



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

Report No: L022212411



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Issue Date: 4/25/2022

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

Model Number: GT51 - Gantom One - CW

Test: Photometric/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:	GT51 - Gantom One - CW
Driver Model Number:	N/A

Photometric & Electrical Test Results

Total Lumens:	227.00
Efficacy:	49.92
Input Voltage (VDC):	12.00
Input Current (Amp):	0.3788
Input Power (W):	4.55
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):	1:10

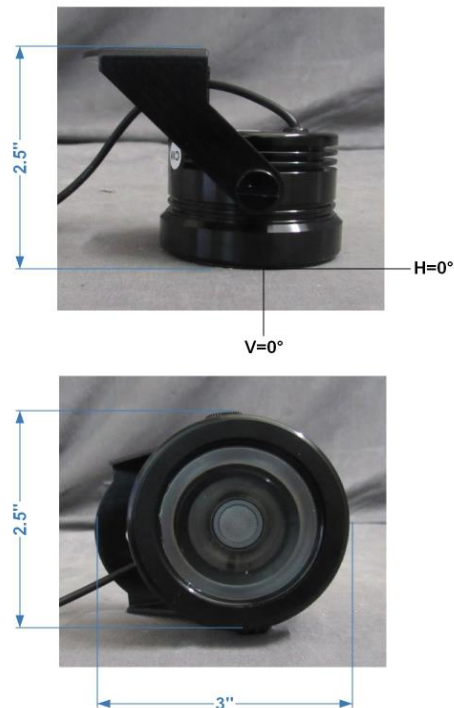


FIG. 1 LUMINAIRE

Test Methods

Photometric Measurements - Goniophotometer

A Custom Light Laboratory Type C Rotating Mirror Goniophotometer was used to measure candelas(intensity) at each angle of distribution as defined by IESNA for the appropriate fixture type.

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.

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

**Attached are photometric data reports.*



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Photometric Test Report

IES INDOOR REPORT

PHOTOMETRIC FILENAME : L022212411.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] L022212411
[TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)
[ISSUEDATE] 4/22/2022
[MANUFAC] Gantom Lighting & Controls
[LUMCAT] GT51 - Gantom One - CW
[LUMINAIRE] GT51 - Gantom One - Cool White - no diffuser
[BALLASTCAT] N/A
[OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND
[MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.
[INPUT] 12VDC
[TEST PROCEDURE] IESNA:LM-79-08

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	227
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	50
Total Luminaire Watts	4.54
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.06
Spacing Criterion (90-270)	0.06
Spacing Criterion (Diagonal)	0.06
Basic Luminous Shape	Circular
Luminous Length (0-180)	0.15 ft (Diameter)
Luminous Width (90-270)	0.15 ft (Diameter)
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	4303	4303	4303
55	2122	2122	2122
65	1440	1440	1440
75	2351	2351	2351
85	6982	6982	6982

IES INDOOR REPORT
PHOTOMETRIC FILENAME : L022212411.IES

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	202.04	N.A.	89.10
0-30	212.45	N.A.	93.70
0-40	217.90	N.A.	96.10
0-60	223.94	N.A.	98.70
0-80	225.99	N.A.	99.60
0-90	226.81	N.A.	100.00
10-90	42.07	N.A.	18.50
20-40	15.86	N.A.	7.00
20-50	19.90	N.A.	8.80
40-70	7.03	N.A.	3.10
60-80	2.05	N.A.	0.90
70-80	1.06	N.A.	0.50
80-90	0.82	N.A.	0.40
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	226.81	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	184.73
10-20	17.31
20-30	10.41
30-40	5.45
40-50	4.04
50-60	2.00
60-70	0.99
70-80	1.06
80-90	0.82
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

IES INDOOR REPORT
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

Effective Floor Cavity Reflectance 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	116	114	112	111	113	112	110	109	108	107	106	104	103	103	101	100	100	98
2	113	110	107	105	111	108	106	104	105	103	102	102	101	100	100	99	98	97
3	110	107	104	102	109	105	103	101	103	101	99	101	99	98	99	97	96	95
4	108	104	101	99	107	103	100	98	101	99	97	100	98	96	98	96	95	94
5	106	102	99	97	105	101	98	96	100	97	95	98	96	95	97	95	94	93
6	105	100	97	95	104	100	97	95	98	96	94	97	95	94	96	94	93	92
7	103	99	96	94	102	98	95	93	97	95	93	96	94	93	95	94	92	91
8	102	97	95	93	101	97	94	92	96	94	92	95	93	92	95	93	91	91
9	101	96	93	92	100	96	93	91	95	93	91	95	93	91	94	92	91	90
10	100	95	93	91	99	95	92	91	94	92	91	94	92	90	93	92	90	90

