

Class III - 40m x 20m Riding Arena – 4 Column – 100 Lux

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Lighting designs are representative and therefore should not be considered an entirely realistic forecast of the resultant illumination levels; certain factors can only be modelled indicatively. The forecasted lux levels are based on the photometric data made available from the luminaire manufacturer; the results detailed in this design are not transferable to any other product or design.

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Customer No:
Project Ref:
Rev. No:

Date: 20.11.2021
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Kellwood Lightinh

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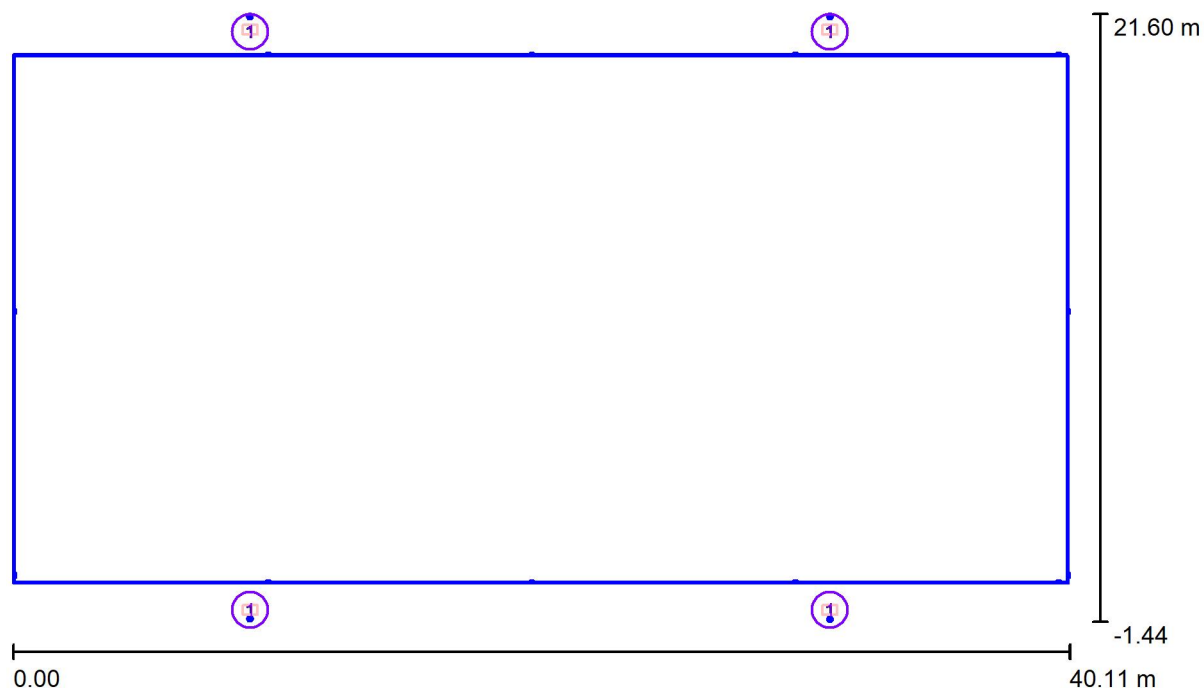
Class III - 40m x 20m Riding Arena – 4 Column – 100 Lux

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Riding Arena / Planning data



