

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

ET60GV 15L 35K XX MF0 XX MWI
Nom 6" diam Cafe series pendant mounted luminaire

Test Number

SP-00977

Test Date

12/20/2019

The results contained in this report pertain only to this IES file.

Summary of Results

Power

| | |
|-------------|------|
| Input Watts | 11 W |
|-------------|------|

Lumen Output

| | |
|---------------|------------|
| Output Lumens | 969 |
| Efficacy | 88.08 lm/W |

Luminous Dimensions

| | |
|-----------------|-------|
| 0° - 180° Size | -0.54 |
| 90° - 270° Size | -0.54 |
| Height | 0 |

Spacing Criterion

| | |
|---------------------------|------|
| Two luminaires, plane 0° | 1.4 |
| Two luminaires, plane 90° | 1.4 |
| Four luminaires | 1.45 |

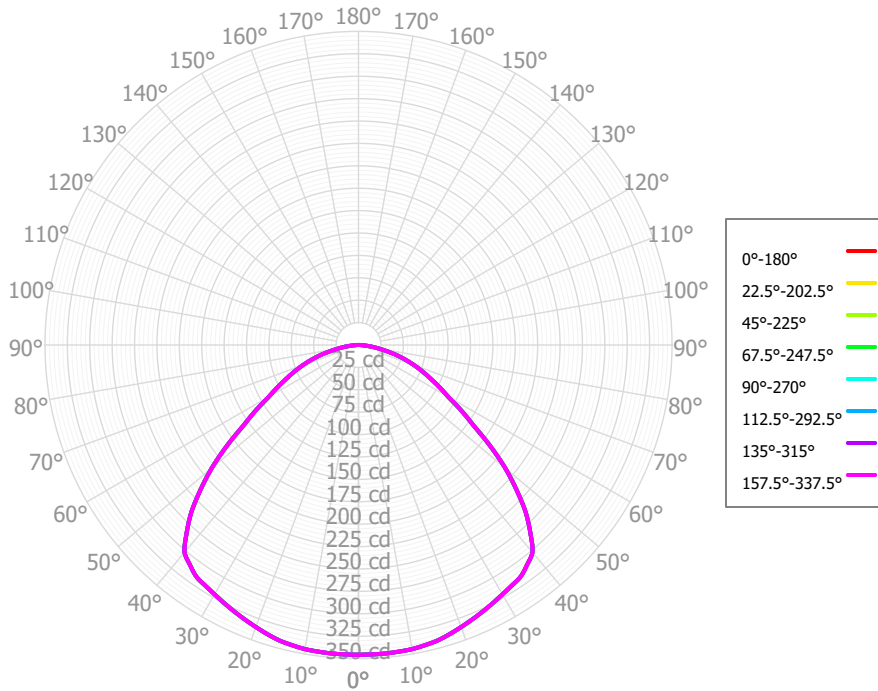
Full Beam Angle

| | |
|------------|------|
| 0° - 180° | 107° |
| 90° - 270° | 107° |

IES File Header Contents

| Keyword | Value |
|-----------|--|
| TEST | SP-00977 |
| TESTLAB | Spectrum Lighting Photometric Lab, VLS-245-981 |
| MANUFAC | Spectrum Lighting |
| TESTDATE | 12/20/2019 |
| ISSUEDATE | 3/5/2020 |
| LUMCAT | ET60GV 15L 35K XX MF0 XX MWI |
| LUMINAIRE | Nom 6" diam Cafe series pendant mounted luminaire |
| OTHER | Beam Angle: 107 deg |
| OTHER | 3" long, small frosted glass jar |
| LAMPCAT | N/A |
| LAMP | N/A GV |
| OTHER | CCT Output Multipliers: 27K x 0.97, 30K x 0.99, 40K x 1.03 |
| OTHER | Total luminaire wattage is approximate |
| OTHER | This report prepared by Spectrum Lighting |
| _CRI | 80 |
| _CCTMULT | 27K x 0.97, 30K x 0.99, 40K x 1.03 |
| _LAMPMULT | N/A |

