



Wargrave Tennis Club
Recreation Ground
Wargrave, Berkshire, RG10 8BG
5th February 2025

Floodlighting Impact Assessment Statement

Proposal: The proposal is for a single pop-up padel court to be installed on one of the existing eight tennis courts at Wargrave Tennis Club that already has LED floodlighting provision (see site map).

The proposed padel court has integrated lighting. If permission is granted, we would use this lighting option versus the current lighting provision that is available for the existing tennis court.

Floodlighting Impact:

Current Court Floodlighting:

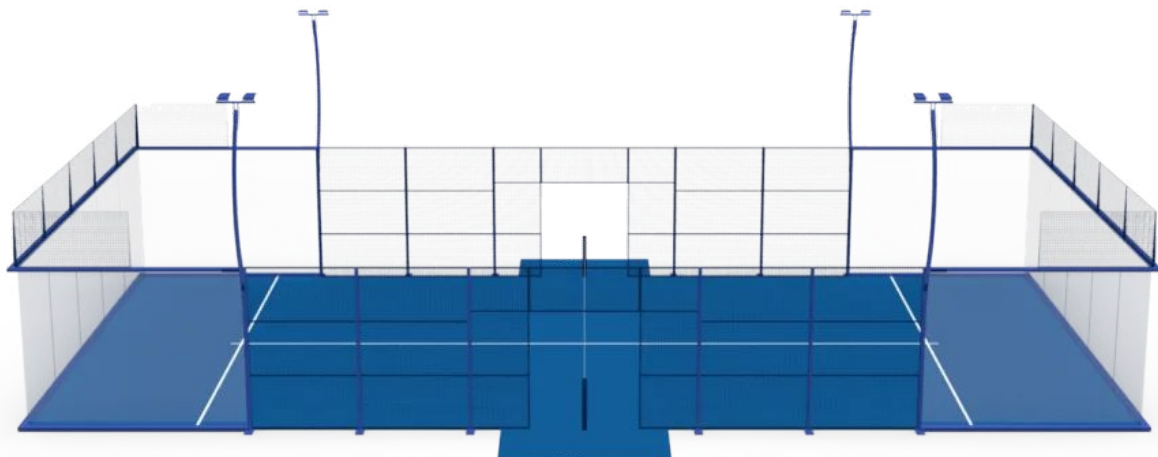
The tennis club currently has existing LED floodlighting on all eight courts, with 16 x 10m high pylons and 32 x 800 watt LED units. See images on page 2.

The proposed site for the padel court (court number 8) already has lighting provision via 4 x 800 watt LED units that produce an average 567 lumens (3,200 watts and 8,500 lumens in total).

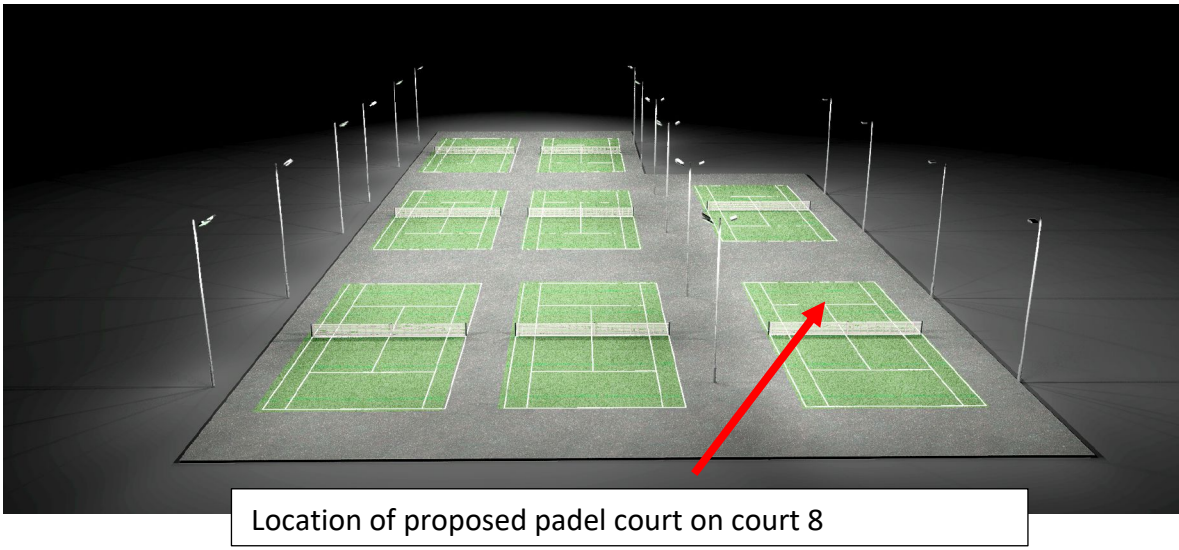
Padel Court Floodlighting:

The bespoke lighting for the pop-up padel will be provided by 4 x 6m high posts that are integrated into the design of the court (see below), with 4 x 200 watt LED units (not 8 as per image below).

