# Fuze Pendant

# Emergency Power

## Photometric Test Report

**Elation Professional USA |** 6122 S. Eastern Ave. **|** Los Angeles, CA. 90040

323-582-3322 **|** 323-832-9142 fax **|** www.elationlighting.com **|** info@elationlighting.com

**Elation Professional B.V. |** Junostraat 2 **|** 6468 EW Kerkrade, The Netherlands

+31 45 546 85 66 **|** +31 45 546 85 96 fax **|** www.elationlighting.eu **|** info@elationlighting.eu

**Elation Professional Mexico |** AV Santa Ana 30 | Parque Industrial Lerma, Lerma, Mexico 52000

+52 (728) 282-7070

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# Emergency Power Test

For this test the fixture is connected to a 25-48V LED Emergency Driver, providing 15W of power. The Fuze Pendant operates with reduced LED power to provide light output exceeding 90 minutes.
DMX control and display access are not available, and the color temperature is preset for optimum power usage.
Light levels and color temperature are not adjustable for Emergency Power Operation.

# Testing Process

### Total Lumen Measurements

Lumens are measured using a Viso Systems Lab Spion. As a goniophotometer, the Viso calculates the field lumens of the fixture by taking multiple measurements across the light beam.

Many lumens figures provided for entertainment lighting fixtures are only 2π sphere values, some even emphasize the LED engine lumens. All Elation product photometric data is the actual light output from the fixture lens, never a theoretical value based on calculation or using the source lumens as the fixtures output. We advise to always compare total fixture lumens acquired with identical measurement systems when comparing lighting fixtures.

### Test Lab Equipment and Process

Elation operates an optical testing laboratory at its Los Angeles, CA headquarters to provide accurate photometric data for its lighting products. The testing lab is both light and climate-controlled and contains a variety of precise lighting measurement systems. Fixtures are analyzed with the sophisticated Viso Systems Lab Spion equipment, which measures all light and color parameters by panning the light beam at a precise speed and from different angles through a calibrated, laser aligned light and color sensor. Test data is collected and summarized by the Viso Light Inspector software. This type of measurement system is referred to as a Goniophotometer.

The Viso software calculates all relevant types of measurements, from beam angles, candela to center light intensity at a variety of distances to the latest color quality measurements like TM30 or CQS as well as accurate color temperature. This wealth of data is then processed by an Elation specific template which is included in the photometric test report for various fixture conditions such as zoom angles and color correction filters.

The Viso software also creates IES (Illuminating Engineering Society) files for each test report. IES is an industry standard file format created for the easy electronic transfer of photometric test data, which is widely used by lighting manufacturers for photometric data distribution.

Additionally, fixtures are periodically rechecked for accuracy using various hand-held light meters including one or more of the devices listed below. This is done to ensure the test data contained in this report is as accurate as possible.

