Wythenshawe L.T.C

Installation : Court 4 TPA + PPA+ Spillage

Project number : 130108.1
Customer : Floodlighting
Processed by : Åke Forslin
Date : 11.01.2013

Project description:
3 court tennis 48.26 x 36,48m
Columns 10m
Floodlight BS 2000B 2kW MH lamp

The following values are based on exact calculations on calibrated lamps, luminaires and their arrangement. In practice, gradual divergences can occur.

Guarantee claims for luminaire data are excluded.

Relux and the luminaire manufacturers accept no liability for consequential damage and damage which is occasioned to the user or to third parties.

1 Luminaire data

1.1 AB Deltalux, BS2000B (BS2000B)

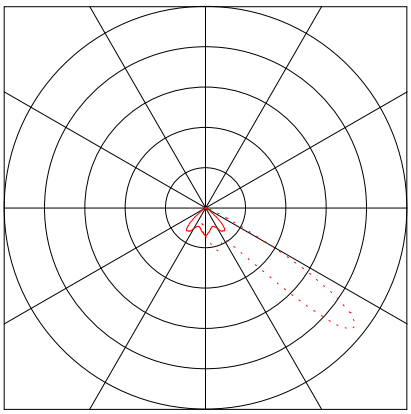
1.1.1 Data sheet

Manufacturer: AB Deltalux

BS2000B **BS2000B**

Luminaire data		
Luminaire efficiency	:	77.8%
Luminaire efficacy	:	75.17 lm/W
Classification	:	A50 ↓100.0% ↑0.0%
CIE Flux Codes	:	48 95 100 100 78
Control gear	:	
System power	:	2070 W
Length	:	620 mm
Width	:	700 mm
Height	:	400 mm

Equipped with		
Quantity	:	1
Designation	:	Metallhalogen 2000 W
Colour	:	
Luminous flux	:	200000 lm



2 Exteriör 1

2.1 Description, Exteriör 1

2.1.1 Luminaire data/Room elements

Luminaire data:

Type No.\Make

AB Deltalux
1 12 Order No. : BS2000B
Luminaire name : BS2000B
Equipment : 1 x Metallhalogen 2000 W / 200000 lm

		Centre point			Rotation angle			Target coordinates		
	No.	X [m]	Y [m]	Z [m]	Z [°]	C0 [°]	C90 [°]	Xa [m]	Ya [m]	Za [m]
AB Deltalux BS2000B BS2000B										
	1	0.01	0.04	10.01	349.90	13.00	0.00	3.45	19.38	0.00
	2	16.04	0.04	10.01	12.79	13.00	0.00	11.69	19.19	0.00
x	3	16.06	0.04	10.01	345.57	13.00	0.00	20.95	19.06	0.00
x	4	32.09	0.04	10.01	11.64	13.00	0.00	28.13	19.28	0.00
x	5	32.11	0.04	10.01	345.32	13.00	0.00	37.09	19.04	0.00
x	6	48.14	0.04	10.01	9.44	13.00	0.00	44.92	19.42	0.00
x	7	48.14	36.16	10.01	170.65	13.00	0.00	44.95	16.78	0.00
x	8	32.11	36.16	10.01	194.45	13.00	0.00	37.01	17.14	0.00
x	9	32.09	36.16	10.01	168.22	13.00	0.00	28.08	16.93	0.00
x	10	16.06	36.16	10.01	194.71	13.00	0.00	21.05	17.16	0.00
	11	16.04	36.16	10.01	167.34	13.00	0.00	11.74	17.00	0.00
	12	0.01	36.16	10.01	189.72	13.00	0.00	3.32	16.80	0.00

