

Proposed Karting Facility

Cahir Abbey Upper,
Cahir,
Co Tipperary

R1

18-208

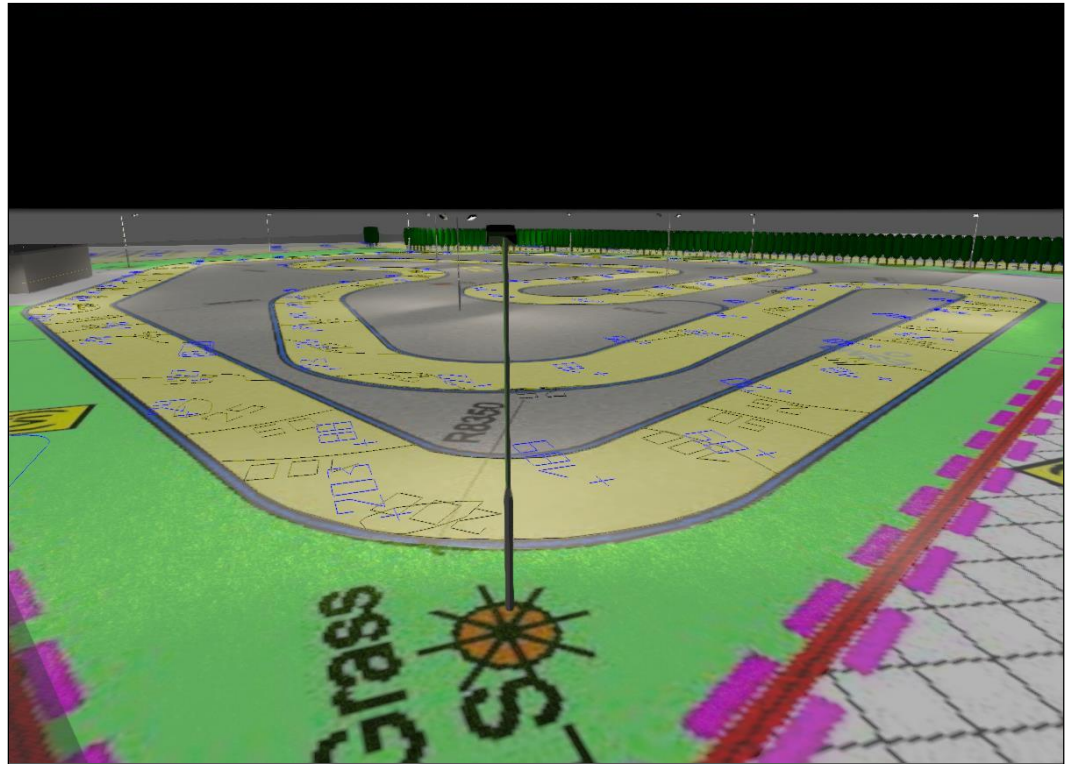
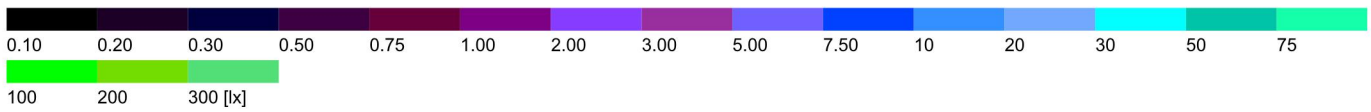
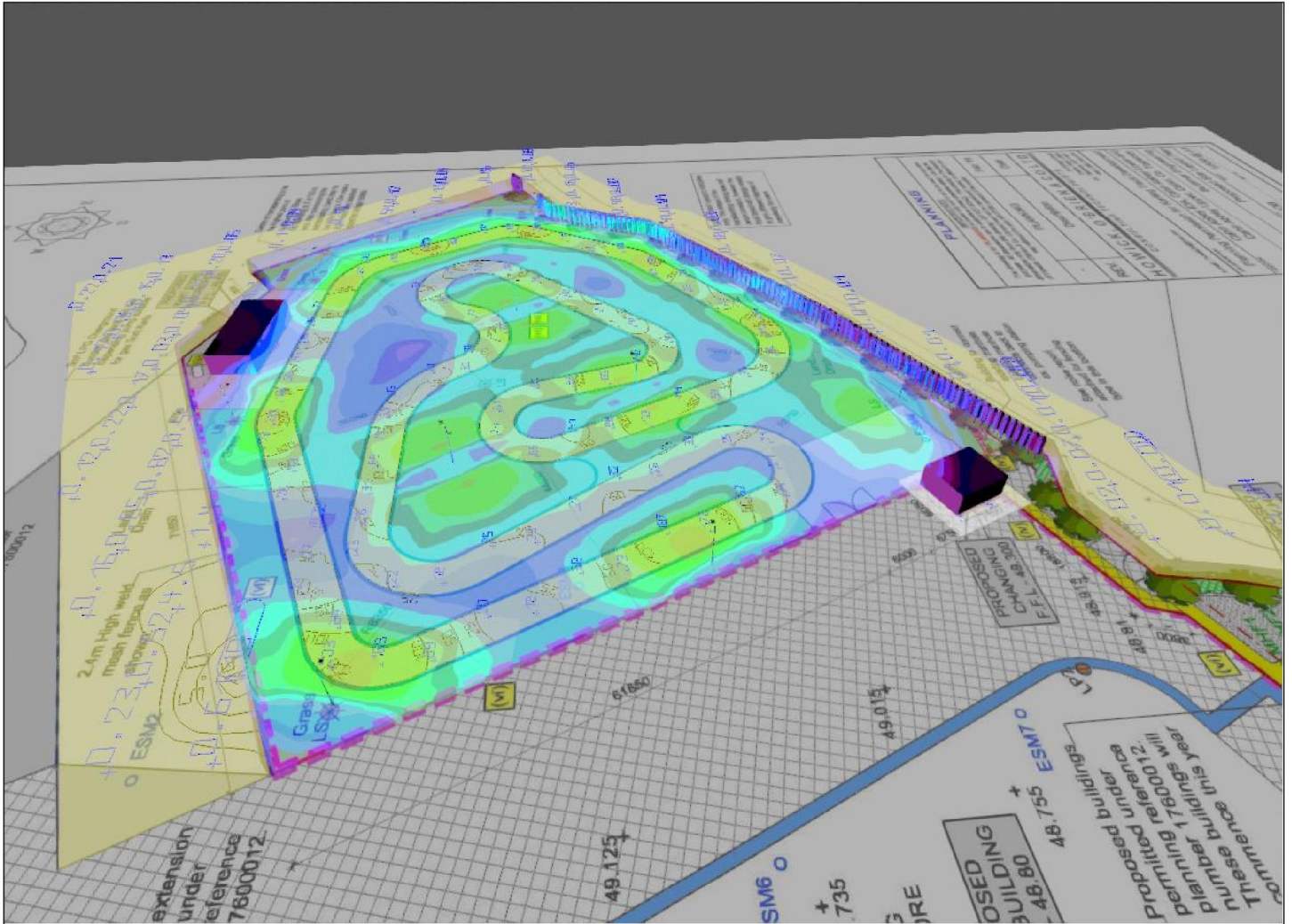


