



CASE  
040



## The Reduced Spill (RS) technology in action

People living in close proximity of sport venues, while lighting is switched on almost every evening, is a common situation and recognised by many all around the globe.

This is also the case in a village called Wildervank in the North of the Netherlands. A club with a standard size soccer field with 8 luminaires on 4 masts. While the field is 80 mtrs away from the house, in the above picture the luminaires on the opposite side facing the camera, are at a distance of approximately 150 meters. That is a fair distance you might think but the picture on the left shows how people experience it when light enters their living space.

### Light spill regulations & urbanisation

Whether or not light spill regulations are violated, depends on the location of your house. In the below chart you can see that in the environmental zone E4 (city) light levels can be considered acceptable, while the same light level in the countryside (E2) can be considered as obstrusive, the effect in peoples living rooms is exactly the same.

<i>Limitation on properties, brightness and sky glow - Maximum obtrusive light (EN 12193)</i>				
Environmental zones		Light on properties	Luminaire intensity	Upward Light
		Ev (lux)	I (cd)	ULR (%)
E1	Nature reserve (intrinsically dark areas)	2	2500	0
E2	Rural area (low district brightness areas)	5	7500	5
E3	Urban area (medium district brightness areas)	10	10.000	15
E4	City center/Industrial area (high district brightness areas)	25	25.000	25

\* These light spill regulations will be upgraded in 2020

This makes light spill not a simple topic. And not only that, the worldwide urbanisation leads to more housing in the close proximity of outdoor sports accommodations. So this topic will become more important and regulations will be more stringent.

### AAA-LUX Reduced Spill Technology makes club and neighbours happy

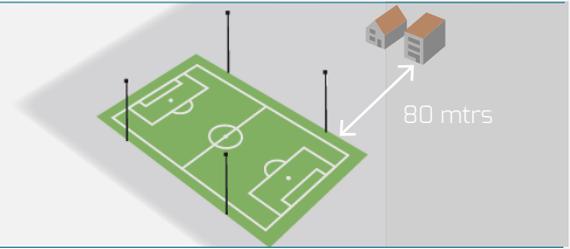
AAA-LUX' RS technology keeps the light within the targeted zone, while maintaining an optimum uniformity on the field. At the same time it limits spill light to the direct surrounding area to an absolute minimum. The effects are clearly visible as you can see in the picture on the right side.

In this particular project 8 x WS200 RS were used, equipped with light shields. Wildervank is now well within E1, where E2 is the norm for this location. But most important: both the sports club and the neighbours are

## Installation details

### Project

VV Wildervank, Veendam (NL)  
1 x main field  
4 light towers



### Led Luminaires used



**8 x WS 200 RS**

Illumination level:  
Training 120 lux, 0.5

### InControl



#### InControl system



With an easy-to-use graphical interface and control at the touch of a button, the InControl system was an easy choice for Soccer Club Wildervank. Not only could they choose the installation location, but with the ability to integrate with current or future electrical systems, the InControl system is able to be integrated with future growth.

More information: [www.aaa-lux-lighting.com/products/incontrol/](http://www.aaa-lux-lighting.com/products/incontrol/)