The total wattage of the proposed lighting output will be 25% of the current tennis court lighting. In terms of lumen levels, the average light level is just under 500 lumens (measured at 1 meter above the court surface). This is achieved by having lower pylon height (versus current pylons) and with lighting angles that will minimise "light spillage". See the details on page 3 onwards.



Current Tennis Club Floodlight Illumination from 32 x 800 Watt Units (16 x 10 meter high pylons)

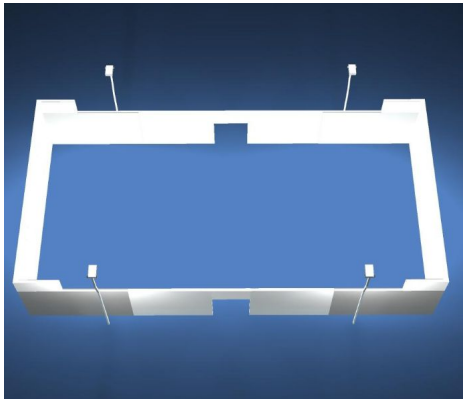


Spot Lighting of current LED lighting on court 8 (location of proposed padel court). This provides a total of 8,500 lumens, with average lumens at 567 (measured at 1 meter above the court surface)

Light Level Comparisons		
Points		
	ACTUAL levels	PREDICTION
Back	426	563
	500	642
	500	505
Middle	578	475
	660	533
	670	456
Net	541	427
	645	484
	625	413
Middle	600	509
	630	568
	655	476
Back	455	481
	490	560
	525	447
Total	8500	7539
Average	567	503
Average 10%	567	553
Low	426	413
	670	642

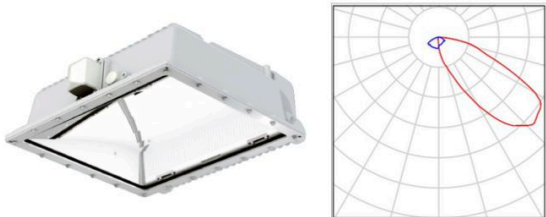


Padel Court Lighting Details – 4 x 200 Watt Units (on 4 x 6 meter pylons integrated to court frame)

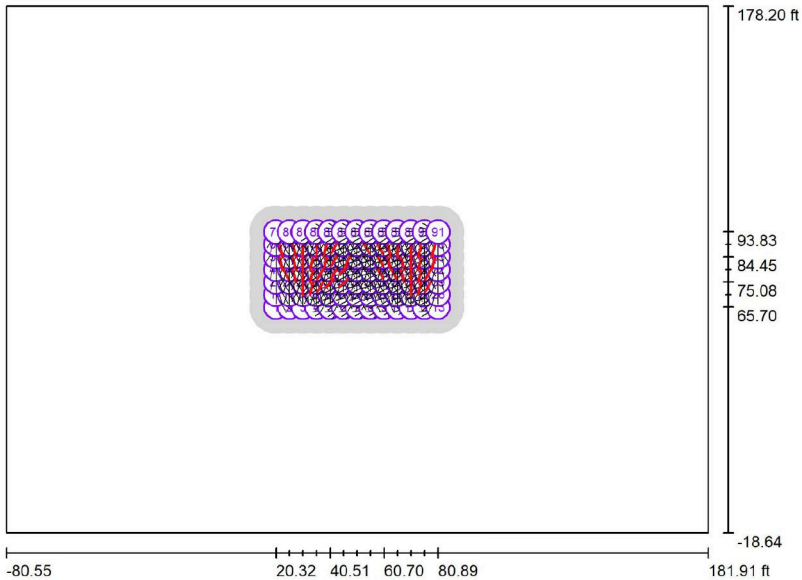


Padel Court / Luminaire parts list

4 Pieces GigaTera MAH200-B40NGP
Article No.:
Luminous flux (Luminaire): 29013 lm
Luminous flux (Lamps): 29013 lm
Luminaire Wattage: 200.2 W
Luminaire classification according to CIE: 100
CIE flux code: 25 67 94 100 100
Fitting: 1 x S3030 (Correction Factor 1.000).



