



**PICASSO LIGHTING INDUSTRIES, LLC**  
320 West Commerical Ave., Moonachie, NJ 07074  
201.246.8188

## **Indoor Distribution Test Report**

### **Picasso Lighting Industries, LLC**

320 West Commerical Ave.  
Moonachie, NJ 07074

#### **Photopia Photometric Analysis & Optical Design**

##### **Catalog Number**

MUS-xR-4-D7-I7-30-80-FW-BW-W

MUSE - 4' Up/Downlight - White Housing, Frosted White Lens (Downlight), Bat Wing Lens  
(Uplight)

##### **Test Number**

IES-P00372

##### **Test Date**

Fri Oct 01 16:36:17 2021

The results contained in this report pertain only to the tested sample.  
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MUS-xR-4-D7-I7-30-80-FW-BW-W  
 MUSE - 4' Up/Downlight - White Housing, Frosted White Lens (Downlight), Bat Wing Lens  
 (Uplight)  
 LED (3000K 80+ CRI)



Image may differ slightly from actual unit.

### **Summary of Results**

#### **Output:**

|                    |             |
|--------------------|-------------|
| <b>Watts:</b>      | 52.11 W     |
| <b>Lumens:</b>     | 6,109.16 lm |
| <b>Efficiency:</b> | N/A         |
| <b>Efficacy:</b>   | 115.3 lm/W  |

#### **Spacing Criterion**

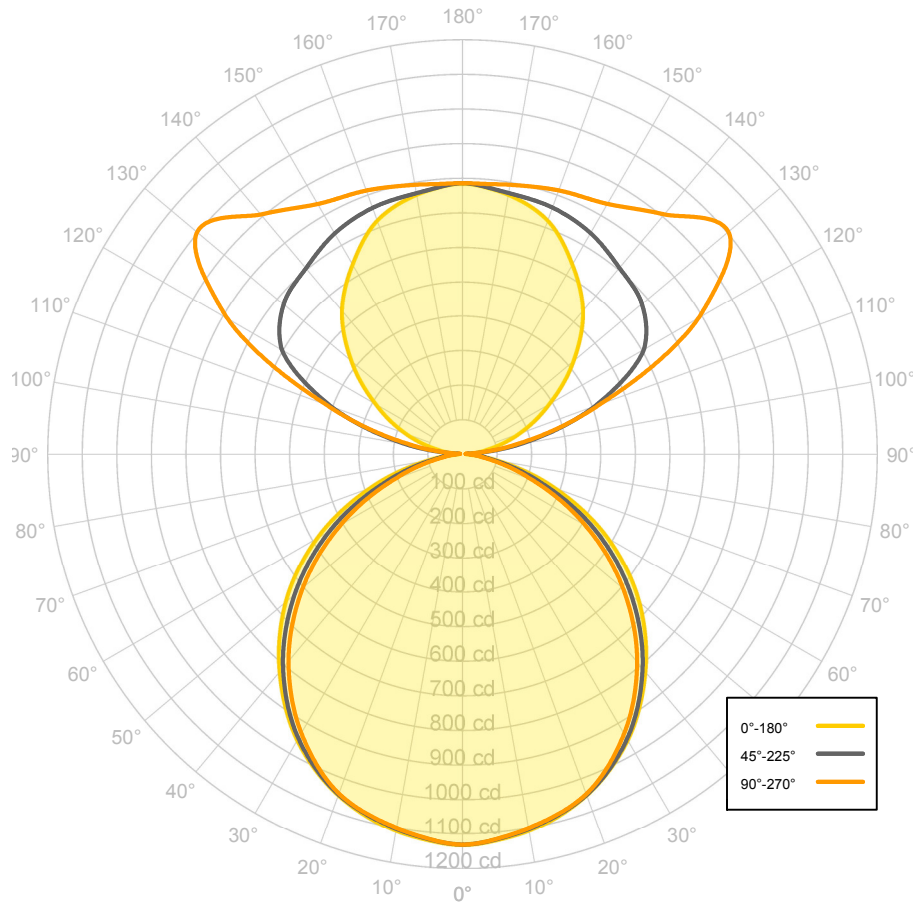
|                                  |      |
|----------------------------------|------|
| <b>Two luminaires, plane 0°</b>  | 1.25 |
| <b>Two luminaires, plane 90°</b> | 1.21 |
| <b>Four luminaires</b>           | 1.34 |

#### **Full Beam Angle**

|                   |         |
|-------------------|---------|
| <b>0° - 180°</b>  | 285.11° |
| <b>90° - 270°</b> | 227.65° |

Calculated results may not be representative of field performance.  
 Ballast factors have not been applied.

