



8165 E Kaiser Blvd. Anaheim, CA 92808
www.lightlaboratory.com

Report No: L022212402C



Report No: L022212402C

Issue Date: 4/18/2022

Report Prepared For: Gantom Lighting & Controls
25060 Avenue Stanford, Suite 115Valencia, CA 91355USA

Model Number: PR16 - Precision Z Spot - WW

Test: Colorimetric/Electrical Test

Standards Used: Appropriate part or all test guidelines were used for test performed:

IESNA LM79: 2019 Approved Methods for Electrical and Photometric Measurements of Solid-State Lighting Products

ANSI NEMA ANSLG C78.377: 2017 Specification of the Chromaticity of Solid State Lighting Products

ANSI C82.77-10:2014: Harmonic Emission Limits-Related Quality Requirements for Lighting Equipment

Description of Sample: Client submitted the sample. Received in working and undamaged condition. No modifications were necessary.

Special Test Condition: Fixture is tested with no special conditions.

Date of Tests: 4/18/22

Seasoning of Sample: No seasoning was performed in accordance with IESNA LM-79.

Equipment List

Equipment Used	Model No	Stock No	Calibration Due Date
Chroma Programmable AC Source	61604	PS-AC02	--
Yokogawa Digital Power Meter	WT210	MT-EL06-S4	4/7/23
HP Power Supply	6032A	PS-DC05-S2	--
Fluke Digital Thermometer	52K/J	MT-TP05	3/17/23
LLI Type C Goniophotometer System	RMG-C-MKII	CD-LL04-GC	--
LLI 2M Sphere	2MR97	CD-SN03-S2	--
LLI Spectroradiometer	SPR-3000	MT-SC01-S2	Before Use

General Information

Manufacturer:	Gantom Lighting & Controls
Model Number:	PR16 - Precision Z Spot - WW
Driver Model Number:	N/A

Test Summary

Color Redering Index:	91.3
Correlated Color Temperature:	2957
Input Voltage (VDC):	12.00
Input Current (Amp):	0.1075
Input Power (W):	1.29
Input Power Factor:	1.0000
Current ATHD (%):	N/A

Test Condition

Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	0:30
Total Operating Time (Hours):	1:05

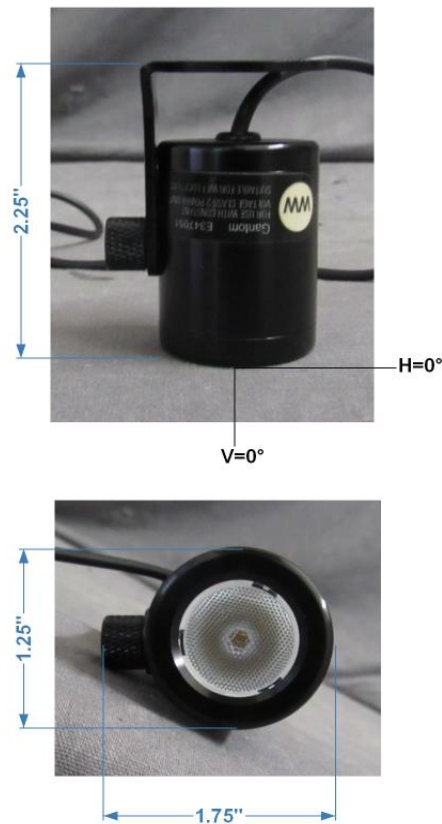
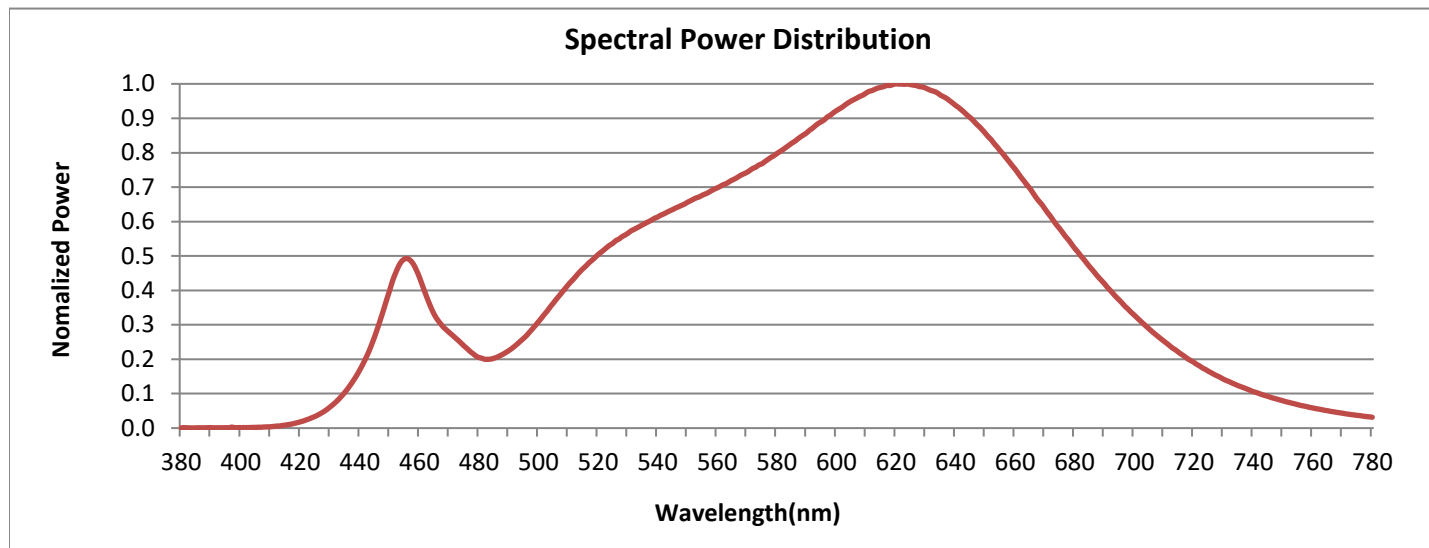