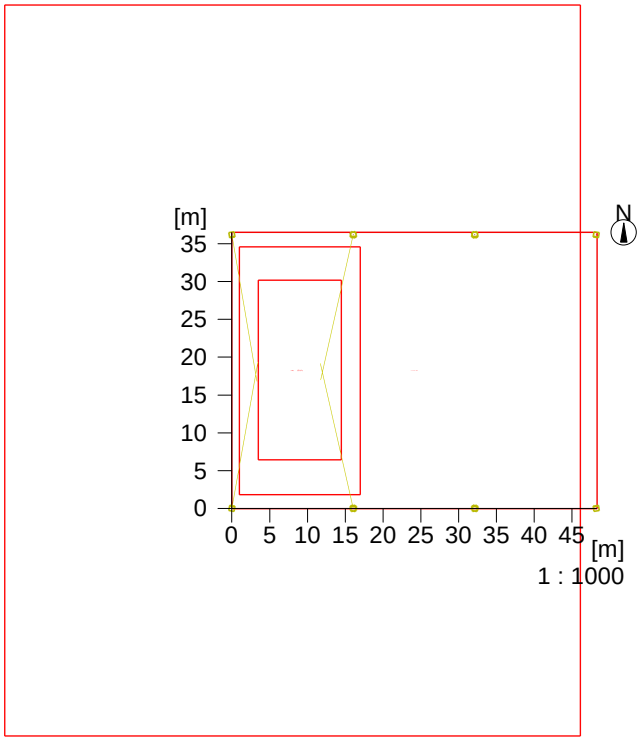
Structural elements

Virtual measuring surface

No.	xm[m]	ym[m]	zm[m]	Length	Width	Rotation angle z axis	L axis	Q axis
Ref. plane 1								
	24.13	18.24	0.00	48.26	36.48	0.00	0.00	0.00
TPA Court 4								
m 1	1.00	1.85	0.00	15.97	32.71	0.00	0.00	0.00
PPA Court 4								
m 2	3.50	6.45	0.00	10.97	23.71	0.00	0.00	0.00
Spillage								
m 3	-30.00	-30.00	0.00	76.05	96.48	0.00	0.00	0.00

