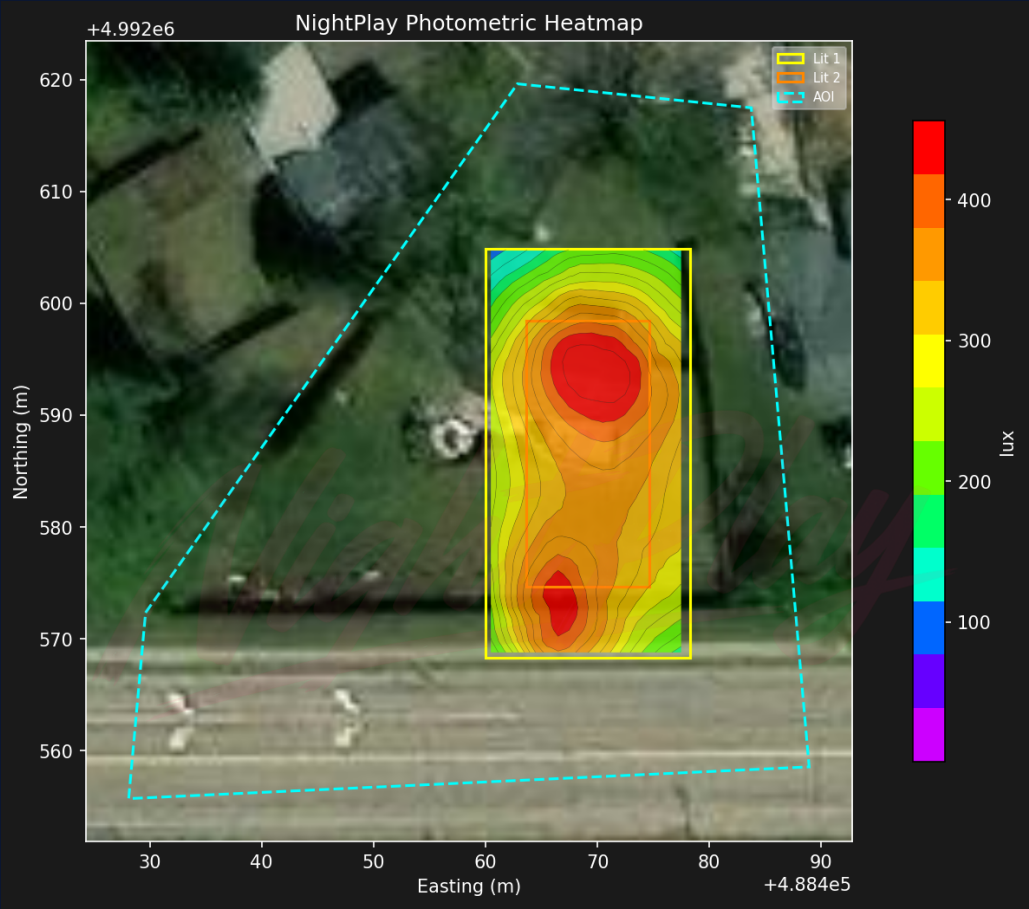


NightPlay Lighting Photometric Report

More Play. After Dark.

Project Name:	Trygve's Tennis Court
Report Date:	2026-07-08
KML File:	—
Grid Size:	1.0 m
Units:	Metric (lux / m)
Lit Areas:	2
Blocked Areas:	0
Altitude Correction:	Disabled





Combined Illuminance Statistics

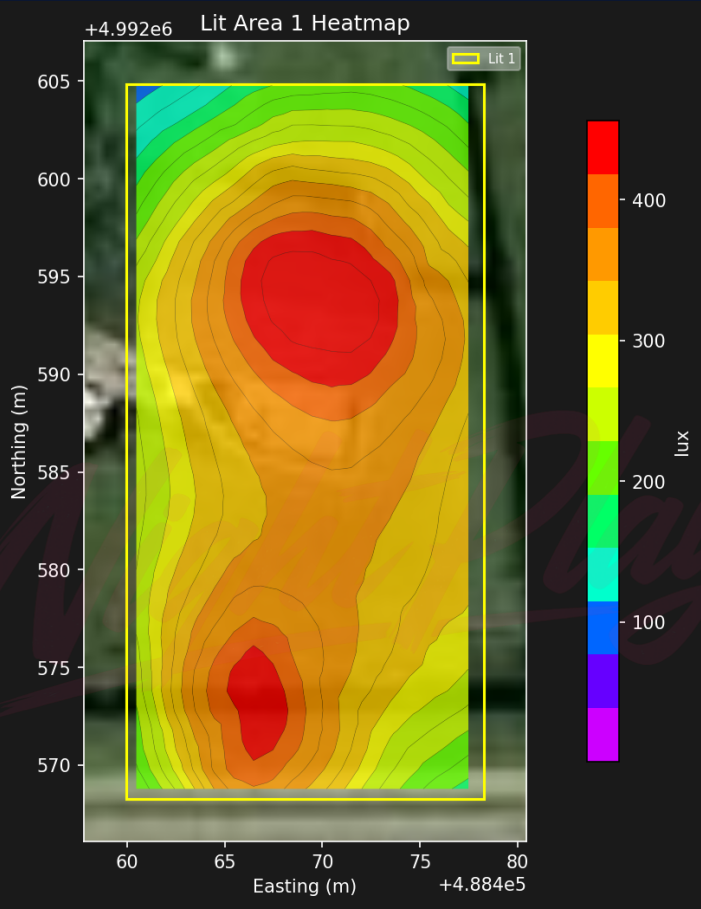
Metric	Value
Average Illuminance	320.4 lux