FIG. 1 LUMINAIRE

Colorimetry Test Results

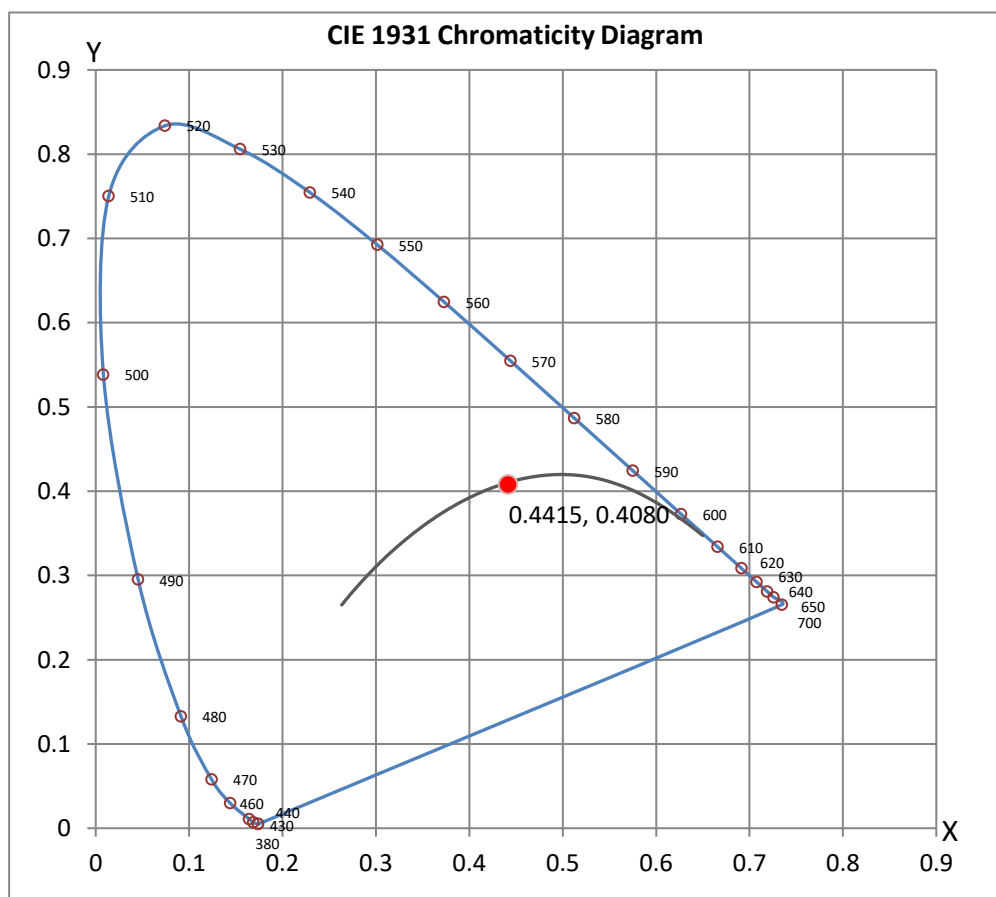


CRI & CCT

x	0.4415
y	0.4080
u'	0.2518
v'	0.5236
CRI	91.30
CCT	2957
Duv	0.00094

R Values

R1	91.42
R2	94.34
R3	95.44
R4	91.55
R5	90.33
R6	92.50
R7	92.99
R8	81.97
R9	58.18
R10	85.12
R11	91.09
R12	74.43
R13	92.05
R14	96.49
R15	87.98





8165 E Kaiser Blvd. Anaheim, CA 92808
www.lightlaboratory.com

Report No: L022212402C



Test Methods

Spectral Measurements - Integrating Sphere

A Sensing Spectroradiometer SPR-3000, in conjunction with Light Laboratory 2 meter integrating sphere was used to measure chromaticity coordinates, correlated color temperature(CCT) and the color rendering index(CRI) for each sample.

Ambient temperature is set to 25°C and is measured from the center of the fixture, within 1ft from the outside of the fixture. Temperature is maintained at 25°C throughout the testing process and the sample is stabilized for at least 30mins and longer as necessary for the sample to achieve stabilization.

Electrical measurements are measured using the listed equipment.

Disclaimers:

The results related only to the samples as received and tested. This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST or any agency of the Federal Government.

Report Prepared by : Kunjan Modi

Test Report Reviewed by:

