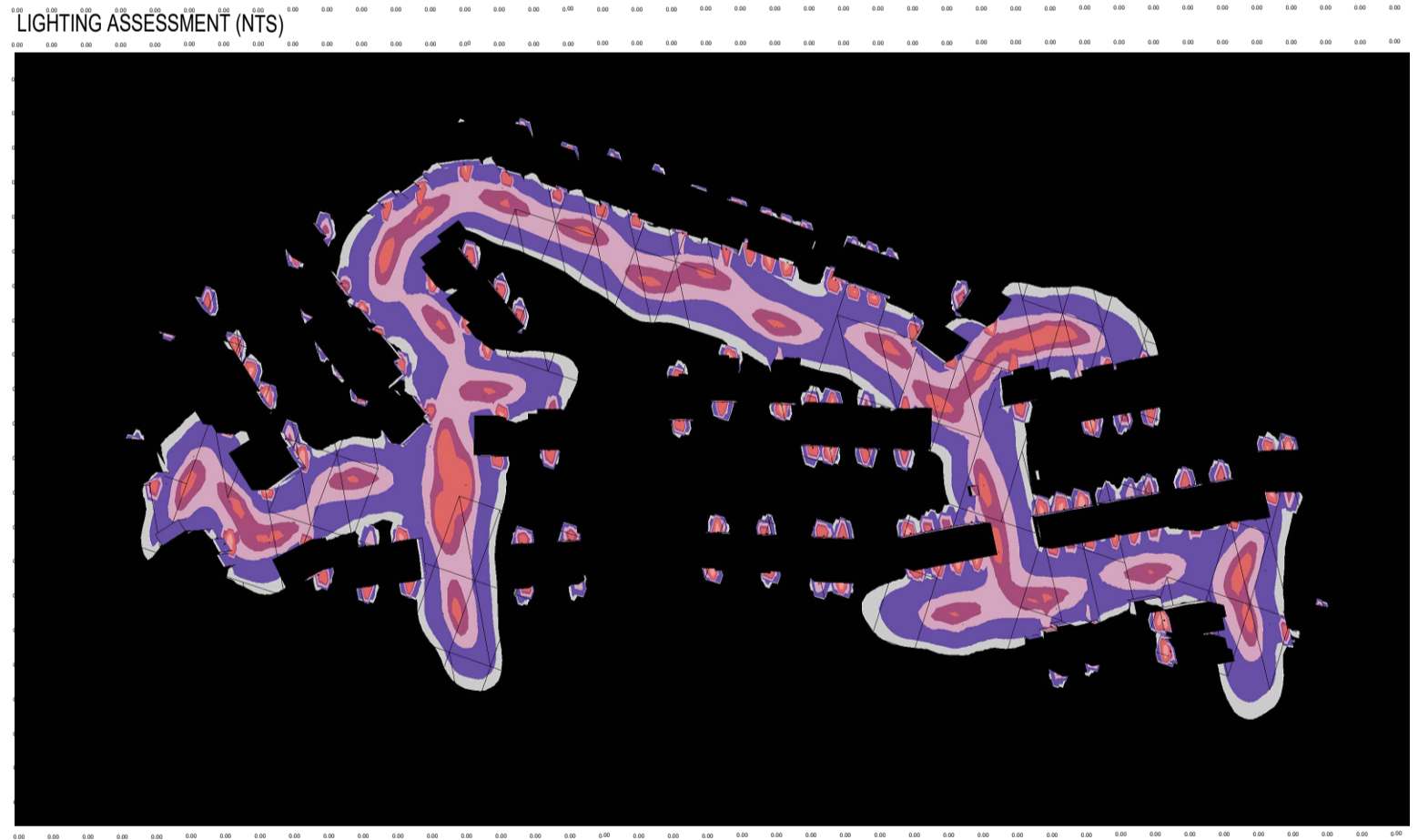
	Illuminance (Lux) - ALL EXTERNAL LIGHTING OPERATIONAL						
	Horizontal (ground)	Peak Vertical					
		0m	2m	4m	6m	8m	10m
E1	0.0	0.1	0.1	0.0	0.0	0.0	0.0
E2	0.7	0.9	0.5	0.1	0.0	0.0	0.0
E3	0.3	0.7	0.4	0.2	0.0	0.0	0.0
E4	0.2	0.5	0.3	0.1	0.0	0.0	0.0
E5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E6	0.0	0.1	0.0	0.0	0.0	0.0	0.0
E7	0.1	0.4	0.2	0.1	0.0	0.0	0.0
E8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E10	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E11	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E12	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E13	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E14	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E15	0.2	0.7	0.4	0.1	0.0	0.0	0.0
E16	0.2	0.6	0.2	0.0	0.0	0.0	0.0
E17	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E18	0.0	0.0	0.0	0.0	0.0	0.0	0.0
E19	0.6	0.8	0.4	0.0	0.0	0.0	0.0

Residential	Vertical Limit for E3 Environmental Zone (Lux)	Luminous Intensity for Limit E3 Environmental Zone (cd) (distance and Ap)	Peak Vertical (Lux)	Luminous Intensity (cd)
R1	10 PRE CURFEW 2 POST CURFEW	84 PRE CURFEW 27 POST CURFEW	0.1	53 PRE CURFEW 53 POST CURFEW
R2	10 PRE CURFEW 2 POST CURFEW	76 PRE CURFEW 25 POST CURFEW	0.1	24 PRE CURFEW 24 POST CURFEW
R3	10 PRE CURFEW 2 POST CURFEW	74 PRE CURFEW 24 POST CURFEW	0.2	158 PRE CURFEW 158 POST CURFEW
R4	10 PRE CURFEW 2 POST CURFEW	57 PRE CURFEW 20 POST CURFEW	0.4	159 PRE CURFEW 159 POST CURFEW
R5	10 PRE CURFEW 2 POST CURFEW	106 PRE CURFEW 35 POST CURFEW	0.1	61 PRE CURFEW 61 POST CURFEW
R6	10 PRE CURFEW 2 POST CURFEW	332 PRE CURFEW 110 POST CURFEW	0.0	7 PRE CURFEW 7 POST CURFEW