Asenstek Lighting Passport | Konica Minolta T-10 | Sekonic C700T

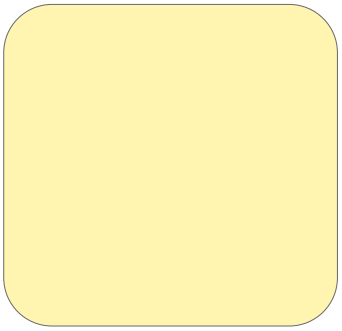
## Total Lumen Output: 2443 lm

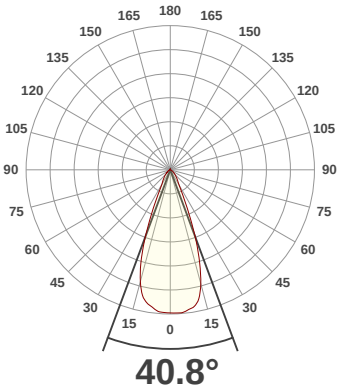
**Voltage: 37.2 V, Current: 0.500 A**

**Power: 18.6 W**

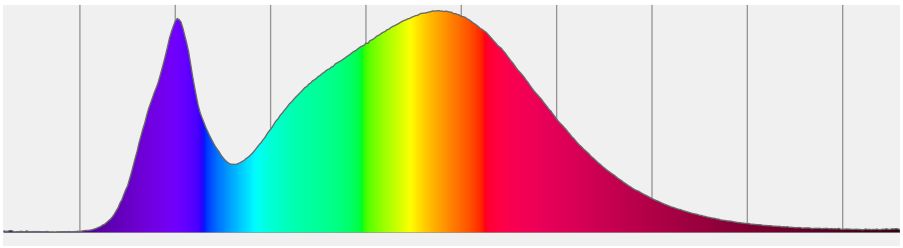
**Efficacy: 131 Lumen/Watt**

**Measurement Date: 9/23/2020**

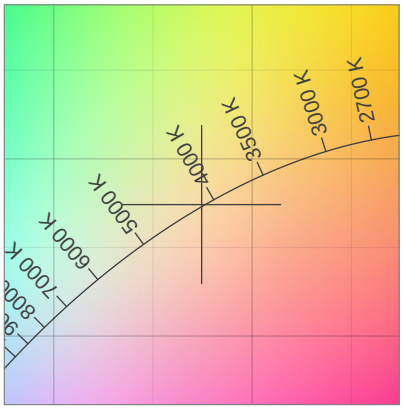




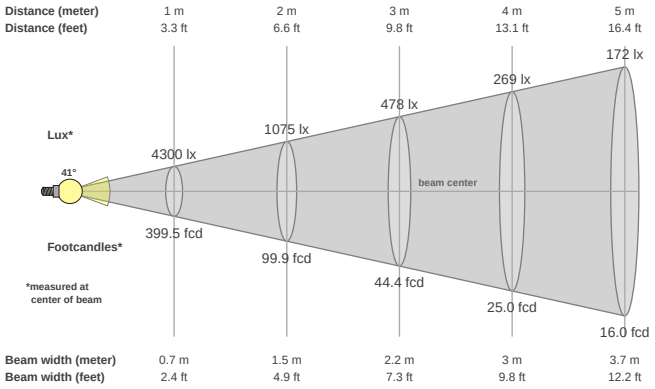

### Spectral distribution



| Dominant Wavelength | Color coordinate cie 1931 | Color coordinate cie 1931 | Color coordinate | Color coordinate |
|---|---|---|---|---|
| nm | x | y | u | v |
| 581 | 0.375 | 0.374 | 0.222 | 0.333 |




**Beam details**




**Beam angles**

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% |
|---|---|---|
| 40.8° | 65.4° | 108° |

**Beam intensities**

| Peak intensity | Int. ratio in 120° cone | Int. ratio in 90° cone |
|---|---|---|
| 4305 cd | 95.5% | 89.0% |

### Beam Intensities from 1-20m

| M | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FT | 3.3 | 6.6 | 9.8 | 13.1 | 16.4 | 19.7 | 23 | 26.2 | 29.5 | 32.8 | 36.1 | 39.4 | 42.7 | 45.9 | 49.2 | 52.5 | 55.8 | 59.1 | 62.3 | 65.6 |
| LX | 4300 | 1075 | 478 | 269 | 172 | 119 | 88 | 67 | 53 | 43 | 36 | 30 | 25 | 22 | 19 | 17 | 15 | 13 | 12 | 11 |
| FC | 399.5 | 99.9 | 44.4 | 25 | 16 | 11.1 | 8.2 | 6.2 | 4.9 | 4 | 3.3 | 2.8 | 2.4 | 2 | 1.8 | 1.6 | 1.4 | 1.2 | 1.1 | 1 |

