

ML3327 - Delamere Park

MIDSTREAM LED PROPOSAL

4 x 6m Poles

Total Floodlights: 9 x Modus 150 FS (5000K)

Total Power Installed: 1.305 kW

Maintenance Factor: 0.9

Lighting Requirements:
Eav=100 Lux; Emin/Eav=0.7

Calculated Values:
Eav=100+ Lux; Emin/Eav>0.7

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ML3327 - Delamere Park

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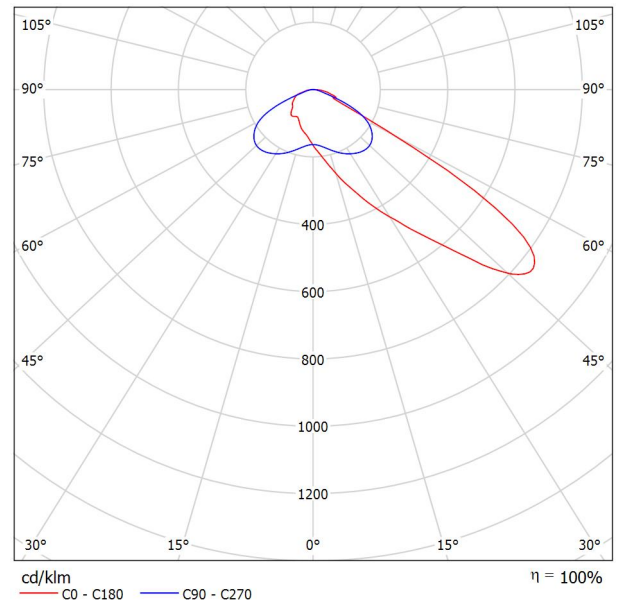
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MIDSTREAM - Modus 150 FS (5000K) / Luminaire Data Sheet

Luminous emittance 1:

See our luminaire catalog for an image of the luminaire.



Luminaire classification according to CIE: 100
CIE flux code: 36 83 97 100 100

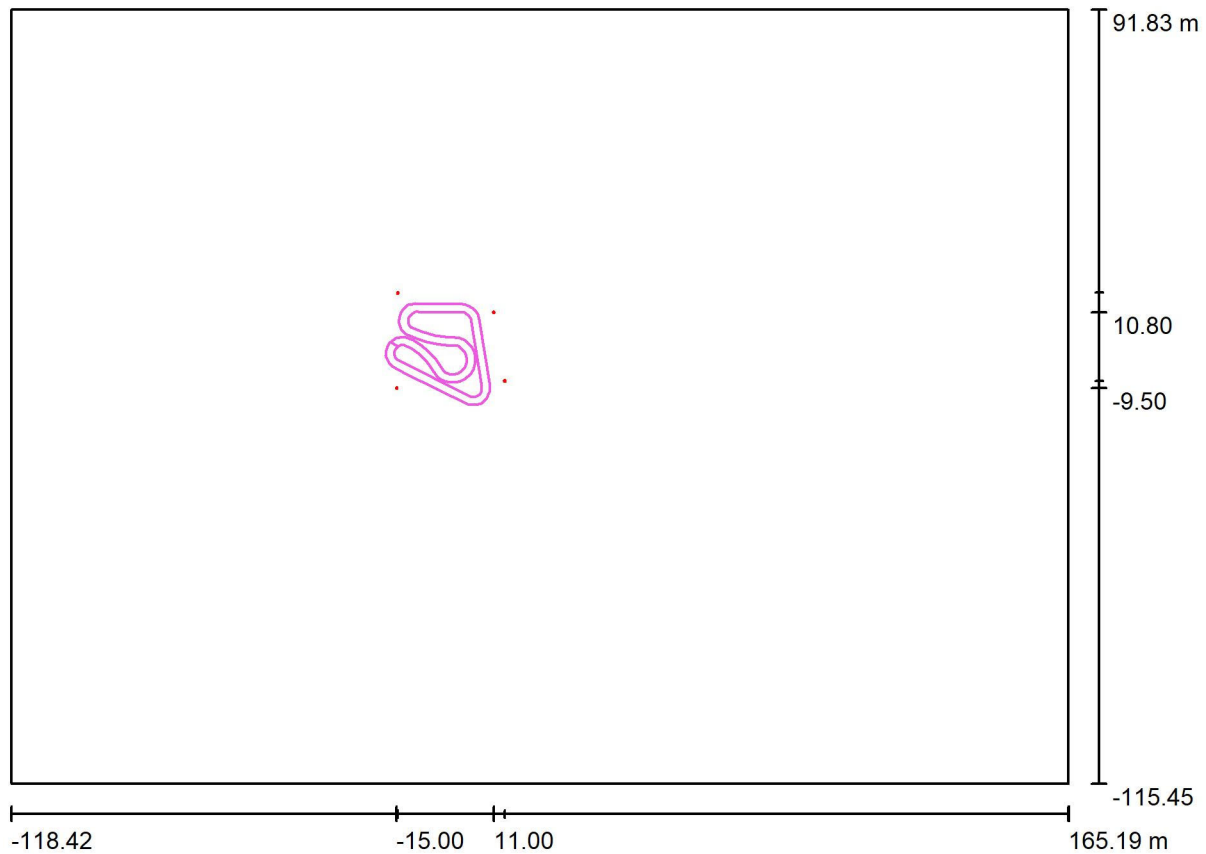
Due to missing symmetry properties, no UGR table can be displayed for this luminaire.



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Exterior Scene 1 / Planning data



Maintenance factor: 0.90, ULR (Upward Light Ratio): 1.5%

Scale 1:2028

Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	9	MIDSTREAM - Modus 150 FS (5000K) (1.000)	17704	17704	145.0
Total:			159336	Total: 159336	1305.0



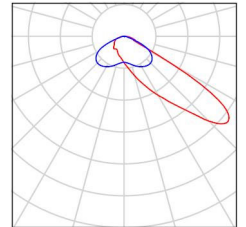
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Exterior Scene 1 / Luminaire parts list

9 Pieces MIDSTREAM - Modus 150 FS (5000K)
Article No.:
Luminous flux (Luminaire): 17704 lm
Luminous flux (Lamps): 17704 lm
Luminaire Wattage: 145.0 W
Luminaire classification according to CIE: 100
CIE flux code: 36 83 97 100 100
Fitting: 1 x LED S7 (Correction Factor 1.000).

See our luminaire
catalog for an image of
the luminaire.

