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www.lightlaboratory.com

Report No: L022212413



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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 (2 notch diffuser)

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 (2 notch diffuser)
Driver Model Number:	N/A

Photometric & Electrical Test Results

Total Lumens:	196.00
Efficacy:	43.11
Input Voltage (VDC):	12.00
Input Current (Amp):	0.3786
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):	1:20

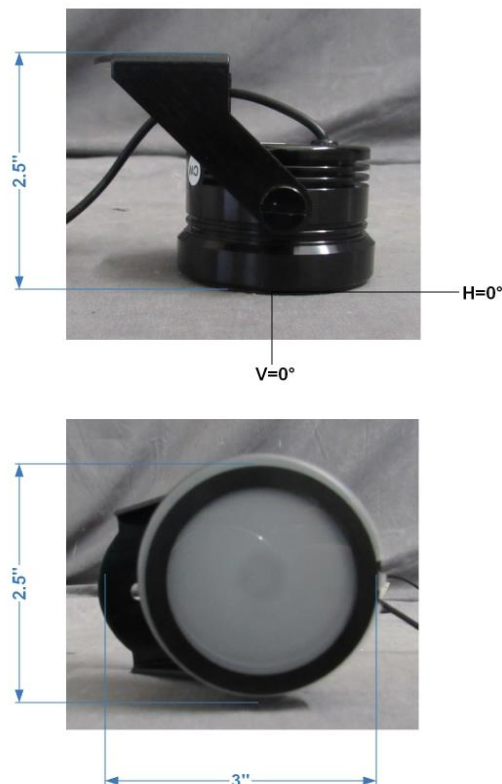


FIG. 1 LUMINAIRE

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 : L022212413.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] L022212413
[TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)
[ISSUE DATE] 4/22/2022
[MANUFAC] Gantom Lighting & Controls
[LUMCAT] GT51 - Gantom One - CW (2 notch diffuser)
[LUMINAIRE] GT51 - Gantom One - Cool White - 2 notch 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	196
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	43
Total Luminaire Watts	4.54
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	0.50
Spacing Criterion (90-270)	0.50
Spacing Criterion (Diagonal)	0.50
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	6885	6885	6885
55	4244	4244	4244
65	2880	2880	2880
75	2351	2351	2351
85	6982	6982	6982

IES INDOOR REPORT
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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	128.28	N.A.	65.40
0-30	165.72	N.A.	84.50
0-40	181.76	N.A.	92.60
0-60	191.85	N.A.	97.80
0-80	195.40	N.A.	99.60
0-90	196.22	N.A.	100.00
10-90	146.26	N.A.	74.50
20-40	53.48	N.A.	27.30
20-50	59.99	N.A.	30.60
40-70	12.32	N.A.	6.30
60-80	3.55	N.A.	1.80
70-80	1.32	N.A.	0.70
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	196.22	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	49.96
10-20	78.33
20-30	37.44
30-40	16.04
40-50	6.52
50-60	3.57
60-70	2.23
70-80	1.32
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

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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	107	107	107	102	102	102	100
1	114	112	109	107	112	109	107	106	105	104	102	102	100	99	98	97	96	95
2	109	105	102	98	107	103	100	97	100	98	95	97	95	93	95	93	91	90
3	105	99	95	92	103	98	94	91	96	92	89	93	90	88	91	89	87	85
4	101	94	90	86	99	93	89	86	91	88	85	89	86	84	88	85	83	81
5	97	90	85	81	96	89	85	81	87	83	80	86	82	80	84	81	79	78
6	93	86	81	77	92	85	81	77	84	80	77	83	79	76	81	78	76	74
7	90	82	77	74	89	82	77	74	81	76	73	80	76	73	79	75	73	71
8	87	79	74	71	86	79	74	71	78	73	70	77	73	70	76	72	70	69
9	84	76	71	68	83	76	71	68	75	71	68	74	70	68	73	70	67	66
10	81	73	69	66	81	73	69	65	72	68	65	72	68	65	71	68	65	64