### Candela Polar Plot



### Zonal Lumen Summary

| Zone      | Lumens   | % Fixture | Zone        | Lumens   | % Fixture |
|-----------|----------|-----------|-------------|----------|-----------|
| 0° - 10°  | 191.75   | 3.14%     | 90° - 100°  | 83.88    | 1.37%     |
| 10° - 20° | 301.66   | 4.94%     | 100° - 110° | 258.32   | 4.23%     |
| 20° - 30° | 456.33   | 7.47%     | 100° - 120° | 710.35   | 11.63%    |
| 30° - 40° | 544.06   | 8.91%     | 120° - 130° | 562.53   | 9.21%     |
| 40° - 50° | 551.98   | 9.04%     | 130° - 140° | 541.03   | 8.86%     |
| 50° - 60° | 478.68   | 7.84%     | 140° - 150° | 450.36   | 7.37%     |
| 60° - 70° | 334.33   | 5.47%     | 150° - 160° | 343.01   | 5.61%     |
| 70° - 80° | 163.45   | 2.68%     | 160° - 170° | 215.96   | 3.53%     |
| 80° - 90° | 46.34    | 0.76%     | 170° - 180° | 133.47   | 2.18%     |
| 0° - 90°  | 3,068.57 | 50.23%    | 0° - 180°   | 6,109.16 | 100.00%   |



**Candela Distribution**

|         | 0.00°    | 22.50°   | 45.00°   | 67.50°   | 90.00°   |
|---------|----------|----------|----------|----------|----------|
| 0.00°   | 1,132.55 | 1,132.55 | 1,132.55 | 1,132.55 | 1,132.55 |
| 10.00°  | 1,108.27 | 1,105.93 | 1,104.28 | 1,105.60 | 1,101.74 |
| 20.00°  | 1,050.64 | 1,047.48 | 1,051.65 | 1,049.05 | 1,048.78 |
| 30.00°  | 956.27   | 956.44   | 953.05   | 939.46   | 935.70   |
| 40.00°  | 823.11   | 824.57   | 810.65   | 790.81   | 785.92   |
| 50.00°  | 667.48   | 663.98   | 637.34   | 614.35   | 606.17   |
| 60.00°  | 485.77   | 474.97   | 443.34   | 415.89   | 404.87   |
| 70.00°  | 283.15   | 267.78   | 235.62   | 212.21   | 203.19   |
| 80.00°  | 99.98    | 88.51    | 70.58    | 59.76    | 57.26    |
| 90.00°  | 11.87    | 14.94    | 12.82    | 8.02     | 7.60     |
| 100.00° | 68.23    | 113.10   | 176.94   | 173.66   | 156.17   |
| 110.00° | 174.95   | 246.43   | 410.64   | 446.18   | 427.37   |
| 120.00° | 289.85   | 371.57   | 606.56   | 770.47   | 790.38   |
| 130.00° | 419.57   | 483.17   | 677.22   | 904.41   | 1,003.70 |
| 140.00° | 542.50   | 576.68   | 704.73   | 833.55   | 906.06   |
| 150.00° | 635.64   | 652.50   | 739.13   | 801.57   | 836.38   |
| 160.00° | 720.98   | 724.18   | 759.43   | 793.00   | 812.34   |
| 170.00° | 763.75   | 765.05   | 767.28   | 779.90   | 791.68   |
| 180.00° | 784.42   | 784.42   | 784.42   | 784.42   | 784.42   |

**Average Luminaire Luminance [cd/m²]**

|        | 0.00° | 45.00° | 90.00° |
|--------|-------|--------|--------|
| 0.00°  | 9,049 | 9,049  | 9,049  |
| 45.00° | 7,780 | 4,634  | 3,932  |
| 55.00° | 7,186 | 3,596  | 2,900  |
| 65.00° | 6,176 | 2,430  | 1,828  |
| 75.00° | 4,522 | 1,225  | 850    |
| 85.00° | 2,639 | 392    | 239    |



### Coefficients of Utilization – Zonal Cavity Method

Values are lumens delivered to the workplane.

