



• LIGHTING DESIGN • ELECTRICAL • SMART CITIES •
ENERGY REDUCTION • LIGHTING IMPACT

SEACOURT PADEL COURTS

CALCULATION REPORTS

DFL-UK

17 City Business Centre, Hyde Street, Winchester, SO23 7TA

+44(0)1962 855080 | info@dfi-uk.com | www.dfi-uk.com



PROJECT NUMBER: 3097		DOCUMENT REF: 30973097-DFL-ELG-XX-RP-EO-13002			
P01	First issue	KS	AL	AL	13/09/2023
Revision	Purpose Description	Originated	Checked	Approved	Date

Designs for Lighting (DFL) are a business built on the successfully collaborating with our clients. We have over 20 years proven experience in our industry, listening to the challenges our clients face, developing the best solutions and being innovators in our specialism. Our role is to find the most effective and sustainable outcome to enhance and support your projects. We proudly work with recognised industry bodies to promote and shape the future of the industry and ensure our staff are trained to exceed the required competency levels of our industries. Above all, we ensure each project delivers against our values.



Quality



Knowledgeable



Dependable



Clear Advice

This report consists of three calculations;

3097-DFL-ELG-XX-CA-EO-13001-S3-P01.pdf

Calculations for both courts with all lights switched on including isolux contours and vertical grids.

3097-DFL-ELG-XX-CA-EO-13002-S3-P01.pdf

Calculation for Court 1 with full lights on but Court 2 switched off including isolux contours and vertical grids.

3097-DFL-ELG-XX-CA-EO-13003-S3-P01.pdf

Calculation for Court 2 with full lights on but Court 1 switched off including isolux contours and vertical grids.

DATE: 13 September 2023
DESIGNER: DFL
PROJECT No: 3097
PROJECT NAME: Seacourt Tennis Club



Lighting levels as per LTA class II - Eave = 300 lux / Uo = 50%

Not for construction.

Lighting Levels with 0.9 MF

Light spill diagram does not consider blocking or shading effects of light limiting objects and represents worst-case horizontal light spill at ground floor level.

Light spill diagram to be read in conjunction with Lighting Strategy: 3097-DFL-ELG-XX-RP-EO-13001-S3

Isolux contours shown:

Red 300 lux

Cyan 10 lux

Purple 5.0 lux

Yellow 1.0 lux

Black 0.2 lux

3097-DFL-ELG-XX-LD-EO-13001-S3-P01

PREPARED BY: Kelly Smith
DFL-UK
+44 (0) 1962 855080
17/18 City Business Centre
Winchester, Hants
SO23 7TA
e-mail: kelly@df-l-uk.com
website: www.dfl-uk.com

Layout Report

General Data

Dimensions in Metres Angles in Degrees

Calculation Grids

ID	Grid Name	X	Y	X' Length	Y' Length	X' Spacing	Y' Spacing
1	Grid 1	152.00	-61.70	25.05	12.55	1.93	1.79
2	Grid 2	152.00	-47.35	25.05	12.55	1.93	1.79
3	Grid 3	98.00	-110.00	132.00	124.00	2.00	2.00
4	Grid 4 - vertical grid 1	131.54	2.36	49.67	5.00	1.46	1.00
5	Grid 5 - vertical grid 2	154.54	-84.05	20.50	5.00	1.46	1.00

Luminaires

Luminaire A Data

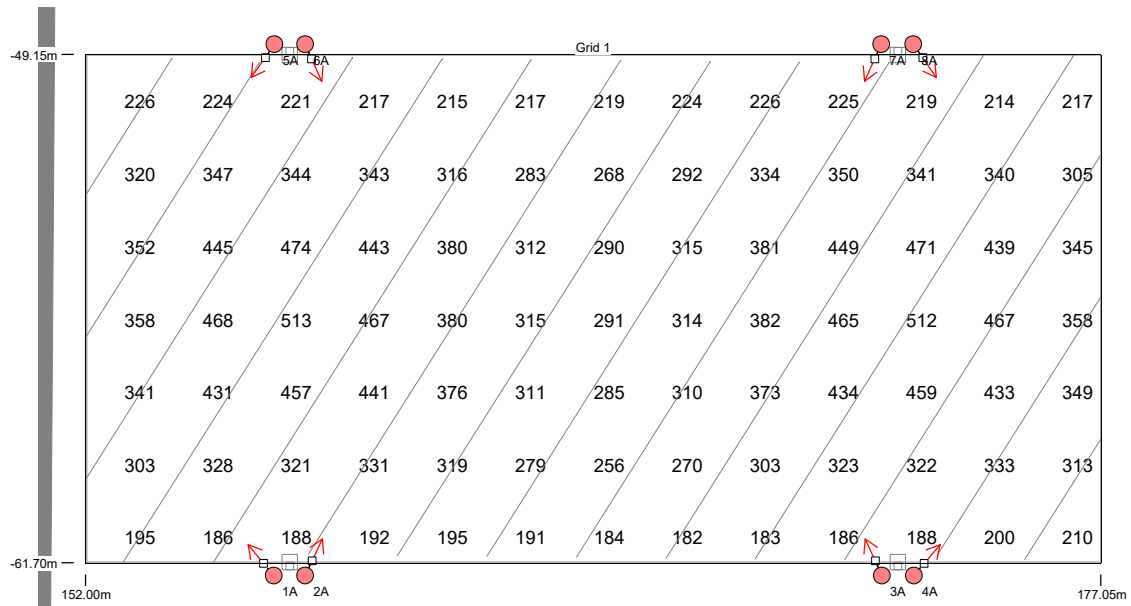
Supplier	
Type	MAH150-B50NGP
Lamp(s)	S3030
Lamp Flux (klm)	21.76
File Name	MAH150-B50NGP.ies
Maintenance Factor	0.90
Imax70,80,90(cd/klm)	373.8, 147.5, 3.1
No. in Project	16