# Fuze Pendant 40° (Emergency Power)

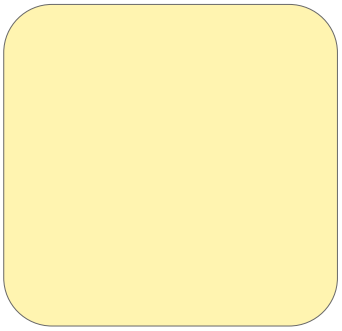
## Total Lumen Output: 2453 lm

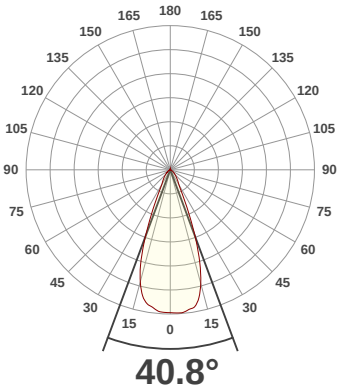
**Voltage: 37.1 V, Current: 0.500 A**

**Power: 18.6 W**

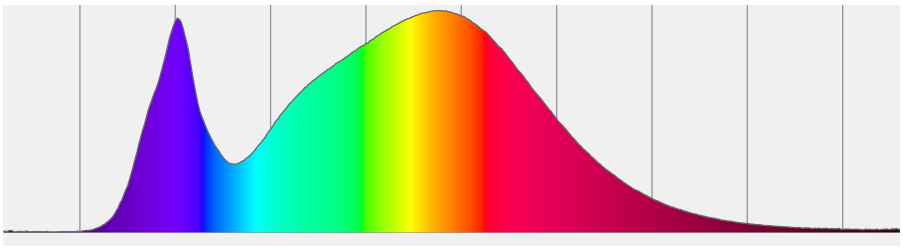
**Efficacy: 132 Lumen/Watt**

**Measurement Date: 9/23/2020**

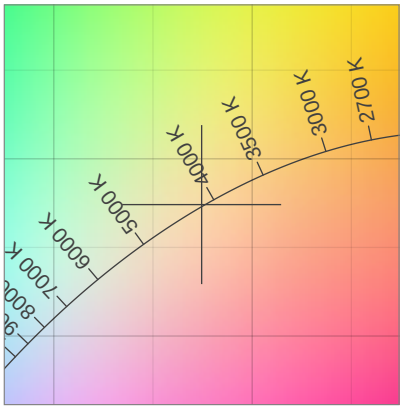




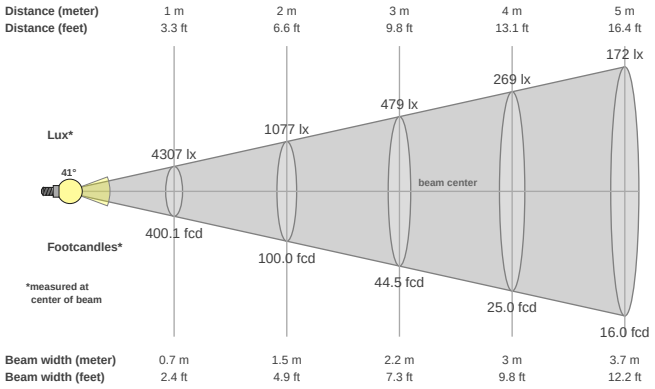

### Spectral distribution



| Dominant Wavelength | Color coordinate cie 1931 | Color coordinate cie 1931 | Color coordinate | Color coordinate |
|---|---|---|---|---|
| nm | x | y | u | v |
| 581 | 0.375 | 0.374 | 0.222 | 0.333 |




**Beam details**




**Beam angles**

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% |
|---|---|---|
| 40.8° | 65.8° | 108.5° |

**Beam intensities**

| Peak intensity | Int. ratio in 120° cone | Int. ratio in 90° cone |
|---|---|---|
| 4320 cd | 95.5% | 89.0% |

### Beam Intensities from 1-20m

| M | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FT | 3.3 | 6.6 | 9.8 | 13.1 | 16.4 | 19.7 | 23 | 26.2 | 29.5 | 32.8 | 36.1 | 39.4 | 42.7 | 45.9 | 49.2 | 52.5 | 55.8 | 59.1 | 62.3 | 65.6 |
| LX | 4307 | 1077 | 479 | 269 | 172 | 120 | 88 | 67 | 53 | 43 | 36 | 30 | 25 | 22 | 19 | 17 | 15 | 13 | 12 | 11 |
| FC | 400.1 | 100 | 44.5 | 25 | 16 | 11.1 | 8.2 | 6.3 | 4.9 | 4 | 3.3 | 2.8 | 2.4 | 2 | 1.8 | 1.6 | 1.4 | 1.2 | 1.1 | 1 |