Exterior Scene 1 / GR Observer (Results Overview)

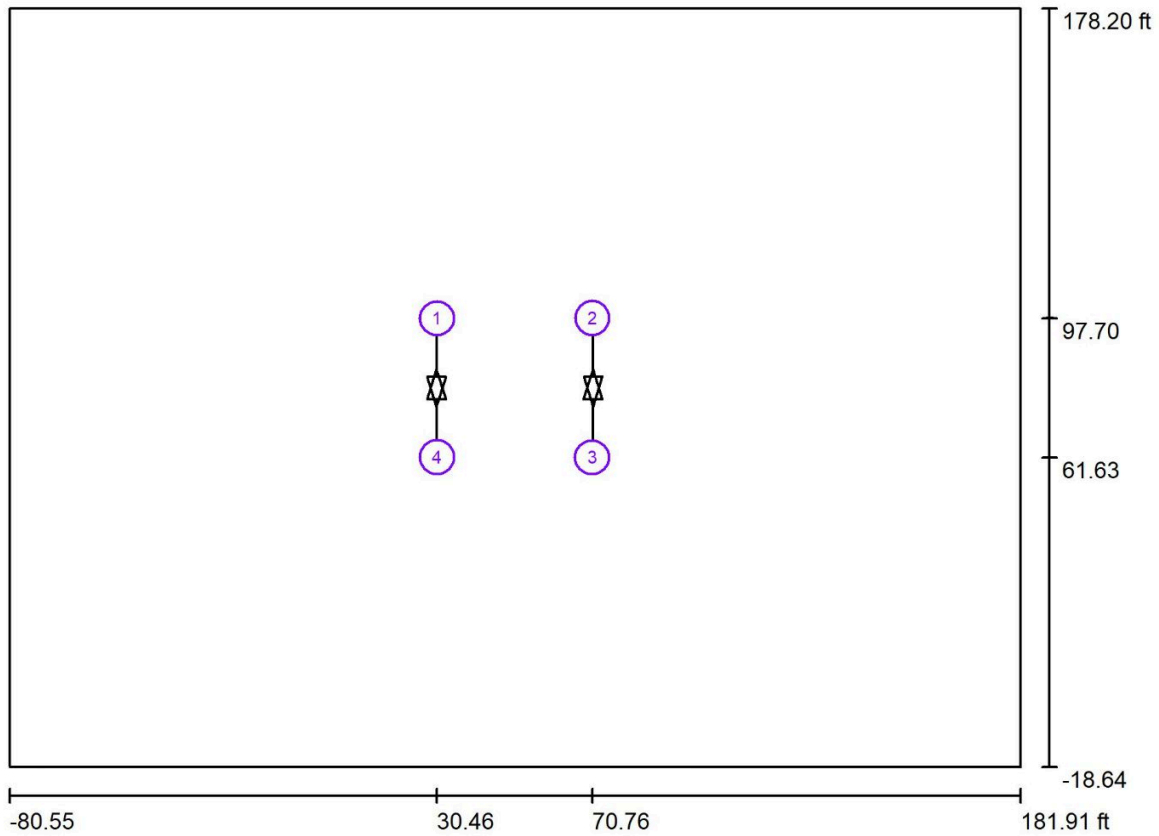


Scale 1 : 572

GR Observerlist

No.	Designation	Position [ft]			Viewing sector [°]			Slope angle	Max
		X	Y	Z	Start	End	Increment		
1	GR Observer 1	20.317	65.704	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
2	GR Observer 2	25.364	65.704	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
3	GR Observer 3	30.411	65.704	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
4	GR Observer 4	35.459	65.704	3.281	0.0	360.0	15.0	-2.0	66 ²⁾

Exterior Scene 1 / Sport Luminaires (Coordinates List)



Scale 1 : 572

List of the Sport Luminaires

Luminaire	Index	Position [ft]			Aiming Point [ft]			Angle [°]	Alignment	Pole
		X	Y	Z	X	Y	Z			
GigaTera MAH200-B40NGP	1	30.463	97.705	20.000	30.299	74.799	0.000	41.1	(C 0, G IMax)	/
GigaTera MAH200-B40NGP	2	70.785	97.824	20.000	70.998	74.802	0.000	41.0	(C 0, G IMax)	/
GigaTera MAH200-B40NGP	3	70.760	61.635	20.000	70.947	84.564	0.000	41.1	(C 0, G IMax)	/
GigaTera MAH200-B40NGP	4	30.455	61.661	20.000	30.283	84.567	0.000	41.1	(C 0, G IMax)	/