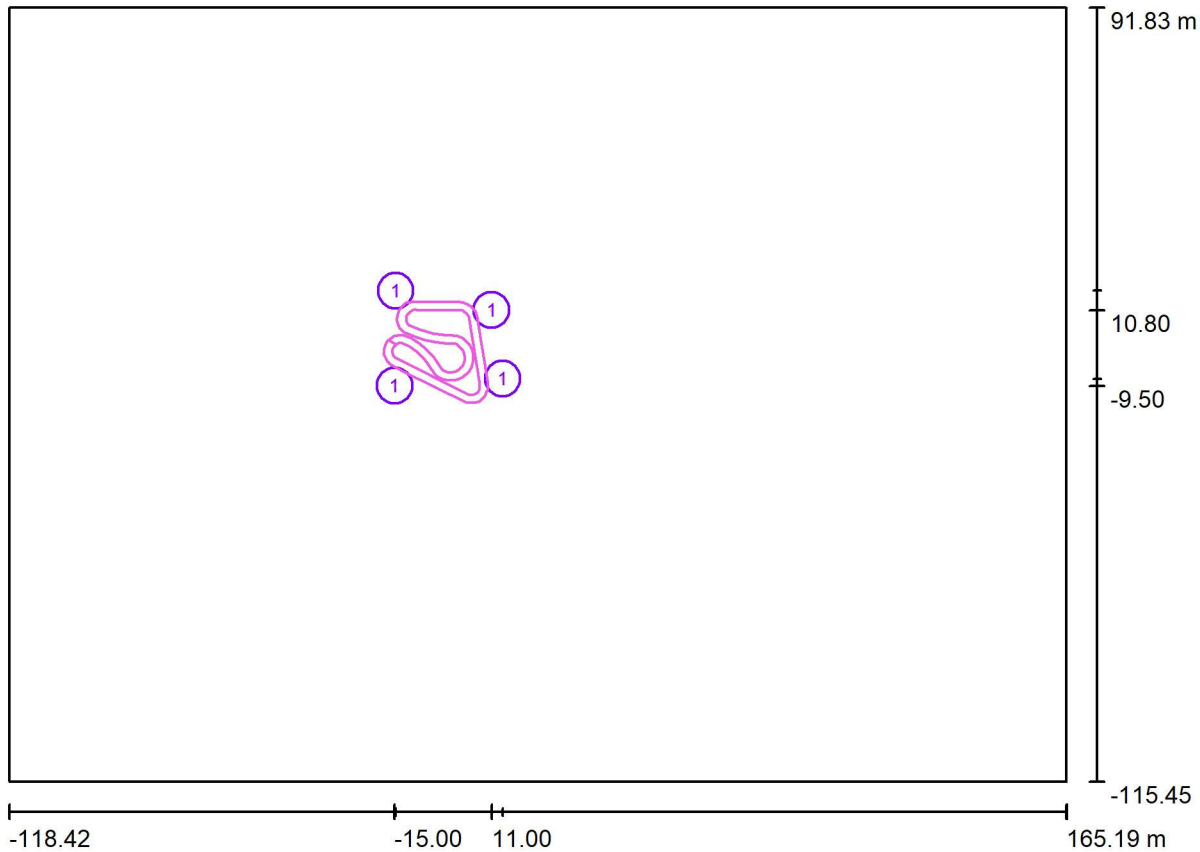




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Exterior Scene 1 / Luminaires (layout plan)



Scale 1 : 2028

Luminaire Parts List

No.	Pieces	Designation
1	9	MIDSTREAM - Modus 150 FS (5000K)

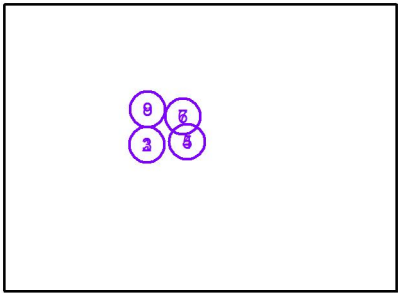


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Exterior Scene 1 / Luminaires (coordinates list)

MIDSTREAM - Modus 150 FS (5000K)
17704 lm, 145.0 W, 1 x 1 x LED S7 (Correction Factor 1.000).

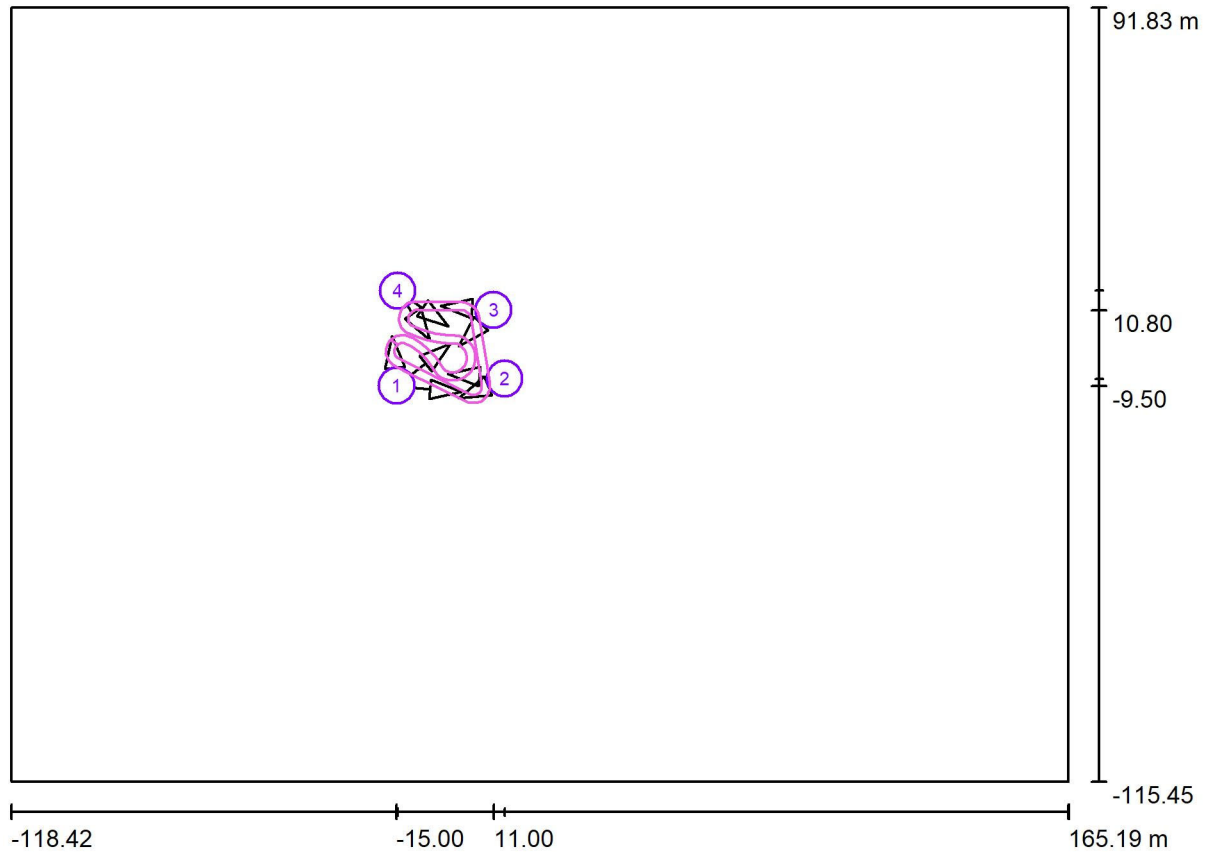


No.	Position [m]			Rotation [°]		
	X	Y	Z	X	Y	Z
1	-15.000	-9.500	6.000	0.0	-14.9	95.7
2	-15.000	-9.500	6.000	0.0	-20.9	38.0
3	-15.000	-9.500	6.000	0.0	-20.0	-5.4
4	14.000	-7.600	6.000	0.0	-14.8	-157.6
5	14.000	-7.600	6.000	0.0	-17.7	174.9
6	11.000	10.800	6.000	0.0	-14.9	-134.0
7	11.000	10.800	6.000	0.0	-16.3	175.7
8	-14.700	16.000	6.000	0.0	-19.1	-35.1
9	-14.700	16.000	6.000	0.0	-18.1	-56.8