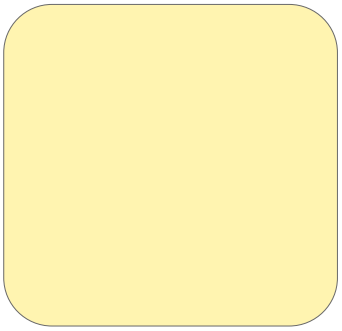
## Total Lumen Output: 2484 lm

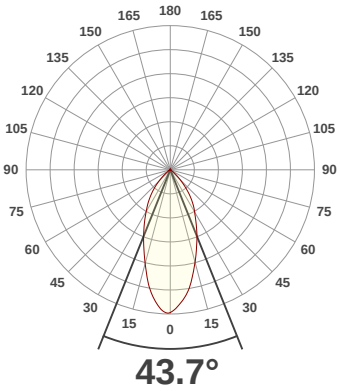
**Voltage: 37.2 V, Current: 0.500 A**

**Power: 18.6 W**

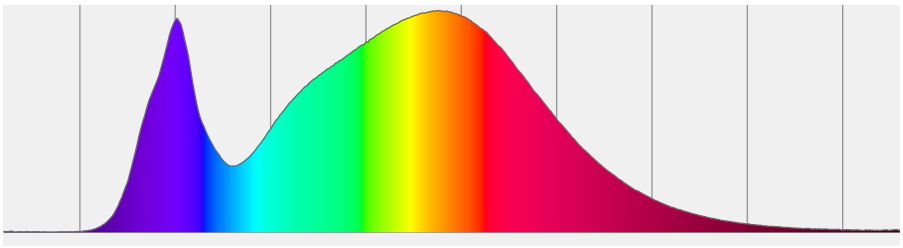
**Efficacy: 134 Lumen/Watt**

**Measurement Date: 9/28/2020**

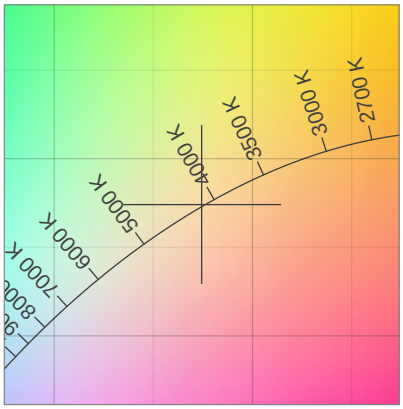




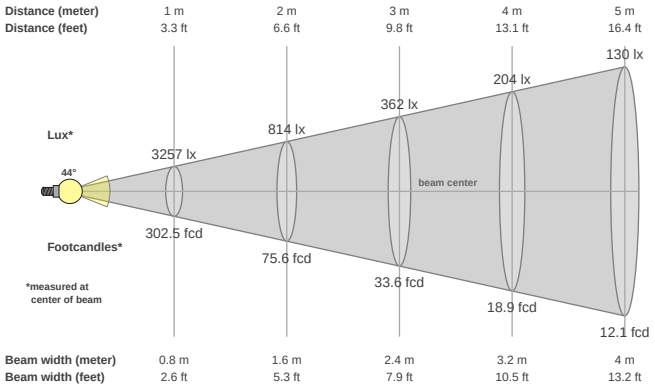

### Spectral distribution



| Dominant Wavelength | Color coordinate cie 1931 | Color coordinate cie 1931 | Color coordinate | Color coordinate |
|---|---|---|---|---|
| nm | x | y | u | v |
| 581 | 0.374 | 0.374 | 0.222 | 0.333 |




### Beam details




**Beam angles**

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% |
|---|---|---|
| 43.7° | 90.7° | 107.3° |

**Beam intensities**

| Peak intensity | Int. ratio in 120° cone | Int. ratio in 90° cone |
|---|---|---|
| 3281 cd | 97.1% | 90.5% |

### Beam Intensities from 1-20m

| M | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FT | 3.3 | 6.6 | 9.8 | 13.1 | 16.4 | 19.7 | 23 | 26.2 | 29.5 | 32.8 | 36.1 | 39.4 | 42.7 | 45.9 | 49.2 | 52.5 | 55.8 | 59.1 | 62.3 | 65.6 |
| LX | 3257 | 814 | 362 | 204 | 130 | 90 | 66 | 51 | 40 | 33 | 27 | 23 | 19 | 17 | 14 | 13 | 11 | 10 | 9 | 8 |
| FC | 302.5 | 75.6 | 33.6 | 18.9 | 12.1 | 8.4 | 6.2 | 4.7 | 3.7 | 3 | 2.5 | 2.1 | 1.8 | 1.5 | 1.3 | 1.2 | 1 | 0.9 | 0.8 | 0.8 |

