浙江顶峰技术服务有限公司
ZENITH INTERNATIONAL COMPLIANCES SERVICES CO., LTD

# TEST REPORT

Client Name: Gateway International 360 LLC
Report No.: 1715481
Issued on: August 17, 2018

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# GENERAL INFORMATION AND CONCLUSION PAGE

| CLIENT INFORMATION | |
|---|---|
| Client Name | Gateway International 360 LLC |
| Address | 260 Quigley Blvd Suite 135 New Castle DE 19720 USA |
| Manufacturer Name | Wenzhou Lead Top Electrical Co Ltd |
| Address | No 270 Wei 20 Rd Yueqing Economic Development Area Wenzhou Zhejiang 325600 China |

| PROJECT INFORMATION | |
|---|---|
| Product Name | Photoelectric Controller |
| Model(s) | GW-LL127-1.5BK-40 |
| Additional Description | Direct Plug-In Lockying Type Photoelectric Controller with NC Relay |
| Standard/Edition | UL773,5th Edition |
| Tested Period | 2018-7-30 ~ 2018-8-17 |
| Requested Service | ☐ Full or partial pretest for the following certification:<br>[X] UL [ ] GS [ ] CE-LVD [ ] CE-EMC [ ] others:_____<br>☒ Other commercial inspection and testing service: |

| SAMPLE RECORDS | | | |
|---|---|---|---|
| Sampling Information | [X] Submitted by the client<br>[ ] Selected by ZICS | | |
| Sample | Quantity | Description | Date Received |
| GW-LL127-1.5BK-40 | 40 | Well for testing | 2018-7-6 |

| *ONLY FOR SELECTION SAMPLING* | | | |
|---|---|---|---|
| Selected by | N/A | Signature | --- |
| Location | N/A | Date | --- |

CONCLUSION:

At the request of the client, the submitted sample(s) were subjected to tests according to the standard(s) specified as above. The test results are shown in the test report.

Issued on: 2018-8-16

| Approved by: | Reviewed by: | Handled by: |
|---|---|---|
| Shawn Fei | Shawn Fei | Kelvin Xu |
| *(Printed Name)* | *(Printed Name)* | *(Printed Name)* |
| | | |
| *(Signature)* | *(Signature)* | *(Signature)* |



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**ENDURANCE TEST:** **UL 773, Sec. 31**

A 3 A non-time delay, non-renewable, Class H fuse having a voltage rating not less than the voltage rating of the control unit being tested was connected to indicate arc-over to ground, by means of a 4 to 6 ft long No. ~~[10] [12]~~ [14] AWG copper wire, between the grounded metal parts and earth ground in a grounded supply system; and un-switched line of the supply circuit in other than grounded supply system.
.

| CONDITION | TEST | RELAY | RATINGS |
|---|---|---|---|
| 1 | ENDURANCE | AUTOMATIC OPERATION BY LIGHT SENSING | 120-277Vac,1000W Tungsten; 120-277Vac,1800VA Ballast; 120-277Vac, 8A Electronic Ballast |

Note:
Use 277V 4.8A to represent 208-277V 1000W Tungsten for test.
Use 277V 8.7A to represent 208-277V 1800VA Ballast for test.



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**OVERLOAD AND ENDURANCE TEST (Con'd):** **UL 773, Sec. 31**

RESULTS

| Condition 2A | Endurance | | Endurance | |
|---|---|---|---|---|
| | Rated | Actual | Rated | Actual |
| Cat. No. | GW-LL127-1.5BK-40 | | GW-LL127-1.5BK-40 | |
| Sample No. | 01-B001 | | 01-B002 | |
| Wire size, AWG No. or MCM | 14 AWG provide on receptacle | 14 AWG provide on receptacle | 14 AWG provide on receptacle | 14 AWG provide on receptacle |
| Test based on rating of - Interrupting poles | Single | Single | Single | Single |
| Contact Configuration NO/NC | NC | NC | NC | NC |
| Horsepower | - | - | - | - |
| A, locked rotor | - | - | - | - |
| A (Tungsten) | 8.4 | 8.4 | 4.8 | 4.8 |
| Phase | Single | Single | Single | Single |
| Frequency, Hz | 60 | 60 | 60 | 60 |
| V | 120 | 120 | 277 | 277 |
| Open-circuit voltage | ------ | 125.8 | ------ | 279.7 |
| Closed-circuit voltage | ------ | 124.5 | ------ | 278.8 |
| Test Current, A | 8.4 | 8.4 | 4.8 | 4.8 |
| Percent of rated current | 100 | 100 | 100 | 100 |
| Power factor, percent | Tungsten Filament Lamps | Synthetic Load | Tungsten Filament Lamps | Synthetic Load |
| Shunting resistance, ohms | ------ | ------ | ------ | ------ |
| Number of test operations | 3650 | 76381 | 3650 | 81192 |
| Ambient, °C | 25 | 25.2 | 25 | 25.2 |
| Method of operation | Electronically | | Electronically | |
| Time on, s (FWD/REV) | 1 | 1 | 1 | 1 |
| *Time off, s | 9 | 9 | 9 | 9 |

NO - Designates normally open contact.
NC - Designates normally closed contact.
Cycle rate expressed as number of seconds load is energized ("on")
Versus number of seconds load is de-energized ("off").



