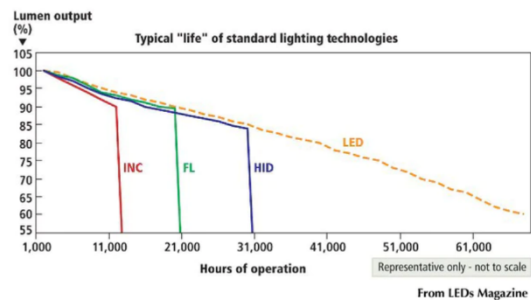
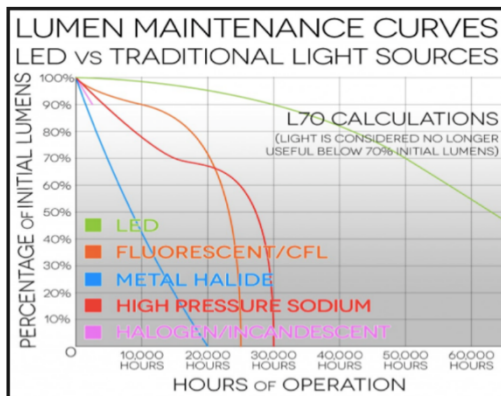


LIGHTING SPECIFICATIONS	
Model:	EXELUX FL140 ASYMM 200W
Luminous flux (Luminaire):	30901 lm
Luminous flux (Lamps):	30902 lm
Luminaire Wattage:	196.0 Watts
Luminaire classification according to CIE:	100
Power Factor:	>0.90
Light Lost Factor:	0.90
Degree of Protection	Class 1 (Electrical safety) IP66 (Minimum Water ingress protection)
Uniformity:	>0.70
Light Source:	LED
Input Voltage	90 ~ 305 Vac
Input Frequency	47 ~ 63 Hz
Precent lumen depreciation:	This is basically from LED OEM like Lumiled. The LEDs are tested at specific condition to see the lifetime such as LM70, LM80 and TM21. Lighting manufacturer don't have that. Because many factor effecting the lumen depreciation such as heat, hours of operation, wattage and etc. Please see graph below. On our design we set Maintenance factor or light loss factor at 0.90 same as the above



Padel Court Avg 550 lux - Asymmetric beam

Padel court dimension - 20m x 10m

Poles height - 7m

Illuminance standard - Class 1, Avg 500 lux, Uniformity >0.70 @ ground level (Z=0)

EXELUX uses 12 x FL140Asym-200-5K70CRI luminaires with result as stated Eav [lx] = 550, Emin [lx] = 429, Emax [lx] = 656, Uniformity Emin/Eavg = 0.78, Emin/Emax = 0.65

Maintenance Factor = 0.9

IES files - date: 01 Jan 2024

The nominal values shown in this report are the result of precision calculations, based upon precisely positioned luminaires in a fixed relationship to each other and to the area under examination. In practice the values may vary due to tolerances on luminaires, luminaire positioning, reflection properties and/or electrical supply. Tolerated differences are defined in EN-12193 clause 5.4 with a maximum of 10%.

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Date: 29.02.2024

Operator: Mr. Chong Shi Chai

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Padel Court Avg 550 lux - Asymmetric beam

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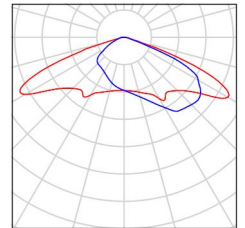
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Padel Court Avg 550 lux - Asymmetric beam / Luminaire parts list

12 Pieces EXELUX SDN BHD EXELUX FL140 200W
Article No.:
Luminous flux (Luminaire): 30901 lm
Luminous flux (Lamps): 30902 lm
Luminaire Wattage: 196.0 W
Luminaire classification according to CIE: 100
CIE flux code: 35 73 97 100 100
Fitting: 1 x User defined (Correction Factor
1.000).

See our luminaire
catalog for an image of
the luminaire.

