



The Northern Tennis Club Floodlight Installation Verification Report rev 2

1 Background

This report has been produced by Mark Ruthers of Exled Ltd in response Planning Application reference 135048/FO/2022 dates 27th September 22 & application reference 134891/FO/2022 dated 23rd September 22 and specifically planning condition 5 and 4 from each application which states:

Prior to the use of the associated lighting commencing, a verification report will be required to validate that the work undertaken throughout the development conforms to the recommendations and requirements in the approved light consultant's report received by the City Council as Local Planning Authority on 12 December 2022 and shall be submitted to and approved in writing by the City Council as local planning authority. The report shall also undertake post completion testing to confirm that acceptable criteria have been met. Any instances of non-conformity with the recommendations in the report shall be detailed along with any measures required to ensure compliance with the criteria together with a timetable for their carrying out. Any such works shall be carried out in accordance with the approved post-completion report.

This document is to verify the floodlighting installation for the 3 new outdoor tennis courts and for the 2 new covered padel tennis courts at the Northern Tennis facility has been installed and is operating in accordance with the lighting design within the approved planning permissions.

2 Design documents and design intent

The lighting design documents of these permissions are:

The Northern LTC 3 court new layout (6 pages)

The Northern LTC Padel lighting (7 pages)

The Northern LTC light calculation drawing no 006

The scope of the design was to allow suitable lighting for the task of playing tennis and padel tennis during dark hours.

3 Installation inspection

Following on from the completion of the lighting installation I conducted an installation inspection on Monday 6th November 23 of the completed installation.

The key findings of my site inspection are set out below:

- 1 From my visual inspection I can confirm the same fittings have been installed as per the design, the fittings are mounted and aimed as required

- 2 All fittings are installed perpendicular to the ground with no upwards tilt
- 3 All fittings are 4000K colour temperature
- 4 All fittings have controlled individual reflectors within the fitting body
- 5 Lighting circuit is controlled via an electronic timeclock fitted at the distribution board

The above on-site conditions are in accordance with the design noted in section 2 of this report.

A timeclock facility and additional programme back-up is in place to ensure that the lights are not in use any day beyond 10pm.

4 Post completion testing

Lighting measurements have also been taken. At the time of testing we could not gain access to the adjacent properties so completed the testing at boundary locations.

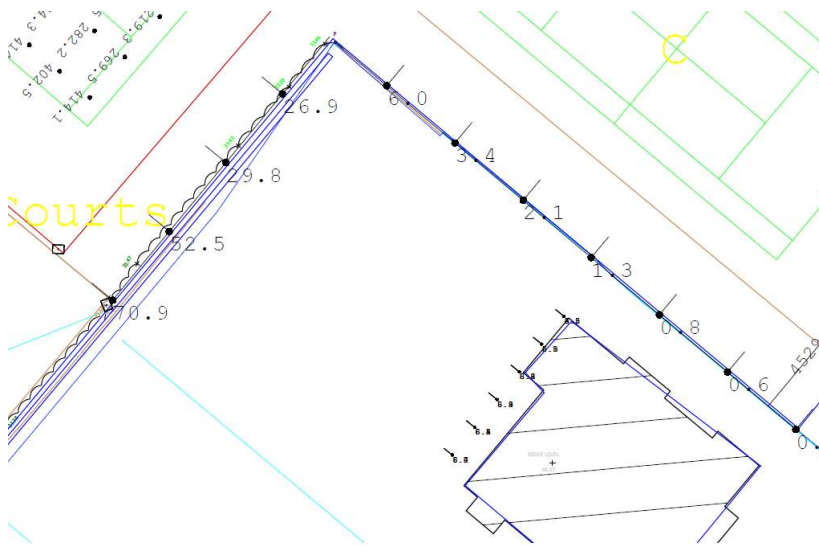
Nine points were checked, the testing points are indicated below:



All taken at 2 metres high

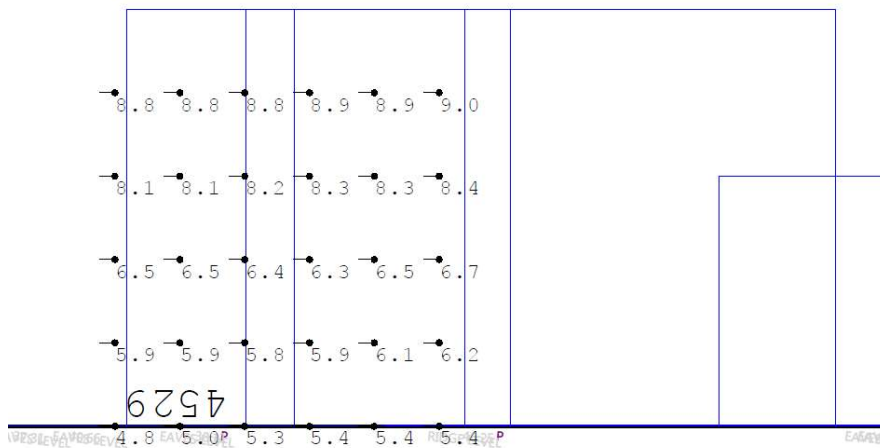
	1. 7 lux		6. 0 lux
	2. 77 lux		7. 0 lux
	3. 29 lux		8. 0 lux
	4. 61 lux		9. 9 lux
	5. 0 lux		

Expected design results at measured points



The expected results in the lighting design program AGI32 re indicated above. When these are compared with the actual readings it is evident that the actual readings are lower than the design intent.

The baseline design - AGI32 calculated the vertical closest housing face at <10lux as per the extract below:



Based upon the fact that the actual as installed readings taken are delivering a lower lighting level than the design level it is safe to assume that the lighting levels at the windows will also be less than the design levels noted above and therefore below <9 lux. This is also supported by the as installed readings taken at locations 5, 6, 7 and 8 given the levels are <9 lux.

5 Measures required to enable compliance

As the installation is operating within the design criteria no further measures are required.

Mark Ruthers

Lighting Designer – Exled Ltd

January 24