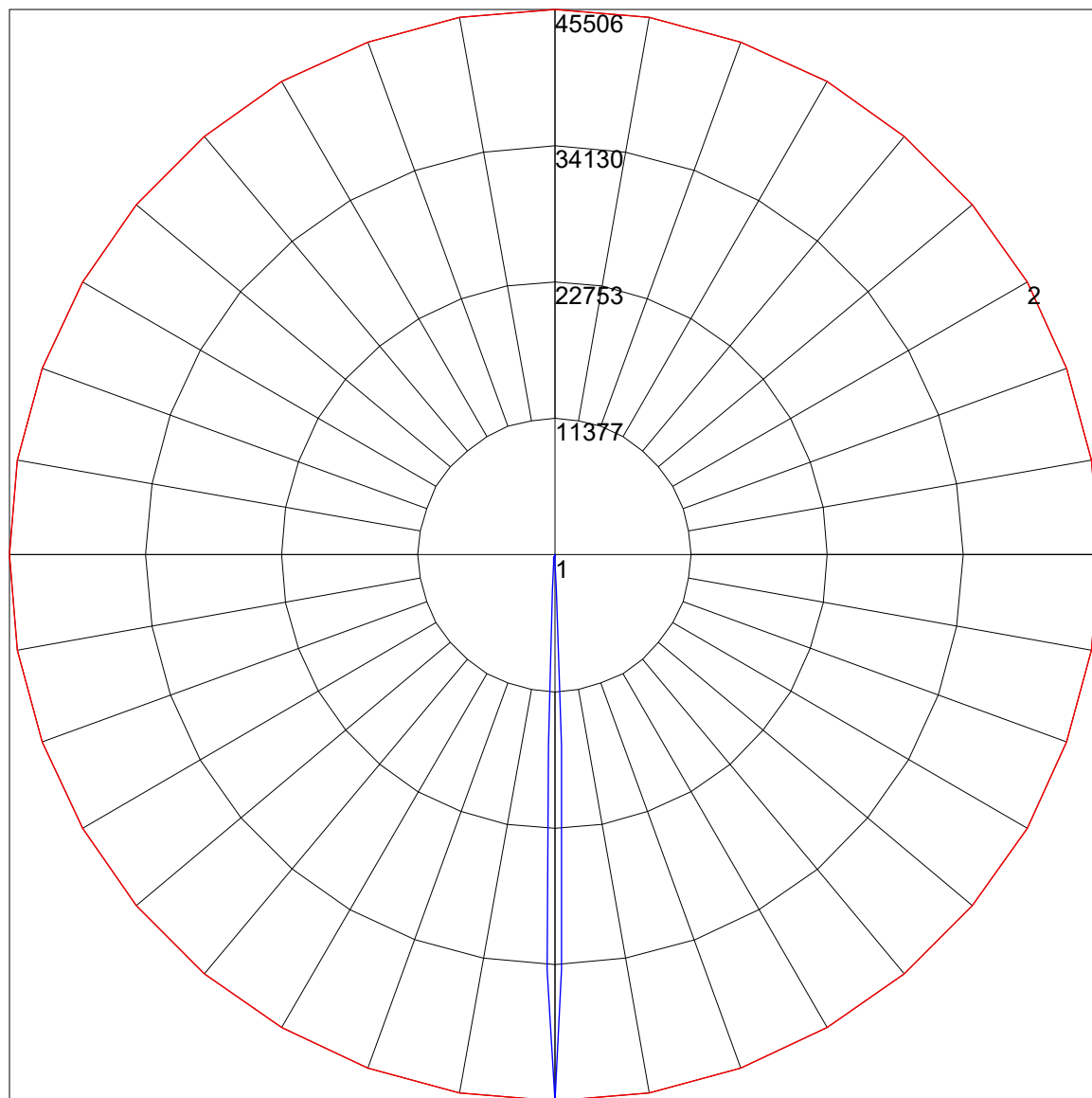
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UGR TABLE - CORRECTED

Reflectances											
Ceiling Cavity	70	70	50	50	30	70	70	50	50	30	
Walls	50	30	50	30	30	50	30	50	30	30	
Floor Cavity	20	20	20	20	20	20	20	20	20	20	
Room Size											
		UGR Viewed Crosswise					UGR Viewed Endwise				
X=2H	Y=2H	2.8	3.7	3.2	4.0	4.4	2.8	3.7	3.2	4.0	4.4
	3H	4.8	5.6	5.2	6.0	6.4	4.8	5.6	5.2	6.0	6.4
	4H	6.3	7.0	6.7	7.4	7.8	6.3	7.0	6.7	7.4	7.8
	6H	8.0	8.7	8.5	9.1	9.5	8.0	8.7	8.5	9.1	9.5
	8H	9.0	9.7	9.5	10.1	10.5	9.0	9.7	9.5	10.1	10.5
	12H	10.3	10.9	10.7	11.3	11.7	10.3	10.9	10.7	11.3	11.7
4H	2H	3.2	3.9	3.6	4.3	4.7	3.2	3.9	3.6	4.3	4.7
	3H	5.7	6.3	6.1	6.7	7.1	5.7	6.3	6.1	6.7	7.1
	4H	7.4	7.9	7.8	8.4	8.8	7.4	7.9	7.8	8.4	8.8
	6H	9.5	9.9	9.9	10.3	10.8	9.5	9.9	9.9	10.3	10.8
	8H	10.6	11.0	11.1	11.5	11.9	10.6	11.0	11.1	11.5	11.9
	12H	11.9	12.3	12.4	12.8	13.3	11.9	12.3	12.4	12.8	13.3
8H	4H	8.1	8.5	8.5	8.9	9.4	8.1	8.5	8.5	8.9	9.4
	6H	10.4	10.7	10.9	11.2	11.7	10.4	10.7	10.9	11.2	11.7
	8H	11.7	12.0	12.3	12.6	13.1	11.7	12.0	12.3	12.6	13.1
	12H	13.3	13.6	13.8	14.1	14.7	13.3	13.6	13.8	14.1	14.7
12H	4H	8.2	8.6	8.7	9.1	9.6	8.2	8.6	8.7	9.1	9.6
	6H	10.7	11.0	11.2	11.5	12.0	10.7	11.0	11.2	11.5	12.0
	8H	12.2	12.4	12.7	12.9	13.5	12.2	12.4	12.7	12.9	13.5

Maximum UGR = 14.7

POLAR GRAPH



Maximum Candela = 45506 Located At Horizontal Angle = 0, Vertical Angle = 0

1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)

2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)