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Exterior Scene 1 / Sport Luminaires (Coordinates List)



Scale 1 : 2028

List of the Sport Luminaires

Luminaire	Index	Position [m]			Aiming Point [m]			Angle [°]	Alignment	Pole
		X	Y	Z	X	Y	Z			
MIDSTREAM - Modus 150 FS (5000K)	1	-15.000	-9.500	6.000	-16.341	3.839	0.000	24.1	(C IMax, G IMax)	Pole Position 1
MIDSTREAM - Modus 150 FS (5000K)	1	-15.000	-9.500	6.000	-0.561	1.794	0.000	18.1	(C IMax, G IMax)	Pole Position 1
MIDSTREAM - Modus 150 FS (5000K)	1	-15.000	-9.500	6.000	2.350	-11.147	0.000	19.0	(C IMax, G IMax)	Pole Position 1
MIDSTREAM - Modus 150 FS (5000K)	2	14.000	-7.600	6.000	1.658	-12.694	0.000	24.2	(C IMax, G IMax)	Pole Position 2

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Exterior Scene 1 / Sport Luminares (Coordinates List)

List of the Sport Luminares

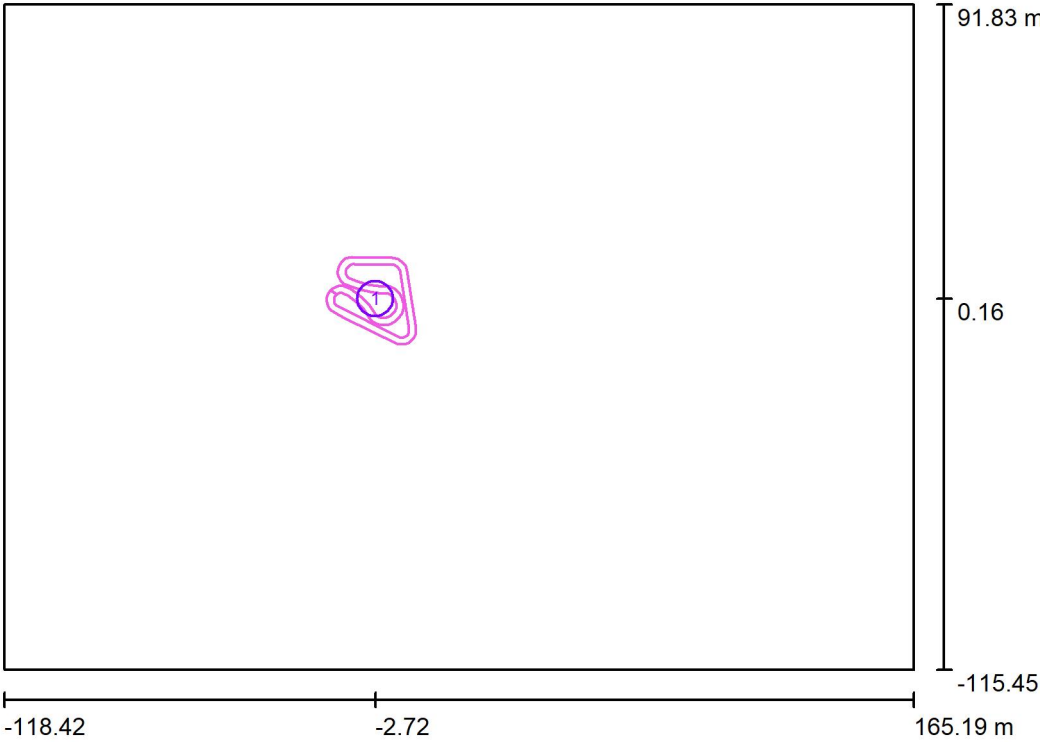
Luminaire	Index	Position [m]			Aiming Point [m]			Angle [°]	Alignment	Pole
		X	Y	Z	X	Y	Z			
MIDSTREAM - Modus 150 FS (5000K)	2	14.000	-7.600	6.000	-1.315	-6.220	0.000	21.3	(C IMax, G IMax)	Pole Position 2
MIDSTREAM - Modus 150 FS (5000K)	3	11.000	10.800	6.000	1.698	1.151	0.000	24.1	(C IMax, G IMax)	Pole Position 3
MIDSTREAM - Modus 150 FS (5000K)	3	11.000	10.800	6.000	-3.270	11.861	0.000	22.7	(C IMax, G IMax)	Pole Position 3
MIDSTREAM - Modus 150 FS (5000K)	4	-14.700	16.000	6.000	-1.111	6.445	0.000	19.9	(C IMax, G IMax)	Pole Position 4
MIDSTREAM - Modus 150 FS (5000K)	4	-14.700	16.000	6.000	-6.079	2.821	0.000	20.9	(C IMax, G IMax)	Pole Position 4



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Exterior Scene 1 / Calculation surfaces (results overview)