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Exterior Scene 1 / GR Observer (Results Overview)

GR Observerlist

No.	Designation	Position [ft]			Viewing sector [°]				Max
		X	Y	Z	Start	End	Increment	Slope angle	
5	GR Observer 5	40.506	65.704	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
6	GR Observer 6	45.553	65.704	3.281	0.0	360.0	15.0	-2.0	66 ²⁾
7	GR Observer 7	50.601	65.704	3.281	0.0	360.0	15.0	-2.0	65 ²⁾
8	GR Observer 8	55.648	65.704	3.281	0.0	360.0	15.0	-2.0	65 ²⁾
9	GR Observer 9	60.696	65.704	3.281	0.0	360.0	15.0	-2.0	66 ²⁾
10	GR Observer 10	65.743	65.704	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
11	GR Observer 11	70.790	65.704	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
12	GR Observer 12	75.838	65.704	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
13	GR Observer 13	80.885	65.704	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
14	GR Observer 14	20.317	70.391	3.281	0.0	360.0	15.0	-2.0	68 ²⁾
15	GR Observer 15	25.364	70.391	3.281	0.0	360.0	15.0	-2.0	69 ²⁾
16	GR Observer 16	30.411	70.391	3.281	0.0	360.0	15.0	-2.0	69 ²⁾
17	GR Observer 17	35.459	70.391	3.281	0.0	360.0	15.0	-2.0	68 ²⁾
18	GR Observer 18	40.506	70.391	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
19	GR Observer 19	45.553	70.391	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
20	GR Observer 20	50.601	70.391	3.281	0.0	360.0	15.0	-2.0	65 ²⁾
21	GR Observer 21	55.648	70.391	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
22	GR Observer 22	60.696	70.391	3.281	0.0	360.0	15.0	-2.0	68 ²⁾
23	GR Observer 23	65.743	70.391	3.281	0.0	360.0	15.0	-2.0	68 ²⁾
24	GR Observer 24	70.790	70.391	3.281	0.0	360.0	15.0	-2.0	69 ²⁾
25	GR Observer 25	75.838	70.391	3.281	0.0	360.0	15.0	-2.0	68 ²⁾
26	GR Observer 26	80.885	70.391	3.281	0.0	360.0	15.0	-2.0	68 ²⁾
27	GR Observer 27	20.317	75.078	3.281	0.0	360.0	15.0	-2.0	68 ²⁾
28	GR Observer 28	25.364	75.078	3.281	0.0	360.0	15.0	-2.0	68 ²⁾
29	GR Observer 29	30.411	75.078	3.281	0.0	360.0	15.0	-2.0	68 ²⁾
30	GR Observer 30	35.459	75.078	3.281	0.0	360.0	15.0	-2.0	68 ²⁾
31	GR Observer 31	40.506	75.078	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
32	GR Observer 32	45.553	75.078	3.281	0.0	360.0	15.0	-2.0	66 ²⁾
33	GR Observer 33	50.601	75.078	3.281	0.0	360.0	15.0	-2.0	66 ²⁾
34	GR Observer 34	55.648	75.078	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
35	GR Observer 35	60.696	75.078	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
36	GR Observer 36	65.743	75.078	3.281	0.0	360.0	15.0	-2.0	68 ²⁾
37	GR Observer 37	70.790	75.078	3.281	0.0	360.0	15.0	-2.0	68 ²⁾
38	GR Observer 38	75.838	75.078	3.281	0.0	360.0	15.0	-2.0	68 ²⁾
39	GR Observer 39	80.885	75.078	3.281	0.0	360.0	15.0	-2.0	68 ²⁾
40	GR Observer 40	20.317	79.765	3.281	0.0	360.0	15.0	-2.0	67 ²⁾

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Exterior Scene 1 / GR Observer (Results Overview)

