

# VISUAL COMFORT GROUP TEST REPORT

## SCOPE OF WORK

Electrical and Photometric tests as required to the IESNA test standard.

**MODEL NUMBER**  
700VLV36\*\*-LED922

**REPORT NUMBER**  
104206403CHI-051

**ISSUE DATE**  
March 6, 2020

**REVISION DATE**  
None

**DOCUMENT CONTROL NUMBER**  
TBD  
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**REPORT NO.: 104206403CHI-051**

**REPORT DATE: March 6, 2020**

**TEST REPORT**

TEST OF ONE VELLAVI 36 CHANDELIER

MODEL NO. 700VLV36\*\*-LED922  
LED MODEL NO. DILUX WW-FLS120T28WW120B-24(WCP)-UR-3S(15)  
DRIVER MODEL NO. MACRON MDR-608-24-60-LD

RENDERED TO:

VISUAL COMFORT GROUP  
7400 LINDER AVE.  
SKOKIE IL 60077

**STATEMENT OF LIMITATIONS**

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-01040682-1.

**STANDARDS USED**

IESNA LM-79 - 2008: Electrical and Photometric Measurements of Solid State Lighting

**DESCRIPTION OF SAMPLE**

The client submitted one production sample of model number 700VLV36\*\*-LED922. The sample was received by Intertek on February 26, 2020 in undamaged condition and one sample was tested as received. The sample designation was AH02262020084625.

**DATE OF TESTS**

February 27, 2020.

**REPORT NO.: 104206403CHI-051**

**REPORT DATE: March 6, 2020**

**TEST REPORT**

**SUMMARY**

|                     |                       |
|---------------------|-----------------------|
| <b>MODEL NO:</b>    | 700VLV36**-LED922     |
| <b>DESCRIPTION:</b> | Vellavi 36 Chandelier |

| <b>CRITERIA</b>                    | <b>RESULTS</b> |
|------------------------------------|----------------|
| Lumen Output (lumens)              | 2262.6         |
| Input Power (W) @ 120 (VAC)        | 42.32          |
| Lumen Efficacy (lm/W)              | 53.5           |
| Input Power Factor ( ) @ 120 (VAC) | 0.955          |

**EQUIPMENT LIST**

| <b>EQUIPMENT USED</b>            | <b>MODEL NO.</b> | <b>CONTROL NO.</b> | <b>LAST CAL DATE</b> | <b>CAL DUE DATE</b> |
|----------------------------------|------------------|--------------------|----------------------|---------------------|
| Yokogawa Power Meter             | WT210            | 146919             | 7/1/2019             | 7/1/2020            |
| Omega Thermometer                | DPI8-C24         | 146920             | 10/3/2019            | 10/3/2020           |
| LSI High Speed Mirror Goniometer | 6440T            | 146928             | VBU                  | VBU                 |
| Newport Thermohygrometer         | iServer          | 146957             | 12/2/2019            | 12/2/2020           |
| Pacific, AC Power Supply         | 118-ACX          | CHI0153            | VBU                  | VBU                 |

**REPORT NO.: 104206403CHI-051**

**REPORT DATE: March 6, 2020**

**TEST REPORT**

**TEST METHODS**

**SEASONING IN SAMPLE ORIENTATION - LED PRODUCTS**

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

**PHOTOMETRIC AND ELECTRICAL MEASUREMENTS - DISTRIBUTION METHOD**

A Type C Mirror Goniometer was used to measure the intensity (candelas) at each angle of distribution for the SSL sample.

Ambient temperature was measured equal to the height of the sample mounted on the goniometer equipment. The SSL sample was operated on the client provided driver at rated input volts in its designated orientation. The SSL sample was allowed to stabilize for at least thirty minutes before measurements were made. Stabilization procedures to LM-79 were followed. Electrical measurements including voltage, current, and power were measured using a power analyzer.

REPORT NO.: 104206403CHI-051

REPORT DATE: March 6, 2020

TEST REPORT

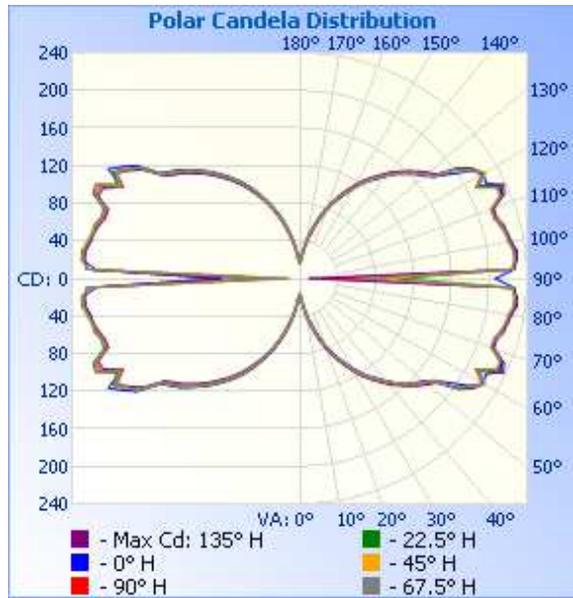
RESULTS OF TESTS

PHOTOMETRIC AND ELECTRICAL MEASUREMENTS - DISTRIBUTION METHOD (25°C +/- 1°C)