2.1 Description, Exteriör 1

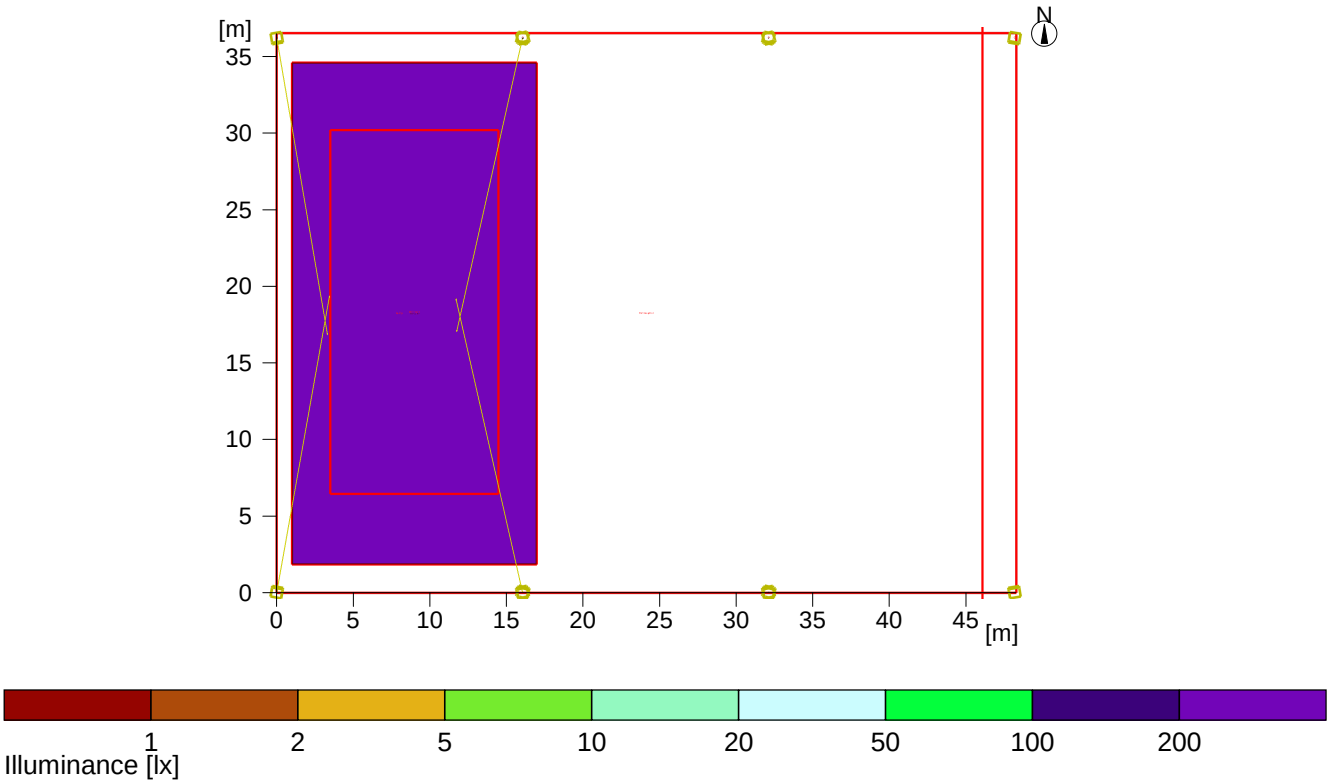
2.1.2 Floor plan



2 Exteriör 1

2.2 Summary, Exteriör 1

2.2.1 Result overview, TPA Court 4



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
photometric centre height. [m]:	10.01 m
Maintenance factor	0.80
Total luminous flux of all lamps	800000 lm
Total power	8280 W
Total power per area (1760.52 m²)	4.70 W/m²

Illuminance

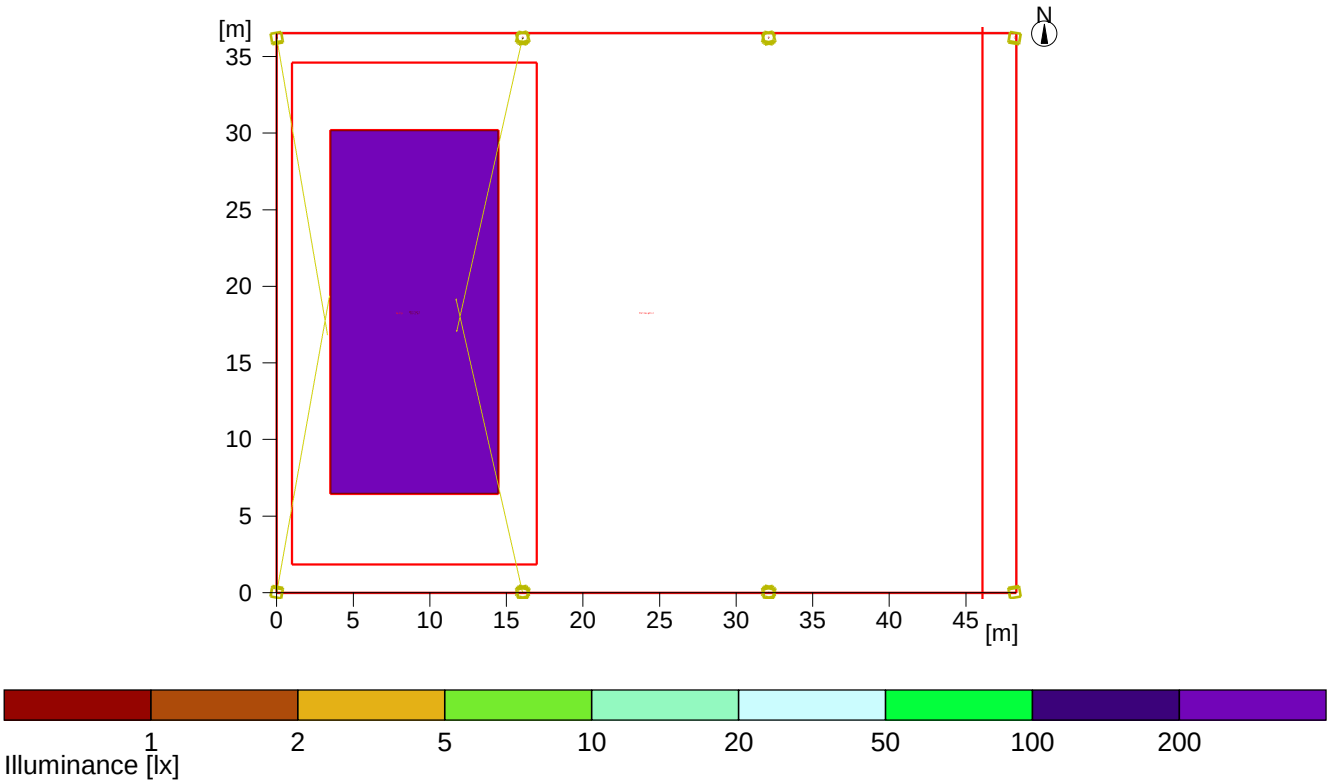
Average illuminance	Eav	482 lx
Minimum illuminance	Emin	287 lx
Maximum illuminance	Emax	762 lx
Uniformity g1	Emin/Em	1:1.68 (0.6)
Uniformity g2	Emin/Emax	1:2.66 (0.38)