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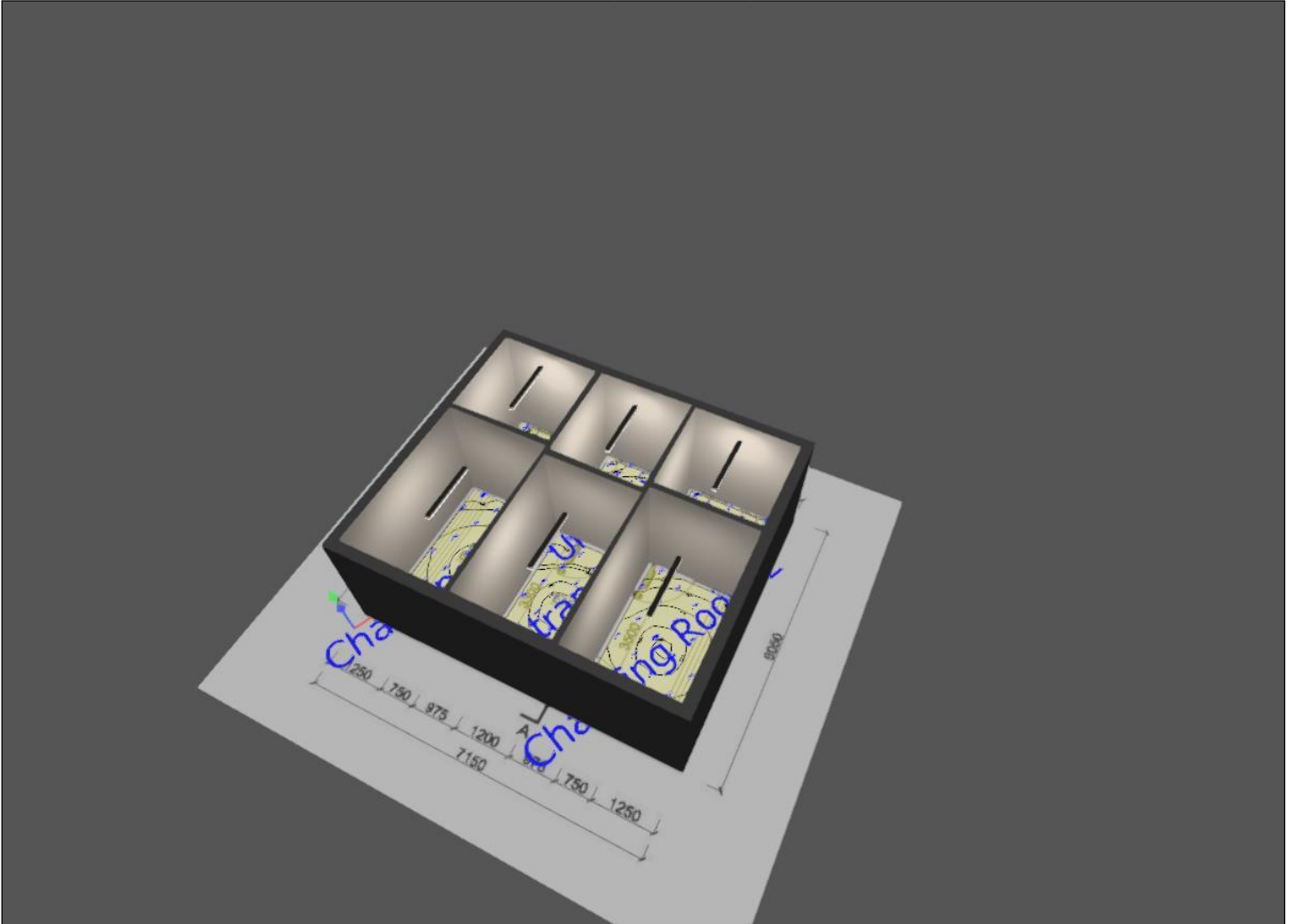
Proposed Karting Facility

