

VISUAL COMFORT AND COMPANY TEST REPORT

SCOPE OF WORK

LED Performance Testing

MODEL NUMBER

700LSSTG72NB-LED927

PROJECT NUMBER

G104941221

REPORT NUMBER

104941221CHI-005

ISSUE DATE

2/3/2022

REVISED DATE

None

TEST DATES

2022-02-02.

DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

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SAMPLE INFORMATION

REPORT NO. 104941221CHI-005

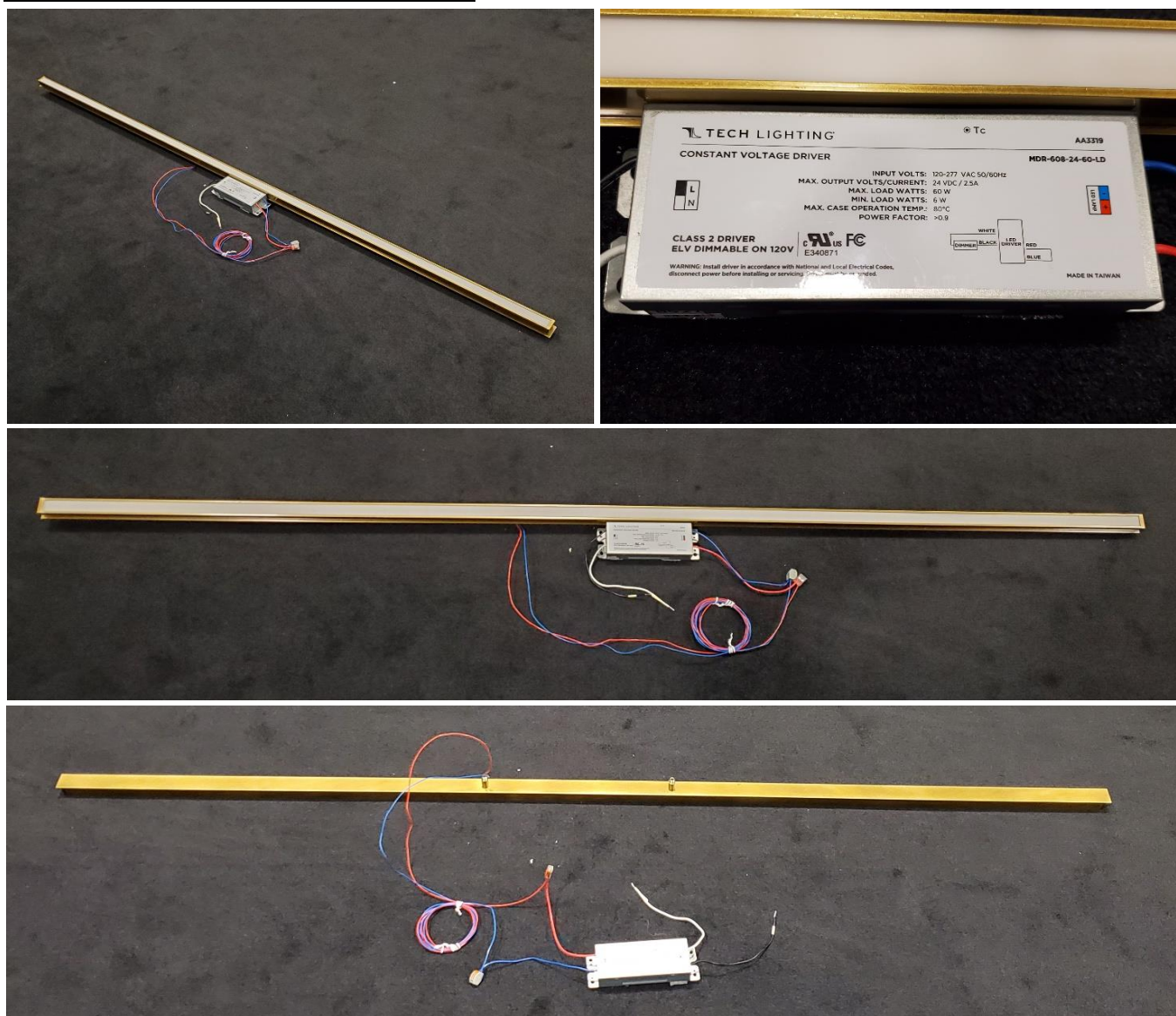
ITEMS RECEIVED

Item No.	Control No.	Model No.	Description	Type	Received
1	AH02012022092815	700LSSTG72NB-LED927	STAGGER 72 LINEAR SUSPENSION	Production	2/1/2022

TESTED SAMPLE CONFIGURATIONS

Config No.	Tested Model No.	Item Nos. Utilized
1	700LSSTG72NB-LED927	1

SAMPLE PHOTOS - TESTED CONFIGURATIONS



REPORT NUMBER

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MODEL NUMBER(s)

700LSSTG72NB-LED927

REPORT RENDERED TO:

VISUAL COMFORT AND COMPANY
7400 LINDER AVE
SKOKIE, IL 60077
USA

STATEMENT OF LIMITATION

NVLAP Lab Code 600186-0. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

AUTHORIZATION

The testing performed was authorized by signed quote number Qu-01236637-1.

