

Unit 14 Randles Road, Knowsley - Planning Ref 23/01453/FUL

Revised Lighting Design – February 2024

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01 Current Lighting Scheme

QVIS LED light fittings with a lux level of 80, adhering to indoor car park standards, as outlined in the regulations document below.

Table 2.38 Places of public assembly – Public car parks (indoor)

Ref No.	Type of area, task or activity	$\bar{E}_m$ / lx	UGR_L	U_o	R_a	Specific requirements
2.38.1	In/out ramps (during the day)	300	25	0.40	40	1. Illuminances at floor level 2. Safety colours shall be recognisable
2.38.2	In/out ramps (at night)	75	25	0.40	40	1. Illuminances at floor level 2. Safety colours shall be recognisable
2.38.3	Traffic lanes	75	25	0.40	40	1. Illuminances at floor level 2. Safety colours shall be recognisable
2.38.4	Parking areas	75	–	0.40	40	1. Illuminances at floor level 2. Safety colours shall be recognisable 3. A high vertical illuminance increases recognition of people's faces and therefore the feeling of safety
2.38.5	Ticket office	300	19	0.60	80	1. Reflections in the windows shall be avoided 2. Glare from outside shall be prevented

See Table 3.13 in section 3.2.3 for information on the requirements for outdoor car parks.

Performance:

Light Model- QFLOOD-200CW/AS-9 197.7W 24000 lm-9 nos.

Average illuminance E_m 80 lx

Minimum illuminance E_{min} 24 lx

Maximum illuminance E_{max} 197 lx

02 Proposed Revised Lighting Scheme

Replace existing light fittings with MPE light fittings, resulting in a reduced lux level of 25, in alignment with the specified regulations. as outlined in the regulations document below.

Table 3.13 Parking areas

Ref No.	Type of area, task or activity	$\bar{E}_m$ /lx	U_o	GR_L	R_s	Remarks
3.13.1	<i>Light traffic, e.g. parking areas of shops, terraced and apartment houses; cycle parks</i>	5	0.25	55	20	
3.13.2	<i>Medium traffic, e.g. parking areas of department stores, office buildings, plants, sports and multipurpose building complexes</i>	10	0.25	50	20	
3.13.3	<i>Heavy traffic, e.g. parking areas of schools, churches, major shopping centres, major sports and multipurpose building complexes</i>	20	0.25	50	20	

Note: All the illuminance values listed in the table above should be regarded as absolute minima to be used in areas where there are no extra factors such as fear of crime that might require the lighting level to be increased.

Performance:

Light Model - MPE FLD3-50T LED Flood Light FLD3 51.4W 6000 lm-9 nos

Average illuminance E_m 25 lx

Minimum illuminance E_{min} 10.2 lx

Maximum illuminance E_{max} 53.4 lx

MPE - LED Flood Light FLD3 50W 6500K



A full lighting design report is available.