Skyslow	Vertical Limit for E3 - UFR/%	UFR/%
SITE	8	7.35

Notes:  Intensity exceeds Limiting Threshold



**GENERAL NOTES**

- THIS DRAWING IS COPYRIGHT AND SHALL NOT BE REPRODUCED WITHOUT PERMISSION
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**NOTES**

DESIGN INTENT SUMMARY AND ASSESSMENT SUMMARY

THE EXTERNAL LIGHTING INTENT IS PRINCIPALLY BASED ON ACHIEVING A MAINTAINED ILLUMINANCE FOR A P4 SUBSIDIARY ROAD IN ACCORDANCE WITH BS5489-1:2020 TABLE A.5 FOR A SPEED LIMIT < 30mph ROAD IN AN E3/E ZONE.

WITH DESIGN ILLUMINANCE VALUES AS FOLLOWS:

- 5 LUX AVERAGE MAINTAINED, 1 LUX MINIMUM MAINTAINED

RELATIVE TO BCT GUIDANCE NOTE 08/18 THE LIGHT CCT IS LIMITED TO 2700/3000K LOW BLUE LIGHT SPECTRAL COMPOSITION

A - CU PHOSCO E950 28 P4 727 C650 17W 2700K LED LANTERN ON 6m COLUMN LOCATION, P7A LENS 650mA OPERATED AS PER ADOPTION REQUIREMENTS

B - GHIDINI LIGHTING MICROTORRE W GH1960.ETPT300EN DOWNLIGHT WALL LANTERN AT 1.8m HIGH - OCCUPANCY SENSED, PRIVATE USE, - DUSK TILL DAWN

**NOTE:**

DESIGN ILLUMINANCE BASED ON A 0.82 MAINTENANCE FACTOR.  
ASSESSMENT ILLUMINANCE BASED ON A 1.0 MAINTENANCE FACTOR.  
ASSESSMENT UNDERTAKEN BASED ON TERRAIN AND WITH THE EXCLUSION OF THE POTENTIAL LIGHT SCREENING BENEFITS OF TREES AND FLORA.  
ASSESSMENT VALUES ILLUSTRATED ARE BASED ON SIMULATION. WHILST EVERY ATTEMPT HAS BEEN MADE WITH RESPECT TO THE ACCURACY OF THESE PREDICTED RESULTS, DUE TO POSSIBLE UNKNOWN VARIANCES IN CALCULATION PARAMETERS, THERE COULD BE NOMINAL DEVIATION BETWEEN CALCULATED AND ACTUAL POST MEASURED VALUES.  
AS PER STANDARD PRACTICE AND UNLESS OTHERWISE INDICATED ALL CALCULATIONS ARE BASED ON THE DIRECT LIGHT COMPONENT.  
WHEREVER POSSIBLE THIS LIGHTING STRATEGY FOLLOWS PUBLISHED GUIDANCE PROVIDED BY THE INSTITUTE OF LIGHTING PROFESSIONALS (ILP) AND BAT CONSERVATION TRUST (BCT).  
- GUIDANCE NOTE 08 / 18 - BATS AND ARTIFICIAL LIGHTING IN THE UK

**ASSESSMENT**

THE IMAGES ADJACENT DEMONSTRATE ALL EXTERNAL LIGHTING IN OPERATION. AS CAN BE SEEN FROM THE ADJACENT ASSESSMENT TABLE:

**ECOLOGY -**

ALL ILLUMINANCE LEVELS FALL BELOW 1.0 LUX ON THE HORIZONTAL AND VERTICAL PLANES AND, SUBJECT TO SPECIALIST ECOLOGY REPORTING, FURTHER MITIGATION IS NOT CONSIDERED NECESSARY

**RESIDENTIAL AND SKYGLOW-**

BEING BASED ON A E3 ZONE - SUBURBAN ENVIRONMENT, ILP GUIDANCE FOR OBTRUSIVE LIGHT 2021 PROVIDES LIMITING VALUES IN TERMS OF LIGHT SPILL TO RESIDENTIAL WINDOWS, LUMINOUS INTENSITY AND SKYGLOW.  
ON ASSESSMENT, RESIDENTIAL LOCATIONS 'R1, R3, R4 AND R5' ARE CONSIDERED TO RECEIVE LUMINOUS INTENSITY VALUES THAT EXCEED LIMITING THRESHOLDS. THIS IS INTENDED TO BE RECTIFIED WITH CONSIDERED POSITIONING AND GLARE CONTROL SHIELDING.  
IN THIS RESPECT, NO FURTHER MITIGATION IS CONSIDERED NECESSARY.

Rev	Date	Description	Dwn	Chk

**Light Pad**

LIGHT PLANNING AND DESIGN LTD  
ASSESSMENT / INTERIOR / EXTERIOR / DAYLIGHT / ECOLOGY

CUSTOMER: YELCON LTD

PROJECT: LAND\_OFF\_WOOD\_WALK\_BARNSELY

DRAWING FILE: PRELIMINARY\_EXTERNAL\_LIGHTING\_ARRANGEMENT\_AND\_ASSESSMENT

DRAWING STATUS: **PLANNING**

DRAWN BY: LG    CHECK BY: LG    DATE: JUNE 2021    SCALE: 1:500 @A1  
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