

Test Report

Report No.: GZES200602052631

Date: 2020-07-09

The following sample(s) was/were submitted and identified on behalf of the client as:

Applicant: Better Options
10808 Foothill Blvd. #160-890 Rancho Cucamonga, CA 91730 USA

Manufacturer: —

Testing location/address: SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch
198 Kezhu Road, Science City, Economic & Technology Development Area,
Guangzhou, Guangdong, China

The standards: ANSI/ASABE S640 JUL2017

Test item description: Horticultural Lighting

Trade Mark: GROWStation

Model/Type reference: GS-4x6LED-HI

Ratings: 100-277 Vac or 277Vac

Test result: See page 4 and 5

Remark: When determining for test conclusion, measurement uncertainty of tests has been considered.



Alex Tan

Alex Tan
Reviewer
E&E Safety Laboratory

Justin Xie

Justin Xie
Project Engineer



SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch E&E Laboratory

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Copy of marking plate —	
Summary of testing: Measured Photosynthetic Photon Flux (PPF), Spectral Power Distribution (SPD), Spectral Quantum Distribution (SQD) in 100V 60 Hz and 277 V 60 Hz condition.	
Test item particulars:	
Equipment Mobility.....:	—
Operating condition.....:	—
Possible test case verdicts:	
- test case does not apply to the test object.....:	N/A (not applicable)
- test object does meet the requirement.....:	P (Pass)
- test object does not meet the requirement.....:	F (Fail)
Testing	
Date of receipt of test item.....:	2020-06-17
Date (s) of performance of tests.....:	2020-06-17 to 2020-06-28
General product information: LED luminaire.	



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1 Test conditions

Before measurements are taken, there is no seasoning for the LED luminaire(s), and the luminaire(s) was measured after reaching the stabilization.

The PPF; SPD and SQD were measured by a calibrated integrating sphere system.

The sample was mounted at light down position for all the tests.

The ambient temperature during measurements was $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$.



2 Test Results

I) The PPF at 100 V 60 Hz

Test Voltage:	100 V AC
Test Current:	6.800 A
Power:	657.2 W
Power Factor:	0.9623
PPF:	1820.2 $\mu\text{mol/s}$
PPF(400nm-500nm):	304.2 $\mu\text{mol/s}$
PPF(500nm-600nm):	750.1 $\mu\text{mol/s}$
PPF(600nm-700nm):	767.8 $\mu\text{mol/s}$

II) The PPF at 277 V 60 Hz

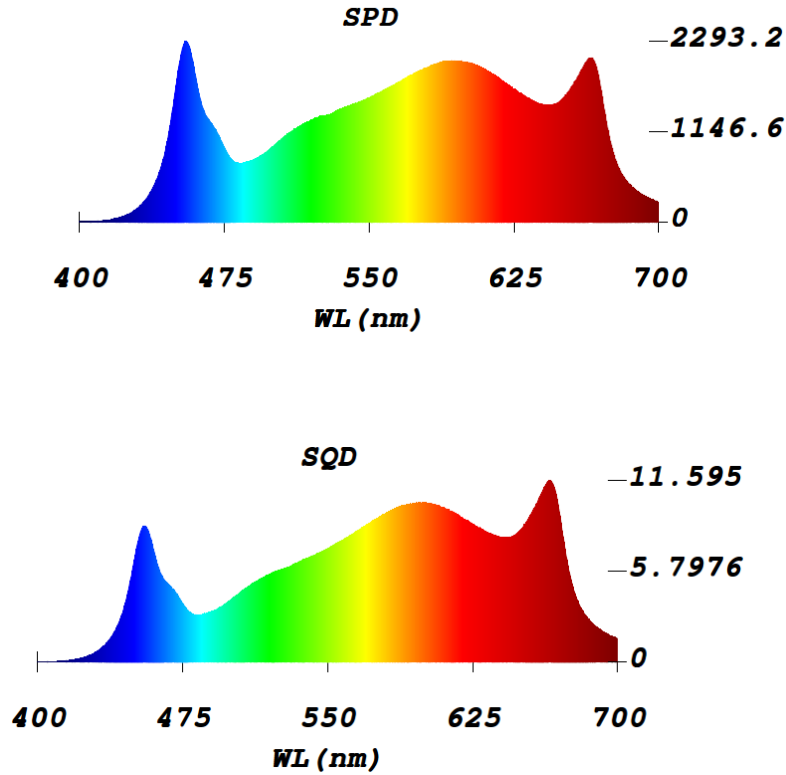
Test Voltage:	277 V AC
Test Current:	2.445 A
Power:	648.1 W
Power Factor:	0.9566
PPF:	1796 $\mu\text{mol/s}$
PPF(400nm-500nm):	296.4 $\mu\text{mol/s}$
PPF(500nm-600nm):	742.1 $\mu\text{mol/s}$
PPF(600nm-700nm):	759.2 $\mu\text{mol/s}$



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III) The spectrum at 277 V 60 Hz



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Photo documentation:

Details of: View of the product

View:

- general
- front
- rear
- right
- left
- top
- bottom

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--- End of Report ---



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