

Supplement Table S1. Regression equations and R² values for the plant height, leaf area, shoot fresh mass, shoot dry mass, root fresh mass, root dry mass, root shoot ratio, seedling index, leaf area/shoot dry mass, shoot dry matter rate, chlorophyll and carotene for cucumber seedlings, where X is the daily light integral (DLI). Plots of each equation are shown in Figure 2-6.

Item	Regression equation	R ²
Plant height	$21.18294-3.13433X+0.14034X^2$	0.92566
Leaf area	$304.56358-44.91728X+2.02821X^2$	0.42432
Shoot fresh mass	$9.23685-1.22641X+0.05375X^2$	0.81438
Shoot dry mass	$546.92811-58.89439X+2.62381X^2$	0.66352
Root fresh mass	$-2.35698+0.83258X-0.04726X^2$	0.67459
Root dry mass	$-60.5352+25.15409X-1.34649X^2$	0.42640
Root shoot ratio	$-0.34+0.1156X-0.0057X^2$	0.56635
Seedling index	$-1.11934+0.42106X-0.02163X^2$	0.65104
Leaf area ratio	$885.86896-133.33904X+6.98887X^2$	0.57983
Shoot dry matter rate	$0.04951+0.00406X$	0.58578
Soluble sugar content	$-4.74816+1.33773X$	0.79700
Soluble protein	$7.82867+0.58037X-0.04773X^2$	0.75865
Chlorophyll a	$1.51404-0.0638X$	0.89390
Chlorophyll b	$0.51218-0.02316X$	0.91878
Total Chlorophyll	$2.03678-0.08808X$	0.92129
Carotene	$0.32164-0.01162X$	0.87442

Supplement Table S2. The effect of different light intensity and photoperiod on hypocotyl length, stem diameter and leaf area of cucumber seedling.

Treatments	hypocotyl length /cm	stem diameter /mm	Leaf area /cm ²
T1	6.35 ± 0.09 ^a	2.61 ± 0.04 ^a	62.48 ± 1.56 ^b
T2	6.52 ± 0.14 ^a	2.72 ± 0.05 ^a	59.48 ± 1.10 ^b
T3	6.47 ± 0.15 ^a	2.64 ± 0.05 ^a	63.89 ± 1.77 ^b
T4	6.29 ± 0.18 ^a	2.60 ± 0.07 ^a	68.98 ± 1.71 ^a

Supplement Table S3. The effect of different light intensity and photoperiod on photosynthesis pigments content of cucumber seedling.

Treatment	Chlorophyll a /mg·g ⁻¹	Chlorophyll b /mg·g ⁻¹	Chlorophyll a/b	Total Chlorophyll /mg·g ⁻¹	Carotenoid /mg·g ⁻¹
T1	0.85 ± 0.01 ^c	0.28 ± 0.00 ^c	3.04 ± 0.03 ^a	1.13 ± 0.01 ^c	0.42 ± 0.00 ^c
T2	0.92 ± 0.02 ^b	0.32 ± 0.00 ^b	2.89 ± 0.04 ^b	1.23 ± 0.02 ^b	0.45 ± 0.01 ^b
T3	1.03 ± 0.01 ^a	0.36 ± 0.00 ^a	2.84 ± 0.02 ^b	1.39 ± 0.02 ^a	0.51 ± 0.01 ^a
T4	1.02 ± 0.01 ^a	0.36 ± 0.00 ^a	2.83 ± 0.02 ^b	1.38 ± 0.01 ^a	0.51 ± 0.00 ^a