Light loss factor: 0.85, ULR (Upward Light Ratio): 0.0%

Scale 1:287

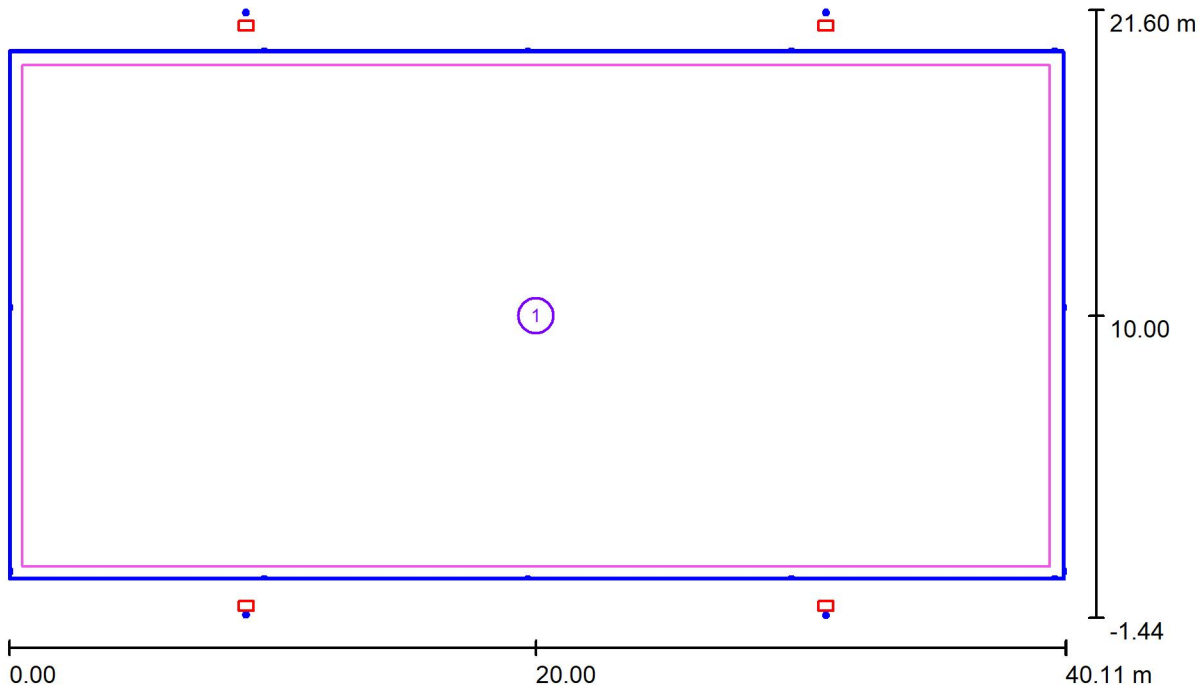
Luminaire Parts List

No.	Pieces	Designation (Correction Factor)	Φ (Luminaire) [lm]	Φ (Lamps) [lm]	P [W]
1	4	Kellwood Lighting AYR4-460-850-4S-BG Ayrton 4 Series - Premium LED High Mast Light - 460W - CRI>80 5000K - IESNA Type IV Light Distribution - Short Lateral Throw - Backspill Guard (1.000)	57855	57855	470.6
Total:			231419	231419	1882.4

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Riding Arena / Calculation surfaces (results overview)