TEST STANDARDS

ANSI/IES LM-79-19 Optical and Electrical Measurements of Solid-State Lighting Products

ANSI NEMA ANSLG C78.377: 2017: Specifications for the Chromaticity of Solid State Lighting (SSL) Products

IES TM-30-18: IES Method for Evaluating Light Source Color Rendition

In Charge of Testing:



Nick Lau
Position
Lighting Division

Reviewer:



Jeff Davis
N.A. Technical Lead
Lighting Division

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SUMMARY

REPORT NO. 104941221CHI-005

PRODUCT INFORMATION AND SUMMARY OF DATA

Product Model No.:	700LSSTG72NB-LED927
Product Description:	STAGGER 72 LINEAR SUSPENSION
LED Model No.:	DILUXWW-FLS102T23WW240B-24(WCP)-UR-3S
Driver Model No.:	MACRON MDR-608-24-60-LD (AA3319)
Light Source:	LED

Criteria	Results
Light Output (lumens)	1391.8
Input Power (W) @ 120 (Vac)	36.71
Lumen Efficacy (lm/W)	37.9
Input Power Factor (PF) @ 120 (Vac)	0.990
Input ATHD (%) @ 120 (Vac)	9.70
Correlated Color Temperature (K)	2587
Color Rendering Index - Ra (I)	93.7
Color Rendering Index - R9 (I)	70.1
Duv (I)	-0.0009
Chromaticity Coordinate (x)	0.468
Chromaticity Coordinate (y)	0.410
Chromaticity Coordinate (u')	0.268
Chromaticity Coordinate (v')	0.528
Input Power (W) @ 277 (Vac)	36.94
Input Power Factor (PF) @ 277 (Vac)	0.880
Input ATHD (%) @ 277 (Vac)	21.76

TEST METHODS

SEASONING IN SAMPLE ORIENTATION - LED PRODUCTS

No seasoning was performed in accordance with IESNA LM-79.

INTEGRATING SPHERE TESTING

A spectroradiometer and integrating sphere were used to measure the spectral distribution for each EUT resulting in photometric and colorimetric data. Electrical measurements of the unit were measured using a power analyzer. Each EUT was operated at the rated input voltage of the system in its designated orientation. The ambient temperature was measured at a position inside the sphere and stabilization procedures to LM-79 were followed.

INTEGRATING SPHERE TESTING

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Test Configuration	Tested Model No.	Pass/Fail/NA
1	700LSSTG72NB-LED927	NA

PHOTOMETRIC, COLORIMETRIC, AND ELECTRICAL MEASUREMENTS (25°C +/- 1°C)