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	A	156.65	-62.00	6.00	130.00	0.00	0.00	0.40			
2	A	157.42	-62.00	6.00	65.00	0.00	0.00	0.40			
3	A	171.64	-62.00	6.00	115.00	0.00	0.00	0.40			
4	A	172.42	-62.00	6.00	50.00	0.00	0.00	0.40			
5	A	156.66	-48.90	6.00	235.00	0.00	0.00	0.40			
6	A	157.41	-48.90	6.00	295.00	0.00	0.00	0.40			
7	A	171.63	-48.90	6.00	245.00	0.00	0.00	0.40			
8	A	172.41	-48.90	6.00	305.00	0.00	0.00	0.40			
9	A	156.64	-47.60	6.00	125.00	0.00	0.00	0.40			
10	A	157.42	-47.62	6.00	65.00	0.00	0.00	0.40			
11	A	171.64	-47.61	6.00	115.00	0.00	0.00	0.40			
12	A	172.42	-47.60	6.00	55.00	0.00	0.00	0.40			
13	A	156.65	-34.50	6.00	230.00	0.00	0.00	0.40			
14	A	157.43	-34.50	6.00	295.00	0.00	0.00	0.40			
15	A	171.66	-34.50	6.00	245.00	0.00	0.00	0.40			
16	A	172.41	-34.50	6.00	310.00	0.00	0.00	0.40			

Horizontal Illuminance (lux)

Grid 1

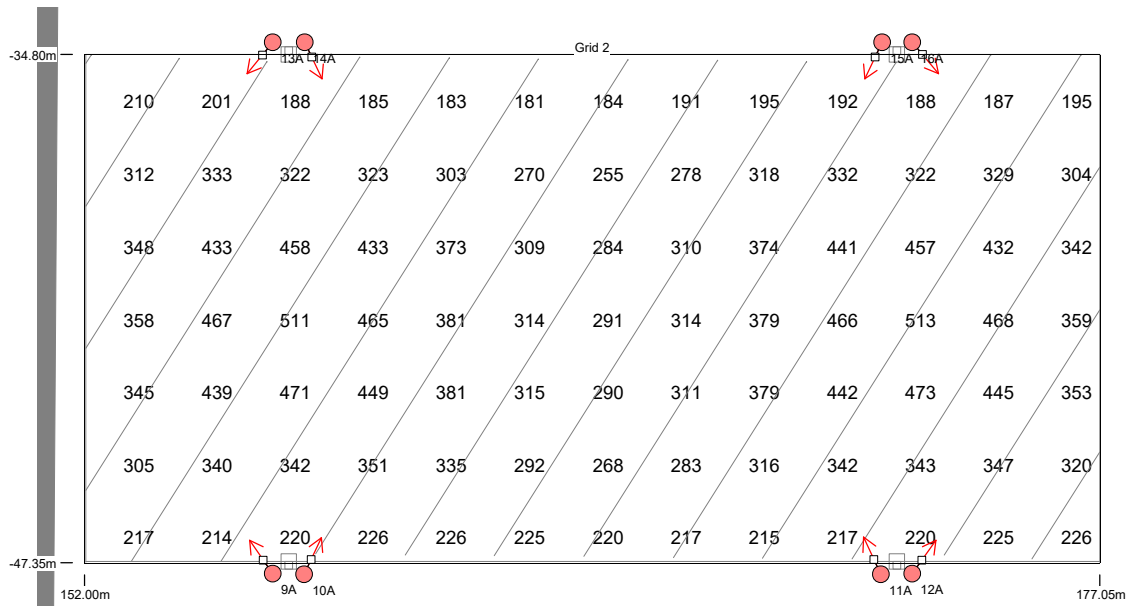


Results

Eav	317.73
Emin	181.59
E _{max}	513.20
Emin/E _{max}	0.35
Emin/Eav	0.57

Horizontal Illuminance (lux)

