





Project No: 6012-002866  
Report No: 6012-002866-1  
Issued Date: 2012-NOV-28  
Revision:

## Verification Services Test Report

Customer Company & Address
ARTEMIDE S.P.A. Via Bergamo 18 20010 Pregnana Milanese (MI)

<b>Manufacturer:</b>	Artemide S.P.A.
<b>Country of Origin:</b>	Italy
<b>Country of Export:</b>	N/A
<b>Product Category:</b>	TIZIO LED
<b>Product Description:</b>	Led desk lamp
<b>Model Number(s):</b>	TIZIO LED
<b>LED model:</b>	CREE Xlamp XP-E HEW
<b>Electrical Ratings:</b>	100-240Vac 50-60Hz
<b>Test Sample(s) Received Date:</b>	2012-NOV-06
<b>Test Period:</b>	2012-NOV-19 to 2012-NOV-19
<b>The Sample(s) is(are) tested in accordance with the following:</b>	
IES LM-79-08	

Prepared By	Approved By
Giovanni Di Martino 	Walter Parmiani 
<b>Name &amp; Signatory</b>	<b>Name &amp; Signatory</b>

**This report shall not be reproduced except in full without the written approval of the Laboratory. The results in this report apply to the test sample(s) mentioned above at the time of the testing period only and are not to be used to indicate applicability to other similar products. This report does not imply that the product(s) has met the criteria for certification.**



UL International Italia S.r.l.  
Via XXV Aprile 3/B  
20875 Burago di Molgora (MB) Italy



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### Statement of Results

Test Flow	Test Method	Sample ID	Test Result
1.	Goniophotometer	001887-S001	Evaluated by Customer
2.	Integrating Sphere	001887-S001	Evaluated by Customer

### Measurement Uncertainty

N/A

### Deviation from Test Method (if any)

N/A

### Remarks (if any)

N/A

### Notes (if any)

This report extends to the 230Vac version of this product.



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### Test No. 1: Goniophotometer

#### Sample ID / Test Round Number

001887-S001 / 1

#### Environmental Conditions

Ambient Temperature
24.2 °C

#### Test Equipment

Local ID	Description	Model
BURVS0063	Goniophotometer system	LSI 6440T
BURVS0066	AC PSU	ELGAR CW 1251
BURVS0065	Digital power meter	Yokogawa WT210
S541	CHRONOMETER	QUANTUM
BURVS0067	THERMOMETER	OMEGA MDSi8

#### Test Condition(s)

Input Voltage	Input Current	Input Power	Power Factor
119.98 V	0.15 A	9.05 W	0.50

#### Test Results

Result Name	Result
Test Date	2012-NOV-19 12:38:00 PM
Current THD	0.2 %
Luminous Flux	313.0 lm
Luminous Efficacy	34.6 lm/W
Luminous Opening Length	1.6 in.
Luminous Opening Width	2.4 "
Luminous Opening Height	0.0 "



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## Verification Services Test Report

### Test No. 2: Integrating Sphere

Sample ID / Test Round Number

001887-S001 / 1

Environmental Conditions

Ambient Temperature
24.4 °C

Test Equipment

Local ID	Description	Model
BURVS0033	INTEGRATING SPHERE	LABSPHERE 2m INTEGRATING SPHERE
BURVS0038	SPECTRORADIOMETER	LABSPHERE CDS-1100
BURVS0042	AC PSU	CHROMA 61603
BURVS0039	DIGITAL POWER METER	YOKOGAWA WT210
S541	DIGITAL CHRONOMETER	QUANTUM
BURVS0034	THERMOMETER	OMEGA MDSi8

Test Condition(s)

Base Orientation	Input Voltage	Input Current	Input Power	Power Factor
Base Up	120 V	0.15 A	9.05 W	0.50