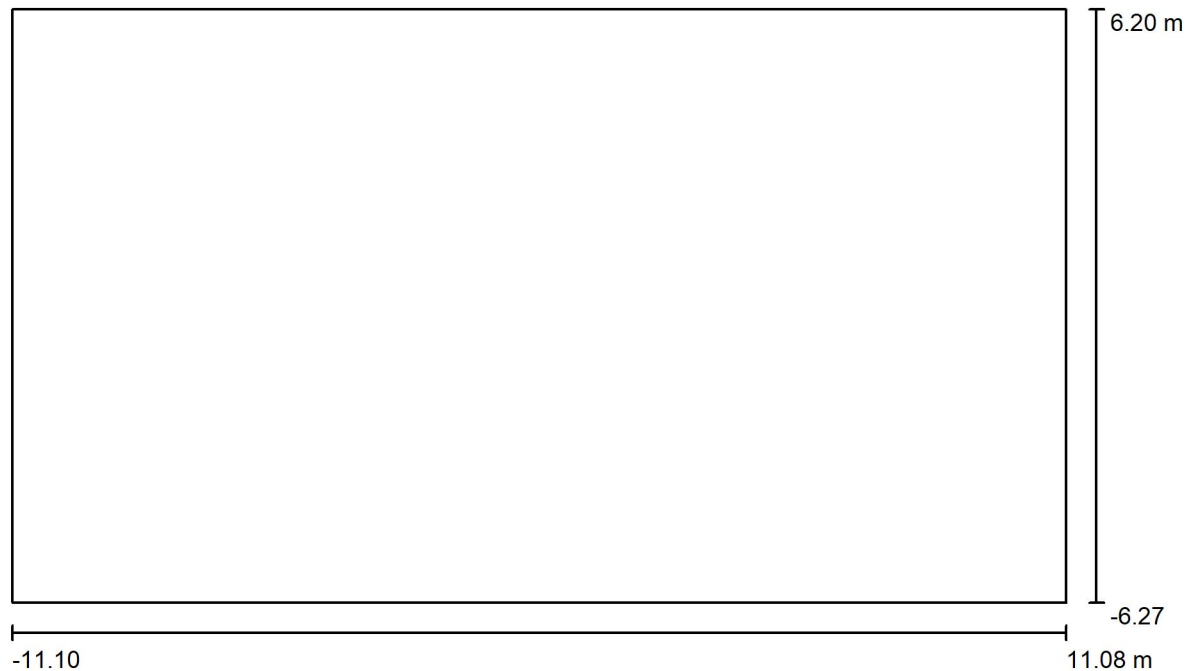


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Exterior Scene 1 / Planning data



Light loss factor: 0.90, ULR (Upward Light Ratio): 1.0%

Scale 1:159

Luminaire Parts List

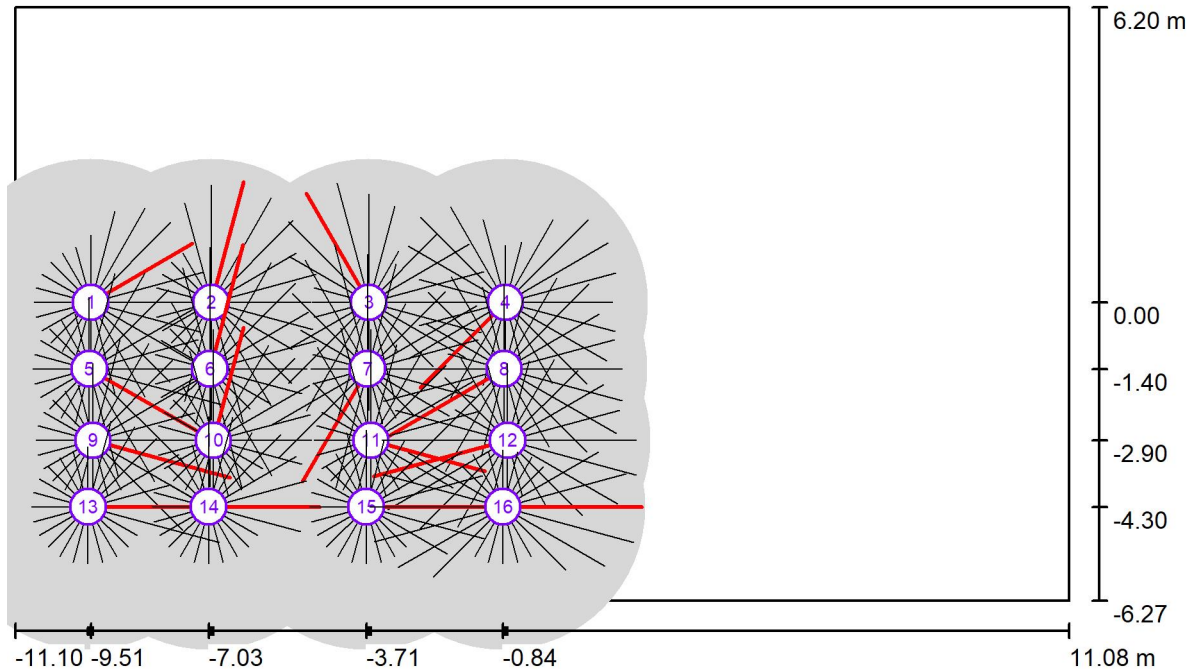
No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	12	EXELUX SDN BHD EXELUX FL140 200W (1.000)	30901	30902	196.0
Total:			370817	Total: 370820	2352.0