Grid 2

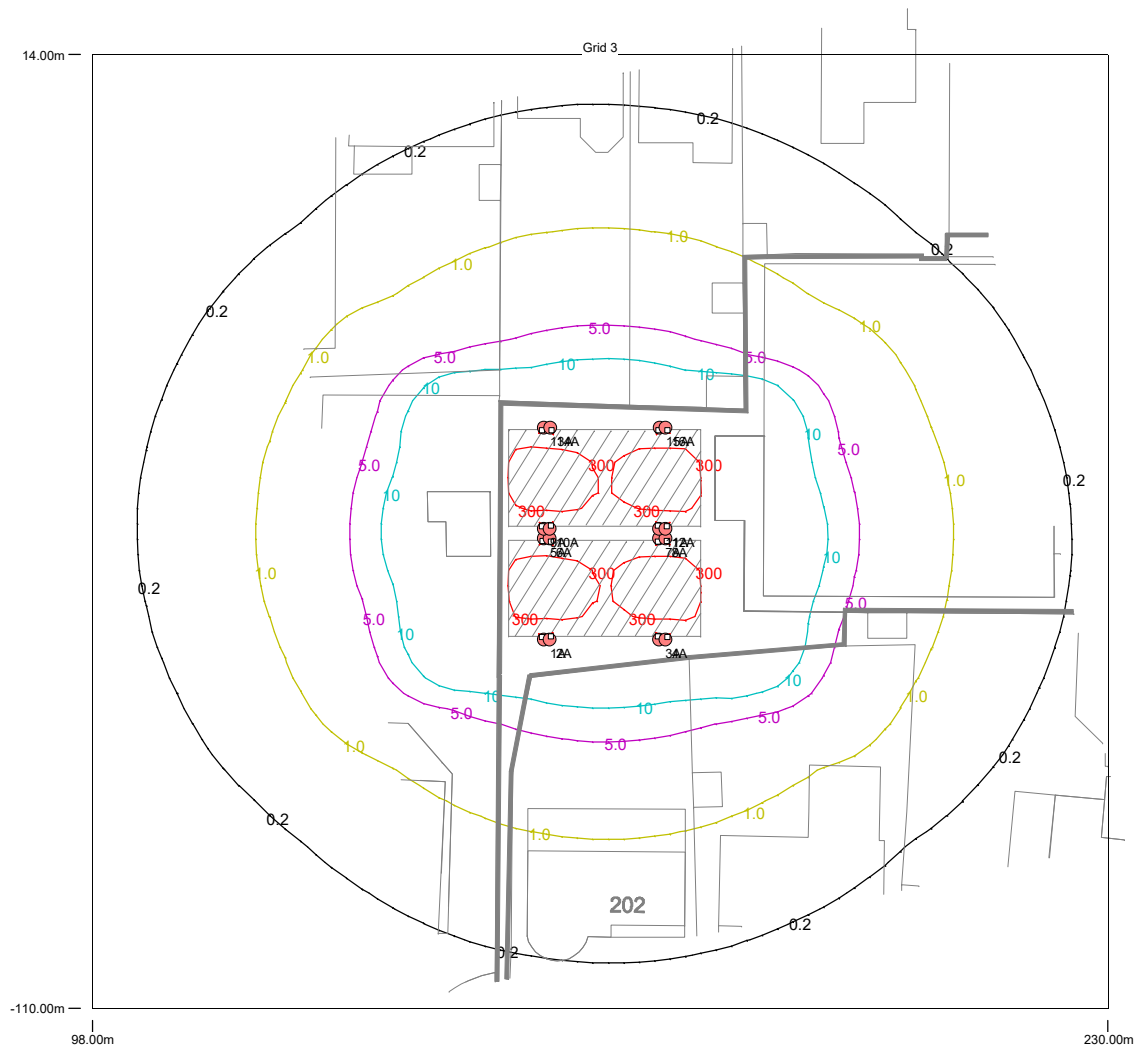


Results

Eav	317.63
Emin	181.22
Emax	512.92
Emin/Emax	0.35
Emin/Eav	0.57

Horizontal Illuminance (lux)