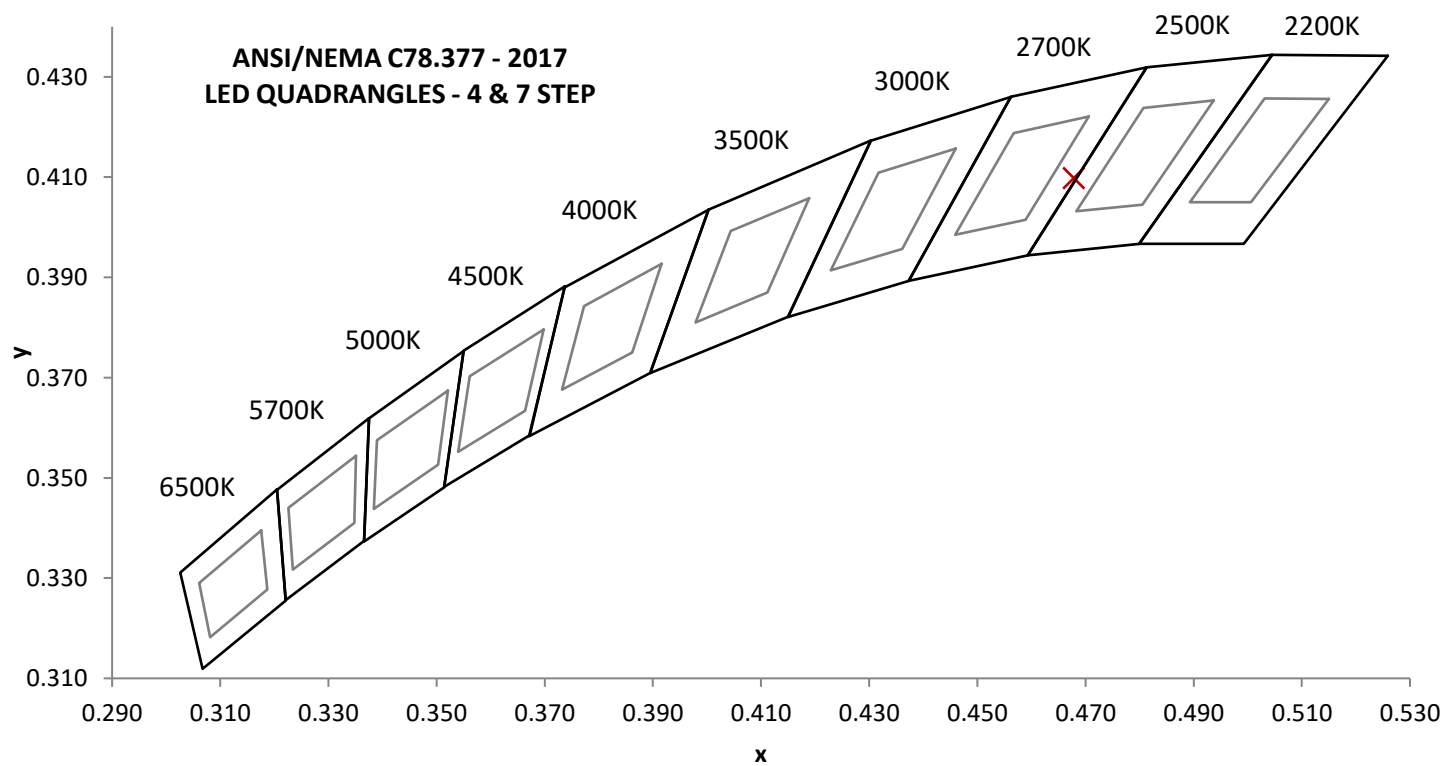
Base Orientation
Up

Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor (I)	Input ATHD (%)
120.09	308.9	36.71	0.990	9.70
277.03	151.5	36.94	0.880	21.76

Measured at 120.09(Vac)

Light Output (lm)	Lumen Efficacy (lm/W)	CCT (K)	CRI - Ra (I)	CRI - R9 (I)
1391.8	37.9	2587	93.7	70.1

Duv (I)	1931 Chrom (x)	1931 Chrom (y)	1976 Chrom (u')	1976 Chrom (v')
-0.0009	0.468	0.410	0.268	0.528