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Exterior Scene 1 / GR Observer (Results Overview)



Scale 1 : 159

GR Observerlist

No.	Designation	Position [m]			Viewing sector [°]			Slope angle	Max
		X	Y	Z	Start	End	Increment		
1	GR Observer 3	-9.509	0.000	1.500	0.0	360.0	15.0	-2.0	21 ²⁾
2	GR Observer 3	-6.975	0.000	1.500	0.0	360.0	15.0	-2.0	22 ²⁾
3	GR Observer 3	-3.657	0.000	1.500	0.0	360.0	15.0	-2.0	22 ²⁾
4	GR Observer 3	-0.783	0.000	1.500	0.0	360.0	15.0	-2.0	21 ²⁾

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Exterior Scene 1 / GR Observer (Results Overview)

GR Observerlist

No.	Designation	Position [m]			Viewing sector [°]				Max
		X	Y	Z	Start	End	Increment	Slope angle	
5	GR Observer 3	-9.535	-1.400	1.500	0.0	360.0	15.0	-2.0	25 ²⁾
6	GR Observer 3	-7.000	-1.400	1.500	0.0	360.0	15.0	-2.0	23 ²⁾
7	GR Observer 3	-3.683	-1.400	1.500	0.0	360.0	15.0	-2.0	23 ²⁾
8	GR Observer 3	-0.808	-1.400	1.500	0.0	360.0	15.0	-2.0	24 ²⁾
9	GR Observer 3	-9.463	-2.900	1.500	0.0	360.0	15.0	-2.0	25 ²⁾
10	GR Observer 3	-6.929	-2.900	1.500	0.0	360.0	15.0	-2.0	21 ²⁾
11	GR Observer 3	-3.612	-2.900	1.500	0.0	360.0	15.0	-2.0	21 ²⁾
12	GR Observer 3	-0.737	-2.900	1.500	0.0	360.0	15.0	-2.0	24 ²⁾
13	GR Observer 3	-9.563	-4.300	1.500	0.0	360.0	15.0	-2.0	25 ²⁾
14	GR Observer 3	-7.029	-4.300	1.500	0.0	360.0	15.0	-2.0	20 ²⁾
15	GR Observer 3	-3.712	-4.300	1.500	0.0	360.0	15.0	-2.0	23 ²⁾
16	GR Observer 3	-0.837	-4.300	1.500	0.0	360.0	15.0	-2.0	25 ²⁾

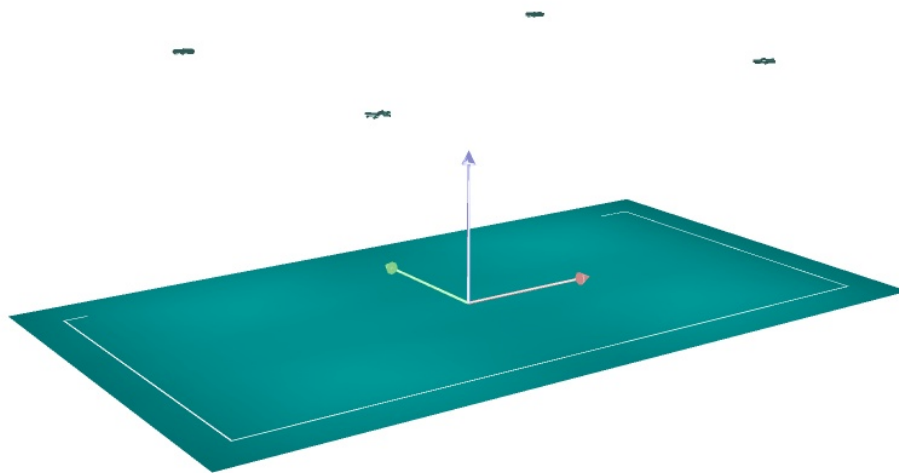
2) The calculated equivalent veil luminance of the environment is based on the assumption of a complete diffuse reflection behavior of the environment (acc. EN 12464-2).