Grid 3



Results

Eav	19.09
Emin	0.02
Emax	513.01
Emin/Emax	0.00
Emin/Eav	0.00

Illuminance (lux)

Grid 4 - vertical grid 1

0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3
0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.7
0.7	0.7	0.8	0.8	0.9	0.9	0.9	1.0	1.1	1.1	1.2	1.3	1.3	1.3	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.3	1.2	1.2	1.2
1.0	1.1	1.2	1.2	1.3	1.4	1.5	1.6	1.6	1.7	1.8	1.9	1.9	2.0	2.1	2.1	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.1	2.1	2.0	2.0	1.9	1.9

Results

Eav	0.89
Emin	0.15
E _{max}	2.30
Emin/E _{max}	0.07
Emin/Eav	0.17

Illuminance (lux)

Grid 5 - vertical grid 2

Results

Eav	3.73
Emin	0.52
Emax	8.20
Emin/Emax	0.06
Emin/Eav	0.14

DATE: 13 September 2023
DESIGNER: DFL
PROJECT No: 3097
PROJECT NAME: Seacourt Tennis Club



Lighting levels as per LTA class II - Eave = 300 lux / Uo = 50%

Court 1 only, no lighting for Court 2

Not for construction.

Lighting Levels with 0.9 MF

Light spill diagram does not consider blocking or shading effects of light limiting objects and represents worst-case horizontal light spill at ground floor level.

Light spill diagram to be read in conjunction with Lighting Strategy: 3097-DFL-ELG-XX-RP-EO-13001-S3

3097-DFL-ELG-XX-LD-EO-13002-S3-P01

PREPARED BY: Kelly Smith
DFL-UK
+44 (0) 1962 855080
17/18 City Business Centre
Winchester, Hants
SO23 7TA
e-mail: kelly@dfi-uk.com
website: www.dfi-uk.com

Layout Report

General Data

Dimensions in Metres Angles in Degrees

Calculation Grids

ID	Grid Name	X	Y	X' Length	Y' Length	X' Spacing	Y' Spacing
1	Grid 1	152.00	-61.70	25.05	12.55	1.93	1.79
2	Grid 2	152.00	-47.35	25.05	12.55	1.93	1.79
3	Grid 3	98.00	-110.00	132.00	124.00	2.00	2.00
4	Grid 4 - vertical grid 1	131.54	2.36	49.67	5.00	1.46	1.00
5	Grid 5 - vertical grid 2	154.54	-84.05	20.50	5.00	1.46	1.00

Luminaires

Luminaire A Data

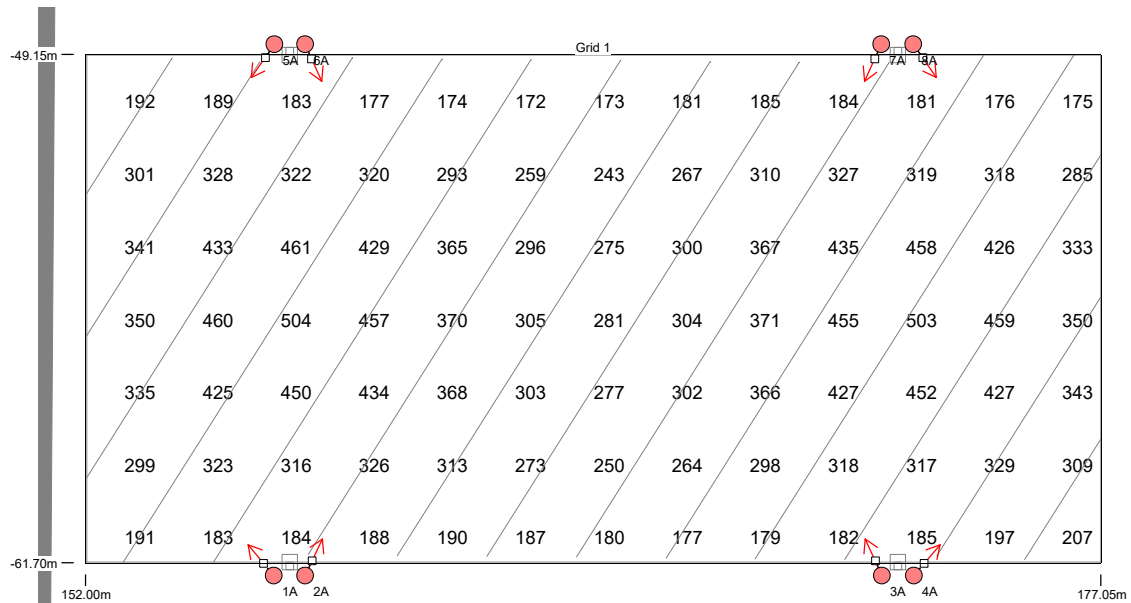
Supplier	
Type	MAH150-B50NGP
Lamp(s)	S3030
Lamp Flux (klm)	21.76
File Name	MAH150-B50NGP.ies
Maintenance Factor	0.90
Imax70,80,90(cd/klm)	373.8, 147.5, 3.1
No. in Project	16

