

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

LC50GV 15L 35K XX MF0 XX MWI
Nom 6" diam Cafe series pendant mounted luminaire

Test Number

SP-00979

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 | 947 |
| Efficacy | 86.11 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 | 1.37 |

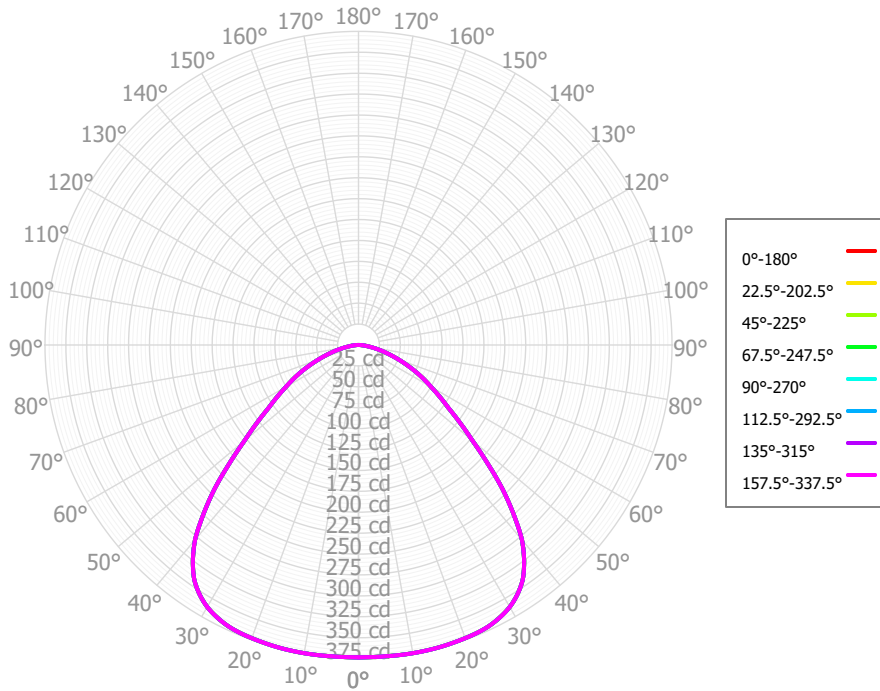
Full Beam Angle

| | |
|------------|-----|
| 0° - 180° | 99° |
| 90° - 270° | 99° |

IES File Header Contents

| Keyword | Value |
|-----------|--|
| TEST | SP-00979 |
| TESTLAB | Spectrum Lighting Photometric Lab, VLS-245-981 |
| MANUFAC | Spectrum Lighting |
| TESTDATE | 12/20/2019 |
| ISSUEDATE | 3/5/2020 |
| LUMCAT | LC50GV 15L 35K XX MF0 XX MWI |
| LUMINAIRE | Nom 6" diam Cafe series pendant mounted luminaire |
| OTHER | Beam Angle: 99 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° | 36.25 | 3.83% | 90.00° - 100.00° | 0.21 | 0.02% |
| 10.00° - 20.00° | 105.98 | 11.19% | 100.00° - 110.00° | 0.00 | 0.00% |
| 20.00° - 30.00° | 170.74 | 18.03% | 100.00° - 120.00° | 0.00 | 0.00% |
| 30.00° - 40.00° | 211.86 | 22.37% | 120.00° - 130.00° | 0.00 | 0.00% |
| 40.00° - 50.00° | 185.81 | 19.62% | 130.00° - 140.00° | 0.00 | 0.00% |
| 50.00° - 60.00° | 120.09 | 12.68% | 140.00° - 150.00° | 0.00 | 0.00% |
| 60.00° - 70.00° | 74.43 | 7.86% | 150.00° - 160.00° | 0.00 | 0.00% |
| 70.00° - 80.00° | 34.04 | 3.59% | 160.00° - 170.00° | 0.00 | 0.00% |
| 80.00° - 90.00° | 7.76 | 0.82% | 170.00° - 180.00° | 0.00 | 0.00% |
| 0.00° - 90.00° | 946.96 | 99.98% | 0.00° - 180.00° | 947.17 | 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 | 1,128 | 1,128 | 1,128 | 1,128 | 1,101 | 1,101 | 1,101 | 1,101 | 1,052 | 1,052 | 1,052 | 1,007 | 1,007 | 1,007 | 966 | 966 | 966 | 947 |
| | 1 | 1,045 | 1,006 | 971 | 940 | 1,020 | 985 | 953 | 924 | 945 | 919 | 895 | 909 | 888 | 868 | 875 | 858 | 842 | 840 |
| | 2 | 962 | 893 | 836 | 788 | 938 | 875 | 823 | 779 | 843 | 799 | 761 | 812 | 776 | 744 | 784 | 754 | 728 | 738 |
| | 3 | 885 | 796 | 726 | 671 | 863 | 781 | 717 | 665 | 754 | 699 | 654 | 728 | 682 | 643 | 705 | 665 | 632 | 651 |
| | 4 | 816 | 713 | 637 | 579 | 795 | 701 | 630 | 575 | 678 | 616 | 568 | 656 | 603 | 560 | 636 | 591 | 553 | 578 |
| | 5 | 755 | 642 | 564 | 506 | 736 | 632 | 558 | 503 | 613 | 548 | 498 | 594 | 537 | 493 | 577 | 528 | 488 | 517 |
| | 6 | 700 | 582 | 503 | 446 | 682 | 573 | 499 | 445 | 557 | 490 | 441 | 541 | 482 | 437 | 527 | 474 | 434 | 465 |
| | 7 | 650 | 530 | 452 | 397 | 635 | 523 | 449 | 396 | 509 | 442 | 393 | 495 | 435 | 391 | 483 | 429 | 388 | 421 |
| | 8 | 607 | 485 | 409 | 357 | 592 | 479 | 406 | 356 | 467 | 401 | 354 | 455 | 395 | 352 | 445 | 390 | 350 | 383 |
| | 9 | 567 | 446 | 372 | 322 | 554 | 441 | 370 | 321 | 430 | 365 | 320 | 420 | 361 | 318 | 411 | 357 | 317 | 350 |
| | 10 | 532 | 412 | 341 | 293 | 521 | 408 | 339 | 292 | 399 | 335 | 291 | 390 | 331 | 290 | 382 | 328 | 289 | 322 |

