

## **Indoor Distribution Test Report**

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

46 Sellers St.  
Kearny, NJ 07032

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

**Catalog Number**  
**TAS-L-4'-D5-30K-80-OPL-W**  
(White Housing – Direct – Opal Lens)

Test Number

**IES-P00083**

Test Date

2017-03-22

The results contained in this report pertain only to the tested sample.  
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|                               |   |
|-------------------------------|---|
| <b>Luminaire Description:</b> | Stainless Steel Cover, Aluminum Base, Direct w/ Opal Lens |
| <b>Lamp:</b>                  | LED (3000K, 80+ CRI)                                      |
| <b>Installation:</b>          | Under Cabinet, Surface Mounted                            |
| <b>Luminous Length:</b>       | 47.00 in  |
| <b>Luminous Width:</b>        | 1.97 in   |
| <b>Luminous Height:</b>       | 0.00 in   |

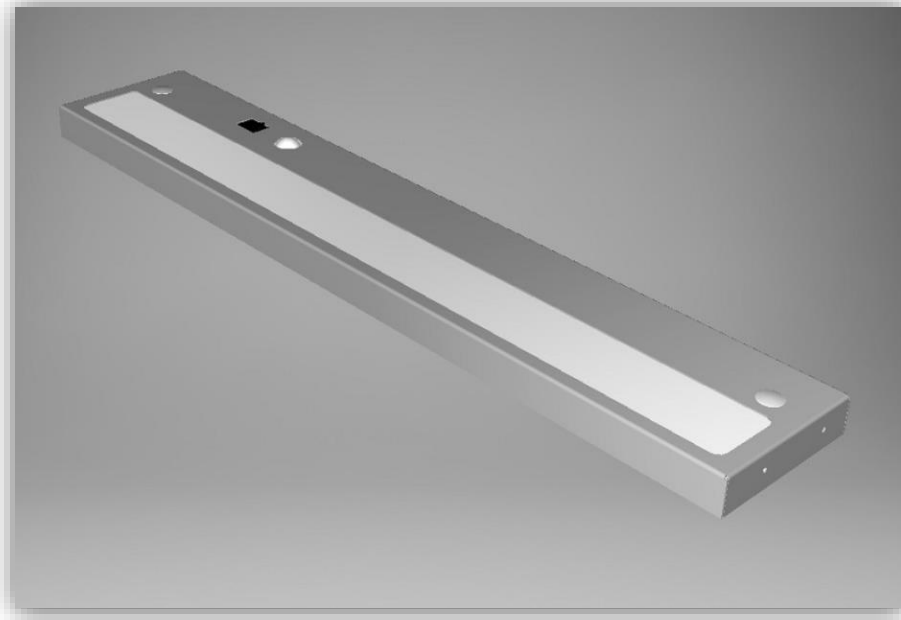


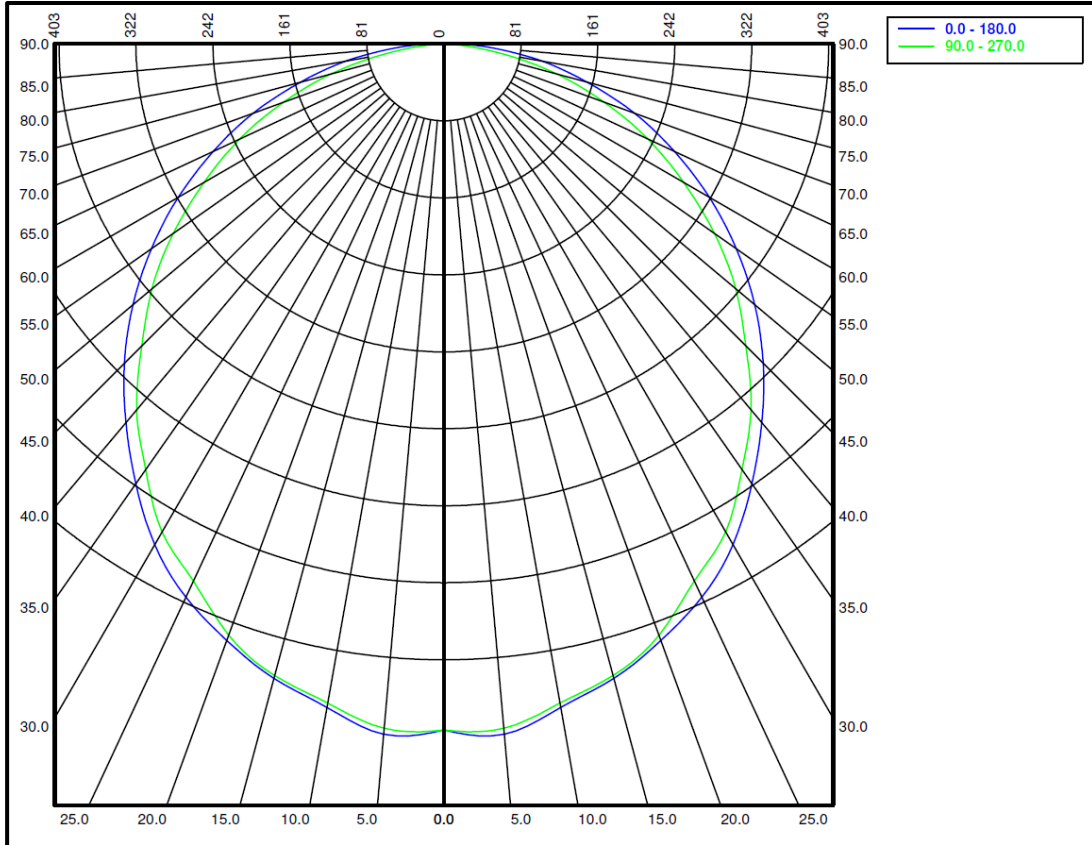
Image may differ slightly from actual unit