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Exterior Scene 1 / 3D Rendering



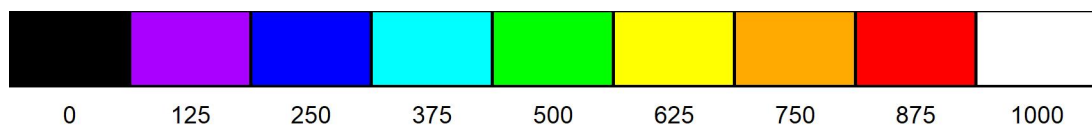
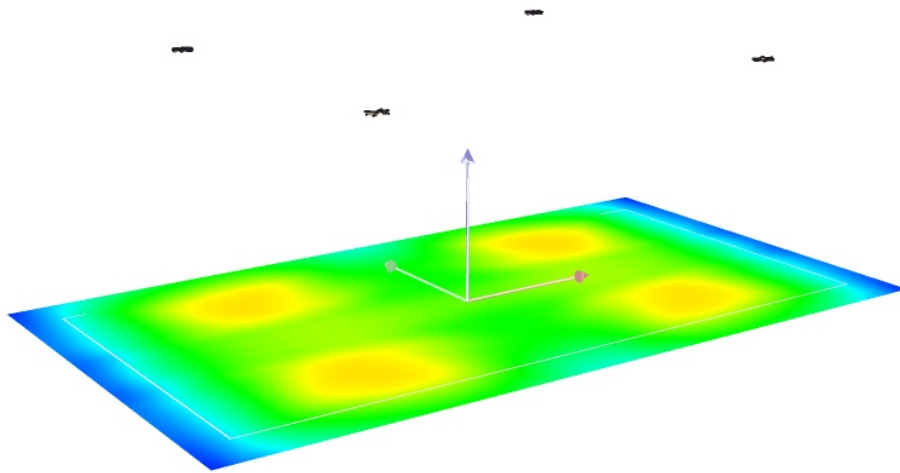


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Exterior Scene 1 / False Color Rendering