Scale 1 : 2359

Calculation Surface List

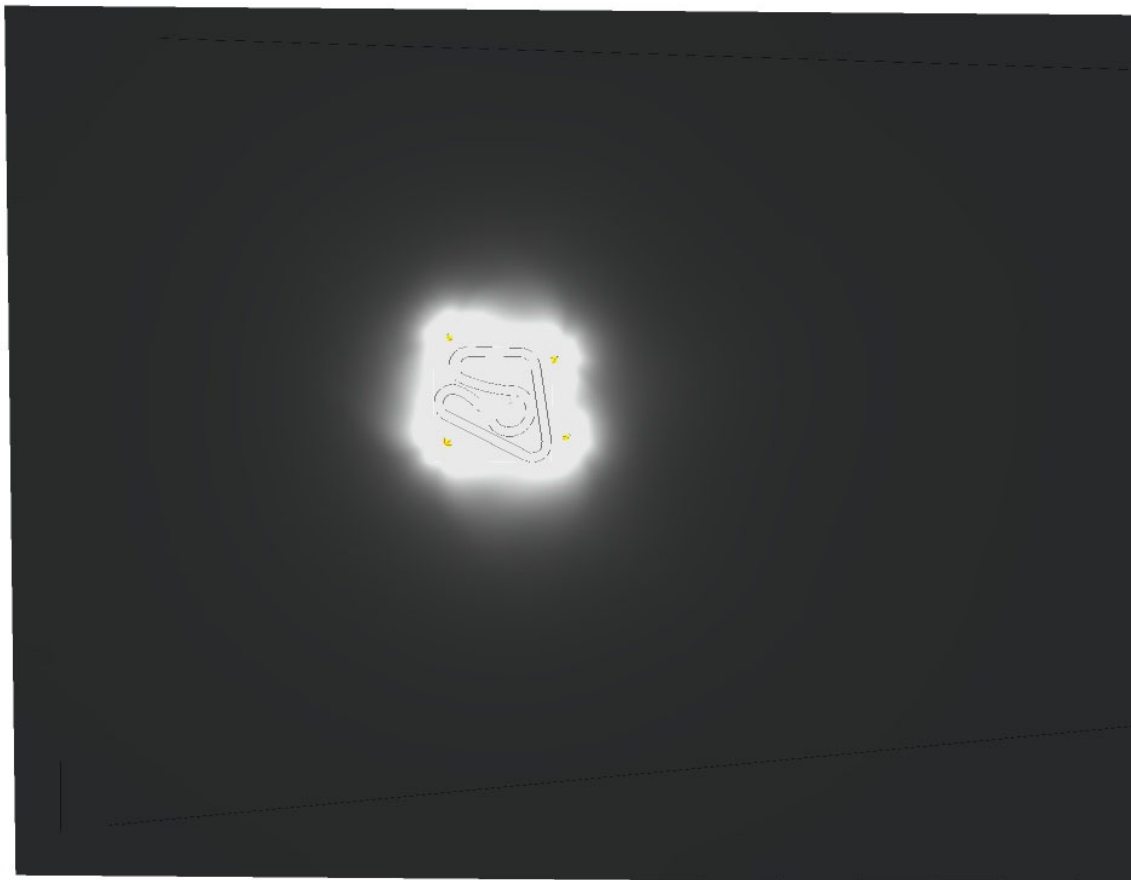
No.	Designation	Type	Grid	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u0	E_{min} / E_{max}
1	Horizontal Values - Track	horizontal	10 x 8	102	73	166	0.714	0.438



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Exterior Scene 1 / 3D Rendering

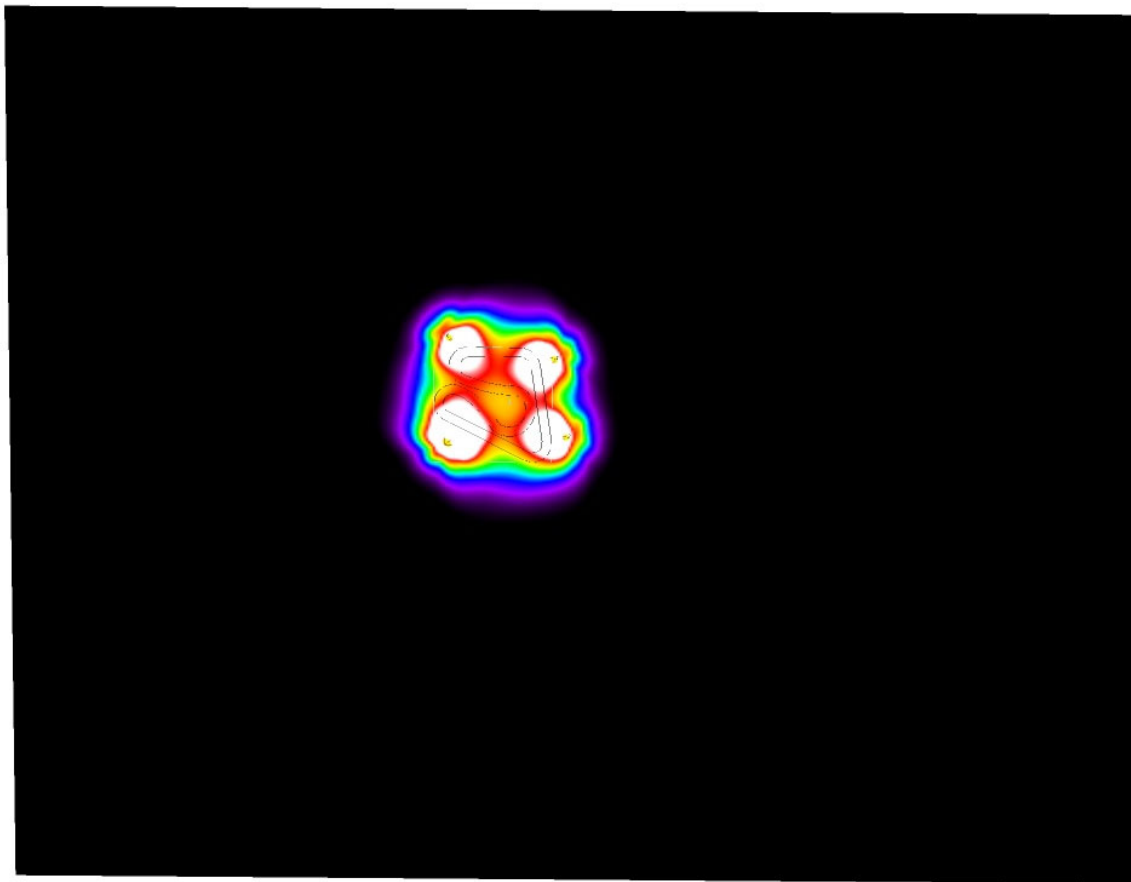




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Exterior Scene 1 / False Colour Rendering