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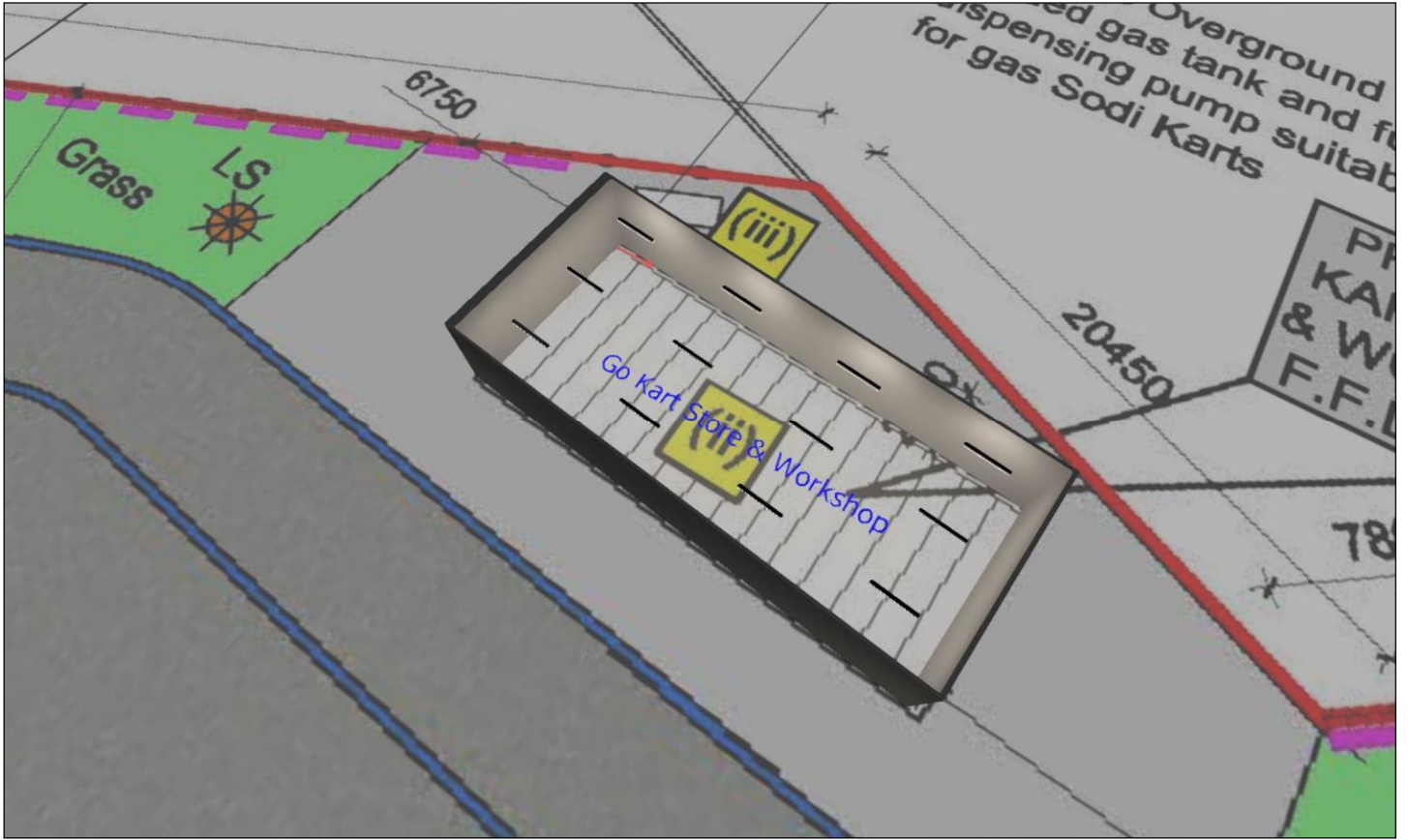
Track Render False Colour, Illuminance values in [lx]



Changing Room Render



Kart Store Render



Car Park Area render



Track Surface / Perpendicular illuminance



x

Maintenance factor: 0.80

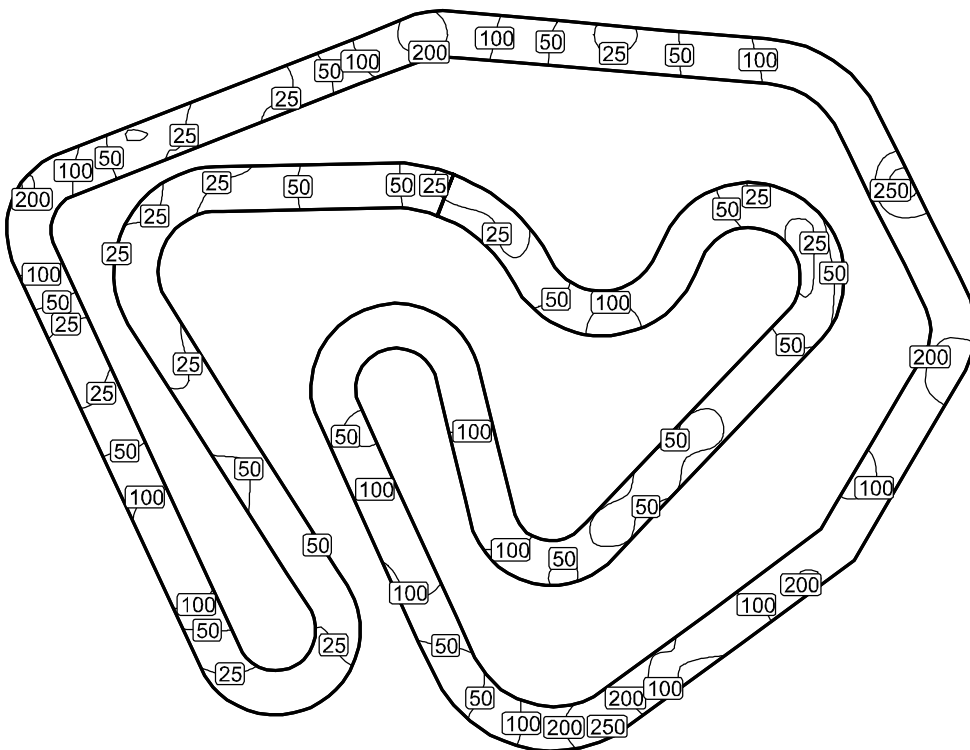
Track Surface: Perpendicular illuminance (Grid)