GR Observerlist

No.	Designation	Position [ft]			Viewing sector [°]				Max
		X	Y	Z	Start	End	Increment	Slope angle	
41	GR Observer 41	25.364	79.765	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
42	GR Observer 42	30.411	79.765	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
43	GR Observer 43	35.459	79.765	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
44	GR Observer 44	40.506	79.765	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
45	GR Observer 45	45.553	79.765	3.281	0.0	360.0	15.0	-2.0	66 ²⁾
46	GR Observer 46	50.601	79.765	3.281	0.0	360.0	15.0	-2.0	65 ²⁾
47	GR Observer 47	55.648	79.765	3.281	0.0	360.0	15.0	-2.0	66 ²⁾
48	GR Observer 48	60.696	79.765	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
49	GR Observer 49	65.743	79.765	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
50	GR Observer 50	70.790	79.765	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
51	GR Observer 51	75.838	79.765	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
52	GR Observer 52	80.885	79.765	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
53	GR Observer 53	20.317	84.452	3.281	0.0	360.0	15.0	-2.0	68 ²⁾
54	GR Observer 54	25.364	84.452	3.281	0.0	360.0	15.0	-2.0	68 ²⁾
55	GR Observer 55	30.411	84.452	3.281	0.0	360.0	15.0	-2.0	68 ²⁾
56	GR Observer 56	35.459	84.452	3.281	0.0	360.0	15.0	-2.0	68 ²⁾
57	GR Observer 57	40.506	84.452	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
58	GR Observer 58	45.553	84.452	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
59	GR Observer 59	50.601	84.452	3.281	0.0	360.0	15.0	-2.0	66 ²⁾
60	GR Observer 60	55.648	84.452	3.281	0.0	360.0	15.0	-2.0	66 ²⁾
61	GR Observer 61	60.696	84.452	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
62	GR Observer 62	65.743	84.452	3.281	0.0	360.0	15.0	-2.0	68 ²⁾
63	GR Observer 63	70.790	84.452	3.281	0.0	360.0	15.0	-2.0	68 ²⁾
64	GR Observer 64	75.838	84.452	3.281	0.0	360.0	15.0	-2.0	68 ²⁾
65	GR Observer 65	80.885	84.452	3.281	0.0	360.0	15.0	-2.0	68 ²⁾
66	GR Observer 66	20.317	89.139	3.281	0.0	360.0	15.0	-2.0	68 ²⁾
67	GR Observer 67	25.364	89.139	3.281	0.0	360.0	15.0	-2.0	68 ²⁾
68	GR Observer 68	30.411	89.139	3.281	0.0	360.0	15.0	-2.0	69 ²⁾
69	GR Observer 69	35.459	89.139	3.281	0.0	360.0	15.0	-2.0	68 ²⁾
70	GR Observer 70	40.506	89.139	3.281	0.0	360.0	15.0	-2.0	68 ²⁾
71	GR Observer 71	45.553	89.139	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
72	GR Observer 72	50.601	89.139	3.281	0.0	360.0	15.0	-2.0	65 ²⁾
73	GR Observer 73	55.648	89.139	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
74	GR Observer 74	60.696	89.139	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
75	GR Observer 75	65.743	89.139	3.281	0.0	360.0	15.0	-2.0	68 ²⁾
76	GR Observer 76	70.790	89.139	3.281	0.0	360.0	15.0	-2.0	69 ²⁾

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Exterior Scene 1 / GR Observer (Results Overview)

GR Observerlist

No.	Designation	Position [ft]			Viewing sector [°]				Max
		X	Y	Z	Start	End	Increment	Slope angle	
77	GR Observer 77	75.838	89.139	3.281	0.0	360.0	15.0	-2.0	69 ²⁾
78	GR Observer 78	80.885	89.139	3.281	0.0	360.0	15.0	-2.0	68 ²⁾
79	GR Observer 79	20.317	93.826	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
80	GR Observer 80	25.364	93.826	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
81	GR Observer 81	30.411	93.826	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
82	GR Observer 82	35.459	93.826	3.281	0.0	360.0	15.0	-2.0	66 ²⁾
83	GR Observer 83	40.506	93.826	3.281	0.0	360.0	15.0	-2.0	66 ²⁾
84	GR Observer 84	45.553	93.826	3.281	0.0	360.0	15.0	-2.0	65 ²⁾
85	GR Observer 85	50.601	93.826	3.281	0.0	360.0	15.0	-2.0	65 ²⁾
86	GR Observer 86	55.648	93.826	3.281	0.0	360.0	15.0	-2.0	65 ²⁾
87	GR Observer 87	60.696	93.826	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
88	GR Observer 88	65.743	93.826	3.281	0.0	360.0	15.0	-2.0	66 ²⁾
89	GR Observer 89	70.790	93.826	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
90	GR Observer 90	75.838	93.826	3.281	0.0	360.0	15.0	-2.0	67 ²⁾
91	GR Observer 91	80.885	93.826	3.281	0.0	360.0	15.0	-2.0	67 ²⁾