| INTERTEK CONTROL NO. | BASE POSITION | INPUT VOLTAGE (VAC) | INPUT CURRENT (mA) | INPUT POWER (W) | INPUT POWER FACTOR ( ) | LIGHT OUTPUT (lm) | LUMEN EFFICACY (lm/W) |
|----------------------|---------------|---------------------|--------------------|-----------------|------------------------|-------------------|-----------------------|
| AH02262020084625     | Base Up       | 120.1               | 369.1              | 42.32           | 0.955                  | 2262.6            | 53.5                  |

INTENSITY SUMMARY - CANDELAS

| Angle | 0   | 22.5 | 45  | 67.5 | 90  |
|-------|-----|------|-----|------|-----|
| 0     | 17  | 17   | 17  | 17   | 17  |
| 5     | 20  | 22   | 23  | 24   | 24  |
| 10    | 35  | 38   | 38  | 39   | 40  |
| 15    | 52  | 55   | 56  | 57   | 58  |
| 20    | 72  | 74   | 75  | 76   | 77  |
| 25    | 90  | 93   | 93  | 94   | 95  |
| 30    | 109 | 111  | 111 | 112  | 113 |
| 35    | 127 | 128  | 128 | 129  | 130 |
| 40    | 142 | 143  | 144 | 144  | 145 |
| 45    | 157 | 158  | 158 | 159  | 160 |
| 50    | 170 | 172  | 172 | 173  | 173 |
| 55    | 194 | 205  | 202 | 202  | 205 |
| 60    | 224 | 224  | 226 | 225  | 222 |
| 65    | 234 | 232  | 228 | 230  | 231 |
| 70    | 216 | 215  | 215 | 215  | 216 |
| 75    | 219 | 219  | 219 | 220  | 220 |
| 80    | 225 | 224  | 224 | 224  | 225 |
| 85    | 230 | 228  | 228 | 228  | 229 |
| 90    | 206 | 104  | 82  | 66   | 29  |
| 95    | 230 | 228  | 228 | 228  | 229 |
| 100   | 225 | 224  | 224 | 224  | 225 |
| 105   | 219 | 219  | 219 | 220  | 220 |
| 110   | 216 | 215  | 215 | 215  | 216 |
| 115   | 234 | 232  | 228 | 230  | 231 |
| 120   | 224 | 224  | 226 | 225  | 222 |
| 125   | 194 | 205  | 202 | 202  | 205 |
| 130   | 170 | 172  | 172 | 173  | 173 |
| 135   | 157 | 158  | 158 | 159  | 160 |
| 140   | 142 | 143  | 144 | 144  | 145 |
| 145   | 127 | 128  | 128 | 129  | 130 |
| 150   | 109 | 111  | 111 | 112  | 113 |
| 155   | 90  | 93   | 93  | 94   | 95  |
| 160   | 72  | 74   | 75  | 76   | 77  |
| 165   | 52  | 55   | 56  | 57   | 58  |
| 170   | 35  | 38   | 38  | 39   | 40  |
| 175   | 20  | 22   | 23  | 24   | 24  |
| 180   | 17  | 17   | 17  | 17   | 17  |



**REPORT NO.: 104206403CHI-051**

**REPORT DATE: March 6, 2020**

**TEST REPORT**

**RESULTS OF TESTS**

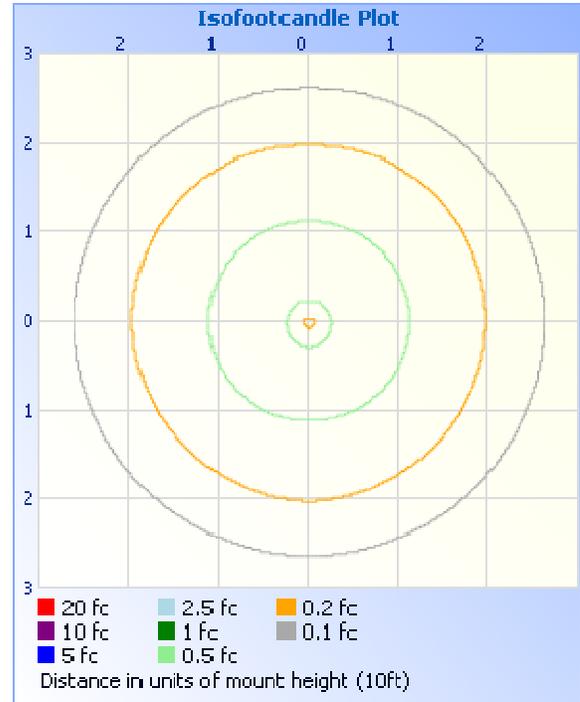
**PHOTOMETRIC AND ELECTRICAL MEASUREMENTS - DISTRIBUTION METHOD (25°C +/- 1°C)**

