

## 4 - Third Avenue, Sandgate – Comment on Trial LED Luminaires

### Luminaire

It is assumed this luminaire is a - Orange Tek TerraLED Mini, and the same luminaire on trial in the eastern end of Galleon Street, Jamboree Heights.

### Colour

This is a very harsh white light and appears to be in excess of 4000K. Such harsh white light is unnecessary in a residential street such as this.

### Brightness

For a low volume traffic and pedestrian residential street the level of illuminations appears to be significantly greater than this category of street probably requires.

### Glare

As experienced with this luminaire on Galleon Road, Jamboree Heights, this luminaire does not incorporate any shielding below the 90° level and is very glary for pedestrians.

This trial luminaire is an interesting contrast with carparking luminaires on private property on this street that do incorporate shielding. Why is unshielded high intensity LED lighting being evaluated by BCC-Energex for Brisbane-wide roll-out in residential streets?

### Installation



Luminaire with up-tilt estimated at greater than 10°.



Shielded carpark luminaire on private property on Third Avenue, Sandgate.

Even though this luminaire appears to incorporate an up-tilt adjustment axis none of the trial luminaires appear to be installed horizontal and some are estimated to have an up-tilt angle in excess of 10°. It is interesting to note the contrast between a luminaire deployed in a private property carpark on Third Avenue and the trial LED luminaires. The carpark luminaire incorporates internal shielding of the light source and the trial luminaire does not.

### Light Distribution

The high and variable up-tilt angle of these luminaires must make it very difficult to control the distribution of light and minimization of light trespass.

This luminaire has very poor control of rear and forward trespass light.



Poor control of rear trespass light onto private property.



Forward light trespass and secondary glare zone trespass on to private property.



Excessive rear light trespass.

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

This luminaire is not considered to be appropriate for residential street installation due to: blue-rich high colour temperature light; excessive glare; lack of LED array shielding; excessive rear and forward light trespass; and possible inability to install with the LED array horizontal.