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**OVERLOAD AND ENDURANCE TEST (Con'd):** **UL 773, Sec. 31**

RESULTS

| Condition 2B | Endurance | | Endurance | |
|---|---|---|---|---|
| | Rated | Actual | Rated | Actual |
| Cat. No. | GW-LL127-1.5BK-40 | | GW-LL127-1.5BK-40 | |
| Sample No. | 01-B003 | | 01-B004 | |
| Wire size, AWG No. or MCM | 14 AWG provide on receptacle | 14 AWG provide on receptacle | 14 AWG provide on receptacle | 14 AWG provide on receptacle |
| Test based on rating of - Interrupting poles | Single | Single | Single | Single |
| Contact Configuration NO/NC | NC | NC | NC | NC |
| Horsepower | - | - | - | - |
| A, locked rotor | - | - | - | - |
| A (Ballast) | 15 | 15 | 8.7 | 8.7 |
| Phase | Single | Single | Single | Single |
| Frequency, Hz | 60 | 60 | 60 | 60 |
| V | 120 | 120 | 277 | 277 |
| Open-circuit voltage | ------ | 125.8 | ------ | 279.7 |
| Closed-circuit voltage | ------ | 123.5 | ------ | 278.4 |
| Test Current, A | 30 | 30.1 | 17.4 | 17.5 |
| Percent of rated current | 200 | 200 | 200 | 200 |
| Power factor, percent | 40-50 | 46 | 40-50 | 47 |
| Shunting resistance, ohms | ------ | ------ | ------ | ------ |
| Number of test operations | 3650 | 52540 | 3650 | 62896 |
| Ambient, °C | 25 | 25.2 | 25 | 25.2 |
| Method of operation | Electronically | | Electronically | |
| Time on, s (FWD/REV) | 1 | 1 | 1 | 1 |
| Time off, s | 9 | 9 | 9 | 9 |

NO - Designates normally open contact.
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Cycle rate expressed as number of seconds load is energized ("on")
Versus number of seconds load is de-energized ("off").



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**OVERLOAD AND ENDURANCE TEST (Con'd):** **UL 773, Sec. 31**

RESULTS

| Condition 2C | Endurance | | Endurance | |
|---|---|---|---|---|
| | Rated | Actual | Rated | Actual |
| Cat. No. | GW-LL127-1.5BK-40 | | GW-LL127-1.5BK-40 | |
| Sample No. | 01-B005 | | 01-B006 | |
| Wire size, AWG No. or MCM | 14 AWG provide on receptacle | 14 AWG provide on receptacle | 14 AWG provide on receptacle | 14 AWG provide on receptacle |
| Test based on rating of - Interrupting poles | Single | Single | Single | Single |
| Contact Configuration NO/NC | NC | NC | NC | NC |
| Horsepower | - | - | - | - |
| A, locked rotor | - | - | - | - |
| A (E-Ballast) | 8 | 8 | 8 | 8 |
| Phase | Single | Single | Single | Single |
| Frequency, Hz | 60 | 60 | 60 | 60 |
| V | 120 | 120 | 277 | 277 |
| Open-circuit voltage | ------ | 125.8 | ------ | 279.7 |
| Closed-circuit voltage | ------ | 124.9 | ------ | 278.8 |
| 120Vac Peak Current, A | 221 | 222 | - | - |
| 277Vac Peak Current, A | - | - | 370 | 372 |
| 120Vac Pulse Width, ms | 1.25 | 1.25 | - | - |
| 277Vac Pulse Width, ms | - | - | 1.25 | 1.26 |
| Test Current, A | 8 | 8.1 | 8 | 8.1 |
| Percent of rated current | 100 | 100 | 100 | 100 |
| Power factor, percent | Electronic Ballast | Electronic Ballast | Electronic Ballast | Electronic Ballast |
| Shunting resistance, ohms | ------ | ------ | ------ | ------ |
| Number of test operations | 3650 | 90730 | 3650 | 102654 |
| Ambient, °C | 25 | 24.9 | 25 | 24.9 |
| Method of operation | Electronically | | Electronically | |
| Time on, s (FWD/REV) | 1 | 1 | 1 | 1 |
| Time off, s | 9 | 9 | 9 | 9 |

NO - Designates normally open contact.
NC - Designates normally closed contact.
Cycle rate expressed as number of seconds load is energized ("on")
Versus number of seconds load is de-energized ("off").



