

2 YEARS Warranty

Signature Designed by WIP

NICHIA

LED TUBE T8 - CLEAR

LED FULL SPECTRUM HORTICULTURE LIGHTING

THE LIGHT YOU CAN TRUST

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TIS. 1955-2551 TIS. 1955-2551
TIS. 2779-2562

Green Plants

Specification





Spectrum	White Light Rsp0a	White Light Rsp0a
Model	G01	G01
Color Temperature (TC)	3000K	5000K
Power Consumption	10W G13 / 20W G13 / 36IP	10W G13 / 20W G13 / 36IP
LED Light Source	Nichia Hortisolis	Nichia Hortisolis
Color Rendering Index (CRI)	>90	>90
Total Harmonic Distortion	<15%	<15%
Operating Temperature	0 °C to 45 °C	0 °C to 45 °C
Surge Protection	1 kV	1 kV
Tube	T8 Tube / Batten Tube	T8 Tube / Batten Tube
Lens Material	Clear PC	Clear PC
Lamp Holder / Base Type	G13 / AC Connector	G13 / AC Connector
Length (max.)	600mm. / 1200mm.	600mm. / 1200mm.
Total Weight (g.)	151 g. / 257g.	151 g. / 257g.
PPF (PAR,400-700nm) - RED (600-700nm) - GREEN (500-600nm) - BLUE (400-500nm)	60 µmol/s (36W) 52% 37% 11%	64 µmol/s (36W) 38% 40% 22%
Working voltage	100 - 250 Vac,50Hz.	100 - 250 Vac,50Hz.
Beam Angle	115º	115º
Power factor	>0.9	>0.9
IP Rating	IP 20 / IP 43	IP 20 / IP 43
Life Time	50,000 hrs.	50,000 hrs.
Warranty	2 Years	2 Years

Qualifications of LED Grow Light (Depend on CCT)

	Vegetables : Lettuce Temperature : 25° Conditien : Noon 12 Hours / Night 12 Hours Density of CO2 400 - 500ppm (Ave.450ppm) Growing Period : 25 Days PFD : 230 μmol/(m²s)	
CCT	White Light Rsp0a 5000K	White Light Rsp0a 3000K
R/B*[1]	1.9	5.1
R/Fr*[1]	8.8	6.6
Representative Sampling	30	28
Over 60 Grams Saplings	80%	96%
Weighted Average	73.7g/Sapling	88.5g/Sapling
Electricity Consumption	27.6kWh	24.0kWh
Energy Usage	12.5W/g	9.7W/g

*1 Kindly remind, the wavelength of R/B and R/Fr are different from the description from the Nichia leaflet (BP-CS16387)

*2 Might have suitable R/B value, depends on the envirionment.

3000K : Fast growing and power saving
5000K : Fast growing and beautiful shaping



Experimental Results.

White Light 5000K





Lettuce stalk are sepertely

White Light 3000K





Lettuce stalk are more thicker in a group, not seperate

At color temperature CCT 5000K the Lettuce have more beautiful shaping, compared with CCT 3000K

Conclusion

Lettuce seedling tend to be fast growing at CCT 3000K. Because R/ B*2 is more higher and CCT 3000K have more efficiency. Especially Lettuce stalk have very fast growth. On the other hand, at CCT 5000K the Lettuce have better and faster growing with the beautiful shaping. By the way, to choose 3000K or 5000K is depending on yours requirement, for power saving or for fast growing with the beautiful shaping.

*Reference from : NICHIA

Flowers and Fruits

Specification



Spectrum	Red Rich White Rs060
Model	G02
Color Temperature (TC)	5200K
Power Consumption	10W G13 / 20W G13 / 36IP
LED Light Source	Nichia Hortisolis
Total Harmonic Distortion	<15%
Operating Temperature	0 °C to 45 °C
Surge Protection	1 kV
Tube	T8 Tube / Batten Tube
Lens Material	Clear PC
Lamp Holder / Base Type	G13 / AC Connector
Length (max.)	600mm. / 1200mm.
Total Weight (g.)	151 g. / 257g.
PPF (PAR,400-700nm) - RED (600-700nm) - GREEN (500-600nm) - BLUE (400-500nm)	57 µmol/s (36W) 62% 20% 18%
Working voltage	100 - 250 Vac,50Hz.
Beam Angle	115º
Power factor	>0.9
IP Rating	IP 20 / IP 43
Life Time	50,000 hrs.
Warranty	2 Years










Qualifications of LED Fruit tree.