Light scene: Light scene 1

Average: 81.1 lx, Min: 8.20 lx, Max: 272 lx, Min/average: 0.10, Min/max: 0.030

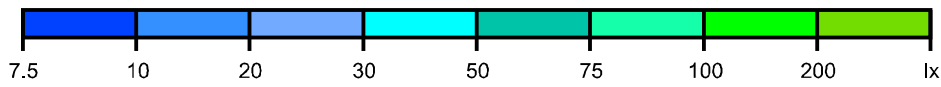
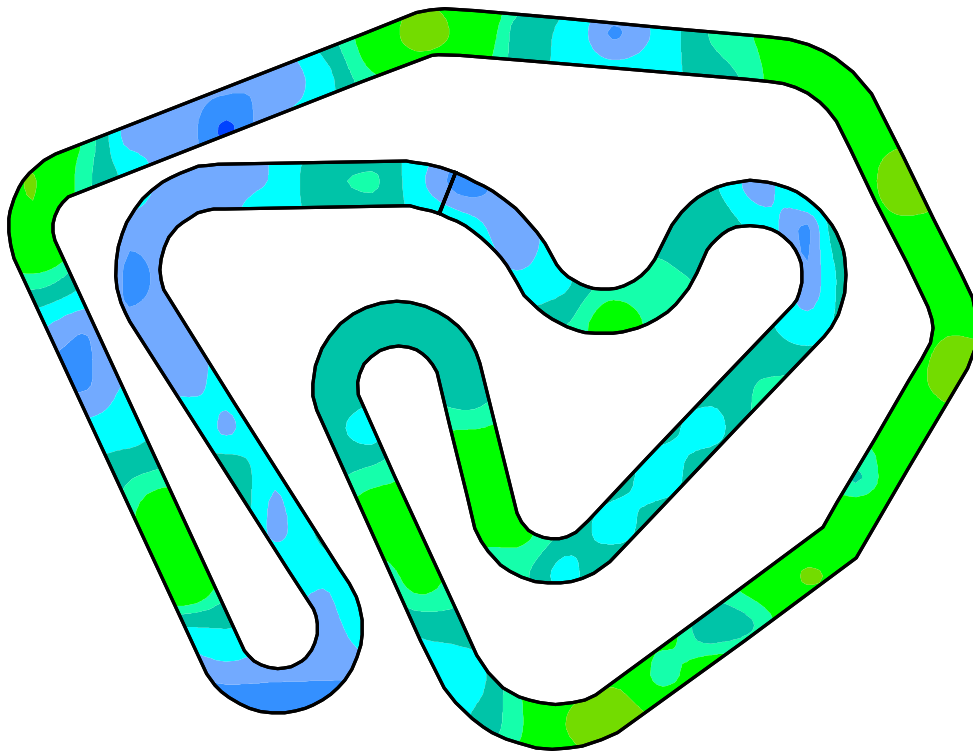
Height: 0.000 m

Isolines [lx]



Scale: 1 : 750

False colours [lx]



Scale: 1 : 750

Light Spill Area / Perpendicular illuminance



x

Maintenance factor: 0.80

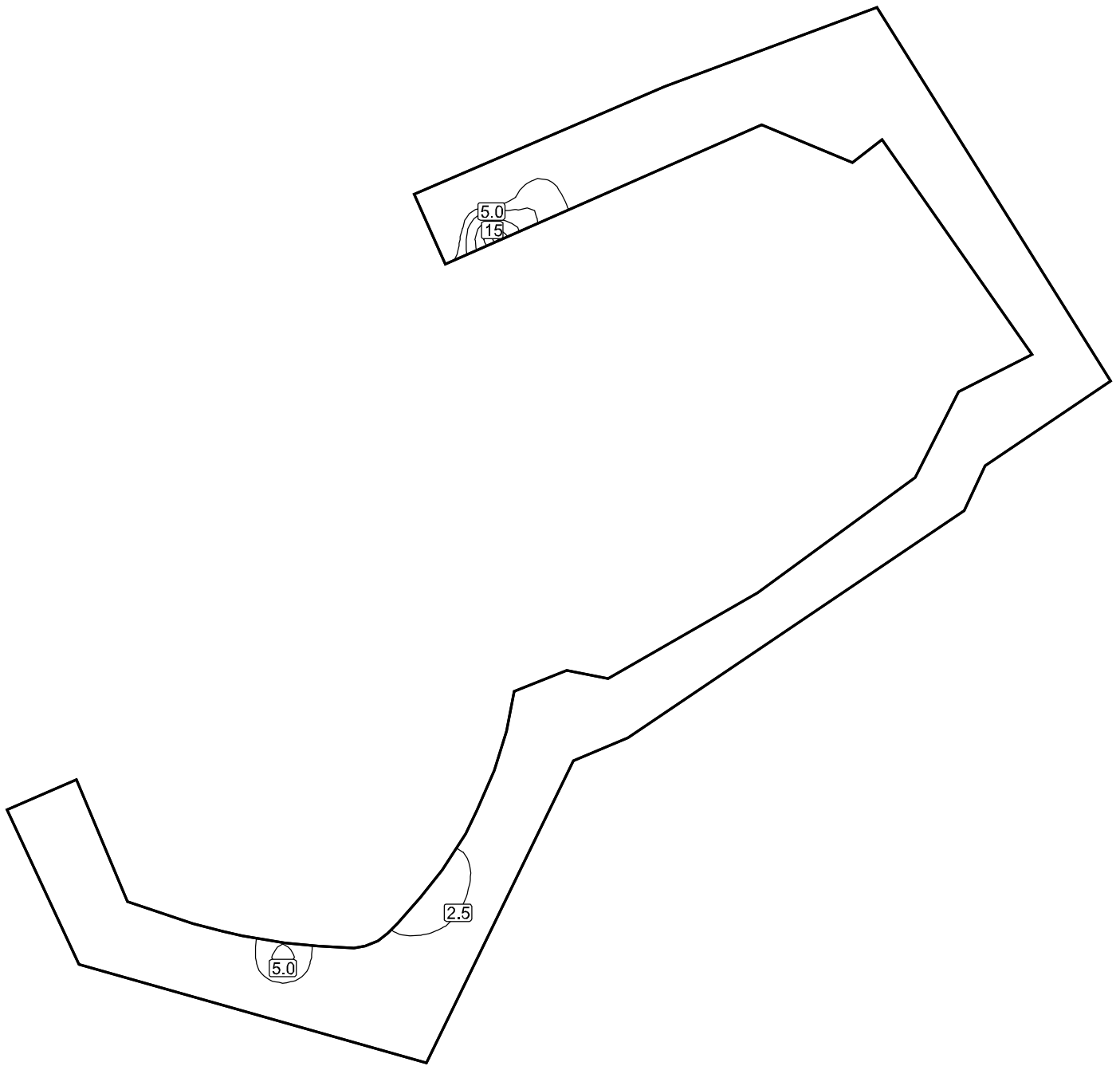
Light Spill Area: Perpendicular illuminance (Grid)

Light scene: Light scene 1

Average: 0.67 lx, Min: 0.001 lx, Max: 18.1 lx, Min/average: 0.001, Min/max: 0.000