Candela Polar Plot



Zonal Lumen Summary

| Zone | Lumens | % Fixture | Zone | Lumens | % Fixture |
|-----------------|--------|-----------|-------------------|--------|-----------|
| 0.00° - 10.00° | 33.47 | 3.45% | 90.00° - 100.00° | 0.27 | 0.03% |
| 10.00° - 20.00° | 96.41 | 9.95% | 100.00° - 110.00° | 0.00 | 0.00% |
| 20.00° - 30.00° | 151.68 | 15.65% | 100.00° - 120.00° | 0.00 | 0.00% |
| 30.00° - 40.00° | 196.80 | 20.31% | 120.00° - 130.00° | 0.00 | 0.00% |
| 40.00° - 50.00° | 201.15 | 20.76% | 130.00° - 140.00° | 0.00 | 0.00% |
| 50.00° - 60.00° | 143.17 | 14.78% | 140.00° - 150.00° | 0.00 | 0.00% |
| 60.00° - 70.00° | 88.62 | 9.15% | 150.00° - 160.00° | 0.00 | 0.00% |
| 70.00° - 80.00° | 46.79 | 4.83% | 160.00° - 170.00° | 0.00 | 0.00% |
| 80.00° - 90.00° | 10.57 | 1.09% | 170.00° - 180.00° | 0.00 | 0.00% |
| 0.00° - 90.00° | 968.65 | 99.97% | 0.00° - 180.00° | 968.92 | 100.00% |

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% | 0% |
| | 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% | 30% |
| | 0 | 1,153 | 1,153 | 1,153 | 1,153 | 1,127 | 1,127 | 1,127 | 1,127 | 1,076 | 1,076 | 1,076 | 1,031 | 1,031 | 1,031 | 988 | 988 | 988 | 969 |
| | 1 | 1,063 | 1,020 | 982 | 948 | 1,037 | 999 | 964 | 933 | 958 | 929 | 903 | 920 | 897 | 876 | 886 | 867 | 850 | 849 |
| | 2 | 973 | 898 | 837 | 785 | 948 | 880 | 824 | 776 | 846 | 799 | 758 | 815 | 775 | 740 | 786 | 753 | 724 | 737 |
| | 3 | 891 | 795 | 720 | 661 | 868 | 779 | 710 | 655 | 751 | 692 | 643 | 725 | 674 | 632 | 700 | 658 | 621 | 643 |
| | 4 | 818 | 707 | 626 | 564 | 797 | 695 | 619 | 560 | 671 | 605 | 553 | 648 | 591 | 545 | 628 | 579 | 538 | 566 |
| | 5 | 754 | 634 | 550 | 489 | 734 | 623 | 545 | 486 | 603 | 534 | 481 | 584 | 523 | 475 | 566 | 513 | 470 | 502 |
| | 6 | 697 | 572 | 488 | 428 | 679 | 563 | 484 | 426 | 546 | 475 | 422 | 529 | 467 | 418 | 514 | 459 | 415 | 449 |
| | 7 | 646 | 519 | 436 | 378 | 630 | 511 | 433 | 377 | 496 | 426 | 374 | 483 | 419 | 372 | 470 | 413 | 369 | 404 |
| | 8 | 602 | 474 | 393 | 338 | 587 | 467 | 390 | 337 | 454 | 384 | 334 | 442 | 379 | 332 | 431 | 374 | 330 | 366 |
| | 9 | 562 | 434 | 356 | 304 | 548 | 429 | 354 | 303 | 418 | 349 | 301 | 407 | 345 | 300 | 398 | 340 | 298 | 334 |
| | 10 | 526 | 400 | 325 | 275 | 514 | 395 | 323 | 274 | 386 | 319 | 273 | 377 | 315 | 272 | 368 | 312 | 271 | 306 |

Cone of Light

| Mtg Height | Light Level | Beam Diameter |
|------------|-------------|---------------|
| 5.5 ft | 11.4 fc | 14.9 ft |
| 6.5 ft | 8.2 fc | 17.6 ft |
| 7.5 ft | 6.1 fc | 20.3 ft |
| 8.0 ft | 5.4 fc | 21.7 ft |
| 10.0 ft | 3.5 fc | 27.1 ft |
| 12.0 ft | 2.4 fc | 32.6 ft |
| 14.0 ft | 1.8 fc | 38.0 ft |
| 16.0 ft | 1.4 fc | 43.4 ft |
| 20.0 ft | 0.9 fc | 54.3 ft |
| 24.0 ft | 0.6 fc | 65.1 ft |
| 28.0 ft | 0.4 fc | 76.0 ft |

