Supplementary material

Table S1. Effect of group and time on behavioural variables included in the Activity and lying position category. Values are means and standard errors of the proportion of visible animals engaging each behaviour collected every 5 minutes over a 19-h observation period (228 scan samples per group). C= Control group in thermoneutral zone TNZ; LSA = Low Space Allowance group in thermoneutral zone TNZ; HS = Heat Stress group. Asterisks indicate significant differences compared to the C group (p <0.05).

Variable	Group			*p*-value	
	C (27 cm²/lamb, TNZ)	LSA (20 cm²/lamb, TNZ)	HS (27 cm²/lamb, heat stress)	Group	Time
Sternal recumbency, head up (%)	31.48±0.98	36.09*±1.43	22.72*±1.10	<0.001	.969
Sternal recumbency, head down (%)	8.08±0.56	5.40*±0.51	5.65*±0.51	<0.001	.576
Sternocostal recumbency, head up (%)	14.29±0.75	4.92*±0.32	7.82*±0.52	<0.001	.168
Sternocostal recumbency, head down (%)	3.66±0.34	1.25*±0.17	1.65*±0.20	<0.001	.600
Lateral recumbency	0.34±0.10	0.09*±0.03	0.04*±0.04	<0.001	.463
Standing, Suckling /attempt to (%)	10.08±0.81	10.68*±0.62	8.04*±0.83	<0.001	.041
Standing, Eating /attempt to (%)	5.42±0.99	6.90*±1.28	3.88*±1.11	<0.001	<0.001
Standing, still (%)	16.12±0.88	21.87*±1.14	37.72*±1.45	<0.001	.911
Standing, walking (%)	10.22±0.60	12.67*±0.61	12.61*±0.65	<0.001	.386
Standing, Playing (%)	0.54±0.14	0.06±0.04	0.00±	NC	NC

NC= not calculable

Table S2. Effect of group and time on behavioural variables included in the Interactions and Other behaviour categories. Values are means and standard errors of the events in relation to the number of visible animals recorded in 30 seconds every 5 minutes over a 19-h observation period (228 scan samples per group). C = Control group in thermoneutral zone (TNZ); LSA = Low Space Allowance group in thermoneutral zone (TNZ); HS = Heat Stress group. Asterisks indicate significant differences compared to the C group (p <0.05).

Variable	Group			*p*-value	
	C (27 cm²/lamb, TNZ)	LSA (20 cm²/lamb, TNZ)	HS (27 cm²/lamb, heat stress)	Group	Time (h)
Aggressive interaction when lying (%)	2.24±0.21	2.80*±0.22	3.03*±0.24	<0.001	.378
Aggressive interactions when active (%)	8.63±0.78	8.10*±0.56	7.43*±0.77	<0.001	<0.001
Non aggressive interaction (%)	5.96±0.38	3.51*±0.23	6.64*±0.37	<0.001	.154
Trumpling (%)	5.06±0.42	5.48*±0.34	3.01*±0.27	<0.001	.838
Drinking (%)	0.18±0.07	0.28±0.06	0.33*±0.08	<0.001	.044
Stretching (%)	0.37±0.08	0.04*±0.02	0.26*±0.08	<0.001	<0.001
Shaking (%)	0.73±0.12	0.68*±0.10	1.01*±0.16	<0.001	.007
Self-grooming (%)	2.59±0.22	1.56*±0.14	2.18*±0.21	<0.001	.654
Stereotypies (%)	0.52±0.10	1.36*±0.15	0.44*±0.09	<0.001	.940

Figure S1: Relative Humidity, dry and wet temperatures recorded during the trials in late spring (Heat stress).