#### **Summary of Results**

|                                |                |
|--------------------------------|----------------|
| <b>System Power:</b>           | 20.22W         |
| <b>Total Luminaire Output:</b> | 2007 Lumens    |
| <b>Luminaire Efficacy:</b>     | 99 lm/W        |
| <b>Max Candela:</b>            | 725.15 Candela |

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

**Polar Plot**



**Zonal Lumen Summary**

| Zone  | Lumens | % Fixture | Zone    | Lumens | % Fixture |
|-------|--------|-----------|---------|--------|-----------|
| 0-10  | 68.3   | 3.4%      | 90-100  | 0      | 0.0%      |
| 10-20 | 193.95 | 9.7%      | 100-110 | 0      | 0.0%      |
| 20-30 | 290.86 | 14.5%     | 110-120 | 0      | 0.0%      |
| 30-40 | 346.05 | 17.2%     | 120-130 | 0      | 0.0%      |
| 40-50 | 355.3  | 17.7%     | 130-140 | 0      | 0.0%      |
| 50-60 | 320.32 | 16.0%     | 140-150 | 0      | 0.0%      |
| 60-70 | 246.78 | 12.3%     | 150-160 | 0      | 0.0%      |
| 70-80 | 145.34 | 7.2%      | 160-170 | 0      | 0.0%      |
| 80-90 | 39.7   | 2.0%      | 170-180 | 0      | 0.0%      |
| 0-90  | 2006.6 | 100.0%    | 0-180   | 2006.6 | 100.0%    |

### Candela Distribution

#### Horizontal Angle (Degrees)

|    | 0   | 22.5 | 45  | 67.5 | 90  | 112.5 | 135 | 157.5 | 180 | 202.5 | 225 | 247.5 | 270 | 292.5 | 315 | 337.5 |
|----|-----|------|-----|------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|
| 0  | 718 | 718  | 718 | 718  | 718 | 718   | 718 | 718   | 718 | 718   | 718 | 718   | 718 | 718   | 718 | 718   |
| 5  | 725 | 722  | 722 | 719  | 719 | 719   | 722 | 722   | 725 | 722   | 722 | 719   | 719 | 719   | 722 | 722   |
| 10 | 705 | 710  | 708 | 708  | 701 | 708   | 708 | 710   | 705 | 710   | 708 | 708   | 701 | 708   | 708 | 710   |
| 15 | 687 | 689  | 688 | 688  | 684 | 688   | 688 | 689   | 687 | 689   | 688 | 688   | 684 | 688   | 688 | 689   |
| 20 | 664 | 664  | 660 | 660  | 659 | 660   | 660 | 664   | 664 | 664   | 660 | 660   | 659 | 660   | 660 | 664   |
| 25 | 639 | 636  | 632 | 629  | 620 | 629   | 632 | 636   | 639 | 636   | 632 | 629   | 620 | 629   | 632 | 636   |
| 30 | 605 | 600  | 593 | 589  | 590 | 589   | 593 | 600   | 605 | 600   | 593 | 589   | 590 | 589   | 593 | 600   |
| 35 | 562 | 559  | 553 | 546  | 544 | 546   | 553 | 559   | 562 | 559   | 553 | 546   | 544 | 546   | 553 | 559   |
| 40 | 518 | 516  | 507 | 501  | 500 | 501   | 507 | 516   | 518 | 516   | 507 | 501   | 500 | 501   | 507 | 516   |
| 45 | 473 | 469  | 461 | 451  | 447 | 451   | 461 | 469   | 473 | 469   | 461 | 451   | 447 | 451   | 461 | 469   |
| 50 | 425 | 419  | 409 | 403  | 399 | 403   | 409 | 419   | 425 | 419   | 409 | 403   | 399 | 403   | 409 | 419   |
| 55 | 374 | 367  | 358 | 349  | 346 | 349   | 358 | 367   | 374 | 367   | 358 | 349   | 346 | 349   | 358 | 367   |
| 60 | 321 | 315  | 302 | 293  | 290 | 293   | 302 | 315   | 321 | 315   | 302 | 293   | 290 | 293   | 302 | 315   |
| 65 | 266 | 260  | 248 | 239  | 236 | 239   | 248 | 260   | 266 | 260   | 248 | 239   | 236 | 239   | 248 | 260   |
| 70 | 212 | 204  | 192 | 183  | 179 | 183   | 192 | 204   | 212 | 204   | 192 | 183   | 179 | 183   | 192 | 204   |
| 75 | 156 | 148  | 136 | 126  | 123 | 126   | 136 | 148   | 156 | 148   | 136 | 126   | 123 | 126   | 136 | 148   |
| 80 | 104 | 95   | 80  | 69   | 65  | 69    | 80  | 95    | 104 | 95    | 80  | 69    | 65  | 69    | 80  | 95    |
| 85 | 52  | 39   | 24  | 19   | 18  | 19    | 24  | 39    | 52  | 39    | 24  | 19    | 18  | 19    | 24  | 39    |
| 90 | 12  | 4    | 3   | 4    | 5   | 4     | 3   | 4     | 12  | 4     | 3   | 4     | 5   | 4     | 3   | 4     |

