

15 - Hipwood Street, Norman Park – Comment on Trial LED Luminaires

Luminaire

This luminaire could not be identified on the trial list provided by BCC-Energex. However, the luminaire appears to be identical to that deployed in Brisbane Street, St Lucia, and is closely related to the Cooper – Streetworks XVN.

Colour

This is an intensely bright white light of at least 4000K that is unnecessary in this residential street.

Brightness

As explained in the evaluation of this luminaire in Brisbane Street, St Lucia, this luminaire is intensely bright and exhibits significant brightness variability across the task area – see the Brisbane Street evaluation comments.

Glare

This luminaire has a very intense glare zone and the unshielded LED array make this a very uncomfortable light source for pedestrians. Please see the detailed Brisbane Street, St Lucia, evaluation comments for this luminaire.

Installation



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All the trial luminaires have been installed with an up-tilt angle of at least a few degrees. This may play a role in the forward light trespass problem with this luminaire. It appears this luminaire has no internal capacity for installation angle adjustment.

The steep slope across Hipwood Street, falling from south to north, leaves these trial luminaires installed at a very high elevation above homes along the northern side of the street. Even though the street is relatively wide, due to the split roadway design, this luminaire still

projects forward trespass light onto the north-side properties.

Light Distribution

The sharp cutoff of the primary illumination beam to the rear of this luminaire creates deep shadow areas very close to the south-side footpath and property boundary. The intense glare from these luminaires exacerbates this problem for pedestrians and may result in a personal safety issue due to reduce visual performance for pedestrians.

The light distribution and control problems with this luminaire are covered in detail in the evaluation for Brisbane Street, St Lucia, please see those comments.



The sharp cut-off of the primary beam below the luminaire creates areas of deep shadow for pedestrians and highly variable footpath illumination that progress from intensely bright to tolerably bright again and again along the street.



This luminaire projects light trespass and glare far forward and into properties across the street and far from the luminaire.

Overall Assessment as a LED Luminaire for Brisbane-wide Roll-out

For all the reasons of high colour temperature, excessive brightness, uneven illuminations, inability to adjust up-tilt angle and excessive forward light trespass this luminaire is unsuitable for Brisbane-wide roll-out in residential streets or high vehicle traffic streets.