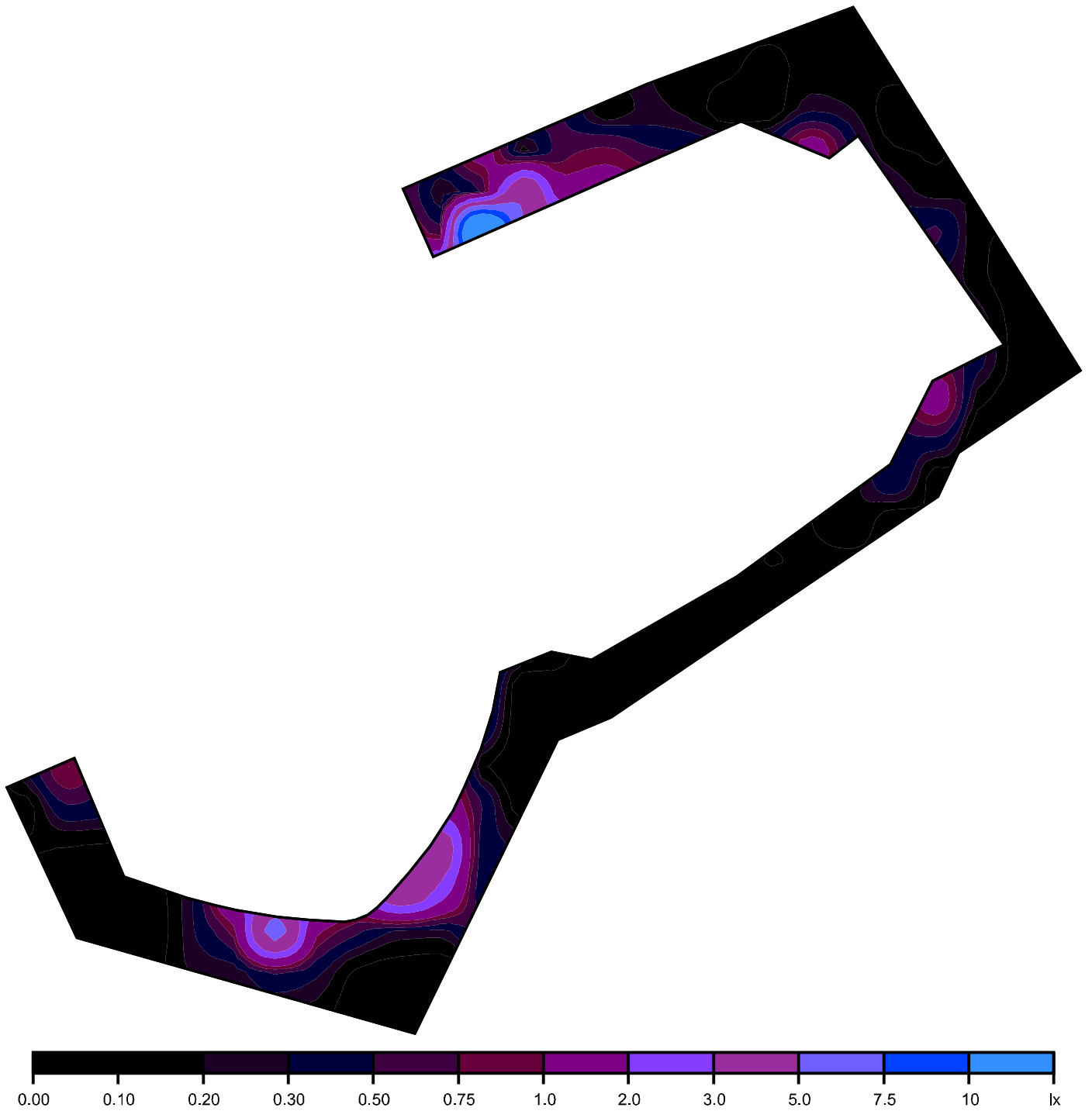
Height: 0.000 m

Isolines [lx]



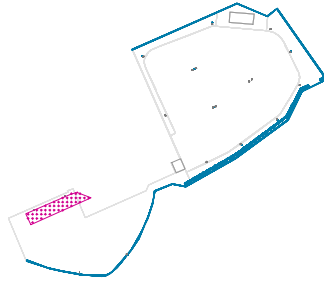
Scale: 1 : 1250

False colours [lx]



Scale: 1 : 1250

New Car Park & Footpath / Perpendicular illuminance



x

Maintenance factor: 0.80

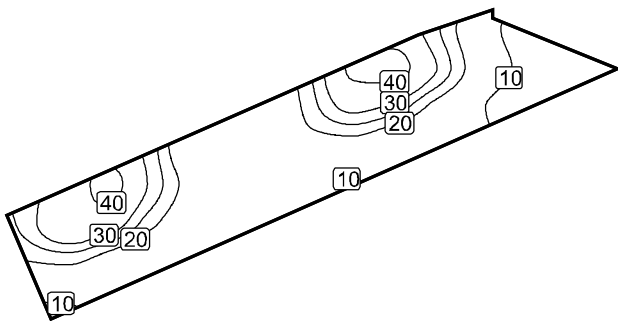
New Car Park & Footpath : Perpendicular illuminance (Grid)

Light scene: Light scene 1

Average: 18.8 lx, Min: 3.03 lx, Max: 43.2 lx, Min/average: 0.16, Min/max: 0.070

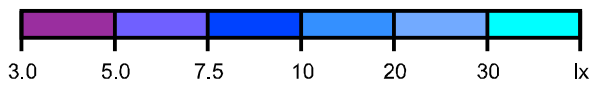
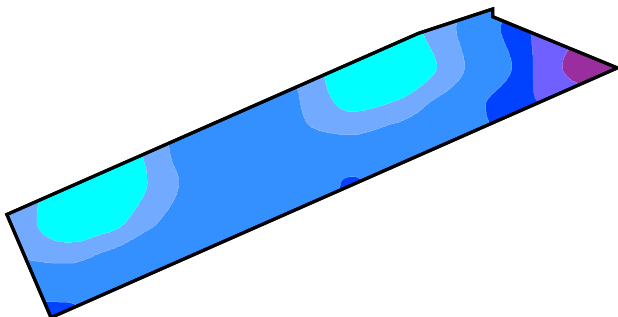
Height: 0.000 m