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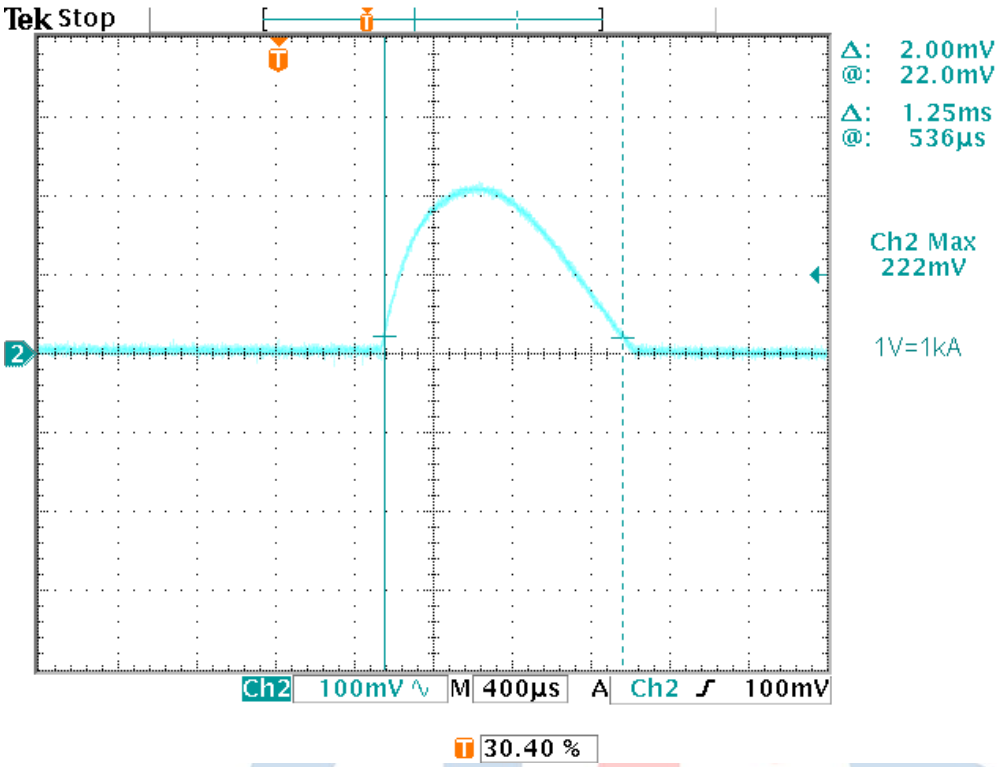
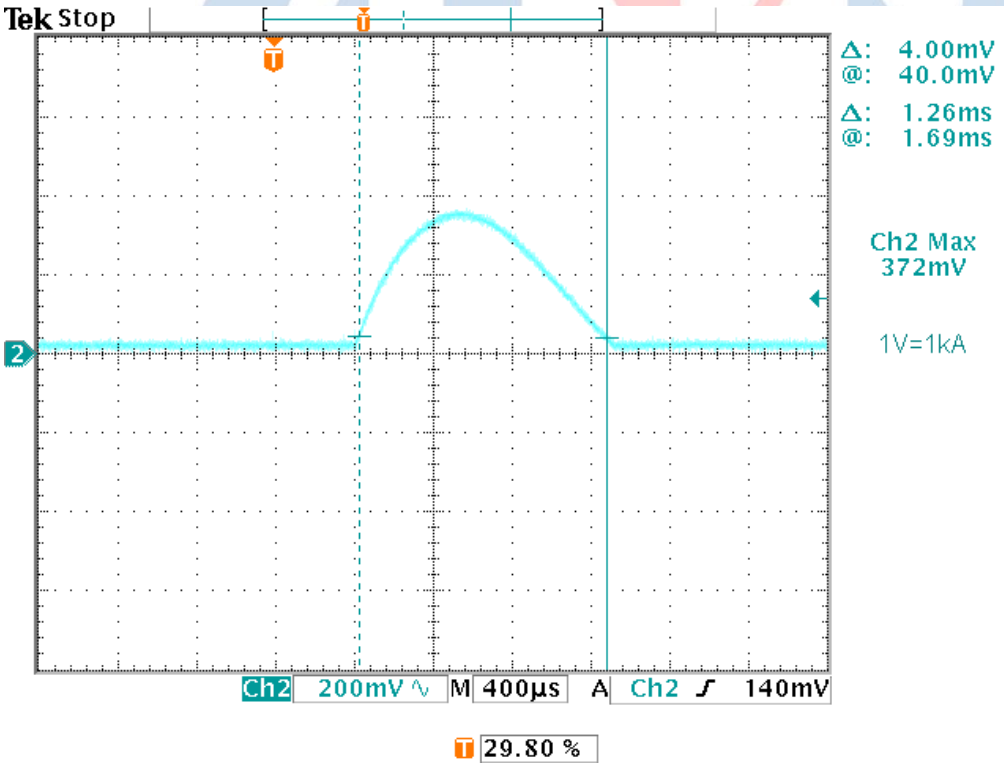
**OVERLOAD AND ENDURANCE TEST (Con'd):** **UL 773, Sec. 31**