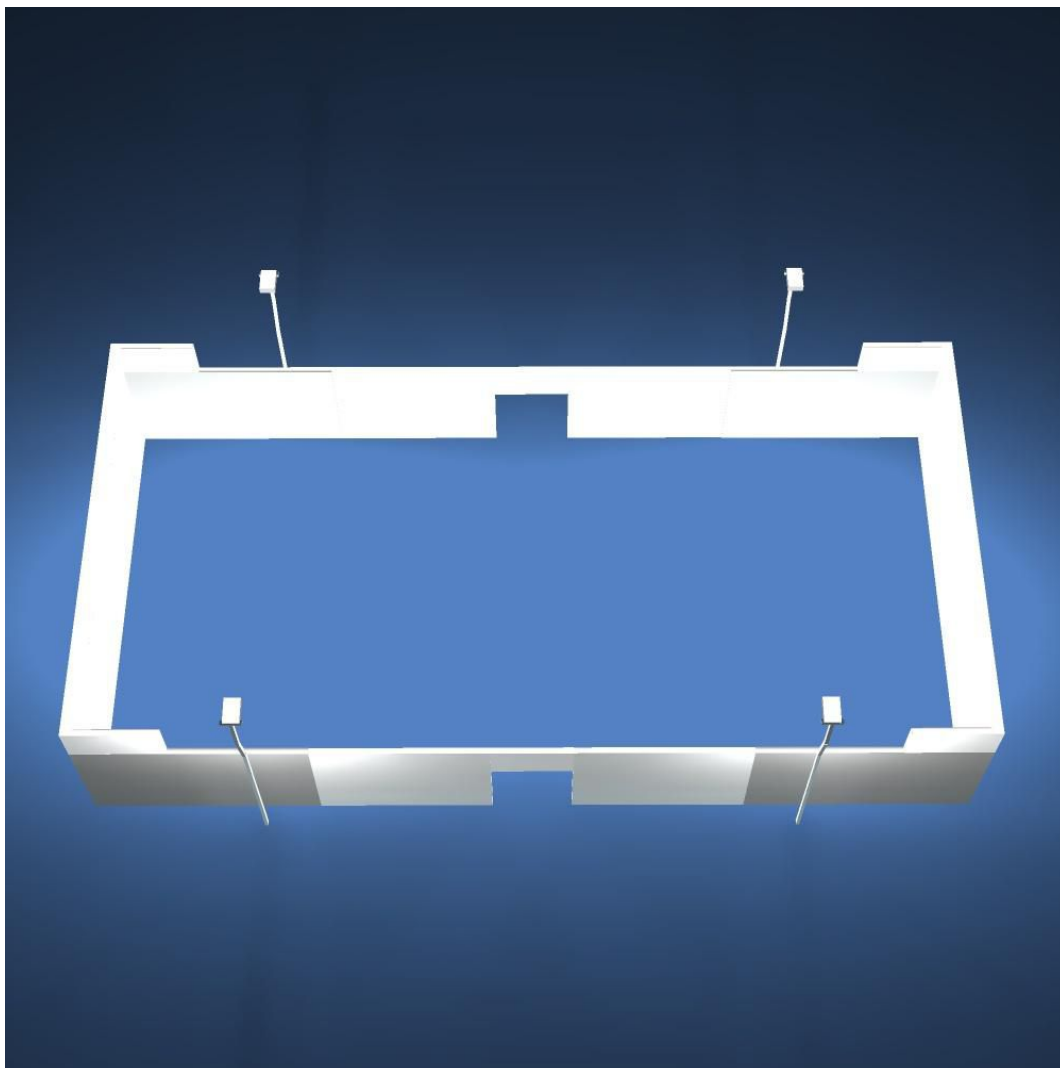
²⁾ The calculated equivalent veil luminance of the environment is based on the assumption of a complete diffuse reflection behavior of the environment (acc. EN 12464-2).



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Exterior Scene 1 / 3D Rendering