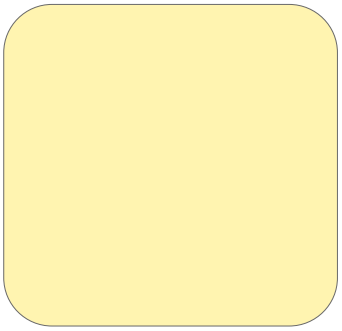
## Total Lumen Output: 2518 lm

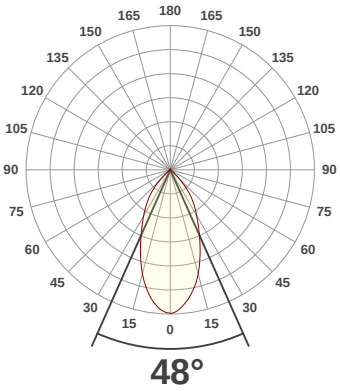
**Voltage: 37.2 V, Current: 0.500 A**

**Power: 18.6 W**

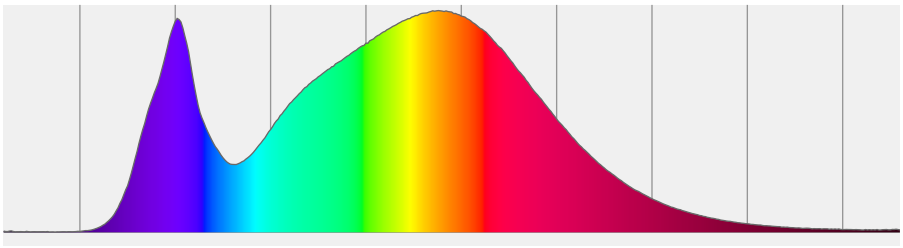
**Efficacy: 135 Lumen/Watt**

**Measurement Date: 9/23/2020**

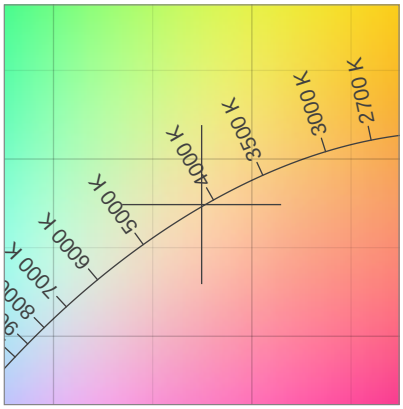




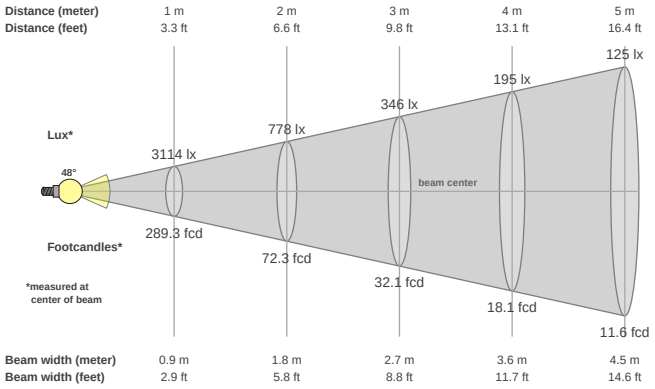

### Spectral distribution



| Dominant Wavelength | Color coordinate cie 1931 | Color coordinate cie 1931 | Color coordinate | Color coordinate |
|---|---|---|---|---|
| nm | x | y | u | v |
| 581 | 0.375 | 0.374 | 0.222 | 0.333 |




**Beam details**




**Beam angles**

| Beam angle 50% | Field angle 10% | Cutoff angle 2,5% |
|---|---|---|
| 48° | 90.1° | 102.4° |

**Beam intensities**

| Peak intensity | Int. ratio in 120° cone | Int. ratio in 90° cone |
|---|---|---|
| 3118 cd | 97.0% | 92.3% |

### Beam Intensities from 1-20m

| M | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FT | 3.3 | 6.6 | 9.8 | 13.1 | 16.4 | 19.7 | 23 | 26.2 | 29.5 | 32.8 | 36.1 | 39.4 | 42.7 | 45.9 | 49.2 | 52.5 | 55.8 | 59.1 | 62.3 | 65.6 |
| LX | 3114 | 778 | 346 | 195 | 125 | 86 | 64 | 49 | 38 | 31 | 26 | 22 | 18 | 16 | 14 | 12 | 11 | 10 | 9 | 8 |
| FC | 289.3 | 72.3 | 32.1 | 18.1 | 11.6 | 8 | 5.9 | 4.5 | 3.6 | 2.9 | 2.4 | 2 | 1.7 | 1.5 | 1.3 | 1.1 | 1 | 0.9 | 0.8 | 0.7 |