Isolines [lx]



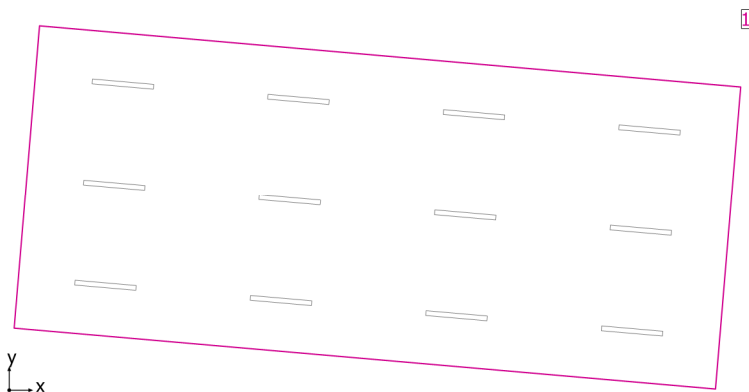
Scale: 1 : 500

False colours [lx]



Scale: 1 : 500

Go Kart Store & Workshop



Clearance height: 3.000 m, Reflection factors: Ceiling 70.0%, Walls 50.0%, Floor 20.0%, Maintenance factor: 0.80

Workplane

Surface	Result	Average (Target)	Min	Max	Min/average	Min/max
1 Workplane (Go Kart Store & Workshop)	Perpendicular illuminance (adaptive) [lx] Height: 0.800 m, Wall zone: 0.000 m	353 (≥ 500)	183	457	0.52	0.40

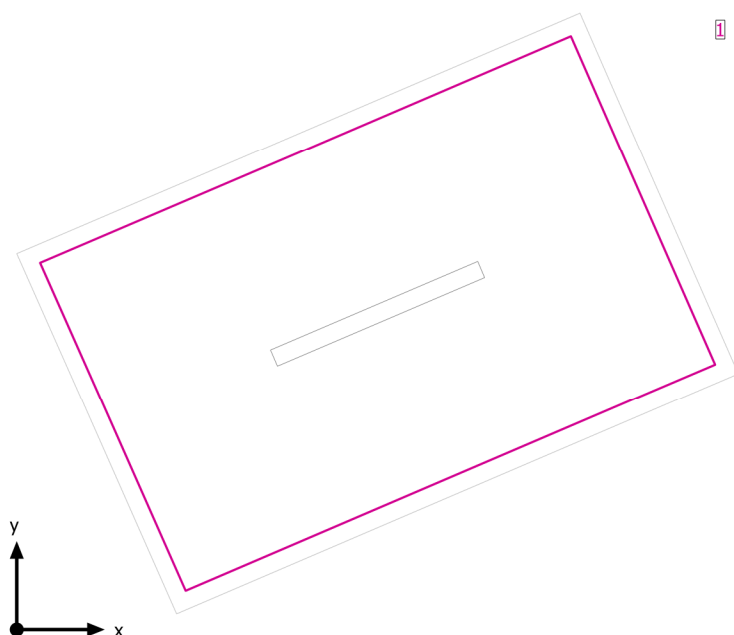
#	Luminaire	Φ(Luminaire) [lm]	Power [W]	Luminous efficacy [lm/W]
12	Garrabridge - Ib = 700mA PC wanne 20% DUNA PRO 1X1.2 ET PC	4369	37.0	118.1
Total via all luminaires		52428	444.0	118.1

Lighting power density: $4.79 \text{ W/m}^2 = 1.36 \text{ W/m}^2/100 \text{ lx}$ (Floor area of room 92.63 m^2)

Consumption: 1200 kWh/a of maximum 3250 kWh/a

The energy consumption quantities do not take into account light scenes and their dimming levels.

Changing Room 1



Clearance height: 2.800 m, Reflection factors: Ceiling 70.0%, Walls 50.0%, Floor 20.0%, Maintenance factor: 0.80

Workplane

Surface	Result	Average (Target)	Min	Max	Min/average	Min/max
1 Workplane (Changing Room 1)	Perpendicular illuminance (adaptive) [lx] Height: 0.000 m, Wall zone: 0.100 m	172 (≥ 500)	131	210	0.76	0.62

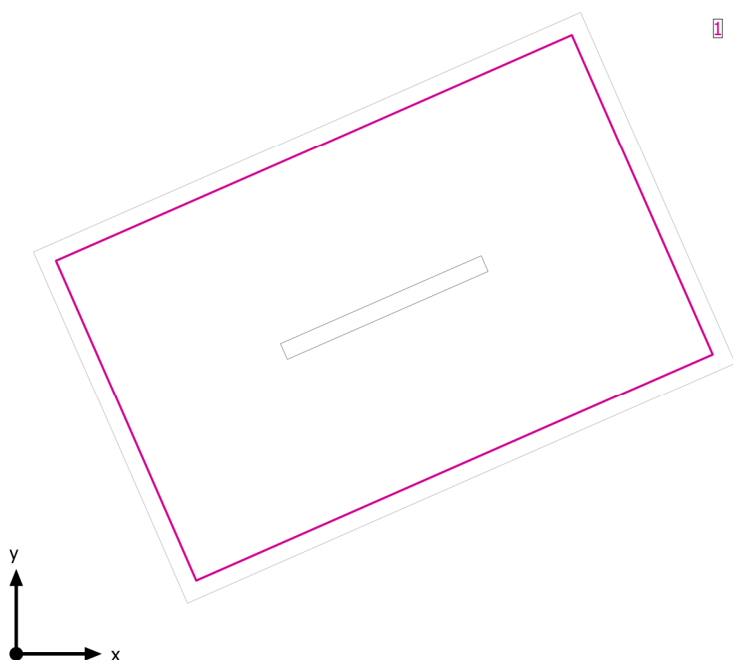
#	Luminaire	Φ(Luminaire) [lm]	Power [W]	Luminous efficacy [lm/W]
1	Garrabridge - lb = 700mA PC wanne 20% DUNA PRO 1X1.2 ET PC	4369	37.0	118.1
Total via all luminaires		4369	37.0	118.1

Lighting power density: 4.76 W/m² (Floor area of room 7.78 m²),
Lighting power density: 5.54 W/m² = 3.22 W/m²/100 lx (Area of working plane 6.67 m²)

Consumption: 100 kWh/a of maximum 300 kWh/a

The energy consumption quantities do not take into account light scenes and their dimming levels.