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Dimmed to	Target X	Target Y	Target Z
1	A	156.65	-62.00	6.00	130.00	0.00	0.00	0.40	100%			
2	A	157.42	-62.00	6.00	65.00	0.00	0.00	0.40	100%			
3	A	171.64	-62.00	6.00	115.00	0.00	0.00	0.40	100%			
4	A	172.42	-62.00	6.00	50.00	0.00	0.00	0.40	100%			
5	A	156.66	-48.90	6.00	235.00	0.00	0.00	0.40	100%			
6	A	157.41	-48.90	6.00	295.00	0.00	0.00	0.40	100%			
7	A	171.63	-48.90	6.00	245.00	0.00	0.00	0.40	100%			
8	A	172.41	-48.90	6.00	305.00	0.00	0.00	0.40	100%			
9	A	156.64	-47.60	6.00	125.00	0.00	0.00	0.40	0%			
10	A	157.42	-47.62	6.00	65.00	0.00	0.00	0.40	0%			
11	A	171.64	-47.61	6.00	115.00	0.00	0.00	0.40	0%			
12	A	172.42	-47.60	6.00	55.00	0.00	0.00	0.40	0%			
13	A	156.65	-34.50	6.00	230.00	0.00	0.00	0.40	0%			
14	A	157.43	-34.50	6.00	295.00	0.00	0.00	0.40	0%			
15	A	171.66	-34.50	6.00	245.00	0.00	0.00	0.40	0%			
16	A	172.41	-34.50	6.00	310.00	0.00	0.00	0.40	0%			

Horizontal Illuminance (lux)