**MOUNTING HEIGHT: 10ft**

| ILLUMINANCE - CONE OF LIGHT | ISOILLUMINATION PLOT |
|-----------------------------|----------------------|
|-----------------------------|----------------------|

| Illuminance at a Distance |                |                 |
|---------------------------|----------------|-----------------|
|                           | Center Beam fc | Beam Width      |
| 1.7ft                     | <b>5.81 fc</b> | <b>83.8 ft</b>  |
| 3.3ft                     | <b>1.54 fc</b> | <b>162.6 ft</b> |
| 5.0ft                     | <b>0.67 fc</b> | <b>246.4 ft</b> |
| 6.7ft                     | <b>0.37 fc</b> | <b>330.2 ft</b> |
| 8.3ft                     | <b>0.24 fc</b> | <b>409.0 ft</b> |
| 10.0ft                    | <b>0.17 fc</b> | <b>492.8 ft</b> |

■ Horiz. Spread: 175.4°



**ZONAL LUMEN SUMMARY AND PERCENTAGES**

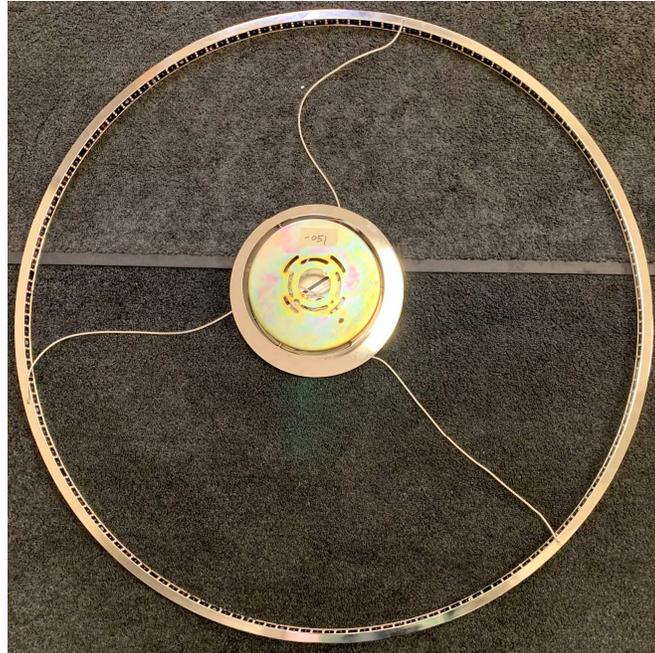
| ZONE   | LUMENS | % LUMINAIRE |
|--------|--------|-------------|
| 0-30   | 64.3   | 2.8         |
| 0-40   | 146.1  | 6.5         |
| 0-60   | 450.3  | 19.9        |
| 60-90  | 681.0  | 30.1        |
| 70-100 | 682.7  | 30.2        |
| 90-120 | 681.0  | 30.1        |
| 0-90   | 1131.3 | 50.0        |
| 90-180 | 1131.3 | 50.0        |
| 0-180  | 2262.6 | 100.0       |

| ZONE    | LUMENS | % LUMINAIRE |
|---------|--------|-------------|
| 0-10    | 2.8    | 0.1         |
| 10-20   | 17.0   | 0.8         |
| 20-30   | 44.5   | 2.0         |
| 30-40   | 81.8   | 3.6         |
| 40-50   | 124.3  | 5.5         |
| 50-60   | 180.0  | 8.0         |
| 60-70   | 223.1  | 9.9         |
| 70-80   | 233.2  | 10.3        |
| 80-90   | 224.8  | 9.9         |
| 90-100  | 224.8  | 9.9         |
| 100-110 | 233.2  | 10.3        |
| 110-120 | 223.1  | 9.9         |
| 120-130 | 179.9  | 8.0         |
| 130-140 | 124.3  | 5.5         |
| 140-150 | 81.8   | 3.6         |
| 150-160 | 44.5   | 2.0         |
| 160-170 | 17.0   | 0.8         |
| 170-180 | 2.8    | 0.1         |

**REPORT NO.: 104206403CHI-051**  
**REPORT DATE: March 6, 2020**

**TEST REPORT**

**PICTURES**



**CONCLUSION**

The results tabulated in this report are representative of the actual test samples submitted for this report only. The data is provided to the client for further evaluation. Compliance to the referenced specification requirements was not determined in this report.

In Charge Of Tests:

Ian Smith  
Engineer  
Lighting Division

Report Reviewed By:

Jeff Davis  
N.A. Technical Lead  
Lighting Division

Attachments: IES File

**REVISION HISTORY**

| JOB NUMBER | DATE OF REVISION | PROJECT HANDLER | REVIEWED BY | REVISION NOTE |
|------------|------------------|-----------------|-------------|---------------|
| None       |                  |                 |             |               |