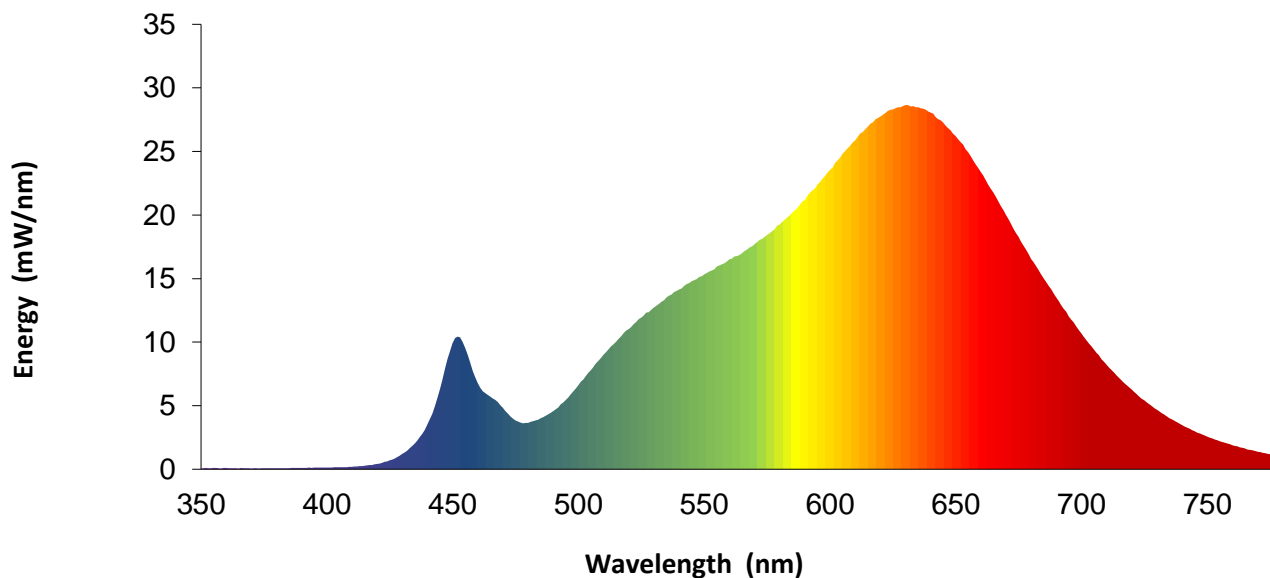


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SPECTRAL DISTRIBUTION OVER WAVELENGTHS

nm	mW/nm		nm	mW/nm		nm	mW/nm		nm	mW/nm
350	0.1		460	6.8		570	17.7		680	16.6
355	0.1		465	5.7		575	18.4		685	15.0
360	0.1		470	4.8		580	19.3		690	13.5
365	0.1		475	3.8		585	20.2		695	12.0
370	0.1		480	3.7		590	21.2		700	10.7
375	0.1		485	4.0		595	22.4		705	9.4
380	0.1		490	4.6		600	23.6		710	8.2
385	0.1		495	5.5		605	24.8		715	7.2
390	0.1		500	6.6		610	25.9		720	6.3
395	0.1		505	7.8		615	26.9		725	5.4
400	0.1		510	9.0		620	27.7		730	4.7
405	0.2		515	10.0		625	28.3		735	4.0
410	0.2		520	11.0		630	28.6		740	3.5
415	0.3		525	11.9		635	28.5		745	3.0
420	0.4		530	12.7		640	28.1		750	2.6
425	0.7		535	13.5		645	27.3		755	2.2
430	1.2		540	14.1		650	26.2		760	1.9
435	2.0		545	14.8		655	24.9		765	1.6
440	3.5		550	15.3		660	23.4		770	1.4
445	6.3		555	16.0		665	21.8		775	1.2
450	9.9		560	16.5		670	20.0		780	1.0
455	9.6		565	17.0		675	18.3		---	---

Without correction of sample absorption.



Portrayed color in graphic is estimated by wavelength (nm) and may not be exact - it is a visual representation only

EQUIPMENT LIST

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#	Equipment	Model No	Control No.	Last Cal	Cal Due
8	Newport Humidity Recorder	iServer	146961	9/21/2021	9/21/2022
9	Labsphere Spectroradiometer	CDS2600	CHI0539	VBU	VBU
10	3 Meter Sphere	SPR600	CHI0088	VBU	VBU
11	Elgar AC Power Supply	CW1251	146112	VBU	VBU
12	Sorenson DC Power Supply	XFR150-8	146846	VBU	VBU
13	Yokogawa Power Meter	WT1600	146767	4/8/2021	4/8/2022
17	Omega thermometer	USB TC08	EQA002615	4/6/2021	4/6/2022
26	Xitron Power Analyzer	XT-2640	CHI0611	6/9/2021	6/9/2022

Note: Standard sources listed above are traceable to NIST: National Institute of Standards and Technology

REVISION HISTORY

#	Revision Date	Updated By	Reviewed By	Description of Change
---	None	---	---	---
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Test Configuration	Tested Model No.	Pass/Fail/NA
1	700LSSTG72NB-LED927	NA