Grid 1

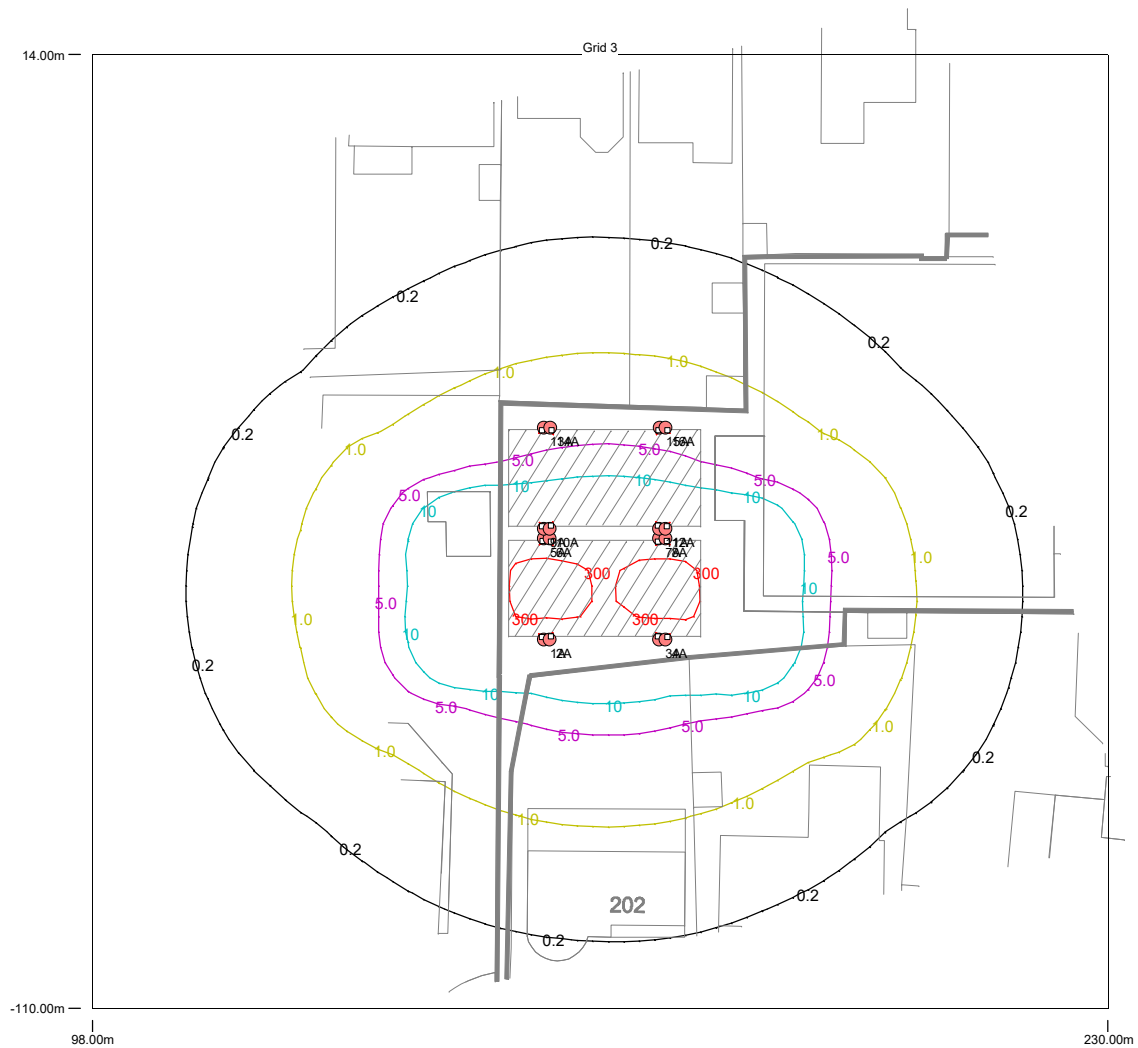


Results

Eav	303.25
Emin	171.70
E _{max}	504.08
Emin/E _{max}	0.34
Emin/Eav	0.57

Horizontal Illuminance (lux)

Grid 3



Illuminance (lux)

Grid 4 - vertical grid 1

[illegible]

Results

Eav	0.25
Emin	0.06
Emax	0.57
Emin/Emax	0.11
Emin/Eav	0.25

Illuminance (lux)

Grid 5 - vertical grid 2

0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
1.2	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.3
2.3	2.4	2.5	2.6	2.7	2.7	2.7	2.7	2.7	2.6	2.6	2.5	2.4	2.3
3.9	4.0	4.2	4.3	4.3	4.4	4.4	4.5	4.4	4.4	4.3	4.2	4.0	3.8
5.8	6.0	6.1	6.3	6.3	6.4	6.5	6.5	6.4	6.3	6.2	6.1	5.9	5.6

Results

Eav	2.95
Emin	0.37
Emax	6.46
Emin/Emax	0.06
Emin/Eav	0.13

DATE: 13 September 2023
DESIGNER: DFL
PROJECT No: 3097
PROJECT NAME: Seacourt Tennis Club



Lighting levels as per LTA class II - Eave = 300 lux / Uo = 50%

Court 2 only, no lighting for Court 1

Not for construction.

Lighting Levels with 0.9 MF

Light spill diagram does not consider blocking or shading effects of light limiting objects and represents worst-case horizontal light spill at ground floor level.

Light spill diagram to be read in conjunction with Lighting Strategy: 3097-DFL-ELG-XX-RP-EO-13001-S3

3097-DFL-ELG-XX-LD-EO-13003-S3-P01

PREPARED BY: Kelly Smith
DFL-UK
+44 (0) 1962 855080
17/18 City Business Centre
Winchester, Hants
SO23 7TA
e-mail: kelly@df-l-uk.com
website: www.dfl-uk.com

Layout Report

General Data

Dimensions in Metres Angles in Degrees

Calculation Grids

ID	Grid Name	X	Y	X' Length	Y' Length	X' Spacing	Y' Spacing
1	Grid 1	152.00	-61.70	25.05	12.55	1.93	1.79
2	Grid 2	152.00	-47.35	25.05	12.55	1.93	1.79
3	Grid 3	98.00	-110.00	132.00	124.00	2.00	2.00
4	Grid 4 - vertical grid 1	131.54	2.36	49.67	5.00	1.46	1.00
5	Grid 5 - vertical grid 2	154.54	-84.05	20.50	5.00	1.46	1.00