Scale 1 : 287

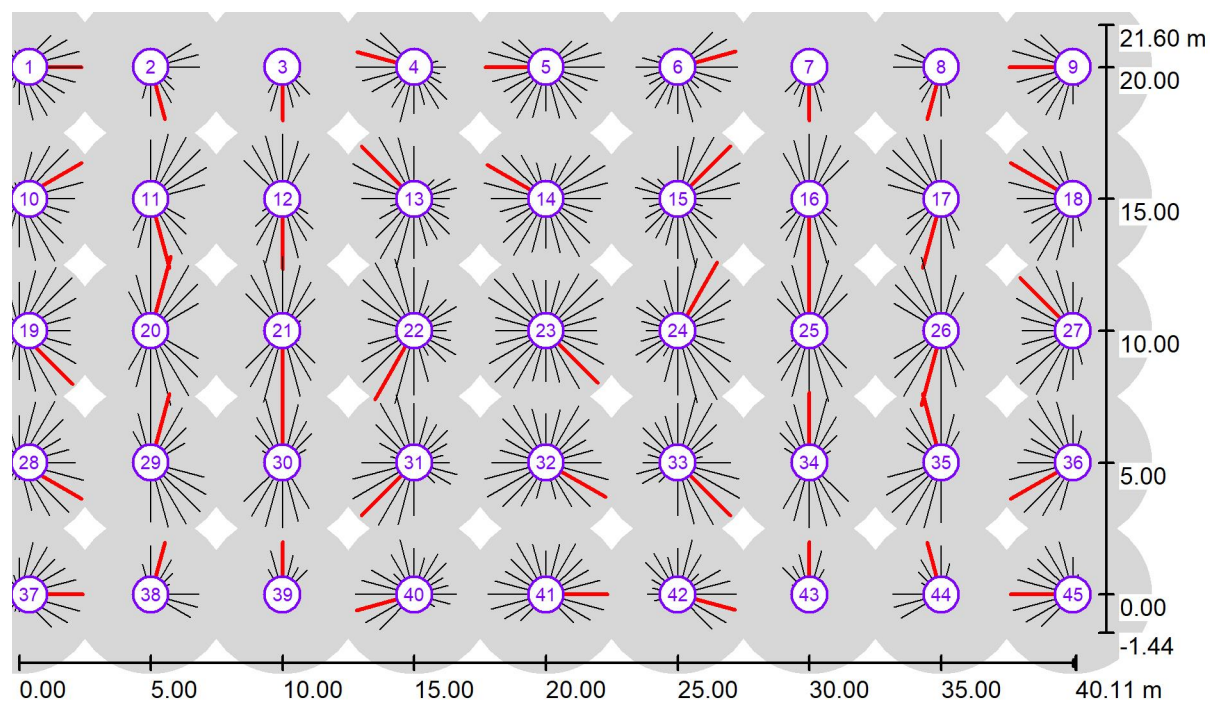
Calculation Surface List

No.	Designation	Type	Grid	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	u_0	E_{min} / E_{max}
1	Arena Floor	perpendicular	128 x 64	160	94	193	0.589	0.487

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Riding Arena / GR Observer (Results Overview)



Scale 1 : 287

GR Observerlist

No.	Designation	Position [m]			Viewing sector [°]			Slope angle	Max
		X	Y	Z	Start	End	Increment		
1	GR Observer 1	0.000	20.000	2.300	0.0	360.0	15.0	-2.0	37 2)
2	GR Observer 1	5.000	20.000	2.300	0.0	360.0	15.0	-2.0	32 2)
3	GR Observer 1	10.000	20.000	2.300	0.0	360.0	15.0	-2.0	31 2)
4	GR Observer 1	15.000	20.000	2.300	0.0	360.0	15.0	-2.0	35 2)

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Riding Arena / GR Observer (Results Overview)

GR Observerlist

No.	Designation	Position [m]			Viewing sector [°]				Max
		X	Y	Z	Start	End	Increment	Slope angle	
5	GR Observer 1	20.000	20.000	2.300	0.0	360.0	15.0	-2.0	36 2)
6	GR Observer 1	25.000	20.000	2.300	0.0	360.0	15.0	-2.0	35 2)
7	GR Observer 1	30.000	20.000	2.300	0.0	360.0	15.0	-2.0	31 2)
8	GR Observer 1	35.000	20.000	2.300	0.0	360.0	15.0	-2.0	31 2)
9	GR Observer 1	40.000	20.000	2.300	0.0	360.0	15.0	-2.0	37 2)
10	GR Observer 1	0.000	15.000	2.300	0.0	360.0	15.0	-2.0	42 2)
11	GR Observer 1	5.000	15.000	2.300	0.0	360.0	15.0	-2.0	42 2)
12	GR Observer 1	10.000	15.000	2.300	0.0	360.0	15.0	-2.0	41 2)
13	GR Observer 1	15.000	15.000	2.300	0.0	360.0	15.0	-2.0	43 2)
14	GR Observer 1	20.000	15.000	2.300	0.0	360.0	15.0	-2.0	40 2)
15	GR Observer 1	25.000	15.000	2.300	0.0	360.0	15.0	-2.0	44 2)
16	GR Observer 1	30.000	15.000	2.300	0.0	360.0	15.0	-2.0	41 2)
17	GR Observer 1	35.000	15.000	2.300	0.0	360.0	15.0	-2.0	42 2)
18	GR Observer 1	40.000	15.000	2.300	0.0	360.0	15.0	-2.0	42 2)
19	GR Observer 1	0.000	10.000	2.300	0.0	360.0	15.0	-2.0	44 2)
20	GR Observer 1	5.000	10.000	2.300	0.0	360.0	15.0	-2.0	45 2)
21	GR Observer 1	10.000	10.000	2.300	0.0	360.0	15.0	-2.0	44 2)
22	GR Observer 1	15.000	10.000	2.300	0.0	360.0	15.0	-2.0	46 2)
23	GR Observer 1	20.000	10.000	2.300	0.0	360.0	15.0	-2.0	43 2)
24	GR Observer 1	25.000	10.000	2.300	0.0	360.0	15.0	-2.0	46 2)
25	GR Observer 1	30.000	10.000	2.300	0.0	360.0	15.0	-2.0	44 2)
26	GR Observer 1	35.000	10.000	2.300	0.0	360.0	15.0	-2.0	45 2)
27	GR Observer 1	40.000	10.000	2.300	0.0	360.0	15.0	-2.0	44 2)
28	GR Observer 1	0.000	5.000	2.300	0.0	360.0	15.0	-2.0	42 2)
29	GR Observer 1	5.000	5.000	2.300	0.0	360.0	15.0	-2.0	42 2)
30	GR Observer 1	10.000	5.000	2.300	0.0	360.0	15.0	-2.0	41 2)
31	GR Observer 1	15.000	5.000	2.300	0.0	360.0	15.0	-2.0	44 2)
32	GR Observer 1	20.000	5.000	2.300	0.0	360.0	15.0	-2.0	40 2)
33	GR Observer 1	25.000	5.000	2.300	0.0	360.0	15.0	-2.0	43 2)
34	GR Observer 1	30.000	5.000	2.300	0.0	360.0	15.0	-2.0	41 2)
35	GR Observer 1	35.000	5.000	2.300	0.0	360.0	15.0	-2.0	42 2)
36	GR Observer 1	40.000	5.000	2.300	0.0	360.0	15.0	-2.0	42 2)
37	GR Observer 1	0.000	0.000	2.300	0.0	360.0	15.0	-2.0	37 2)
38	GR Observer 1	5.000	0.000	2.300	0.0	360.0	15.0	-2.0	31 2)
39	GR Observer 1	10.000	0.000	2.300	0.0	360.0	15.0	-2.0	31 2)
40	GR Observer 1	15.000	0.000	2.300	0.0	360.0	15.0	-2.0	35 2)