Steve Kang
Quality Assurance

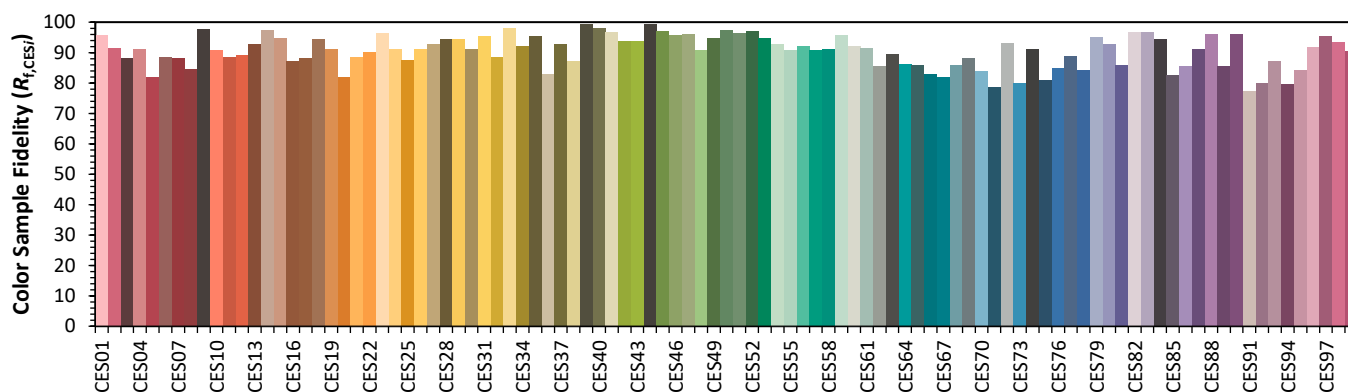
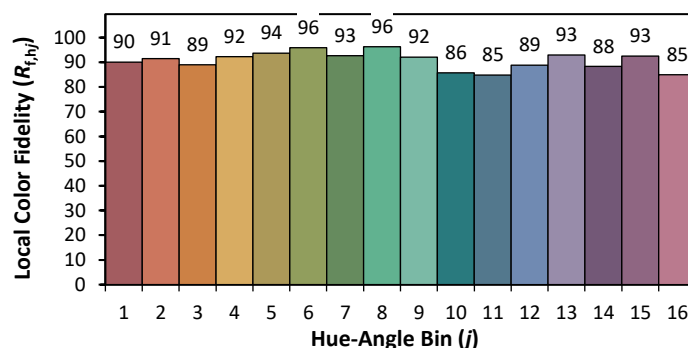
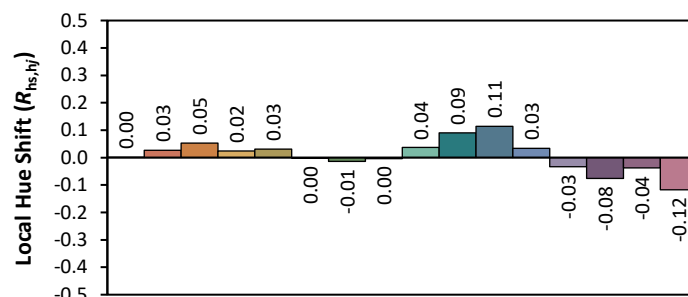
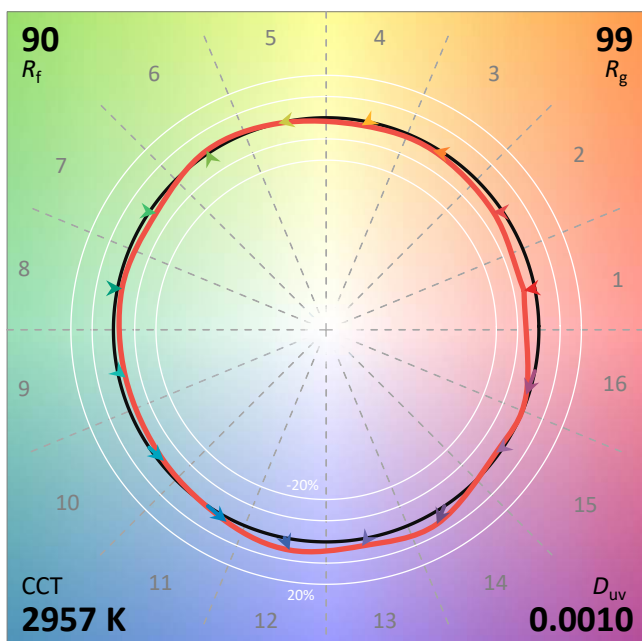
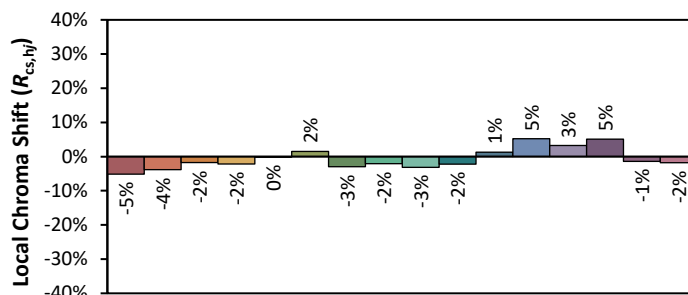
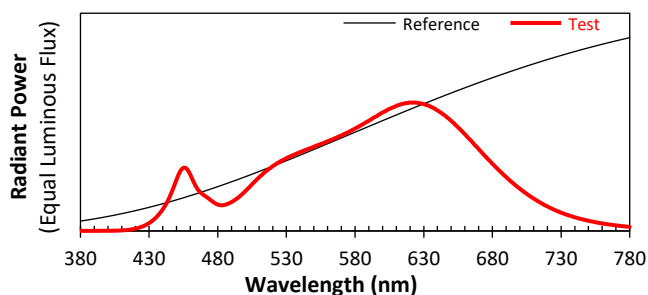
ANSI/IES TM-30-18 Color Rendition Report

Source: L022212402C

Manufacturer: Gantom Lighting & Controls

Date: 4/18/2022

Model: PR16 - Precision Z Spot - WW



Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x 0.4415
 y 0.4080
 u' 0.2518
 v' 0.5236

CIE 13.3-1995
 (CRI)
 R_a 91
 R_g 58