Luminaires

Luminaire A Data

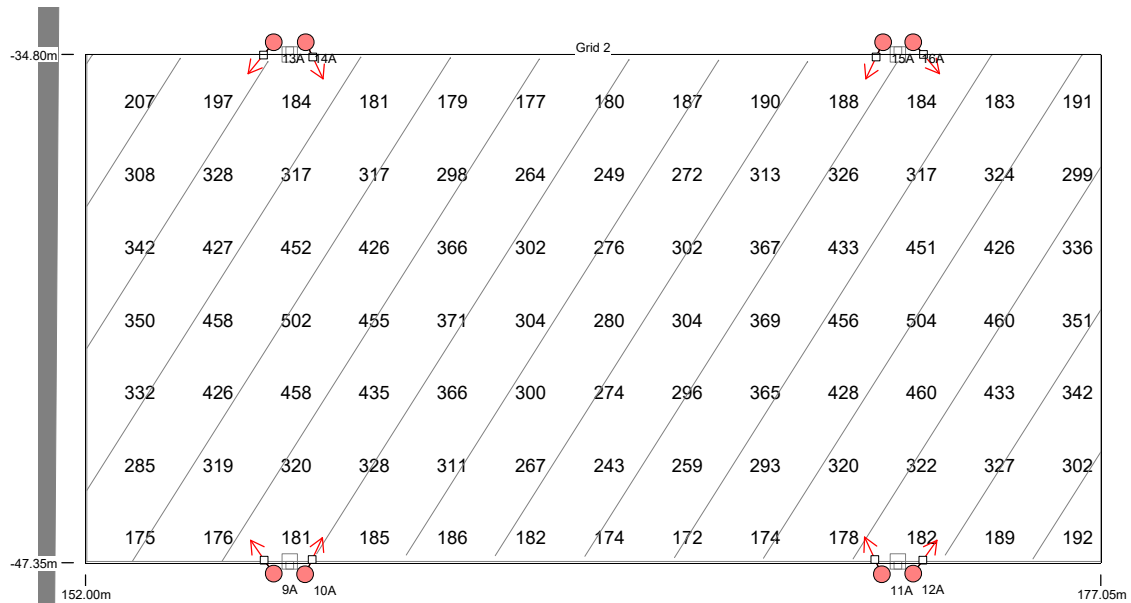
Supplier	
Type	MAH150-B50NGP
Lamp(s)	S3030
Lamp Flux (klm)	21.76
File Name	MAH150-B50NGP.ies
Maintenance Factor	0.90
Imax70,80,90(cd/klm)	373.8, 147.5, 3.1
No. in Project	16

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Dimmed to	Target X	Target Y	Target Z
1	A	156.65	-62.00	6.00	130.00	0.00	0.00	0.40	0%			
2	A	157.42	-62.00	6.00	65.00	0.00	0.00	0.40	0%			
3	A	171.64	-62.00	6.00	115.00	0.00	0.00	0.40	0%			
4	A	172.42	-62.00	6.00	50.00	0.00	0.00	0.40	0%			
5	A	156.66	-48.90	6.00	235.00	0.00	0.00	0.40	0%			
6	A	157.41	-48.90	6.00	295.00	0.00	0.00	0.40	0%			
7	A	171.63	-48.90	6.00	245.00	0.00	0.00	0.40	0%			
8	A	172.41	-48.90	6.00	305.00	0.00	0.00	0.40	0%			
9	A	156.64	-47.60	6.00	125.00	0.00	0.00	0.40	100%			
10	A	157.42	-47.62	6.00	65.00	0.00	0.00	0.40	100%			
11	A	171.64	-47.61	6.00	115.00	0.00	0.00	0.40	100%			
12	A	172.42	-47.60	6.00	55.00	0.00	0.00	0.40	100%			
13	A	156.65	-34.50	6.00	230.00	0.00	0.00	0.40	100%			
14	A	157.43	-34.50	6.00	295.00	0.00	0.00	0.40	100%			
15	A	171.66	-34.50	6.00	245.00	0.00	0.00	0.40	100%			
16	A	172.41	-34.50	6.00	310.00	0.00	0.00	0.40	100%			

Horizontal Illuminance (lux)

