

Indoor Distribution Test Report

Spectrum Lighting Inc.

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Spectrum Lighting Photometric Lab

Luminaire

CF06XXUDPC 40LXWCL 40LXWNL 35KXX XXMW (IND/DIR Damp location)
Nom. 6" Diam Indirect/Direct Cylinder damp location

Test Number

SP-01082_1

Test Date

1/21/2020

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

Summary of Results

Power

| | |
|-------------|--------|
| Input Watts | 54.8 W |
|-------------|--------|

Lumen Output

| | |
|---------------|-------------|
| Output Lumens | 5909 |
| Efficacy | 107.82 lm/W |

Luminous Dimensions

| | |
|-----------------|------|
| 0° - 180° Size | -0.5 |
| 90° - 270° Size | -0.5 |
| Height | 0 |

Spacing Criterion

| | |
|---------------------------|------|
| Two luminaires, plane 0° | 1.21 |
| Two luminaires, plane 90° | 1.23 |
| Four luminaires | 1.12 |

Full Beam Angle

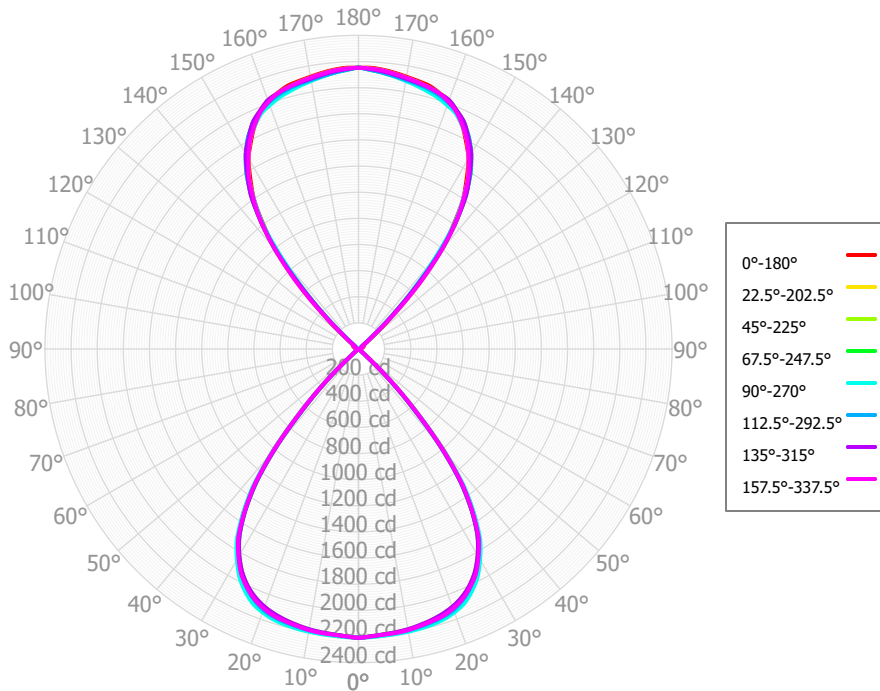
| | |
|------------|-----|
| 0° - 180° | 79° |
| 90° - 270° | 79° |

IES File Header Contents

| Keyword | Value |
|-----------|--|
| TEST | SP-01082_1 |
| TESTLAB | VLS-245-981 |
| MANUFAC | Spectrum Lighting |
| TESTDATE | 1/21/2020 |
| ISSUEDATE | 5/18/2023 |
| LUMCAT | CF06XXUDPC 40LXWCL 40LXWNL 35KXX XXMW (IND/DIR Damp location) |
| LUMINAIRE | Nom. 6" Diam Indirect/Direct Cylinder damp location |
| OTHER | Uplight: Xtra Wide Optic, Flush Clear Glass lens |
| OTHER | Uplight: 77.4 Degree Beam Angle |
| OTHER | Downlight: Xtra Wide Optic, No lens |
| OTHER | Downlight: 76.4 Degree Beam Angle |
| OTHER | Trim: Matte White |
| LAMP | N/A |
| LAMPCAT | N/A, 19mm LES Uplight |
| OTHER | N/A, 19mm LES Downlight |
| OTHER | Total Luminaire Watts is approximate |
| OTHER | CCT Output Multipliers: 27K x 0.97, 30K x 0.98, 40K x 1.04, 27HK x 0.78, 30HK x 0.82 |

CF06XXUDPC 40LXWCL 40LXWNL 35KXX
 XXMW (IND/DIR Damp location)