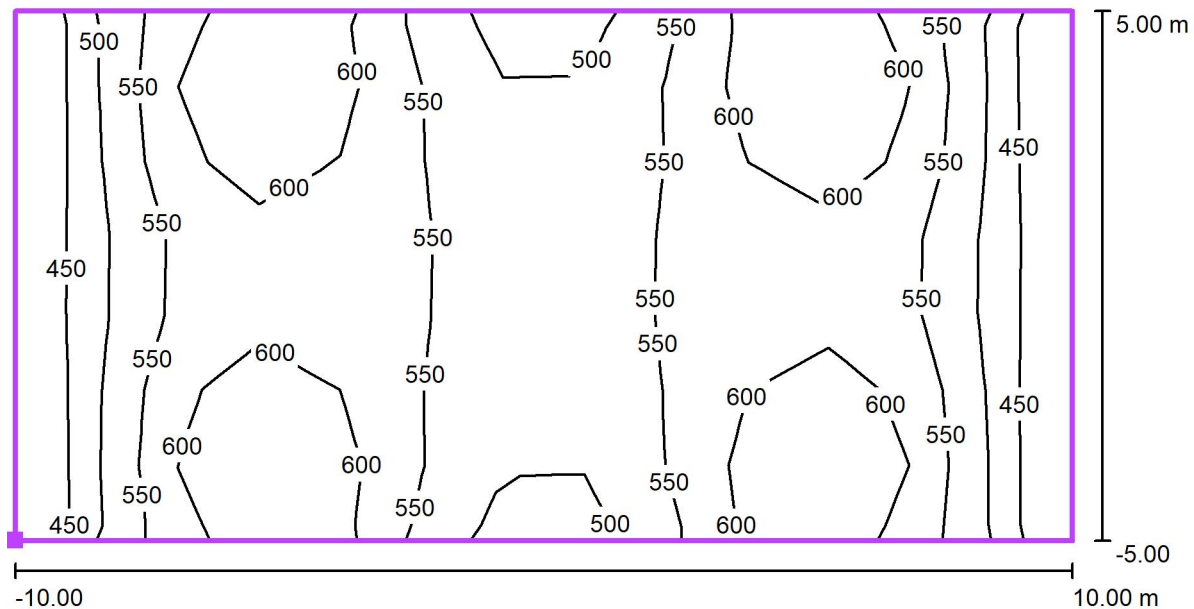


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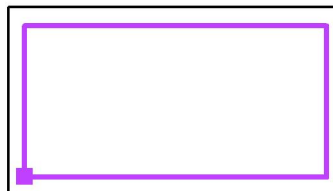
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Exterior Scene 1 / Padel Court Playing Area / Isolines (E, Horizontal)



Values in Lux, Scale 1 : 143

Position of surface in external scene:
Marked point: (-10.000 m, -5.000 m, 0.000 m)



Grid: 13 x 7 Points

E_{av} [lx]
550

E_{min} [lx]
429

E_{max} [lx]
656

u_0
0.78

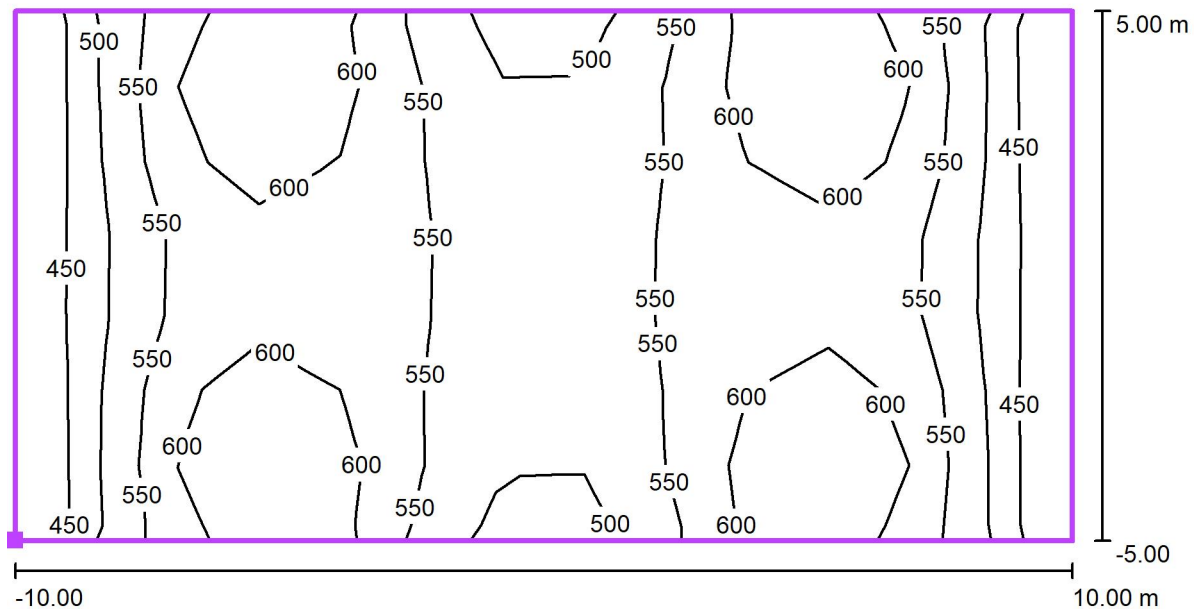
E_{min} / E_{max}
0.65

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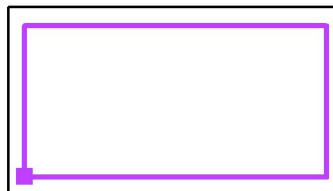
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Exterior Scene 1 / Padel Court Total Area / Isolines (E, Horizontal)



Values in Lux, Scale 1 : 143

Position of surface in external scene:
Marked point: (-10.000 m, -5.000 m,
0.000 m)



Grid: 13 x 7 Points

E_{av} [lx]
550

E_{min} [lx]
429

E_{max} [lx]
656

u_0
0.78

E_{min} / E_{max}
0.65