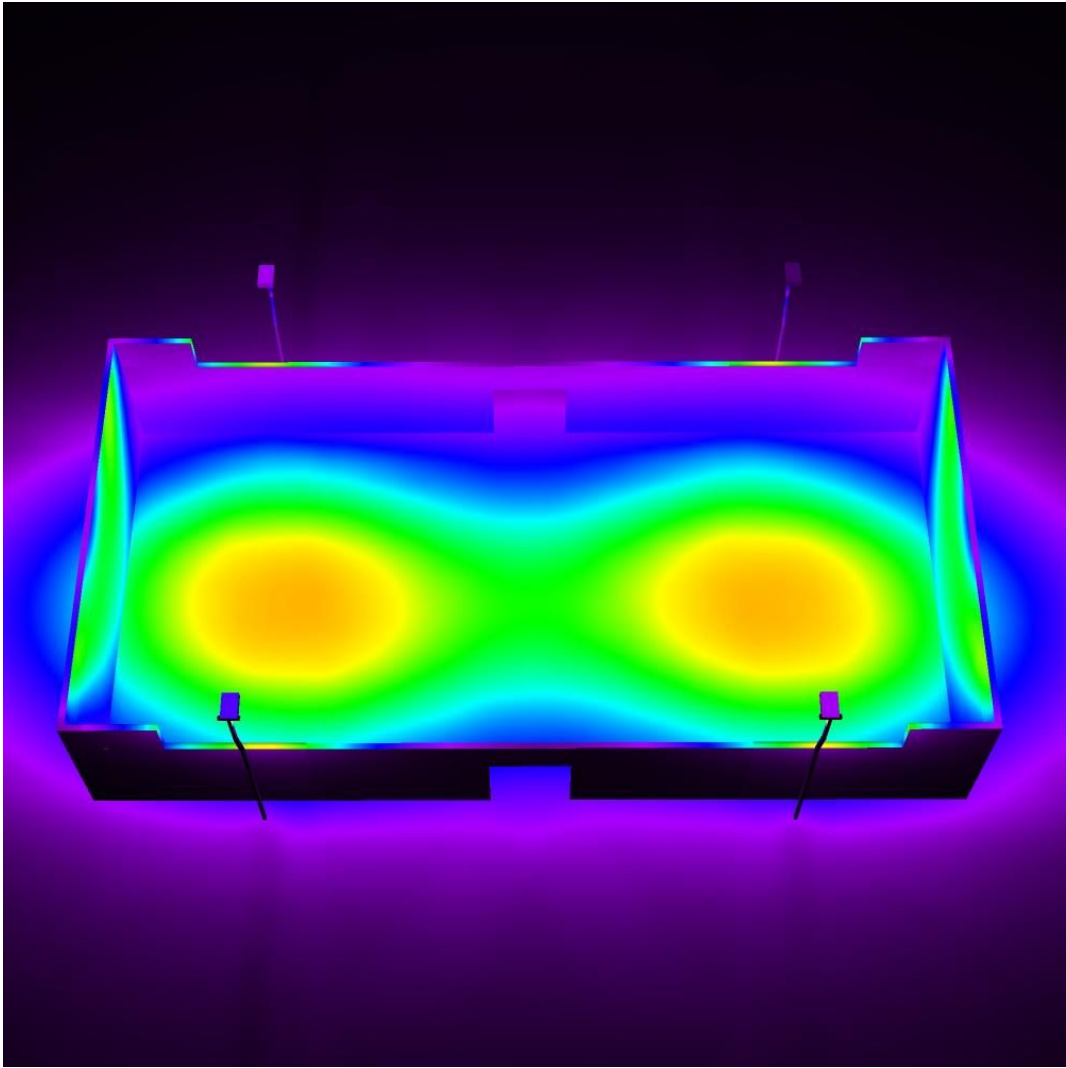




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Exterior Scene 1 / False Color Rendering