Type No.\Make

		AB Deltalux	
1	4	Order No.	: BS2000B
		Luminaire name	: BS2000B
		Equipment	: 1 x Metallhalogen 2000 W / 200000 lm

2.2 Summary, Exteriör 1

2.2.2 Result overview, PPA Court 4



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
photometric centre height. [m]:	10.01 m
Maintenance factor	0.80
Total luminous flux of all lamps	800000 lm
Total power	8280 W
Total power per area (1760.52 m²)	4.70 W/m²

Illuminance

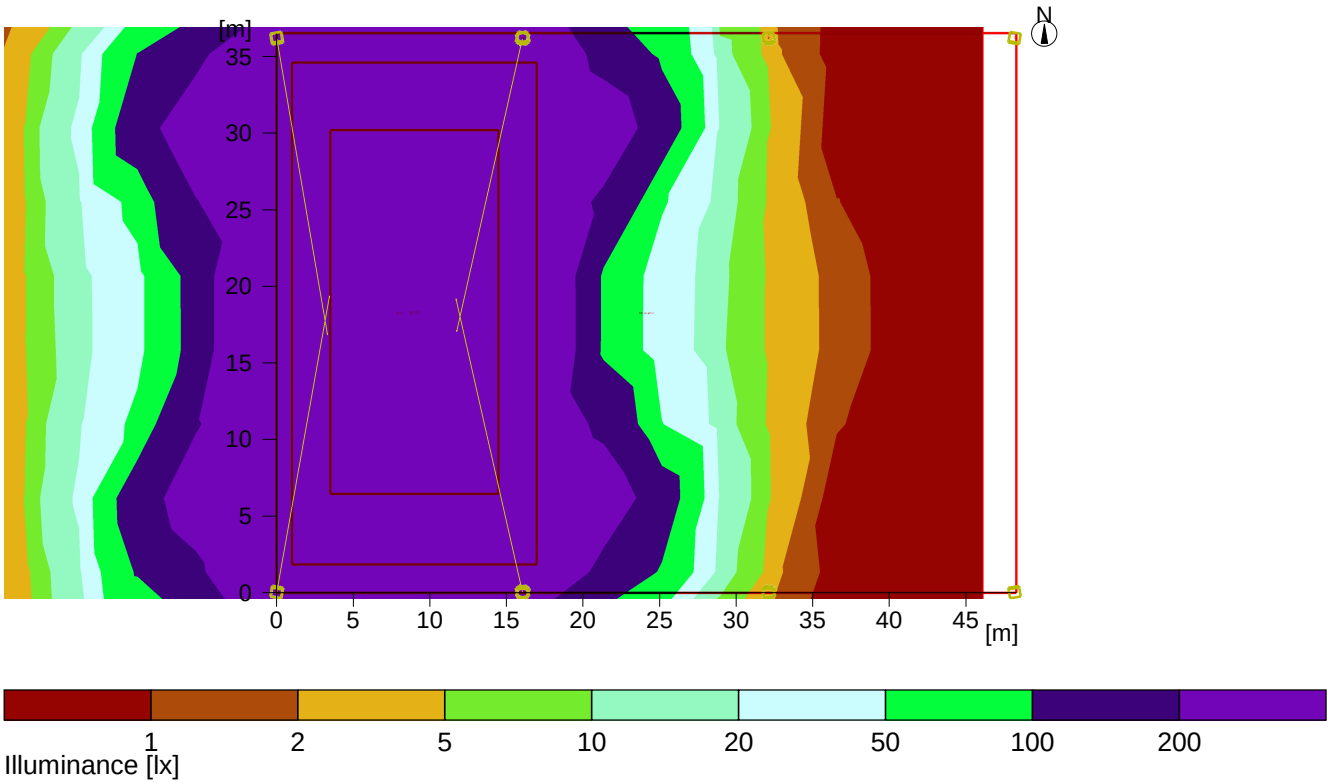
Average illuminance	Eav	520 lx
Minimum illuminance	Emin	347 lx
Maximum illuminance	Emax	780 lx
Uniformity g1	Emin/Em	1:1.5 (0.67)
Uniformity g2	Emin/Emax	1:2.25 (0.44)