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No.	Designation	Position [m]			Viewing sector [°]				Max
		X	Y	Z	Start	End	Increment	Slope angle	
41	GR Observer 1	20.000	0.000	2.300	0.0	360.0	15.0	-2.0	36 2)
42	GR Observer 1	25.000	0.000	2.300	0.0	360.0	15.0	-2.0	35 2)
43	GR Observer 1	30.000	0.000	2.300	0.0	360.0	15.0	-2.0	31 2)
44	GR Observer 1	35.000	0.000	2.300	0.0	360.0	15.0	-2.0	32 2)
45	GR Observer 1	40.000	0.000	2.300	0.0	360.0	15.0	-2.0	37 2)

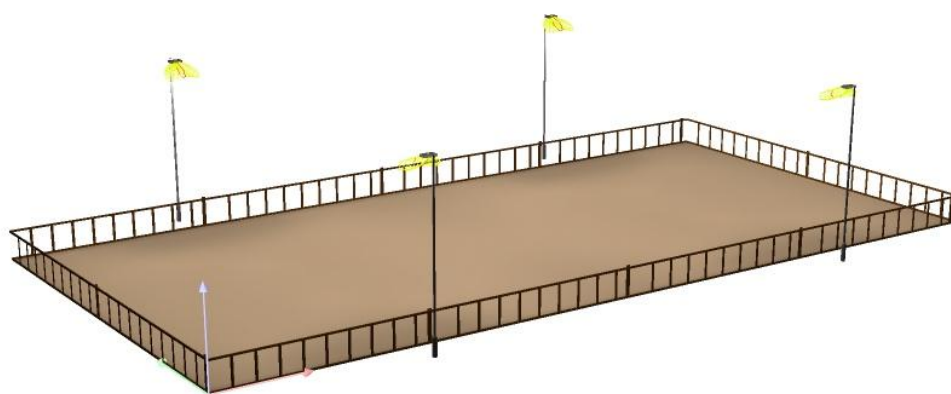
2) The calculated equivalent veil luminance of the environment is based on the assumption of a complete diffuse reflection behavior of the environment (acc. EN 12464-2).

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Riding Arena / 3D Rendering

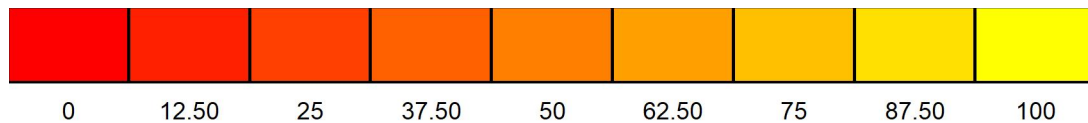
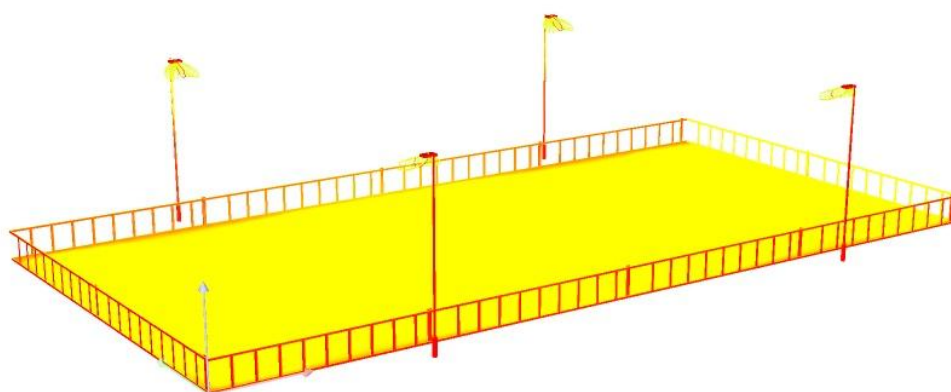