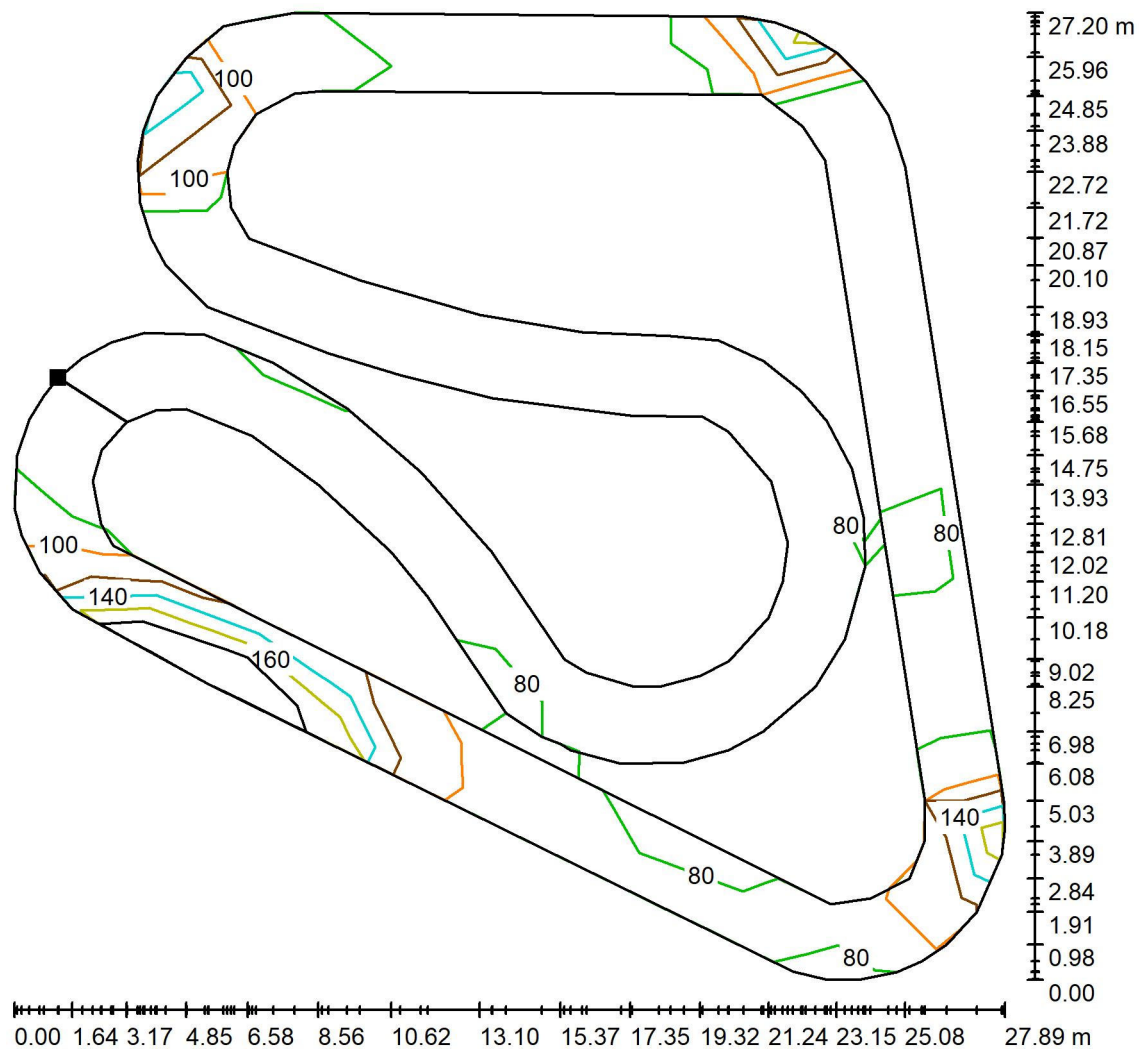


3 15.13 27.25 39.38 51.50 63.63 75.75 87.88 100 lx

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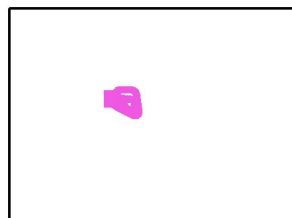
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Exterior Scene 1 / Horizontal Values - Track / Isolines (E, Horizontal)



Values in Lux, Scale 1 : 213

Position of surface in external scene:
 Marked point:
 (-16.668 m, 2.848 m, 0.000 m)



Grid: 10 x 8 Points

E_{av} [lx]
102

E_{min} [lx]
73

E_{max} [lx]
166

u_0
0.714

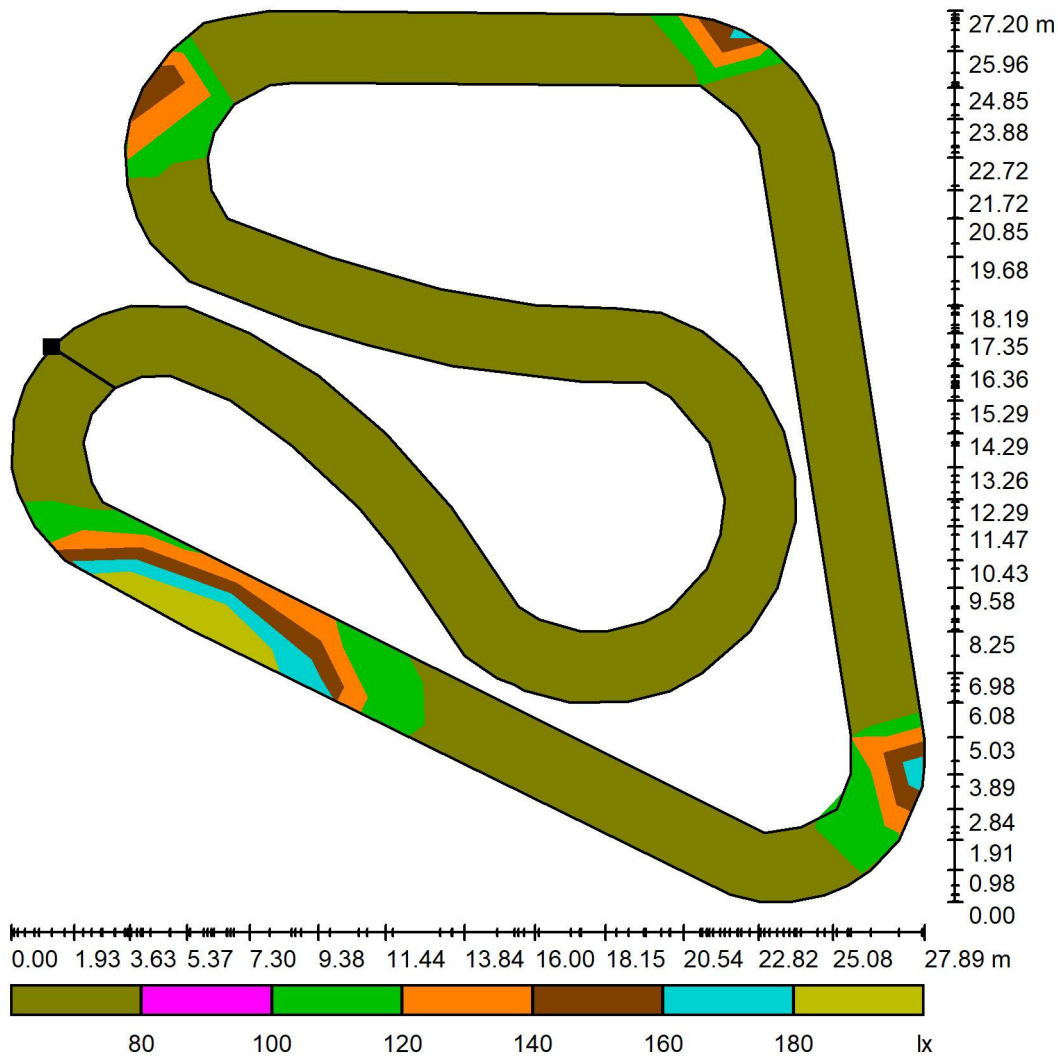
E_{min} / E_{max}
0.438



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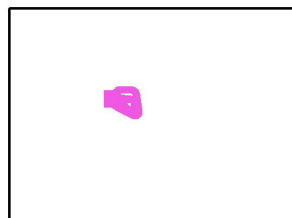
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Exterior Scene 1 / Horizontal Values - Track / Greyscale (E, Horizontal)



