



Project: Elizabeth St, Cheetham Hill, Manchester

In conjunction with the external lighting design, I can confirm the following:

- 1) The roadways achieve a P1 lighting class in line with BSEN5489-1.
- 2) Car parks achieve 20lux average and 0.4 uniformity in line with BSEN12464-2.
- 3) Loading bays achieve 50lux average and a uniformity of 0.4 in line with BSEN12464-2.
- 4) Service yard achieves 30lux average and 0.4 uniformity which exceeds the requirement in BSEN12464-2.

Therefore, the design is compliant with the following:

All the external lighting specified are in accordance with BS 5489-1:2013 Code for the practice for the design of road lighting. Lighting of roads and public amenity areas and BS EN 12464-2:2014 Light and lighting - Lighting of work places - Part 2: Outdoor work places

The external lighting strategy has been designed in compliance with Table 2 (and its accompanying notes) of the Institute of Lighting Professionals (ILP) Guidance notes for reduction of obtrusive light, 2011.

The roadways achieve a P1 lighting class inline with BSEN5489-1.

Table 3 — P lighting classes

Class	Horizontal illuminance		Additional requirement if facial recognition is necessary	
	$\bar{E}^a$ [minimum maintained] lx	E_{min} [maintained] lx	$E_{v,min}$ [maintained] lx	$E_{sc,min}$ [maintained] lx
P1	15,0	3,00	5,0	5,0
P2	10,0	2,00	3,0	2,0
P3	7,50	1,50	2,5	1,5
P4	5,00	1,00	1,5	1,0
P5	3,00	0,60	1,0	0,6
P6	2,00	0,40	0,6	0,2
P7	performance not determined	performance not determined		
^a To provide for uniformity, the actual value of the maintained average illuminance shall not exceed 1,5 times the minimum $\bar{E}$ value indicated for the class.				

Car parks achieve 20lux average and 0.4 uniformity exceeding BSEN12464-2.

5.9.3	Heavy traffic, e.g. parking areas of major shopping centres, major sports and multipurpose building complexes	20	0,25	50	20	
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Loading bays achieve 50lux average and a uniformity of 0.4 inline with BSEN12464-2.

5.7.2	Continuous handling of large units and raw materials, loading and unloading of freight, lifting and descending location for cranes, open loading platforms	50	0,40	50	20	
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Service yard achieves 30lux average and 0.4 uniformity which exceeds the requirement in BSEN12464-2.

5.1.3	Regular vehicle traffic (max. 40 km/h)	20	0,40	45	20	At shipyards and in docks, R_{GL} may be 50
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Regards,

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Director

'Contractors to the Leisure Industry'



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