|     |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| RCR | pfc   | 20%   | 20%   | 20%   | 20%   | 20%   | 20%   | 20%   | 20%   | 20%   | 20%   | 20%   | 20%   | 20%   | 20%   | 20%   | 20%   | 20%   | 20%   |
|     | pcc   | 80%   | 80%   | 80%   | 80%   | 70%   | 70%   | 70%   | 70%   | 50%   | 50%   | 50%   | 30%   | 30%   | 30%   | 10%   | 10%   | 10%   | 0%    |
|     | pw    | 70%   | 50%   | 30%   | 10%   | 70%   | 50%   | 30%   | 10%   | 50%   | 30%   | 10%   | 50%   | 30%   | 10%   | 50%   | 30%   | 10%   | 0%    |
|     | 0     | 6,549 | 6,549 | 6,549 | 6,549 | 6,043 | 6,043 | 6,043 | 6,043 | 5,099 | 5,099 | 5,099 | 4,235 | 4,235 | 4,235 | 3,441 | 3,441 | 3,441 | 3,069 |
|     | 1     | 5,991 | 5,732 | 5,499 | 5,290 | 5,521 | 5,300 | 5,100 | 4,920 | 4,491 | 4,347 | 4,216 | 3,748 | 3,648 | 3,555 | 3,063 | 2,996 | 2,934 | 2,613 |
|     | 2     | 5,466 | 5,022 | 4,654 | 4,346 | 5,031 | 4,650 | 4,331 | 4,062 | 3,951 | 3,716 | 3,513 | 3,307 | 3,138 | 2,990 | 2,711 | 2,594 | 2,490 | 2,209 |
|     | 3     | 4,994 | 4,425 | 3,984 | 3,633 | 4,593 | 4,103 | 3,717 | 3,407 | 3,496 | 3,206 | 2,968 | 2,935 | 2,722 | 2,544 | 2,414 | 2,263 | 2,134 | 1,886 |
|     | 4     | 4,575 | 3,924 | 3,448 | 3,084 | 4,208 | 3,644 | 3,225 | 2,900 | 3,115 | 2,794 | 2,540 | 2,623 | 2,384 | 2,190 | 2,166 | 1,993 | 1,850 | 1,630 |
|     | 5     | 4,205 | 3,504 | 3,014 | 2,652 | 3,869 | 3,259 | 2,825 | 2,500 | 2,794 | 2,458 | 2,201 | 2,362 | 2,108 | 1,908 | 1,959 | 1,772 | 1,622 | 1,426 |
|     | 6     | 3,878 | 3,149 | 2,659 | 2,308 | 3,571 | 2,933 | 2,497 | 2,180 | 2,524 | 2,182 | 1,927 | 2,142 | 1,880 | 1,680 | 1,784 | 1,589 | 1,436 | 1,261 |
|     | 7     | 3,590 | 2,847 | 2,366 | 2,028 | 3,308 | 2,656 | 2,225 | 1,919 | 2,294 | 1,953 | 1,704 | 1,954 | 1,690 | 1,493 | 1,635 | 1,436 | 1,284 | 1,126 |
|     | 8     | 3,335 | 2,590 | 2,121 | 1,799 | 3,077 | 2,420 | 1,999 | 1,706 | 2,097 | 1,761 | 1,521 | 1,793 | 1,530 | 1,338 | 1,507 | 1,307 | 1,158 | 1,015 |
|     | 9     | 3,109 | 2,369 | 1,916 | 1,609 | 2,872 | 2,217 | 1,808 | 1,528 | 1,927 | 1,598 | 1,368 | 1,655 | 1,395 | 1,209 | 1,397 | 1,198 | 1,052 | 922   |
| 10  | 2,909 | 2,179 | 1,742 | 1,451 | 2,690 | 2,042 | 1,646 | 1,380 | 1,781 | 1,460 | 1,239 | 1,534 | 1,280 | 1,100 | 1,301 | 1,105 | 963   | 844   |       |

### Cone of Light

| Mtg Height | Light Level | 0°-180° Beam Diameter | 90°-270° Beam Diameter |
|------------|-------------|-----------------------|------------------------|
| 6 ft       | 31 fc       | 0 ft                  | 0 ft                   |
| 8 ft       | 18 fc       | 0 ft                  | 0 ft                   |
| 10 ft      | 11 fc       | 0 ft                  | 0 ft                   |
| 12 ft      | 8 fc        | 0 ft                  | 0 ft                   |
| 15 ft      | 5 fc        | 0 ft                  | 0 ft                   |