Scale 1 : 231

Position of surface in external scene:
 Marked point:
 (-16.668 m, 2.848 m, 0.000 m)



Grid: 10 x 8 Points

E_{av} [lx]
102

E_{min} [lx]
73

E_{max} [lx]
166

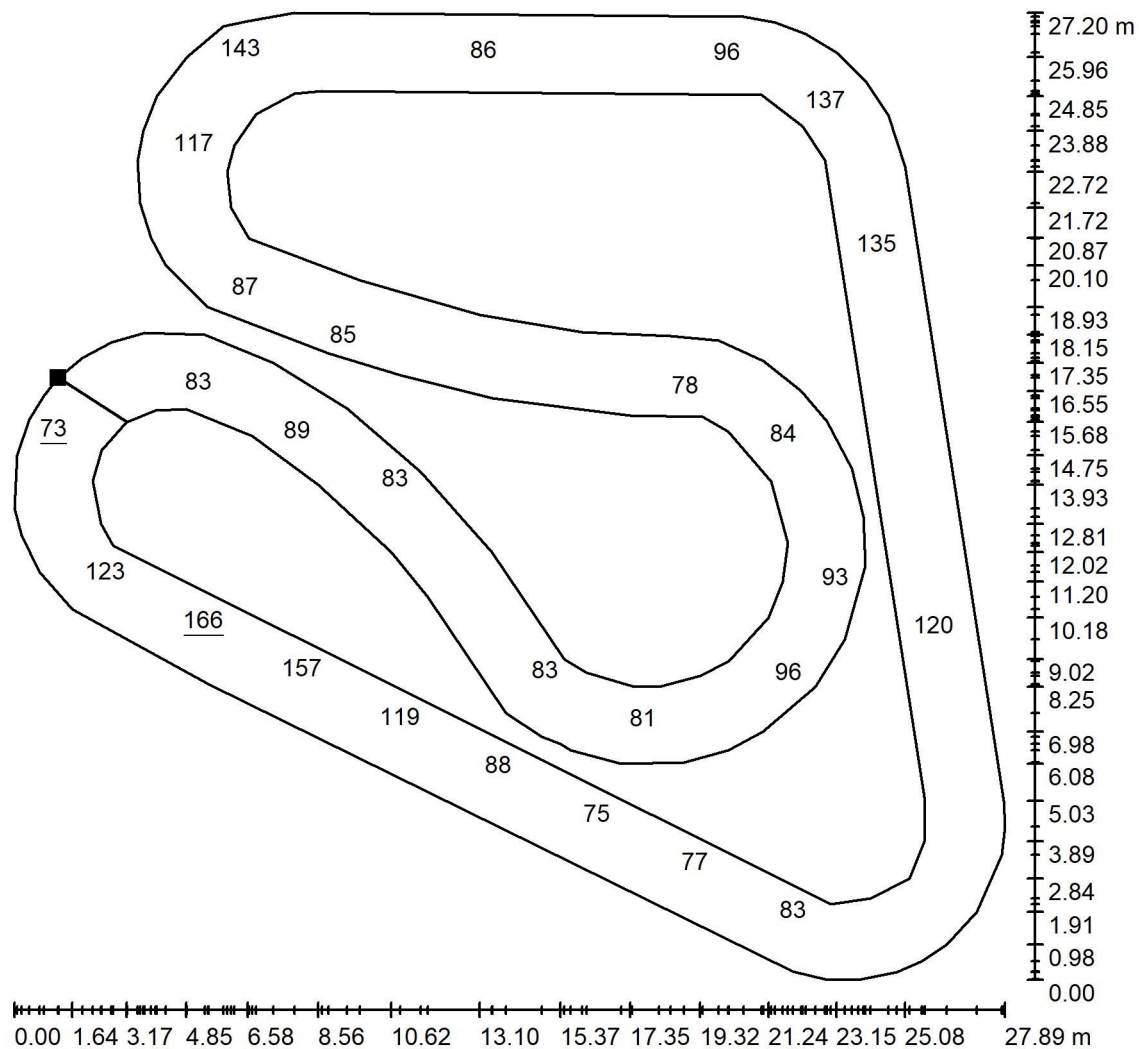
u_0
0.714

E_{min} / E_{max}
0.438

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Exterior Scene 1 / Horizontal Values - Track / Value Chart (E, Horizontal)



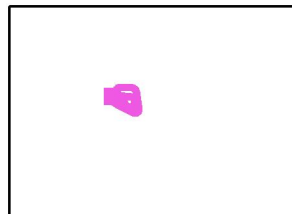
Values in Lux, Scale 1 : 213

Not all calculated values could be displayed.

Position of surface in external scene:

Marked point:

(-16.668 m, 2.848 m, 0.000 m)