Candela Polar Plot



Zonal Lumen Summary

| Zone | Lumens | % Fixture | Zone | Lumens | % Fixture |
|-----------------|---------|-----------|-------------------|---------|-----------|
| 0.00° - 10.00° | 212.55 | 3.60% | 90.00° - 100.00° | 2.13 | 0.04% |
| 10.00° - 20.00° | 610.65 | 10.34% | 100.00° - 110.00° | 17.82 | 0.30% |
| 20.00° - 30.00° | 922.99 | 15.62% | 100.00° - 120.00° | 49.24 | 0.83% |
| 30.00° - 40.00° | 921.36 | 15.59% | 120.00° - 130.00° | 31.07 | 0.53% |
| 40.00° - 50.00° | 302.24 | 5.12% | 130.00° - 140.00° | 330.77 | 5.60% |
| 50.00° - 60.00° | 5.11 | 0.09% | 140.00° - 150.00° | 860.13 | 14.56% |
| 60.00° - 70.00° | 2.00 | 0.03% | 150.00° - 160.00° | 866.35 | 14.66% |
| 70.00° - 80.00° | 1.62 | 0.03% | 160.00° - 170.00° | 583.50 | 9.88% |
| 80.00° - 90.00° | 1.22 | 0.02% | 170.00° - 180.00° | 205.57 | 3.48% |
| 0.00° - 90.00° | 2979.75 | 50.43% | 0.00° - 180.00° | 5908.50 | 100.00% |

Candela Distribution

| | 0.00° | 22.50° | 45.00° | 67.50° | 90.00° |
|---------|---------|---------|---------|---------|---------|
| 0.00° | 2210.47 | 2210.47 | 2210.47 | 2210.47 | 2210.47 |
| 2.50° | 2204.72 | 2201.45 | 2201.59 | 2201.74 | 2207.70 |
| 5.00° | 2198.71 | 2195.43 | 2193.01 | 2194.76 | 2203.38 |
| 7.50° | 2191.28 | 2192.48 | 2186.63 | 2191.55 | 2201.02 |
| 10.00° | 2183.75 | 2185.36 | 2178.40 | 2186.92 | 2197.52 |
| 12.50° | 2175.68 | 2172.41 | 2164.87 | 2176.98 | 2192.38 |
| 15.00° | 2166.84 | 2158.65 | 2148.95 | 2165.79 | 2183.50 |
| 17.50° | 2147.11 | 2144.00 | 2128.09 | 2151.18 | 2170.50 |
| 20.00° | 2124.08 | 2115.60 | 2099.64 | 2126.61 | 2145.61 |
| 22.50° | 2079.36 | 2075.58 | 2059.38 | 2082.34 | 2110.61 |
| 25.00° | 2027.38 | 2016.26 | 2003.04 | 2021.42 | 2049.84 |
| 27.50° | 1945.98 | 1944.50 | 1927.05 | 1935.71 | 1971.85 |
| 30.00° | 1849.62 | 1837.93 | 1824.32 | 1828.93 | 1861.33 |
| 32.50° | 1709.96 | 1713.98 | 1696.54 | 1697.50 | 1734.47 |
| 35.00° | 1539.22 | 1522.04 | 1512.17 | 1514.71 | 1543.58 |
| 37.50° | 1303.31 | 1305.34 | 1287.21 | 1285.86 | 1329.23 |
| 40.00° | 1022.36 | 997.53 | 985.59 | 985.01 | 1017.72 |
| 42.50° | 670.63 | 666.82 | 641.10 | 634.79 | 680.52 |
| 45.00° | 373.67 | 371.73 | 355.35 | 351.14 | 379.40 |
| 47.50° | 144.19 | 82.53 | 93.89 | 102.98 | 84.30 |
| 50.00° | 24.62 | 32.96 | 21.84 | 21.90 | 33.79 |
| 52.50° | 8.94 | 3.03 | 5.25 | 6.33 | 3.66 |
| 55.00° | 2.35 | 2.22 | 1.90 | 2.62 | 2.82 |
| 57.50° | 2.32 | 1.72 | 1.20 | 2.17 | 2.55 |
| 60.00° | 2.21 | 1.78 | 1.56 | 2.13 | 2.88 |
| 62.50° | 2.06 | 1.84 | 2.03 | 2.17 | 3.12 |
| 65.00° | 2.07 | 1.92 | 1.69 | 2.13 | 2.78 |
| 67.50° | 2.14 | 1.95 | 1.35 | 2.09 | 2.45 |
| 70.00° | 1.90 | 1.87 | 1.38 | 2.16 | 2.16 |
| 72.50° | 1.64 | 1.58 | 1.39 | 2.05 | 2.03 |
| 75.00° | 1.57 | 1.10 | 1.37 | 1.61 | 2.09 |
| 77.50° | 1.71 | 0.93 | 1.41 | 1.16 | 2.15 |
| 80.00° | 1.86 | 1.09 | 1.31 | 1.10 | 1.89 |
| 82.50° | 1.65 | 1.24 | 1.12 | 1.23 | 1.39 |
| 85.00° | 1.22 | 1.21 | 1.09 | 1.13 | 1.19 |
| 87.50° | 1.22 | 1.35 | 1.02 | 1.58 | 1.55 |
| 90.00° | 0.82 | 0.00 | 0.00 | 0.00 | 0.00 |
| 92.50° | 1.45 | 1.36 | 1.38 | 1.27 | 1.04 |
| 95.00° | 2.59 | 2.00 | 1.71 | 1.79 | 1.38 |
| 97.50° | 3.57 | 2.50 | 2.90 | 2.13 | 1.73 |
| 100.00° | 5.52 | 4.39 | 3.74 | 3.45 | 4.33 |