Cone of Light

| Mtg Height | Light Level | Beam Diameter |
|------------|-------------|---------------|
| 5.5 ft | 12.4 fc | 12.8 ft |
| 6.5 ft | 8.8 fc | 15.1 ft |
| 7.5 ft | 6.6 fc | 17.4 ft |
| 8.0 ft | 5.8 fc | 18.6 ft |
| 10.0 ft | 3.7 fc | 23.2 ft |
| 12.0 ft | 2.6 fc | 27.9 ft |
| 14.0 ft | 1.9 fc | 32.5 ft |
| 16.0 ft | 1.5 fc | 37.1 ft |
| 20.0 ft | 0.9 fc | 46.4 ft |
| 24.0 ft | 0.6 fc | 55.7 ft |
| 28.0 ft | 0.5 fc | 65.0 ft |

Average Luminaire Luminance [cd/m²]

| | 0.00° | 45.00° | 90.00° |
|---------------|--------|--------|--------|
| 0.00° | 17,561 | 17,561 | 17,561 |
| 45.00° | 16,185 | 16,185 | 16,185 |
| 55.00° | 10,767 | 10,767 | 10,767 |
| 65.00° | 8,365 | 8,365 | 8,365 |
| 75.00° | 5,744 | 5,744 | 5,744 |
| 85.00° | 3,420 | 3,420 | 3,420 |

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 | 18.5 | 20.0 | 18.8 | 20.3 | 20.6 | 18.5 | 20.0 | 18.8 | 20.3 | 20.6 |
| | 3H | 19.7 | 21.1 | 20.1 | 21.4 | 21.7 | 19.7 | 21.1 | 20.1 | 21.4 | 21.7 |
| | 4H | 20.1 | 21.3 | 20.5 | 21.7 | 22.1 | 20.1 | 21.3 | 20.5 | 21.7 | 22.1 |
| | 6H | 20.3 | 21.5 | 20.7 | 21.8 | 22.2 | 20.3 | 21.5 | 20.7 | 21.8 | 22.2 |
| | 8H | 20.4 | 21.5 | 20.8 | 21.8 | 22.2 | 20.4 | 21.5 | 20.8 | 21.8 | 22.2 |
| | 12H | 20.4 | 21.4 | 20.8 | 21.8 | 22.2 | 20.4 | 21.4 | 20.8 | 21.8 | 22.2 |
| 4H | 2H | 18.9 | 20.2 | 19.3 | 20.5 | 20.9 | 18.9 | 20.2 | 19.3 | 20.5 | 20.9 |
| | 3H | 20.4 | 21.4 | 20.8 | 21.8 | 22.2 | 20.4 | 21.4 | 20.8 | 21.8 | 22.2 |
| | 4H | 20.8 | 21.8 | 21.3 | 22.2 | 22.6 | 20.8 | 21.8 | 21.3 | 22.2 | 22.6 |
| | 6H | 21.1 | 21.9 | 21.6 | 22.4 | 22.8 | 21.1 | 21.9 | 21.6 | 22.4 | 22.8 |
| | 8H | 21.2 | 22.0 | 21.7 | 22.4 | 22.9 | 21.2 | 22.0 | 21.7 | 22.4 | 22.9 |
| | 12H | 21.2 | 21.9 | 21.7 | 22.4 | 22.9 | 21.2 | 21.9 | 21.7 | 22.4 | 22.9 |
| 8H | 4H | 21.0 | 21.7 | 21.5 | 22.2 | 22.7 | 21.0 | 21.7 | 21.5 | 22.2 | 22.7 |
| | 6H | 21.4 | 22.0 | 21.9 | 22.5 | 22.9 | 21.4 | 22.0 | 21.9 | 22.5 | 22.9 |
| | 8H | 21.5 | 22.0 | 22.0 | 22.5 | 23.0 | 21.5 | 22.0 | 22.0 | 22.5 | 23.0 |
| | 12H | 21.5 | 22.0 | 22.1 | 22.5 | 23.1 | 21.5 | 22.0 | 22.1 | 22.5 | 23.1 |
| 12H | 4H | 21.0 | 21.7 | 21.5 | 22.1 | 22.6 | 21.0 | 21.7 | 21.5 | 22.1 | 22.6 |
| | 6H | 21.4 | 21.9 | 21.9 | 22.4 | 22.9 | 21.4 | 21.9 | 21.9 | 22.4 | 22.9 |
| | 8H | 21.5 | 22.0 | 22.0 | 22.5 | 23.0 | 21.5 | 22.0 | 22.0 | 22.5 | 23.0 |

Corrected UGR values based on total output lumens

SHR = 1.0