Metric	Value
Minimum Illuminance	98.9 lux
Maximum Illuminance	456.0 lux
Calculation Points	666

Illuminance Statistics by Lit Area

Lit Area 1

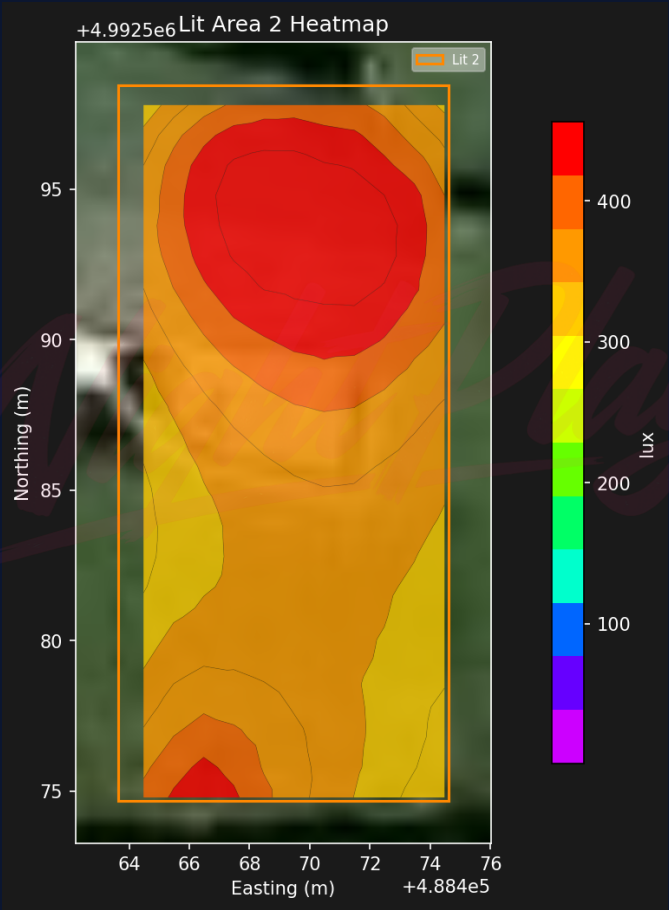
Metric	Value
Average Illuminance	320.4 lux
Minimum Illuminance	98.9 lux
Maximum Illuminance	456.0 lux
Calculation Points	666



Lit Area 2

Metric	Value
Average Illuminance	375.2 lux
Minimum Illuminance	299.0 lux

Metric	Value
Maximum Illuminance	456.0 lux
Calculation Points	264

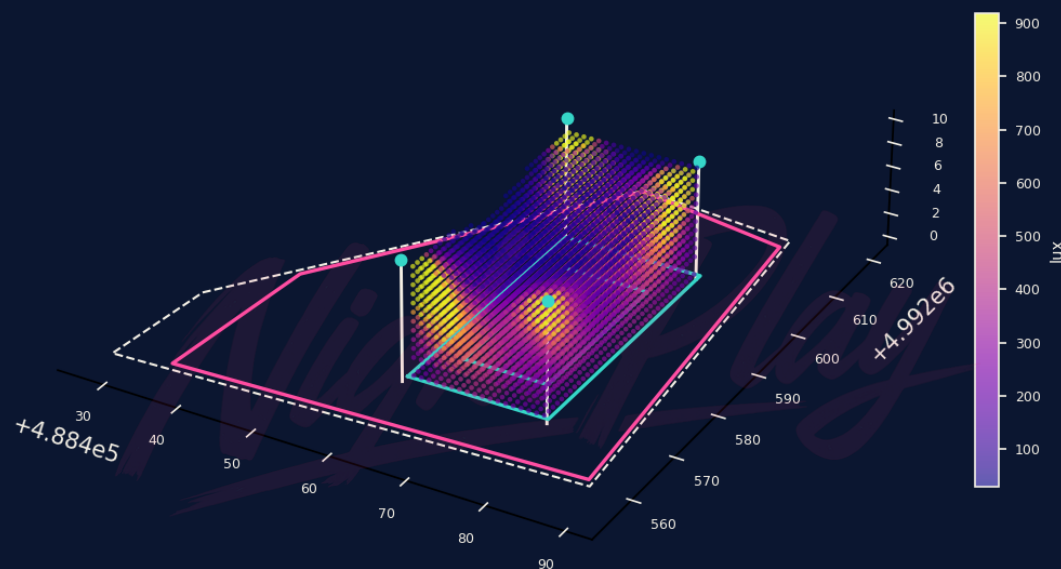


Volumetric Illuminance (Ball Visibility)