Grid: 10 x 8 Points

E_{av} [lx]
102

E_{min} [lx]
73

E_{max} [lx]
166

u_0
0.714

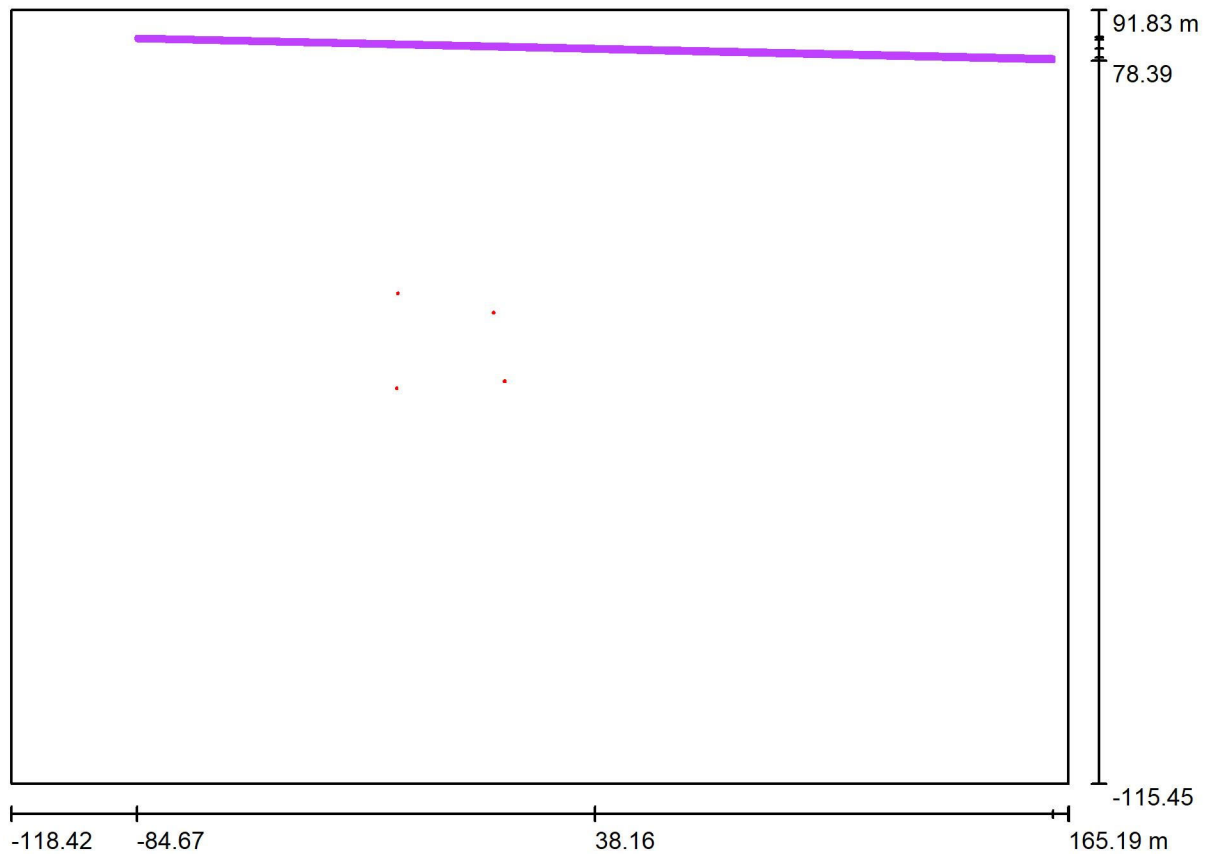
E_{min} / E_{max}
0.438



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Exterior Scene 1 / Spill Light 1 - 3m / Summary



Scale 1 : 2028

Position: (38.160 m, 81.529 m, 0.000 m)
 Size: (245.715 m, 0.700 m)
 Rotation: (0.0°, 0.0°, -1.3°)
 Type: Normal, Grid: 27 x 1 Points

Results overview

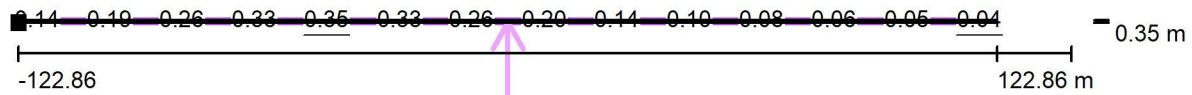
No.	Type	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$	E_{min} / E_{max}	$E_{h\ m} / E_m$	H [m]	Camera
1	vertical, 270.0°	0.18	0.04	0.35	0.19	0.10	/	3.000	/

$E_{h\ m} / E_m$ = Relationship between middle horizontal and vertical illuminance, H = Measuring Height

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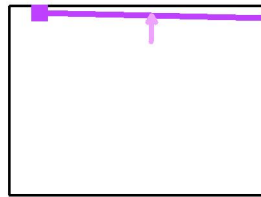
Exterior Scene 1 / Spill Light 1 - 3m / Value Chart (E, Vertical)



Values in Lux, Scale 1 : 1757

Not all calculated values could be displayed.

Position of surface in external scene:
 Marked point: (-84.673 m, 83.966 m,
 0.000 m)



Grid: 27 x 1 Points

E_{av} [lx]
0.18

E_{min} [lx]
0.04

E_{max} [lx]
0.35

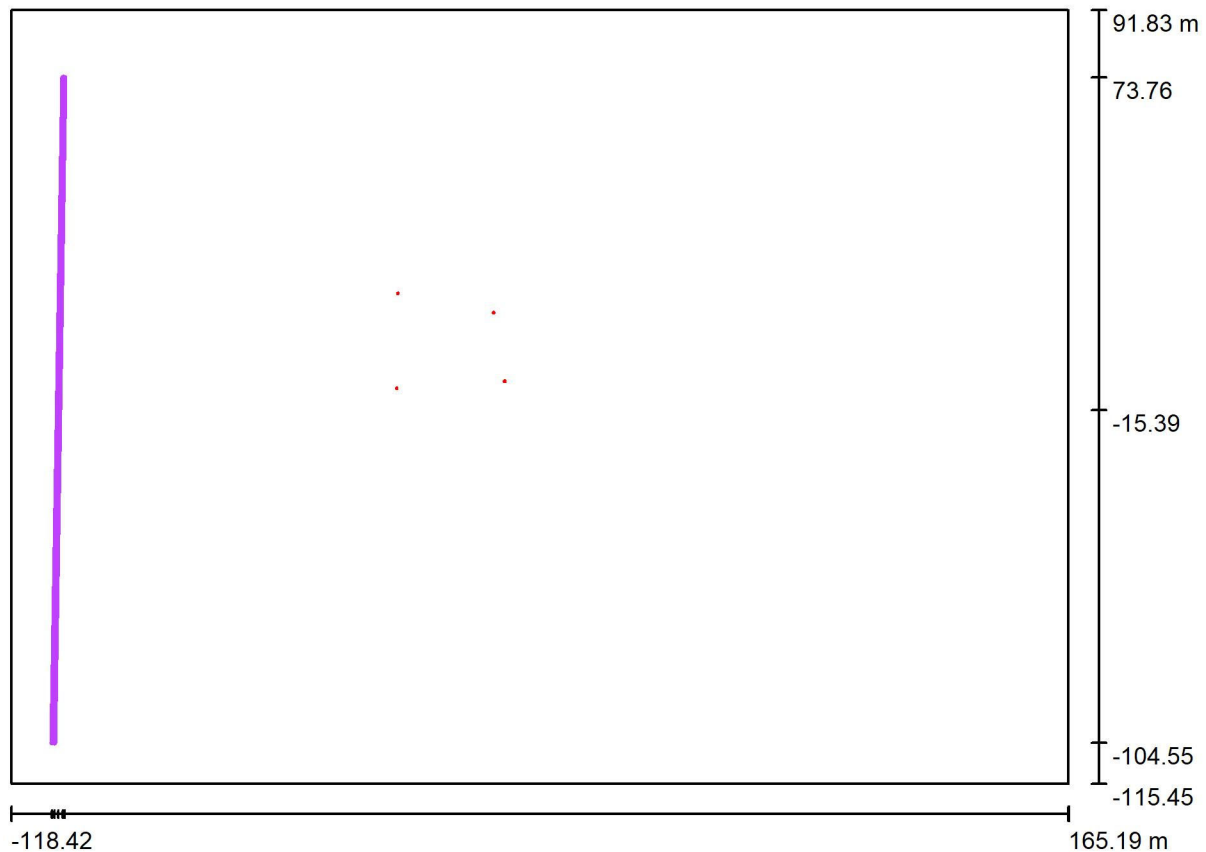
u_0
0.19

E_{min} / E_{max}
0.10

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Exterior Scene 1 / Spill Light 2 - 3m / Summary