Grid 2

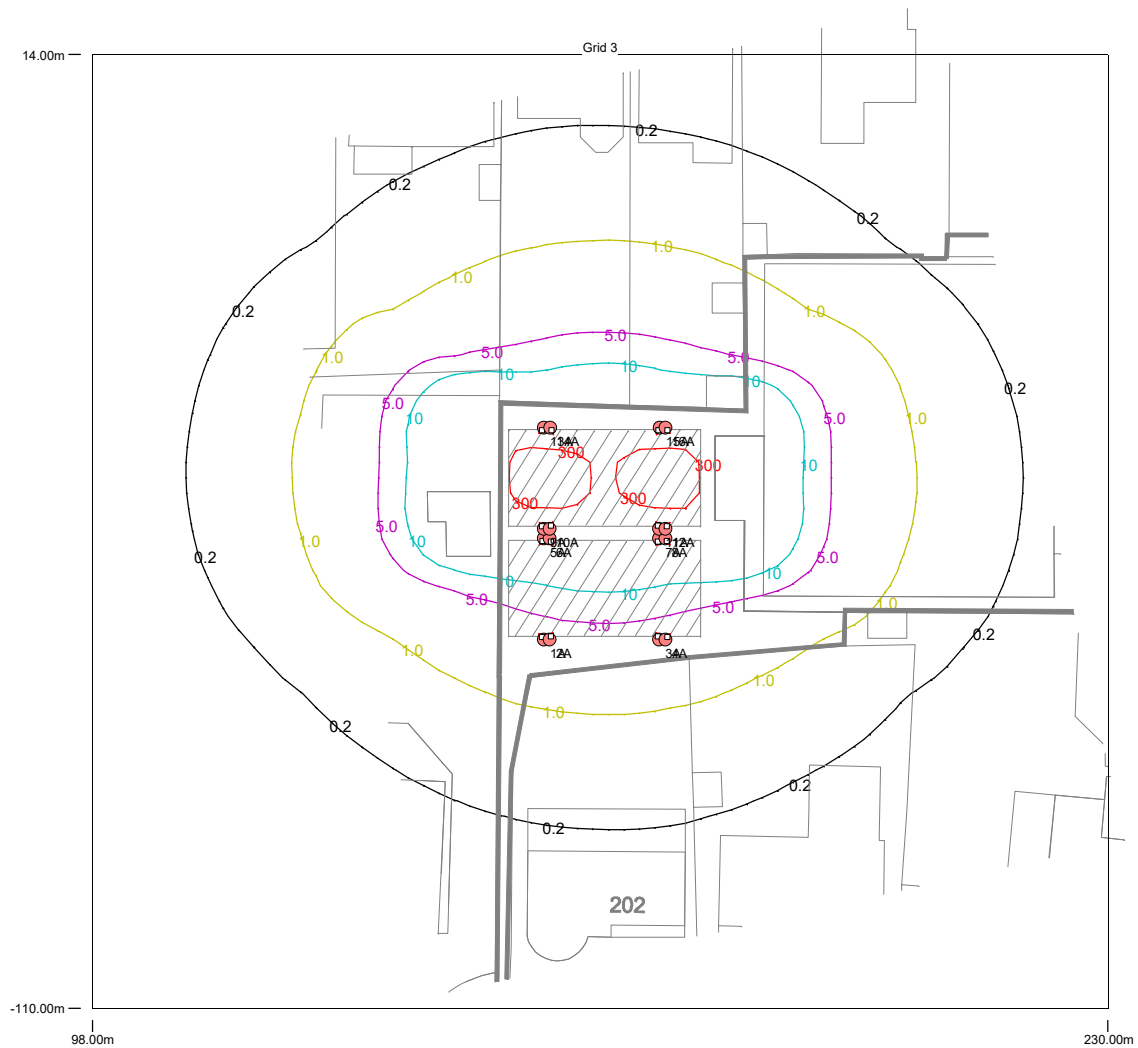


Results

Eav	303.17
Emin	172.06
Emax	503.80
Emin/Emax	0.34
Emin/Eav	0.57

Horizontal Illuminance (lux)

Grid 3



Illuminance (lux)

Grid 4 - vertical grid 1

[illegible]

Results

Eav	0.65
Emin	0.09
E _{max}	1.72
Emin/E _{max}	0.05
Emin/Eav	0.14

Illuminance (lux)

Grid 5 - vertical grid 2

0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6
1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.0	1.0
1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6

Results

Eav	0.78
Emin	0.15
E _{max}	1.75
Emin/E _{max}	0.08
Emin/Eav	0.19

This isn't the end...

We don't just have the solution for what you need today. We also have the solutions you might need for the future. We have dedicated teams that deliver.

- **Lighting Impact and Planning** teams that focus on delivering the most effective and sensitive lighting solutions to support planning.
- **Residential** teams that cover all aspects of new development and redevelopment spanning private, section 38 and section 278 design packages.
- **Public Realm** teams that are experts in enhancing night-time public spaces to create inviting spaces and opportunity for local economies to thrive during the hours of darkness.
- **Electrical** teams – we don't just put a light in the ground, we can help you get power to it as well! Additionally, we also offer design services for EV charging. As this market rapidly expands, make sure you have the experts managing the load, otherwise your EV charging solutions might not live up to expectations.
- **Strategic Infrastructure** teams that offer Lighting and Electrical expertise for complex transport networks and interchanges.
- **Consultancy Services** teams that help when you know what you want but you need someone to help you turn the idea into a project.

Finally, as innovators, you might be facing something bespoke or niche. Don't worry – we might have the answer you need. Feel free to get in touch!

THE POWER TO MAKE LIGHT WORK



Kelly Smith
Senior Engineer



+44 (0)1962 855080



kelly@dfi-uk.com



www.dfi-uk.com/



17/18 City Business Centre, Hyde
Street, Winchester, Hampshire,
SO23 7TA