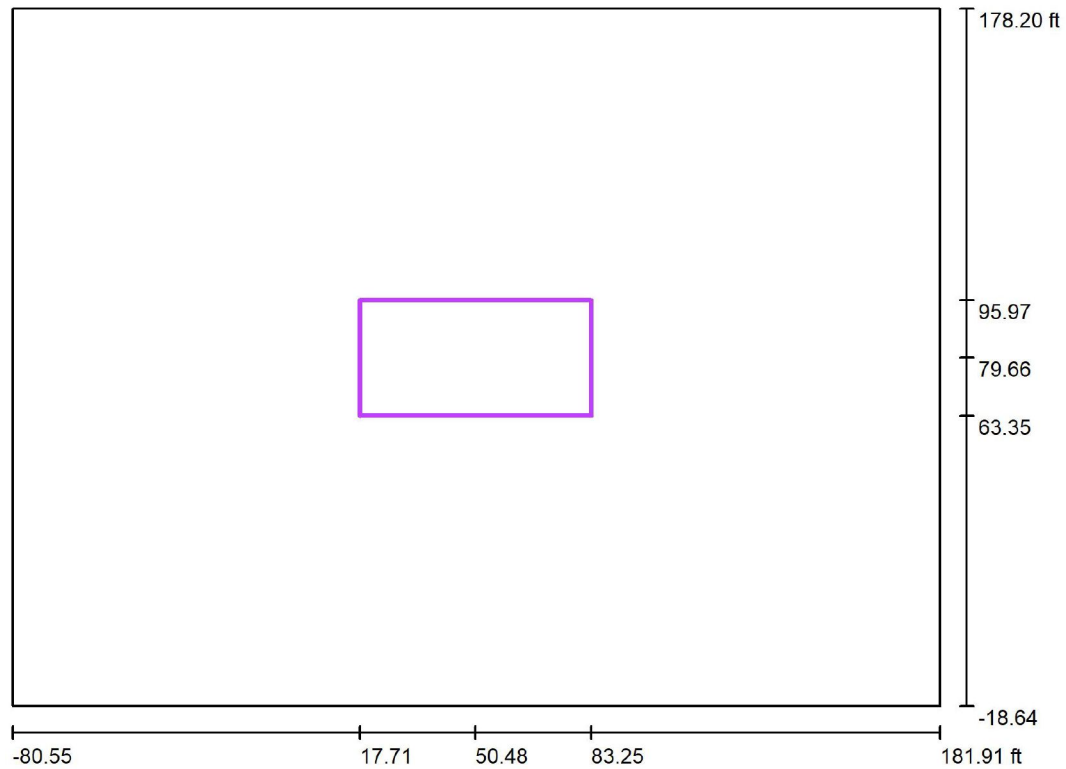
0 75 150 225 300 375 450 525 600

lx

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Exterior Scene 1 / Padel Court / Summary



Scale 1 : 573

Position: (50.482 ft, 79.659 ft, 0.000 ft)
 Size: (65.544 ft, 32.616 ft)
 Rotation: (0.0°, 0.0°, 0.0°)
 Type: Normal, Grid: 13 x 7 Points

Results overview

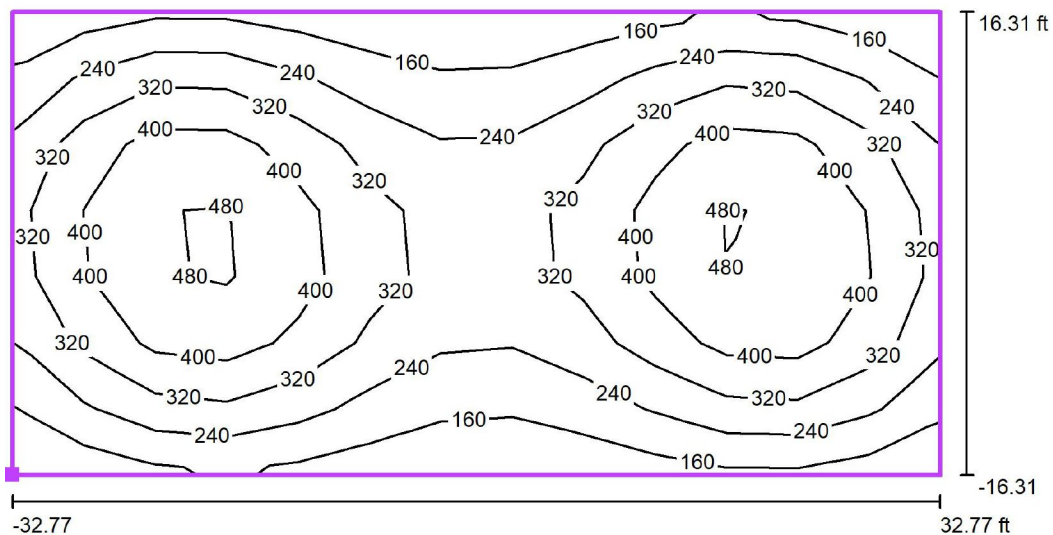
No.	Type	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	$u0$	E_{min} / E_{max}	$E_{h,m} / E_m$	H [ft]	Camera
1	perpendicular	309	124	505	0.40	0.25	/	3.281	/

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

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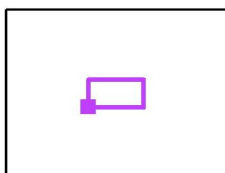
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Exterior Scene 1 / Padel Court / Isolines (E, Perpendicular)



Values in Lux, Scale 1 : 143

Position of surface in external scene:
Marked point: (17.710 ft, 63.351 ft,
0.000 ft)



Grid: 13 x 7 Points

E_{av} [lx]
309

E_{min} [lx]
124

E_{max} [lx]
505

u_0
0.40

E_{min} / E_{max}
0.25