Scale 1 : 2028

Position: (-105.749 m, -15.391 m, 0.000 m)
 Size: (178.328 m, 0.508 m)
 Rotation: (0.0°, 0.0°, 89.1°)
 Type: Normal, Grid: 23 x 1 Points

Results overview

No.	Type	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$	E_{min} / E_{max}	$E_{h\ m} / E_m$	H [m]	Camera
1	vertical, 270.0°	0.03	0.00	0.09	0.02	0.01	/	3.000	/

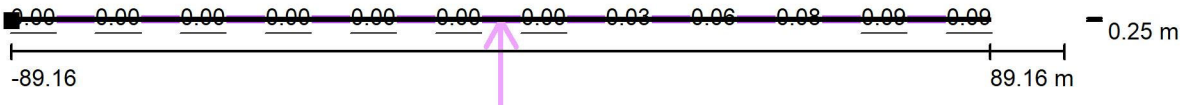
$E_{h\ m} / E_m$ = Relationship between middle horizontal and vertical illuminance, H = Measuring Height



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Exterior Scene 1 / Spill Light 2 - 3m / Value Chart (E, Vertical)



Values in Lux, Scale 1 : 1275

Not all calculated values could be displayed.

Position of surface in external scene:
Marked point: (-106.895 m, -
104.548 m, 0.000 m)



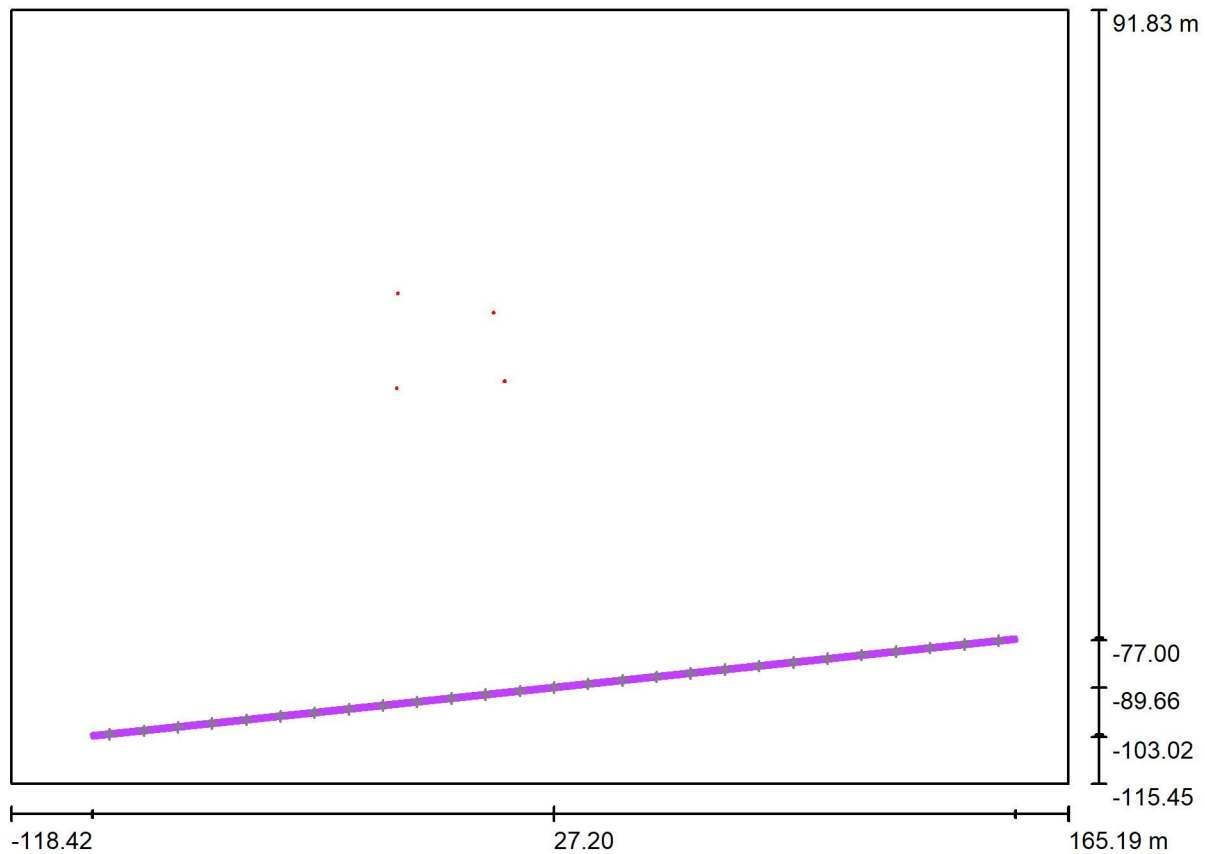
Grid: 23 x 1 Points

E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$	E_{min} / E_{max}
0.03	0.00	0.09	0.02	0.01

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Exterior Scene 1 / Spill Light 3 - 3m / Summary



Scale 1 : 2028

Results overview

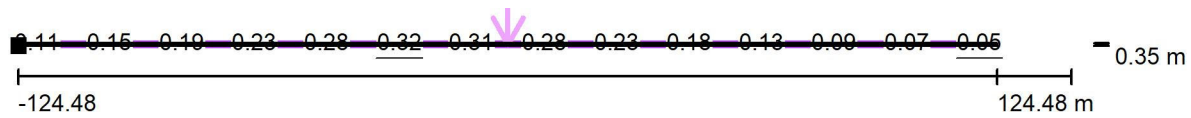
No.	Type	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$	E_{min} / E_{max}	$E_{h\ m} / E_m$	H [m]	Camera
1	vertical, 90.0°	0.19	0.05	0.32	0.27	0.16	/	3.000	/

$E_{h\ m} / E_m$ = Relationship between middle horizontal and vertical illuminance, H = Measuring Height

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Exterior Scene 1 / Spill Light 3 - 3m / Value Chart (E, Vertical)

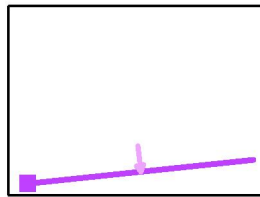


Values in Lux, Scale 1 : 1780

Not all calculated values could be displayed.

Position of surface in external scene:

Marked point: (-96.563 m, -
 103.022 m, 0.000 m)



Grid: 27 x 1 Points

E_{av} [lx]
 0.19

E_{min} [lx]
 0.05

E_{max} [lx]
 0.32

u_0
 0.27

E_{min} / E_{max}
 0.16