Average Luminaire Luminance [cd/m²]

| | 0.00° | 45.00° | 90.00° |
|---------------|--------|--------|--------|
| 0.00° | 16,253 | 16,253 | 16,253 |
| 45.00° | 17,540 | 17,540 | 17,540 |
| 55.00° | 12,856 | 12,856 | 12,856 |
| 65.00° | 9,849 | 9,849 | 9,849 |
| 75.00° | 8,062 | 8,062 | 8,062 |
| 85.00° | 4,087 | 4,087 | 4,087 |

UGR CIE 190:2010

| | | | | | | | | | | | |
|----------------------------|------------|-------------------------|------------|------------|------------|------------|-----------------------|------------|------------|------------|------------|
| Ceiling reflectance | | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 |
| Wall reflectance | | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 |
| Plane reflectance | | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Room dimensions | | Viewed crosswise | | | | | Viewed endwise | | | | |
| 2H | 2H | 19.4 | 21.0 | 19.8 | 21.3 | 21.6 | 19.4 | 21.0 | 19.8 | 21.3 | 21.6 |
| | 3H | 20.8 | 22.2 | 21.2 | 22.6 | 22.9 | 20.8 | 22.2 | 21.2 | 22.6 | 22.9 |
| | 4H | 21.4 | 22.7 | 21.8 | 23.0 | 23.4 | 21.4 | 22.7 | 21.8 | 23.0 | 23.4 |
| | 6H | 21.7 | 22.9 | 22.1 | 23.3 | 23.7 | 21.7 | 22.9 | 22.1 | 23.3 | 23.7 |
| | 8H | 21.8 | 22.9 | 22.2 | 23.3 | 23.7 | 21.8 | 22.9 | 22.2 | 23.3 | 23.7 |
| | 12H | 21.8 | 22.9 | 22.2 | 23.3 | 23.7 | 21.8 | 22.9 | 22.2 | 23.3 | 23.7 |
| 4H | 2H | 19.9 | 21.2 | 20.3 | 21.6 | 21.9 | 19.9 | 21.2 | 20.3 | 21.6 | 21.9 |
| | 3H | 21.5 | 22.6 | 22.0 | 23.0 | 23.4 | 21.5 | 22.6 | 22.0 | 23.0 | 23.4 |
| | 4H | 22.2 | 23.2 | 22.6 | 23.6 | 24.0 | 22.2 | 23.2 | 22.6 | 23.6 | 24.0 |
| | 6H | 22.6 | 23.5 | 23.1 | 23.9 | 24.4 | 22.6 | 23.5 | 23.1 | 23.9 | 24.4 |
| | 8H | 22.7 | 23.5 | 23.2 | 24.0 | 24.4 | 22.7 | 23.5 | 23.2 | 24.0 | 24.4 |
| | 12H | 22.8 | 23.5 | 23.3 | 24.0 | 24.4 | 22.8 | 23.5 | 23.3 | 24.0 | 24.4 |
| 8H | 4H | 22.4 | 23.2 | 22.9 | 23.7 | 24.1 | 22.4 | 23.2 | 22.9 | 23.7 | 24.1 |
| | 6H | 22.9 | 23.6 | 23.4 | 24.1 | 24.5 | 22.9 | 23.6 | 23.4 | 24.1 | 24.5 |
| | 8H | 23.1 | 23.7 | 23.6 | 24.2 | 24.7 | 23.1 | 23.7 | 23.6 | 24.2 | 24.7 |
| | 12H | 23.2 | 23.7 | 23.7 | 24.2 | 24.8 | 23.2 | 23.7 | 23.7 | 24.2 | 24.8 |
| 12H | 4H | 22.4 | 23.1 | 22.9 | 23.6 | 24.1 | 22.4 | 23.1 | 22.9 | 23.6 | 24.1 |
| | 6H | 22.9 | 23.5 | 23.5 | 24.0 | 24.5 | 22.9 | 23.5 | 23.5 | 24.0 | 24.5 |
| | 8H | 23.1 | 23.7 | 23.6 | 24.2 | 24.7 | 23.1 | 23.7 | 23.6 | 24.2 | 24.7 |

Corrected UGR values based on total output lumens

SHR = 1.0