Changing Room 2



Clearance height: 2.800 m, Reflection factors: Ceiling 70.0%, Walls 50.0%, Floor 20.0%, Maintenance factor: 0.80

Workplane

Surface	Result	Average (Target)	Min	Max	Min/average	Min/max
1 Workplane (Changing Room 2)	Perpendicular illuminance (adaptive) [lx] Height: 0.000 m, Wall zone: 0.100 m	172 (≥ 500)	131	212	0.76	0.62

# Luminaire	Φ(Luminaire) [lm]	Power [W]	Luminous efficacy [lm/W]
1 Garrabridge - lb = 700mA PC wanne 20% DUNA PRO 1X1.2 ET PC	4369	37.0	118.1
Total via all luminaires	4369	37.0	118.1

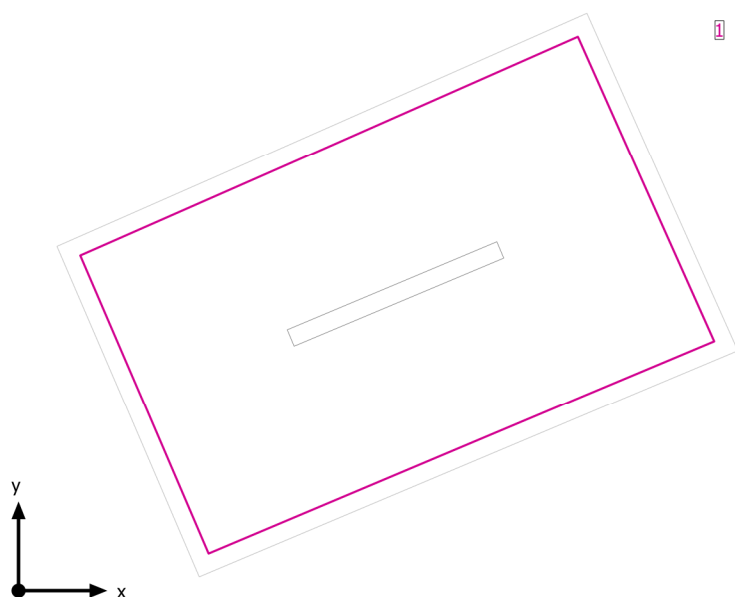
Lighting power density: 4.73 W/m² (Floor area of room 7.82 m²),

Lighting power density: 5.51 W/m² = 3.20 W/m²/100 lx (Area of working plane 6.71 m²)

Consumption: 100 kWh/a of maximum 300 kWh/a

The energy consumption quantities do not take into account light scenes and their dimming levels.

Entrance



Clearance height: 2.800 m, Reflection factors: Ceiling 70.0%, Walls 50.0%, Floor 20.0%, Maintenance factor: 0.80

Workplane

Surface	Result	Average (Target)	Min	Max	Min/average	Min/max
1 Workplane (Entrance)	Perpendicular illuminance (adaptive) [lx] Height: 0.000 m, Wall zone: 0.100 m	183 (≥ 500)	146	218	0.80	0.67

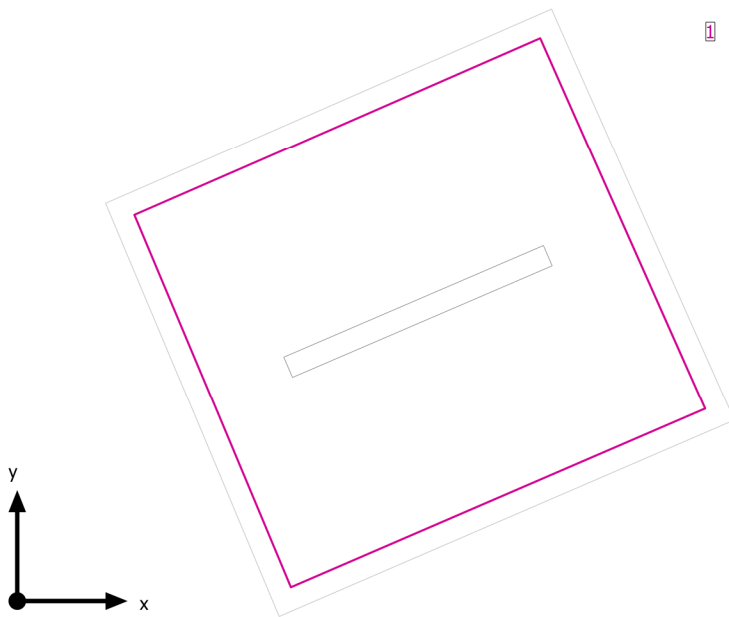
# Luminaire	Φ (Luminaire) [lm]	Power [W]	Luminous efficacy [lm/W]
1 Garrabridge - lb = 700mA PC wanne 20% DUNA PRO 1X1.2 ET PC	4369	37.0	118.1
Total via all luminaires	4369	37.0	118.1

Lighting power density: 5.50 W/m² (Floor area of room 6.72 m²),
Lighting power density: 6.49 W/m² = 3.56 W/m²/100 lx (Area of working plane 5.70 m²)

Consumption: 100 kWh/a of maximum 250 kWh/a

The energy consumption quantities do not take into account light scenes and their dimming levels.