**120V, 8A E-Ballast Load Calibration Waveform**




**277V, 8A E-Ballast Load Calibration Waveform**



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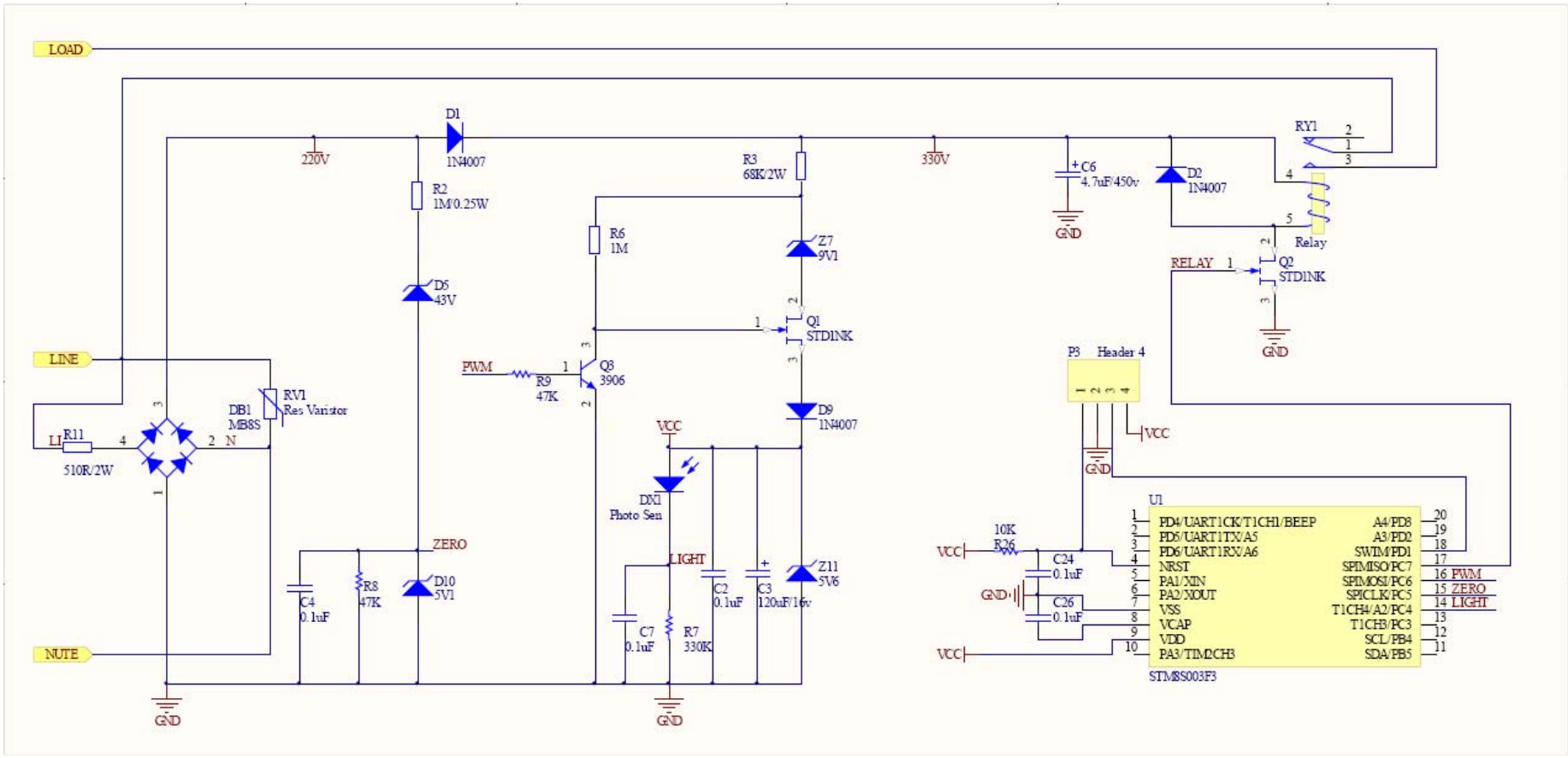
## Circuit Diagram - GW-LL127-1.5BK-40



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**Capacitor Bank for E-Ballast Load**

**Synthetic Load Controller for Tungsten Load**

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**Photos - GW-LL127-1.5BK-40**

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