Test Results

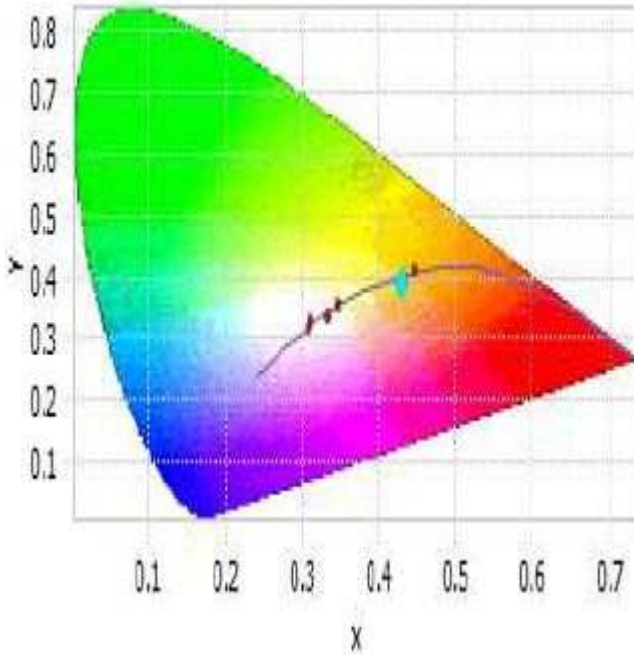
Result Name	Result
Current THD	0.11 %
CCT	3014 K
CRI (Ra)	81.11
Duv	0.0039
x	0.4303
y	0.3923
u'	0.2514
v'	0.5157



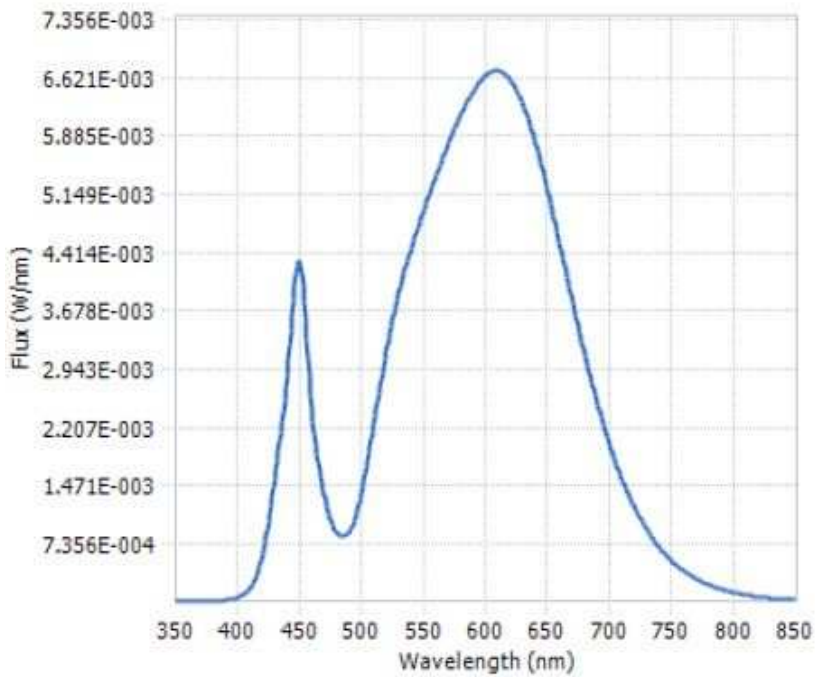
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### Chromaticity diagram

Chromaticity Diagram  
CIE 1931, 2 Degree



### Spectral power distribution





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### Photo of Sample(s)