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UGR TABLE - CORRECTED

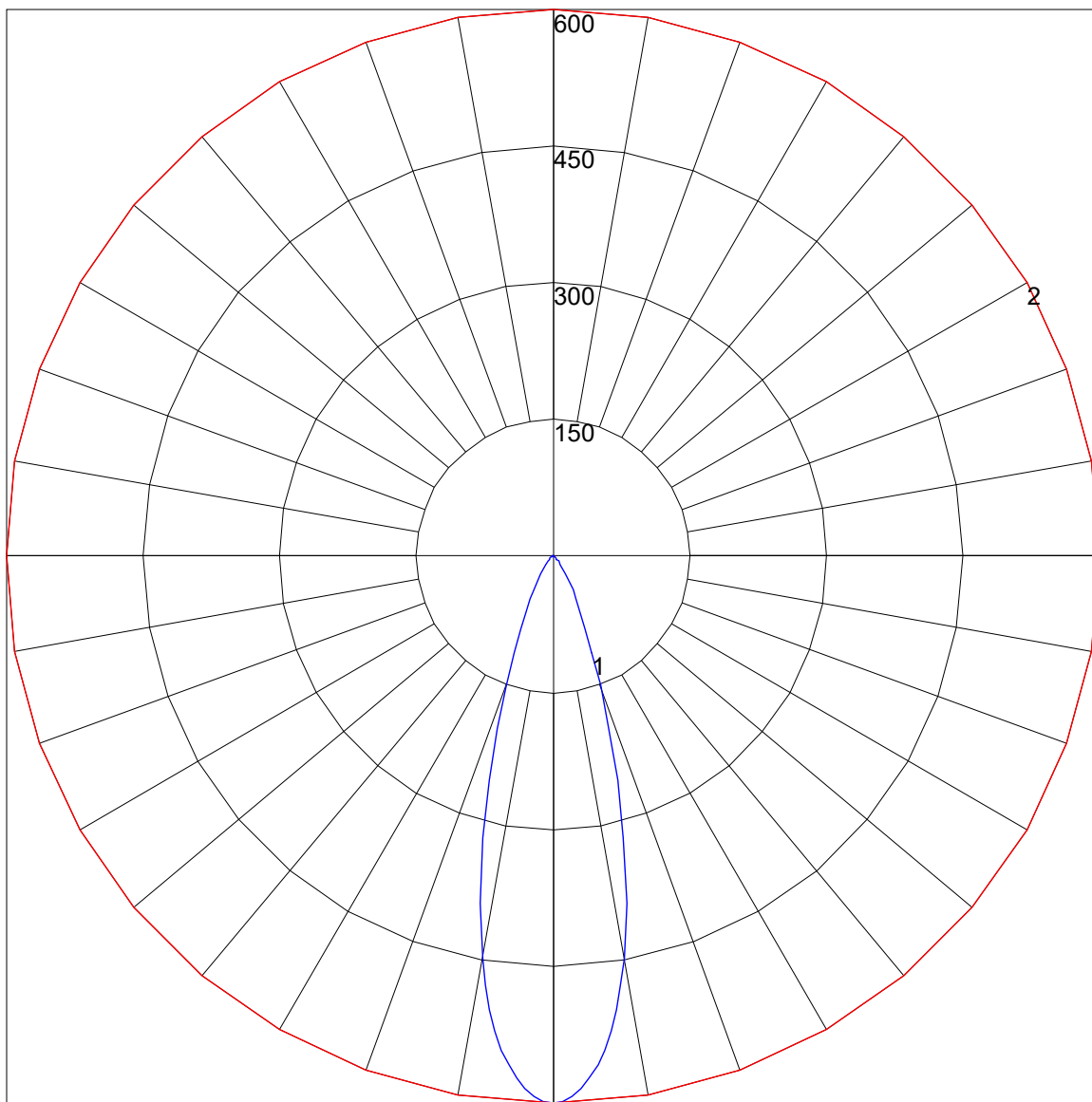
Reflectances

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	9.2	10.2	9.5	10.5	10.8	9.2	10.2	9.5	10.5	10.8
	3H	10.7	11.6	11.1	11.9	12.3	10.7	11.6	11.1	11.9	12.3
	4H	11.1	11.9	11.5	12.2	12.6	11.1	11.9	11.5	12.2	12.6
	6H	11.6	12.3	12.0	12.7	13.1	11.6	12.3	12.0	12.7	13.1
	8H	12.0	12.7	12.5	13.1	13.5	12.0	12.7	12.5	13.1	13.5
	12H	12.6	13.3	13.1	13.7	14.1	12.6	13.3	13.1	13.7	14.1
4H	2H	9.4	10.2	9.8	10.6	10.9	9.4	10.2	9.8	10.6	10.9
	3H	11.3	11.9	11.7	12.3	12.7	11.3	11.9	11.7	12.3	12.7
	4H	11.7	12.3	12.1	12.7	13.2	11.7	12.3	12.1	12.7	13.2
	6H	12.4	13.0	12.9	13.4	13.9	12.4	13.0	12.9	13.4	13.9
	8H	13.0	13.5	13.5	13.9	14.4	13.0	13.5	13.5	13.9	14.4
	12H	13.8	14.2	14.3	14.7	15.2	13.8	14.2	14.3	14.7	15.2
8H	4H	11.9	12.4	12.4	12.8	13.3	11.9	12.4	12.4	12.8	13.3
	6H	12.9	13.3	13.4	13.8	14.3	12.9	13.3	13.4	13.8	14.3
	8H	13.7	14.0	14.2	14.5	15.0	13.7	14.0	14.2	14.5	15.0
	12H	14.7	15.0	15.3	15.5	16.1	14.7	15.0	15.3	15.5	16.1
12H	4H	11.9	12.3	12.4	12.8	13.3	11.9	12.3	12.4	12.8	13.3
	6H	13.0	13.4	13.6	13.8	14.4	13.0	13.4	13.6	13.8	14.4
	8H	13.9	14.2	14.5	14.7	15.3	13.9	14.2	14.5	14.7	15.3

Maximum UGR = 16.1

POLAR GRAPH



Maximum Candela = 600 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.)