Height above grade	Average (lux)	Minimum (lux)	Maximum (lux)	Emin/Eavg
Ground	320.4	98.9	456.0	0.31
1.5 m	351.1	122.6	537.7	0.35
2.25 m	366.0	141.6	620.4	0.39
3 m	380.3	151.4	737.5	0.40
3.75 m	393.5	155.3	886.2	0.39
4.5 m	405.4	133.7	1123.7	0.33
5.25 m	415.2	109.1	1440.5	0.26
6 m	422.8	84.6	2012.2	0.20
6.75 m	426.2	62.4	2927.1	0.15
7.5 m	424.1	42.6	4806.1	0.10
8.25 m	409.3	25.9	7225.6	0.06
9 m	362.7	12.6	21585.9	0.03
Worst-plane envelope	320.4	12.6	21585.9	—

Horizontal illuminance computed on planes from grade up through the ball-flight volume. The worst-plane envelope takes the least favourable value of each metric across the stack.

3D light volume — points below the design cutoff are hidden, so the coloured volume is the space where play stays lit:



Lighting Class Compliance — Tennis, Class II, EN 12193 (unverified reference values)

Metric	Required	Computed	Result
Average illuminance on playing area, lux	≥ 300	375.18	PASS
Uniformity U2 — dimmest point ÷ average	≥ 0.7	0.80	PASS

Metric	Required	Computed	Result
Glare rating GR — CIE 112 (lower is better)	<= 50	43.97	PASS
Overall			PASS

The Playing Area is the marked playing surface itself; the Total Area adds the surrounding safety zone. Standards assess compliance over the Playing Area.

Computed values are initial illuminance; no maintenance factor applied.

GR computed per CIE 112: observers at grid positions on the playing area (eye height 1.5 m), 8 viewing directions 2° below horizontal, surface reflectance 0.2.

Class requirement values are unverified reference data — confirm against the standard.

Glare Rating (GR)

Worst-case glare rating GR = 44, computed per CIE 112:1994 (observers at grid positions on the playing area, eye height 1.5 m, 8 viewing directions 2° below horizontal, surface reflectance 0.2). EN 12193 class II limits GR to ≤ 50 — this installation PASSES. Lower GR is better.

Obtrusive Light — CIE 150 Zone E3 (unverified reference limits)

Check	Limit	Computed	Result
Upward Light Ratio (installation)	≤ 5.0%	9.4%	FAIL
Bleed Line 1 — max E_v pre-curfew (lux)	≤ 10	269.53	FAIL
Bleed Line 1 — max E_v post-curfew (lux)	≤ 2	269.53	FAIL

Zone E3: Medium district brightness (suburban). Vertical illuminance assessed on site-facing planes at 2 m height along each property line; the same installation state is compared against both pre- and post-curfew limits.

Fixture BUG Ratings — IES TM-15

Fixture	Qty	Rating	Uplight	Total flux
SL-1P-300 (Slipfit)	12	B5 U3 G2	0.2 %	48,481 lm

BUG (Backlight / Uplight / Glare) classifies each luminaire's zonal lumens per IES TM-15-11 in its photometric orientation — field aiming is not included here; the as-aimed upward light of this installation is the ULR in the obtrusive-light section. Threshold tables are reference data pending verification against the purchased TM-15 document.

Fixture Schedule

Fixture: SL-1P-300 (Slipfit)

Position	Fixtures	Lat	Lon	Height	Heading°	Tilt°
LP-963C47	3	45.086818	-93.146642	10.0 m	181.7	61.6
LP-963C47	3	45.086818	-93.146642	10.0 m	112.4	58.4
LP-963C47	3	45.086818	-93.146642	10.0 m	132.8	64.8
LP-435993	3	45.086805	-93.146408	10.0 m	198.2	65.7
LP-435993	3	45.086805	-93.146408	10.0 m	215.2	62.7
LP-435993	3	45.086805	-93.146408	10.0 m	198.4	65.6
LP-BE257B	3	45.086477	-93.146403	10.0 m	307.8	67.9
LP-BE257B	3	45.086477	-93.146403	10.0 m	9.2	58.3
LP-BE257B	3	45.086477	-93.146403	10.0 m	23.5	74.3
LP-44DE5B	3	45.086473	-93.146639	10.0 m	45.3	58.4
LP-44DE5B	3	45.086473	-93.146639	10.0 m	358.0	65.6
LP-44DE5B	3	45.086473	-93.146639	10.0 m	74.3	41.5