Type No.\Make

		AB Deltalux	
1	4	Order No.	: BS2000B
		Luminaire name	: BS2000B
		Equipment	: 1 x Metallhalogen 2000 W / 200000 lm

2.2 Summary, Exteriör 1

2.2.3 Result overview, Spillage



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
photometric centre height. [m]:	10.01 m
Maintenance factor	0.80
Total luminous flux of all lamps	800000 lm
Total power	8280 W
Total power per area (1760.52 m²)	4.70 W/m²

Illuminance

Average illuminance	Eav	67 lx
Minimum illuminance	Emin	0 lx
Maximum illuminance	Emax	678 lx
Uniformity g1	Emin/Em	1:697 (0)
Uniformity g2	Emin/Emax	1:7030 (0)

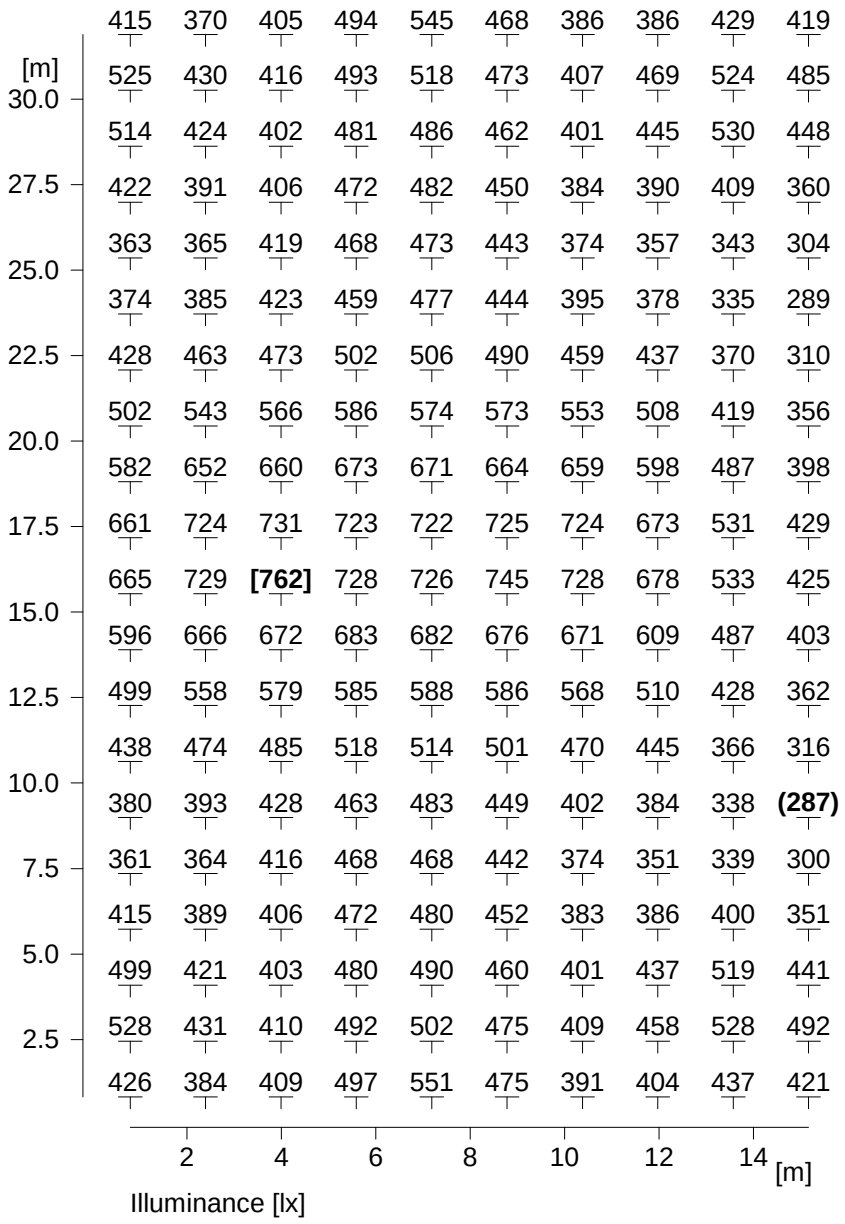
Type No.\Make

		AB Deltalux	
1	4	Order No.	: BS2000B
		Luminaire name	: BS2000B
		Equipment	: 1 x Metallhalogen 2000 W / 200000 lm

2 Exteriör 1

2.3 Calculation results, Exteriör 1

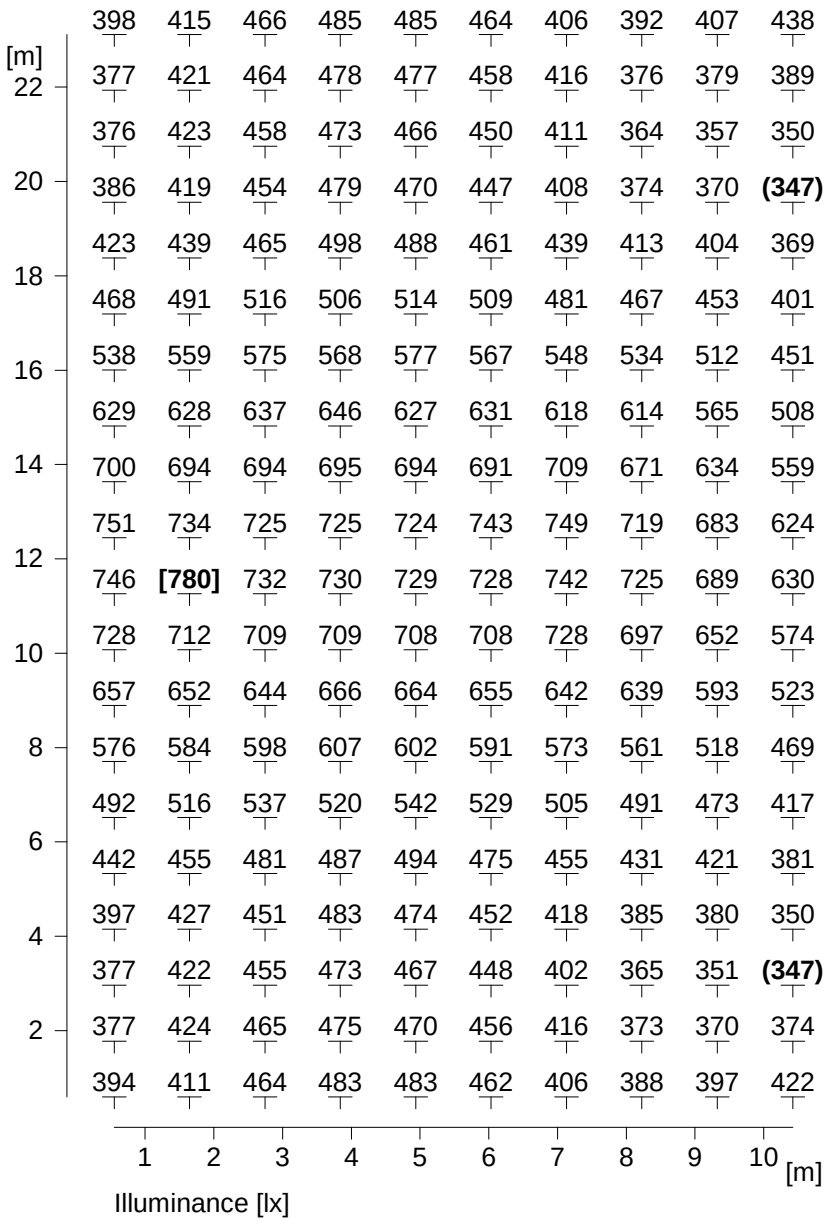
2.3.1 Table, TPA Court 4 (E)