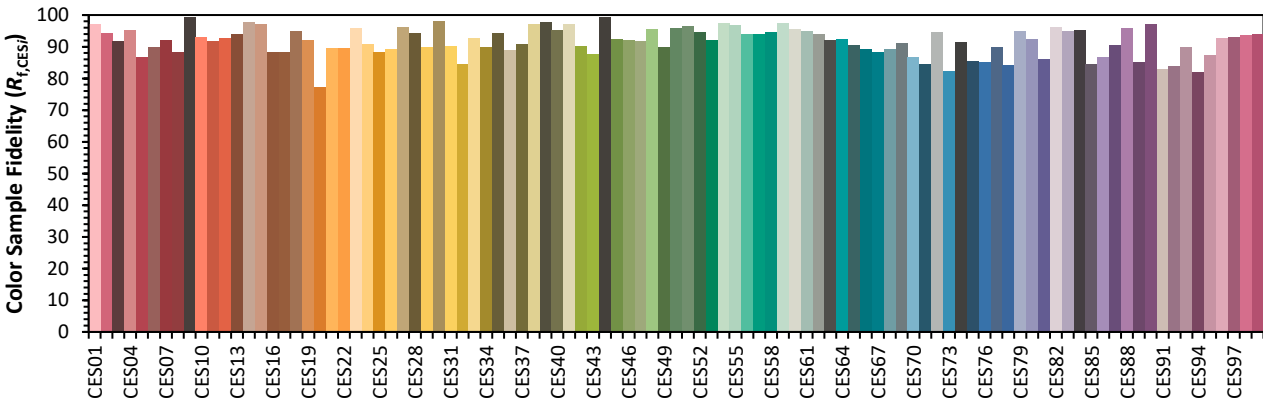
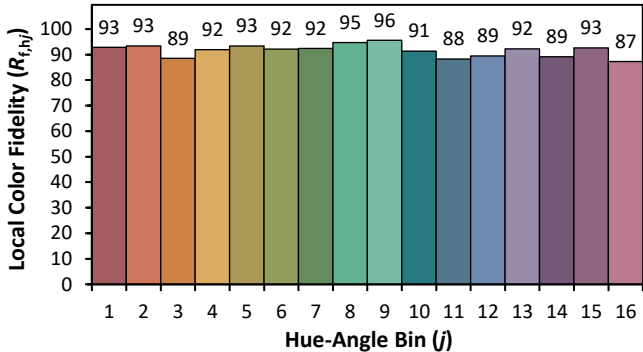
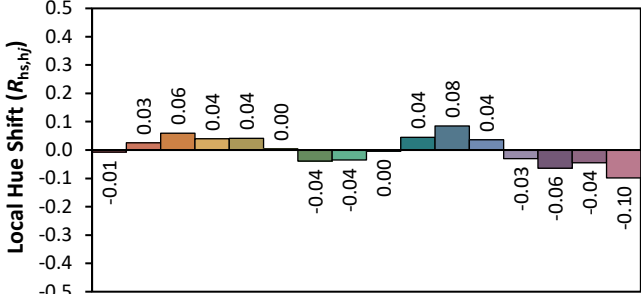
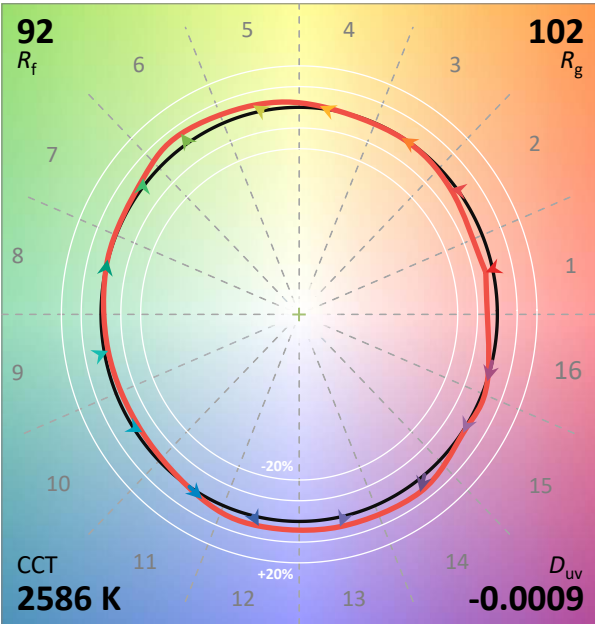
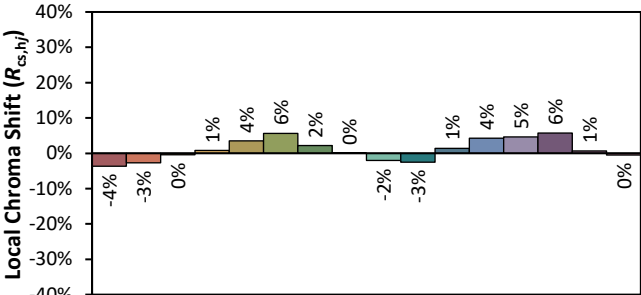
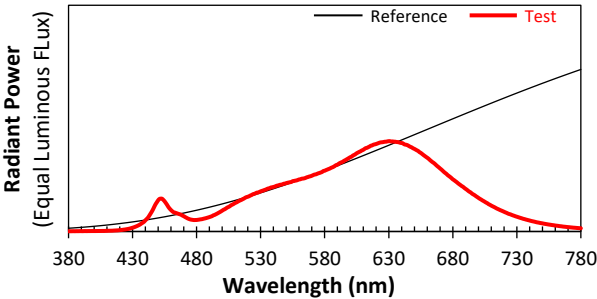
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: VISUAL COMFORT AND COMPANY

Date: 2/2/2022

Model: 700LSSTG72NB-LED927



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

x 0.4678
y 0.4098
u' 0.2680
v' 0.5283