Unisex WC



Clearance height: 2.800 m, Reflection factors: Ceiling 70.0%, Walls 50.0%, Floor 20.0%, Maintenance factor: 0.80

Workplane

Surface	Result	Average (Target)	Min	Max	Min/average	Min/max
1 Workplane (Unisex WC)	Perpendicular illuminance (adaptive) [lx] Height: 0.000 m, Wall zone: 0.100 m	214 (≥ 500)	189	241	0.88	0.78

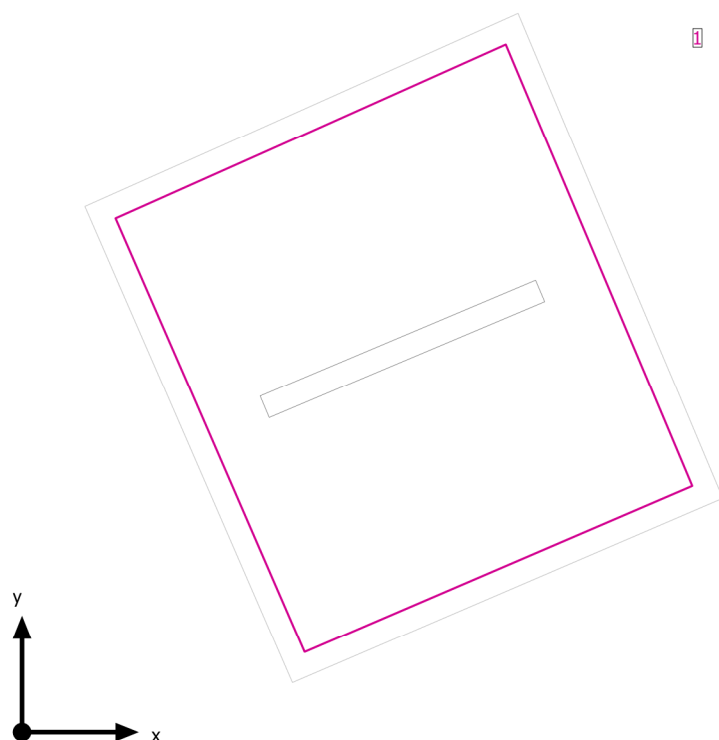
# Luminaire	Φ(Luminaire) [lm]	Power [W]	Luminous efficacy [lm/W]
1 Garrabridge - lb = 700mA PC wanne 20% DUNA PRO 1X1.2 ET PC	4369	37.0	118.1
Total via all luminaires	4369	37.0	118.1

Lighting power density: 8.18 W/m² (Floor area of room 4.52 m²),
Lighting power density: 9.97 W/m² = 4.66 W/m²/100 lx (Area of working plane 3.71 m²)

Consumption: 100 kWh/a of maximum 200 kWh/a

The energy consumption quantities do not take into account light scenes and their dimming levels.

WC



Clearance height: 2.800 m, Reflection factors: Ceiling 70.0%, Walls 50.0%, Floor 20.0%, Maintenance factor: 0.80

Workplane

Surface	Result	Average (Target)	Min	Max	Min/average	Min/max
1 Workplane (WC)	Perpendicular illuminance (adaptive) [lx] Height: 0.000 m, Wall zone: 0.100 m	214 (≥ 500)	189	237	0.88	0.80

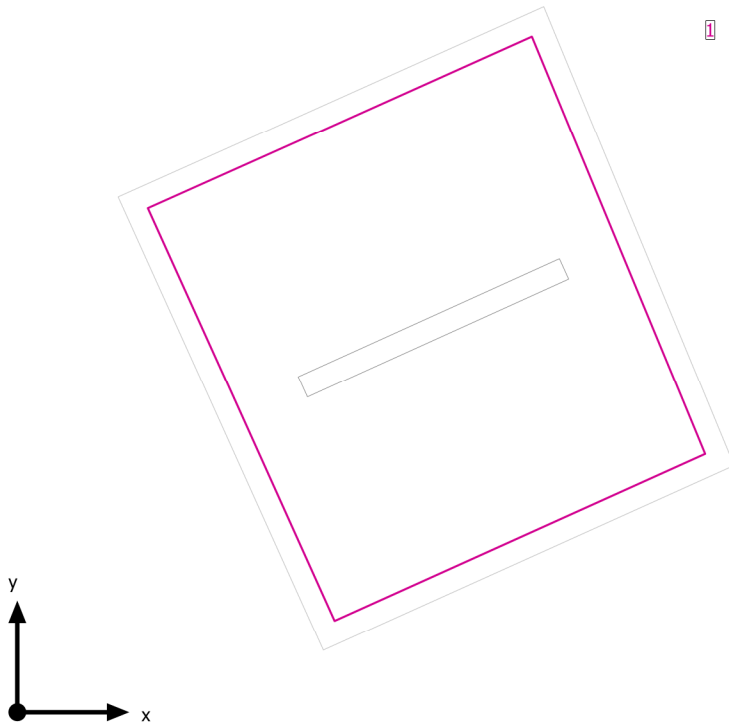
# Luminaire	Φ(Luminaire) [lm]	Power [W]	Luminous efficacy [lm/W]
1 Garrabridge - lb = 700mA PC wanne 20% DUNA PRO 1X1.2 ET PC	4369	37.0	118.1
Total via all luminaires	4369	37.0	118.1

Lighting power density: 8.19 W/m² (Floor area of room 4.52 m²),
Lighting power density: 9.99 W/m² = 4.67 W/m²/100 lx (Area of working plane 3.71 m²)

Consumption: 100 kWh/a of maximum 200 kWh/a

The energy consumption quantities do not take into account light scenes and their dimming levels.

WC



Clearance height: 2.800 m, Reflection factors: Ceiling 70.0%, Walls 50.0%, Floor 20.0%, Maintenance factor: 0.80

Workplane

Surface	Result	Average (Target)	Min	Max	Min/average	Min/max
1 Workplane (WC)	Perpendicular illuminance (adaptive) [lx] Height: 0.000 m, Wall zone: 0.100 m	211 (≥ 500)	178	236	0.84	0.75

# Luminaire	Φ (Luminaire) [lm]	Power [W]	Luminous efficacy [lm/W]
1 Garrabridge - lb = 700mA PC wanne 20% DUNA PRO 1X1.2 ET PC	4369	37.0	118.1
Total via all luminaires	4369	37.0	118.1

Lighting power density: 8.15 W/m² (Floor area of room 4.54 m²),
Lighting power density: 9.93 W/m² = 4.69 W/m²/100 lx (Area of working plane 3.73 m²)

Consumption: 100 kWh/a of maximum 200 kWh/a

The energy consumption quantities do not take into account light scenes and their dimming levels.