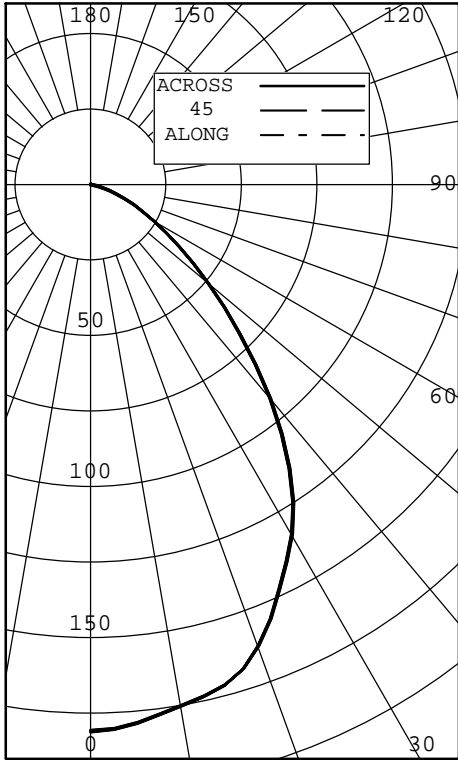


ARTEMIDE SPA,CAT# TIZIO LED

LED. LUMINAIRE OUTPUT = 313 LMS.  
OPERATING AT 120VAC 60Hz 9.05 W

INTENSITY (CANDLEPOWER) SUMMARY

ANGLE	MEAN CP	LUMENS
0	181	
5	179	17
10	175	
15	172	48
20	163	
25	148	68
30	134	
35	115	71
40	93	
45	70	54
50	51	
55	36	33
60	24	
65	16	16
70	9	
75	5	5
80	2	
85	0	1
90	0	



ZONAL LUMENS AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	133	42.60
0-40	204	65.31
0-60	291	93.02
0-90	313	100.00
40-90	109	34.69
60-90	22	6.98
90-180	0	0.00
0-180	313	100.00

EFFICACY (LUMENS PER WATT): 34.4

\*\*\* THIS IS AN ABSOLUTE TEST \*\*\*

LUMINOUS LENGTH: 1.600 INS  
WIDTH: 2.400 INS

LUMINANCE SUMMARY - CD./SQ.M.

ANGLE	MEAN CD/SQ M
45	40061
55	25466
65	15136
75	7230
85	1394

CERTIFIED BY:

DATE:  
NOV 29, 2012

PREPARED FOR:

TESTED IN ACCORDANCE WITH IES PROCEDURES.

UL International Italia Srl  
Via XXV Aprile, 3/B  
Burago di Molgora, Italy 20875

TEST REPORT No. 001887

ARTEMIDE SPA,CAT# TIZIO LED

LED. LUMINAIRE OUTPUT = 313 LMS.  
OPERATING AT 120VAC 60Hz 9.05 W

INTENSITY(CANDLEPOWER) DATA  
IN 2.5 DEGREE STEPS

ANGLE	INTENSITY (CANDLEPOWER)	LUMENS
0.0	181	
2.5	180	
5.0	179	17
7.5	177	
10.0	175	
12.5	174	
15.0	172	48
17.5	168	
20.0	163	
22.5	156	
25.0	148	68
27.5	141	
30.0	134	
32.5	125	
35.0	115	71
37.5	104	
40.0	93	
42.5	81	
45.0	70	54
47.5	60	
50.0	51	
52.5	43	
55.0	36	33
57.5	30	
60.0	24	
62.5	20	
65.0	16	16
67.5	12	
70.0	9	
72.5	7	
75.0	5	5
77.5	3	
80.0	2	
82.5	1	
85.0	0	1
87.5	0	
90.0	0	



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LED. LUMINAIRE OUTPUT = 313 LMS.  
OPERATING AT 120VAC 60Hz 9.05 W

AVERAGE LUMINANCE DATA

CD./SQ.M (FOOTLAMBERTS)

ANGLE	LUMINANCE
0	73034 ( 21316)
30	62246 ( 18167)
40	48763 ( 14232)
45	40061 ( 11692)
50	32053 ( 9355)
55	25466 ( 7432)
60	19581 ( 5715)
65	15136 ( 4417)
70	11064 ( 3229)
75	7230 ( 2110)
80	4445 ( 1297)
85	1394 ( 407)

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OPERATING AT 120VAC 60Hz 9.05 W

