

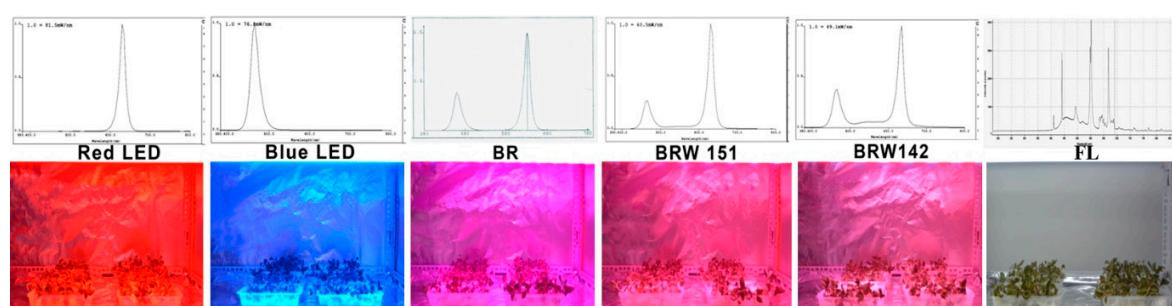
**Table 1S.** Primers information used for flavonoids biosynthesis-related genes expression analysis

Gene name	Sequence (5' → 3')	Size (bp)
<i>pal</i>	F: CGAGGAACAAGGCCATCCAT	105
	R: GCGAACATGAGCTTCCCGAT	
<i>chs</i>	F: AGGCGTTCACTCCCTTAGGC	135
	R: ACGTGCCTGGAAGTGGTTAG	
<i>chi</i>	F: AAGGTGACGTTCCCTCGTTCC	~220
	R: CTGCGGTGAATGGGTGTTAGA	
<i>fls</i>	F: GGC GGAGAAGGAGAAGTACG	~190
	R: GGC GGCCAGACATTATGGAA	
<i>EF1</i>	F: GATGACCAGGGAGCATCAATGAC	296
	R: CTGAGCGTGAAACGTGGTATCAC	

**Table 2S.** Total average of influence (%) of different lighting treatments on the growth and morphological traits of *A. roxburghii*

Light conditions	FL	Red	Blue	BR	BRW151	BRW142
Average of plant height	100	111.85	109.88	109.12	101.06	106.23
Average of stem diameter	100	68.26	93.41	105.39	101.20	99.40
Number of leaves per plant	100	98.64	107.80	114.42	103.90	113.06
Cell width of 2 <sup>nd</sup> node sections	100	88.77	129.01	106.05	115.85	96.71
Cell length of 2 <sup>nd</sup> node sections	100	123.34	86.89	122.98	88.98	105.23
Leaf area	100	59.23	89.88	138.99	107.44	100.30
Number of roots per plant	100	115.61	119.08	104.05	111.56	130.64
Average of roots length	100	84.01	110.20	95.24	100.00	109.86
Dry matter percentages	100	75.81	80.17	102.10	90.22	104.02
<b>Total average of influence</b>	<b>100</b>	91.72	102.92	110.93	102.25	107.27

Note: Relative influence percentage = (100 x Average value under LED light)/ Average value under FL light.



**Figure 1S.** Characteristics of the respective LED irradiance spectra in the different treatments