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Riding Arena / False Color Rendering

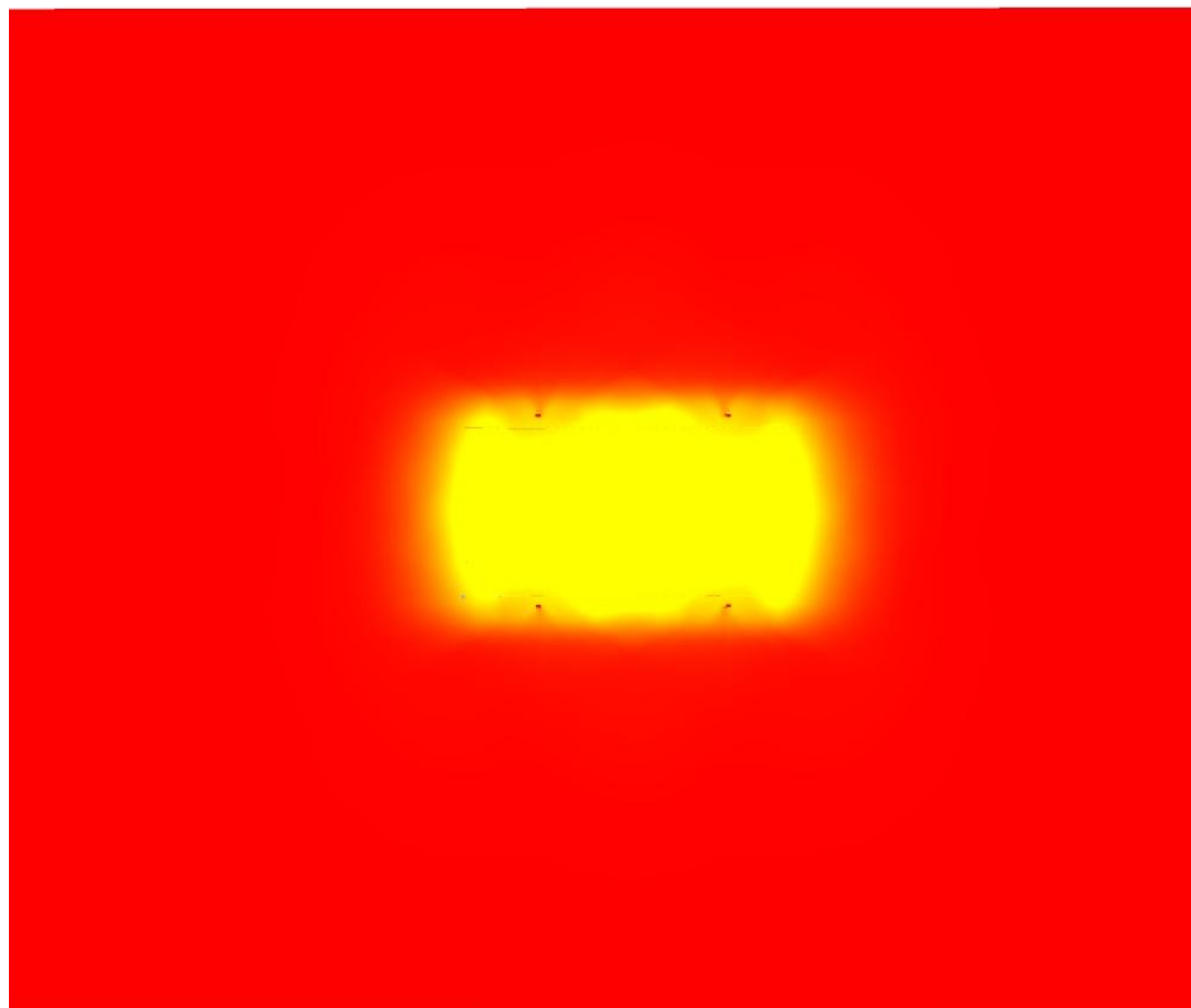


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Riding Arena / False Color Rendering



0 12.50 25 37.50 50 62.50 75 87.50 100

lx