



Figure 203
3D false-colour rendering of a typical one lane roundabout street lighting layout, including approximate lux (lx) levels shown by different colours.

LDA Lighting Calculation 05 - Typical Road Lighting in Lux									
Road/Area Type	Calculated Area	Page	Luminaire	Luminaire option	Power [W]	Pole height [m]	Distance [m]	DMA Requirement	Calculated Values
According to AD USDM									E_{av} [lux] E_{min} [lux] E_{min}/E_{av}
Typical One-Lane Roundabout	Road going into the Roundabout		Typical Street LED Luminaire	not tilted, single sided	102	10	50	Sector Internal Roads (Streets) $I_{av} = 0,6 \text{ cd/m}^2$ $I_{min}/I_{av} = 0,4$ $0,6\text{cd/m}^2$ similar to 9 lux	16 6,33 0,40
Typical One-Lane Roundabout	Outgoing road from the Roundabout		Typical Street LED Luminaire	not tilted, single sided	102	10	50	Sector Internal Roads (Streets) $I_{av} = 0,6 \text{ cd/m}^2$ $I_{min}/I_{av} = 0,4$ $0,6\text{cd/m}^2$ similar to 9 lux	14 6,06 0,43
Typical One-Lane Roundabout	Pedestrian Crossing 1		Typical Street LED Luminaire	not tilted, single sided				Conflict Areas $I_{av} = 2,0 \text{ cd/m}^2$ $I_{min}/I_{av} = 0,4$ 2cd/m^2 similar to 30 lux	38 33 0,87
Typical One-Lane Roundabout	Vertical Calculations Points on 1m on Pedestrian Crossing 1		Typical Street LED Luminaire	not tilted, single sided				No requirement so far.	$E_{vert_{av}}$ [lux] $E_{vert_{min}}$ [lux] 0,66
Typical One-Lane Roundabout	Pedestrian Crossing 2		Typical Street LED Luminaire	not tilted, single sided				Conflict Areas $I_{av} = 2,0 \text{ cd/m}^2$ $I_{min}/I_{av} = 0,4$ 2cd/m^2 similar to 30 lux	40 34 0,85
Typical One-Lane Roundabout	Roundabout Area		Typical Street LED Luminaire	not tilted, single sided				Conflict Areas $I_{av} = 2,0 \text{ cd/m}^2$ $I_{min}/I_{av} = 0,4$ 2cd/m^2 similar to 30 lux	41 24 0,59

Table 35
Table of results for a typical one lane roundabout street lighting layout, showing conformity with DMA Lighting Specifications, results provided by DIALux in lx.