	Red Rich White Rs060 4500K	White Light Rsp0a 5000K
PFD μmolm/(m²s)	212	223
Blue μmolm/(m²s)	35	42
Red μmolm/(m²s)	91	55
FR	39	10
R/B	2.6	2.3
R/FR	2.3	5.7
I8 Days after plants all parts of the plant are fast growing in Red Rich White Rs060 4500K		
Color changing (After 52 days)		
First harvest (After 59 days) Red Rich White Rs060 4500K	 	 
Amount of tomatoes.	83	37
Weight.	884	391
Average.	10.7	10.6
Density of sugar.	7.9	6.8

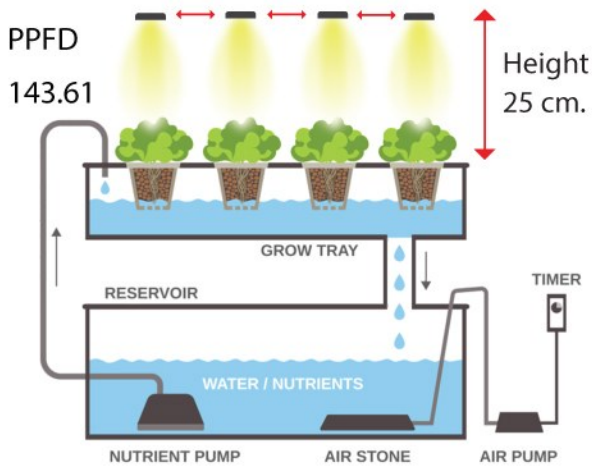
Reference Information from after 15 days of the first harvest.

*Reference from : NICHIA

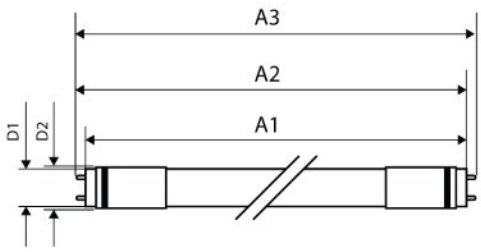
Comparison

	White Light Rsp0a 3000K	White Light Rsp0a 5000K	Red Rich White Rs060 5200K
	Clear ทั่วไป	Clear ทั่วไป	Clear ทั่วไป
Power	20W	20W	20W
TC : K	2,949	4,994	4,406
Ratio_R:(%)	52	38	62
Ratio_G:(%)	37	40	20
Ratio_B:(%)	11	22	18
PPFD: μmolm/(m²s)	89.115	94.24	86.495

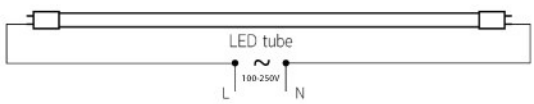
Installation Guide



Dimension

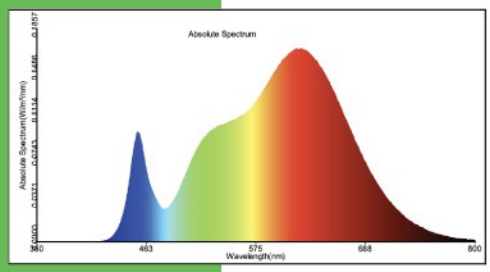


Wiring



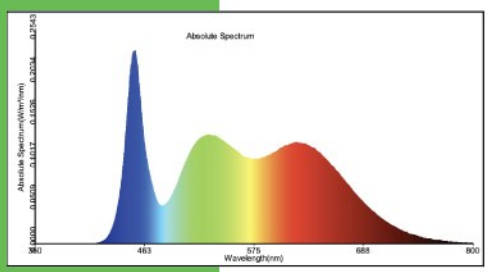
LED TUBE T8 - CLEAR

LED Full Spectrum Horticulture Light



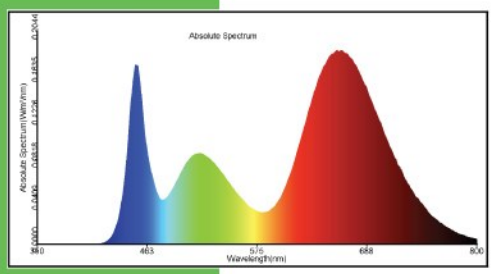
White Light
Rsp0a
3000K

PPF (PAR,400-700nm)	60 µmol/s (36W)
- RED (600-700nm)	52%
- GREEN (500-600nm)	37%
- BLUE (400-500nm)	11%



White Light
Rsp0a
5000K

PPF (PAR,400-700nm)	64 µmol/s (36W)
- RED (600-700nm)	38%
- GREEN (500-600nm)	40%
- BLUE (400-500nm)	22%



Red Rich White
Rs060
5200K



PPF (PAR,400-700nm)	57 µmol/s (36W)
- RED (600-700nm)	62%
- GREEN (500-600nm)	20%
- BLUE (400-500nm)	18%

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