COEFFICIENTS OF UTILIZATION

ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE = .20

CC WALL	90				80				70				50				30				10				0
	70	50	30	10	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0			
RCR																									
0	1.221	.221	.221	.22	1.191	.191	.191	.19	1.161	.161	.161	.16	1.111	.111	.111	.11	1.061	.061	.061	.06	1.021	.021	.02	1.00	
1	1.151	.111	.081	.05	1.121	.091	.061	.03	1.101	.071	.041	.01	1.031	.000	.98	0.990	.970	.95	0.950	.940	.93	0.91			
2	1.071	.020	.970	.92	1.051	.000	.950	.91	1.030	.980	.930	.90	0.940	.910	.88	0.920	.890	.86	0.890	.860	.84	0.82			
3	1.010	.920	.860	.81	0.990	.910	.850	.80	0.970	.900	.840	.80	0.870	.820	.79	0.840	.810	.77	0.820	.790	.76	0.74			
4	0.940	.850	.780	.73	0.930	.840	.770	.72	0.910	.830	.770	.72	0.800	.750	.71	0.780	.740	.70	0.760	.720	.69	0.67			
5	0.890	.780	.700	.65	0.870	.770	.700	.65	0.850	.760	.690	.64	0.740	.680	.64	0.720	.670	.63	0.700	.660	.62	0.61			
6	0.830	.710	.640	.59	0.810	.700	.630	.58	0.790	.690	.630	.58	0.680	.620	.57	0.660	.610	.57	0.650	.600	.57	0.55			
7	0.770	.650	.580	.53	0.750	.640	.570	.52	0.740	.640	.570	.52	0.620	.560	.52	0.610	.550	.51	0.600	.550	.51	0.49			
8	0.720	.600	.530	.48	0.710	.590	.520	.47	0.690	.580	.520	.47	0.570	.510	.47	0.560	.510	.46	0.550	.500	.46	0.45			
9	0.670	.550	.480	.42	0.660	.550	.470	.42	0.650	.540	.470	.42	0.530	.470	.42	0.520	.460	.42	0.510	.460	.42	0.40			
10	0.630	.510	.430	.39	0.620	.500	.430	.39	0.610	.500	.430	.38	0.490	.430	.38	0.480	.420	.38	0.470	.420	.38	0.36			

THE ABOVE COEFFICIENTS HAVE BEEN CALCULATED BASED ON LUMINAIRE LUMENS  
BECAUSE IN AN ABSOLUTE TEST THE BARE LAMP LUMENS ARE UNKNOWN.  
LIGHTING DESIGN CALCULATIONS MADE USING THESE COEFFICIENTS SHOULD  
THEREFORE USE THE LUMINAIRE LUMENS IN THE CALCULATION FORMULA

LUMINAIRE INPUT WATTS 9.1

LABORATORY RESULTS MAY NOT BE REPRESENTATIVE OF FIELD PERFORMANCE.  
BALLAST AND FIELD FACTORS HAVE NOT BEEN APPLIED.

TEST DISTANCE EXCEEDS FIVE TIMES THE GREATEST  
LUMINOUS OPENING OF LUMINAIRE.

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CONE OF LIGHT  
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MOUNTING HEIGHT ABOVE WORK PLANE (FT)	INITIAL FC AT NADIR -FCN (FC)	.1*FCN (FC)	10% LIGHTED DIAMETER (FT)	.5*FCN (FC)	50% LIGHTED DIAMETER (FT)
-----	-----	-----	-----	-----	-----
1	181.0	18.1	2.2	90.5	1.1
2	45.2	4.5	4.4	22.6	2.2
3	20.1	2.0	6.6	10.1	3.4
4	11.3	1.1	8.8	5.7	4.5
5	7.2	0.7	11.0	3.6	5.6
6	5.0	0.5	13.2	2.5	6.7
7	3.7	0.4	15.4	1.8	7.8
8	2.8	0.3	17.6	1.4	9.0

10% CONE ANGLE: 95.4 DEGREES  
 50% CONE ANGLE: 58.5 DEGREES