



REPORT



ETL SEMKO

3933 US ROUTE 11 CORTLAND, NEW YORK 13045

Order No. 3090086

Date: February 16, 2006

REPORT NO. 3090086CRT-001g

PHOTOMETRIC TEST OF ONE
FLOOR LAMP

RENDERED TO

FULL SPECTRUM SOLUTIONS
712 EAST SOUTH STREET
JACKSON, MI 49203

DATA REQUESTED

The client requested electrical measurements, illumination tests, color rendering index, color temperature and chromaticity coordinates of a Floor Lamp sample in accordance with selected ANSI Specifications and IESNA Test Measurement Guides.

AUTHORIZATION

This test service was authorized by signed quote number 19050999.

REFERENCE DOCUMENTS:

The following Illuminating Engineering Society of North American Test Guides were used in part or totally to test each specimen:

IESNA LM 58: Guide for Spectrophotometric Measurements
ANSI C82.1: Specifications for Fluorescent Lamp Ballasts and/or ANSI C82.11:
High Frequency Fluorescent Lamp Ballasts

DEVICES SUBMITTED

Intertek procured the test sample on January 23, 2006 in undamaged condition, and the sample was tested after the sample was seasoned. The sample designation is F3006Z.

DATES OF TESTS

February 6, 2006 through February 10, 2006.

An independent organization testing for safety, performance, and certification.

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to copy or distribute this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program. Measurement uncertainty budgets have been determined for applicable test methods and are available upon request.

EQUIPMENT LIST

| <u>Equipment Used</u> | <u>Model Number</u> | <u>Control Number</u> | <u>Calibration Date</u> |
|---------------------------------------|---------------------|-----------------------|-------------------------|
| Optroninc Spectroradiometer | OL750D | E288 | Before Use |
| Intertek Two Meter Integrating Sphere | --- | N308 | Before Use |
| LaCroy Oscilloscope | 9354AL | E310 | 02/24/05 |
| UDT Illumination Meter | 371R | L060 | 11/15/05 |
| Fluke Multimeter | PM2425 | M127 | 06/24/05 |
| Optronic Spectral Irradiance Standard | FEL | F731 | 03/30/03 |
| Xitron Power Analyzer | 2502AH | E235 | 06/03/05 |

TESTS AND TEST METHODS

The electrical circuitry used in the measurements performed on each fluorescent lamp and ballast combination complied with the requirements stated in ANSI C82.2. The test sample, lamp, and light output were allowed to stabilize prior to making any measurements.

Lamp Current Measurement – High Frequency Ballast

The rated input voltage and frequency was applied to the test specimen under the specified load condition. The rms current was measured for each lamp using a current transformer connected to the Xitron Power Analyzer. The peak current was measured using current transformers connected to an oscilloscope. The current crest factor was calculated by dividing the maximum peak current by the rms current.


Color Measurements

Spectral irradiance measurements were conducted with an Optronic spectroradiometer at a distance where the illumination from the test sample was 10000 lux. Color rendering Index, color temperature and chromaticity coordinates were computed based on the spectral irradiance data.

Calibration of the spectroradiometer is traceable to the National Institute of Standards and Technology. The ambient temperature during the test was $77 \pm 5^{\circ}\text{F}$. The test sample was operated at 120 volts A.C. during the tests. The input electrical parameters to each unit were recorded by the Xitron Power Analyzer.

Sample Description

Type of Fixture: Floor Lamp
Type of Light Source: Fluorescent Lamp – CFL 18W
Type of Ballast: Magnetic
Number of Light Sources: One

Checked by: 

RESULTS OF TESTElectrical Measurements

| Sample Designation | Input Voltage | Input Current (amps) | Input Power (watts) | Ballast Frequency | Lamp Current (Amps) | Current Crest Factor |
|--------------------|---------------|----------------------|---------------------|-------------------|---------------------|----------------------|
| Floor Lamp | | | | | | |
| F3006Z | 120.0 | 0.325 | 21.18 | 60kHz | 0.305 | 1.62 |
| Nominal Value | - | - | - | - | 0.360 | 1.7 Max |

Photometric and Spectrophotometric Measurements

| Sample Designation | Illumination (Lux) | Color Temperature | Color Rendering Index | Chromaticity Coordinates | |
|--------------------|--------------------|-------------------|-----------------------|--------------------------|-------|
| | | | | x | y |
| Floor Lamp | | | | | |
| F3006Z | 10000 | 5495k | 89.00 | 0.333 | 0.378 |

CONCLUSION

The results tabulated in this report are representative of the actual test samples submitted for this report only. The data is provided to the client for further evaluation. Compliance to the referenced specification requirements was not determined in this report.

In Charge Of Tests:



David Ellis
Senior Project Engineer
Photometric Testing

Report Reviewed By:



Ernest Dykeman
Senior Project Engineer
Photometric Testing

Attachment: None