### Average Luminance (cd/m<sup>2</sup>)

#### Horizontal Angle (Degrees)

| ANGLES | 0-Deg | 45-Deg | 90-Deg |
|--------|-------|--------|--------|
| 0      | 12020 | 12020  | 12020  |
| 45     | 11183 | 10892  | 10576  |
| 55     | 10898 | 10442  | 10085  |
| 65     | 10546 | 9827   | 9333   |
| 75     | 10049 | 8764   | 7941   |
| 85     | 9946  | 4653   | 3435   |

**Coefficients of Utilization – Zonal Cavity Method**

| Effective Floor Cavity Reflectance 20% |  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| RC                                     | 80   |      |      |      | 70   |      |      |      | 50   |      |      | 30   |      |      | 10   |      |      | 0    |
| RW                                     | 70   | 50   | 30   | 10   | 70   | 50   | 30   | 10   | 50   | 30   | 10   | 50   | 30   | 10   | 50   | 30   | 10   | 0    |
| RCR                                    | Values are in Lumens delivered to the Task Plane |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 0                                      | 2388   | 2388 | 2388 | 2388 | 2328 | 2328 | 2328 | 2328 | 2227 | 2227 | 2227 | 2127 | 2127 | 2127 | 2047 | 2047 | 2047 | 2007 |
| 1                                      | 2187   | 2087 | 1987 | 1926 | 2127 | 2027 | 1966 | 1886 | 1946 | 1886 | 1826 | 1866 | 1826 | 1766 | 1806 | 1766 | 1726 | 1665 |
| 2                                      | 1987   | 1806 | 1665 | 1565 | 1926 | 1766 | 1645 | 1545 | 1706 | 1605 | 1505 | 1645 | 1545 | 1465 | 1585 | 1505 | 1445 | 1385 |
| 3                                      | 1806   | 1585 | 1425 | 1284 | 1746 | 1565 | 1405 | 1284 | 1505 | 1364 | 1264 | 1445 | 1324 | 1244 | 1385 | 1304 | 1224 | 1164 |
| 4                                      | 1645   | 1405 | 1224 | 1104 | 1605 | 1385 | 1224 | 1084 | 1324 | 1184 | 1063 | 1284 | 1164 | 1063 | 1244 | 1124 | 1043 | 1003 |
| 5                                      | 1525   | 1264 | 1084 | 943  | 1485 | 1244 | 1063 | 943  | 1184 | 1043 | 923  | 1144 | 1023 | 923  | 1124 | 1003 | 903  | 863  |
| 6                                      | 1405   | 1124 | 943  | 823  | 1364 | 1124 | 943  | 823  | 1084 | 923  | 803  | 1043 | 903  | 803  | 1003 | 883  | 803  | 763  |
| 7                                      | 1304   | 1023 | 843  | 722  | 1264 | 1003 | 843  | 722  | 983  | 823  | 722  | 943  | 823  | 722  | 923  | 803  | 702  | 662  |
| 8                                      | 1204   | 943  | 763  | 642  | 1184 | 923  | 763  | 642  | 903  | 742  | 642  | 863  | 742  | 642  | 843  | 722  | 642  | 602  |
| 9                                      | 1124   | 863  | 702  | 582  | 1104 | 843  | 682  | 582  | 823  | 682  | 582  | 803  | 662  | 582  | 783  | 662  | 582  | 542  |
| 10                                     | 1063   | 803  | 642  | 522  | 1043 | 783  | 622  | 522  | 763  | 622  | 522  | 742  | 622  | 522  | 722  | 602  | 522  | 482  |

