



| IMAGE | SYMBOL | DESCRIPTION |
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| | | LED LANTERN LUMINAIRE MOUNTED ON 8m COLUMNS AS PER ABACUS LIGHTING - EUODRA AL61001/80W/4K |
| | | LED LANTERN LUMINAIRE MOUNTED ON 8m COLUMNS AS PER ABACUS LIGHTING - EUODRA AL61003/80W/4K |
| | | LED LANTERN LUMINAIRE MOUNTED ON 8m COLUMNS AS PER ABACUS LIGHTING - EUODRA AL61001/60W/4K |
| | | LED LANTERN LUMINAIRE WALL MOUNTED AS PER ABACUS LIGHTING - EUODRA AL61003/80W/4K |
| | | WALL MOUNTED LED LUMINAIRE AS PER ABACUS LIGHTING - ARTE AL2102/S1512/30W |
| | | WALL MOUNTED LED LUMINAIRE AS PER ABACUS LIGHTING - ARTE AL2102/S1512/60W |
| | | WALL MOUNTED LED LUMINAIRE AS PER ABACUS LIGHTING - VETTA AL22003 BW / 4K |
| | | WALL MOUNTED LED LUMINAIRE AS PER ABACUS LIGHTING - VETTA AL22003 BW / 4K / EMERGENCY |
| | | 2No LED LANTERN LUMINAIRE MOUNTED ON 8m MASTS AS PER ABACUS LIGHTING - ARTE AL2102/S1512/30W |

NOTES:

- THIS DRAWING IS PROVIDED AS PART OF ANDERSON GREEN PERFORMANCE DOCUMENTATION AND INDICATES DESIGN INTENT ONLY TO ASSIST IN PRICING. IT DOES NOT CONSTITUTE A DETAILED DESIGN AND IT WILL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THE FINAL DESIGN AND INSTALLATION COMPLIES FULLY WITH THE PROJECT SPECIFICATION.
- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE ELECTRICAL SPECIFICATION.
- MECHANICAL AND ELECTRICAL SERVICES TO BE COORDINATED TO ENSURE ALL SERVICES ARE INSTALLED TO MANUFACTURERS GUIDANCE / RECOMMENDATIONS AND ALL OTHER RELEVANT DOCUMENTATION.
- DRAWING TO BE READ IN COLOUR.
- ALL ELECTRICAL SERVICES SHALL BE DESIGNED AND INSTALLED COMPLIANT WITH THE LATEST VERSION OF BS7671 AND NICEIC RECOMMENDATIONS.
- THE EXTERNAL LIGHTING SHALL BE DESIGNED IN ACCORDANCE WITH CIBSE LIGHTING GUIDE 6, BS 5489-1:2013 AND INSTITUTION OF LIGHTING PROFESSIONALS (IPL) GUIDANCE NOTES TABLE 1 FOR THE REDUCTION OF OBTRUSIVE LIGHT. THE LIGHTING DESIGN WILL ALSO BE DEVELOPED WITH THE GUIDANCE OF THE ARCHITECT AND THE LOCAL PLANNING AUTHORITY.
- THE EXTERNAL LIGHTING SHALL BE WIRED IN XLPE/SWA/PVC ARMoured CABLES, BASED APPROVED WITH THE CE MARK ALLOW FOR THE STEEL WIRE ARMOURING TO BE FULLY BONDED BACK TO THE MAIN EARTH PROVISION OF THE INSTALLATION USING PURPOSE MADE TERMINATIONS, EARTH TAG WITH BRASS NUTS AND BOLTS AND SUPPLEMENTARY BONDING LEADS BETWEEN EARTH TAG AND THE EXTERNAL LIGHTING DISTRIBUTION BOARD EARTH BAR. CW GLANDS FOR ALL EXTERNAL CONNECTIONS.
- ALL EXTERNAL LIGHTING AND SIGNAGE SUPPLIES SHALL BE CONTROLLED VIA A DAYLIGHT SAVING TIMELOCK AND PHOTOCELL.
- PROTECTION / BARRIERS TO LIGHTING COLUMNS TO BE PROVIDED AND INSTALLED BY OTHERS.
- EXTERNAL LIGHTING TO BE SUPPLIED FROM DEDICATED DISTRIBUTION BOARDS AND CONTROLLED VIA PHOTOCELLS, TIME CLOCK AND CONTRACTORS.
- SECURITY SPECIALIST TO REVIEW AND APPROVE THE EXTERNAL LIGHTING LAYOUT.
- LIGHT SPILL SHIELDS SHALL BE PROVIDED TO ALL PERIMETER LIGHTING.

HORIZONTAL ILLUMINANCE LEVELS

CAR PARK
 AVERAGE HORIZONTAL ILLUMINANCE (E.A.V): 21 LX
 MINIMUM HORIZONTAL ILLUMINANCE (E.M.N): 7 LX
 UNIFORMITY RATIO (E.M.N / E.A.V): 0.33

BUILDING PERIMETER
 AVERAGE HORIZONTAL ILLUMINANCE (E.A.V): 12 LX
 MINIMUM HORIZONTAL ILLUMINANCE (E.M.N): 3 LX
 UNIFORMITY RATIO (E.M.N / E.A.V): 0.25

MAIN DOCK DOORS
 AVERAGE HORIZONTAL ILLUMINANCE (E.A.V): 51 LX
 MINIMUM HORIZONTAL ILLUMINANCE (E.M.N): 35 LX
 UNIFORMITY RATIO (E.M.N / E.A.V): 0.68

LEFT AND RIGHT DOCK DOORS
 AVERAGE HORIZONTAL ILLUMINANCE (E.A.V): 42 LX
 MINIMUM HORIZONTAL ILLUMINANCE (E.M.N): 4.7 LX
 UNIFORMITY RATIO (E.M.N / E.A.V): 0.75

SERVICE YARD
 AVERAGE HORIZONTAL ILLUMINANCE (E.A.V): 24 LX
 MINIMUM HORIZONTAL ILLUMINANCE (E.M.N): 6 LX
 UNIFORMITY RATIO (E.M.N / E.A.V): 0.25

ENTRY ROADWAY
 AVERAGE HORIZONTAL ILLUMINANCE (E.A.V): 24 LX
 MINIMUM HORIZONTAL ILLUMINANCE (E.M.N): 19 LX
 UNIFORMITY RATIO (E.M.N / E.A.V): 0.54

GRID INTERVALS 3M, 2M & 1M
 GRID VALUES IN LUX
 CONTOUR VALUES 5, 2 & 1 LUX

MAINTENANCE FACTOR: 0.90
 LOCATION: MEDIUM POLLUTION
 TYPICAL LIFE: 50,000HRS

NOTES:

CALCULATIONS BASED ON A FLAT AND OPEN AREA WHERE SHADOWING FROM PLANT AND EQUIPMENT INCLUDING VEHICLES HAS NOT BEEN TAKEN INTO CONSIDERATION.

CUSTOMER TO CONFIRM SUITABILITY OF ALL MOUNTING HEIGHTS AND LOCATIONS PRIOR TO PLACING AN ORDER.

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| P02 | ISSUED FOR PLANNING | 08.05.19 |
| P01 | ISSUED FOR TENDER | 30.04.19 |



RULA DEVELOPMENTS

Stage: TENDER

Project: MAPLE ROAD TANKERSLEY SOUTH YORKSHIRE

External Lighting LUX LEVELS

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| DC | CB | MS | 04.03.19 | AO | 1:250 |
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THIS DRAWING IS BASED ON 6157-092 Site Layout Plan