Height of the reference plane		: 0.00 m
Average illuminance	Eav	: 482 lx
Minimum illuminance	Emin	: 287 lx
Maximum illuminance	Emax	: 762 lx
Uniformity g1	Emin/Eav	: 1 : 1.68 (0.60)
Uniformity g2	Emin/Emax	: 1 : 2.66 (0.38)

2.3 Calculation results, Exteriör 1

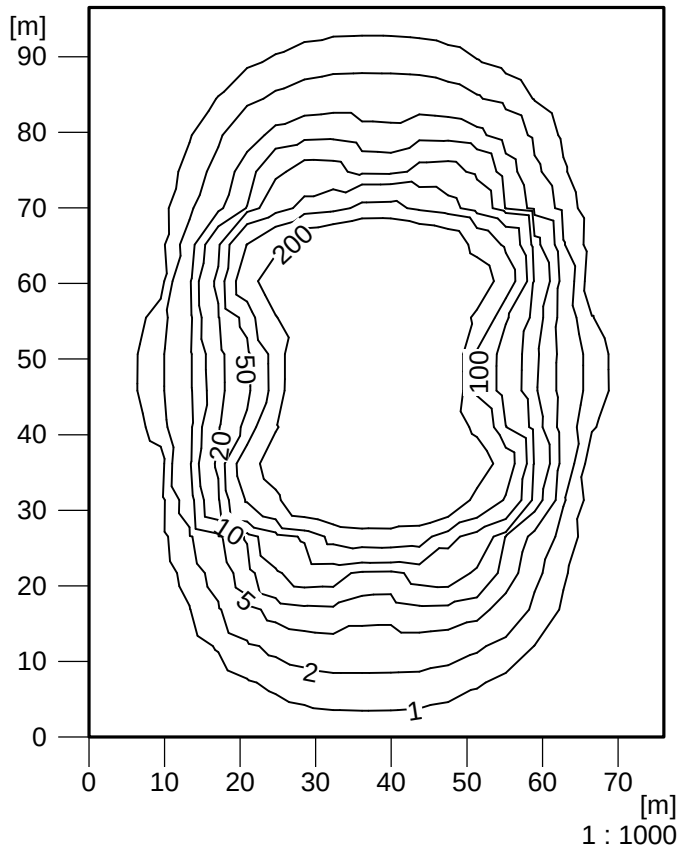
2.3.2 Table, PPA Court 4 (E)



Height of the reference plane		: 0.00 m
Average illuminance	Eav	: 520 lx
Minimum illuminance	Emin	: 347 lx
Maximum illuminance	Emax	: 780 lx
Uniformity g1	Emin/Eav	: 1 : 1.50 (0.67)
Uniformity g2	Emin/Emax	: 1 : 2.25 (0.44)

2.3 Calculation results, Exteriör 1

2.3.3 Isolines representation, Spillage (E)



Illuminance [lx]

Height of the reference plane		: 0.00 m
Average illuminance	Eav	: 67 lx
Minimum illuminance	Emin	: 0 lx
Maximum illuminance	Emax	: 678 lx
Uniformity g1	Emin/Eav	: 1 : 697.33 (0.00)
Uniformity g2	Emin/Emax	: 1 : 7025.36 (0.00)