CF06XXUDPC 40LXWCL 40LXWNL 35KXX
 XXMW (IND/DIR Damp location)

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 | 6337 | 6337 | 6337 | 6337 | 5849 | 5849 | 5849 | 5849 | 4938 | 4938 | 4938 | 4105 | 4105 | 4105 | 3339 | 3339 | 3339 | 2980 |
| | 1 | 5907 | 5703 | 5520 | 5355 | 5460 | 5289 | 5135 | 4996 | 4514 | 4409 | 4312 | 3802 | 3733 | 3670 | 3146 | 3104 | 3066 | 2793 |
| | 2 | 5498 | 5146 | 4856 | 4612 | 5087 | 4792 | 4544 | 4335 | 4125 | 3951 | 3800 | 3511 | 3393 | 3290 | 2943 | 2869 | 2802 | 2598 |
| | 3 | 5114 | 4658 | 4305 | 4024 | 4739 | 4352 | 4048 | 3804 | 3775 | 3556 | 3375 | 3242 | 3089 | 2961 | 2747 | 2647 | 2562 | 2411 |
| | 4 | 4759 | 4230 | 3843 | 3547 | 4416 | 3964 | 3628 | 3368 | 3462 | 3214 | 3017 | 2996 | 2819 | 2676 | 2562 | 2443 | 2344 | 2236 |
| | 5 | 4432 | 3854 | 3450 | 3152 | 4118 | 3621 | 3268 | 3004 | 3181 | 2916 | 2712 | 2772 | 2579 | 2427 | 2389 | 2256 | 2149 | 2075 |
| | 6 | 4133 | 3523 | 3114 | 2821 | 3846 | 3319 | 2958 | 2696 | 2931 | 2656 | 2451 | 2569 | 2365 | 2210 | 2229 | 2086 | 1974 | 1927 |
| | 7 | 3861 | 3232 | 2825 | 2540 | 3598 | 3051 | 2690 | 2434 | 2707 | 2428 | 2225 | 2385 | 2176 | 2020 | 2083 | 1932 | 1818 | 1792 |
| | 8 | 3613 | 2976 | 2575 | 2299 | 3372 | 2815 | 2457 | 2209 | 2508 | 2228 | 2029 | 2219 | 2007 | 1852 | 1948 | 1793 | 1678 | 1669 |
| | 9 | 3389 | 2749 | 2357 | 2092 | 3166 | 2605 | 2254 | 2014 | 2329 | 2052 | 1858 | 2070 | 1857 | 1705 | 1825 | 1668 | 1553 | 1557 |
| | 10 | 3185 | 2548 | 2167 | 1913 | 2980 | 2418 | 2075 | 1844 | 2170 | 1897 | 1708 | 1935 | 1723 | 1574 | 1713 | 1555 | 1441 | 1456 |

Cone of Light

| Mtg Height | Light Level | Beam Diameter |
|------------|-------------|---------------|
| 5.5 ft | 73.1 fc | 9.0 ft |
| 6.5 ft | 52.3 fc | 10.6 ft |
| 7.5 ft | 39.3 fc | 12.3 ft |
| 8.0 ft | 34.5 fc | 13.1 ft |
| 10.0 ft | 22.1 fc | 16.3 ft |
| 12.0 ft | 15.4 fc | 19.6 ft |
| 14.0 ft | 11.3 fc | 22.9 ft |
| 16.0 ft | 8.6 fc | 26.2 ft |
| 20.0 ft | 5.5 fc | 32.7 ft |
| 24.0 ft | 3.8 fc | 39.2 ft |
| 28.0 ft | 2.8 fc | 45.8 ft |

Average Luminaire Luminance [cd/m²]

| | 0.00° | 45.00° | 90.00° |
|---------------|--------|--------|--------|
| 0.00° | 121178 | 121178 | 121178 |
| 45.00° | 28969 | 27550 | 29414 |
| 55.00° | 224 | 181 | 270 |
| 65.00° | 268 | 219 | 361 |
| 75.00° | 332 | 291 | 443 |
| 85.00° | 770 | 683 | 749 |

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 | -17.4 | -16.7 | -16.4 | -15.8 | -14.5 | -16.0 | -15.3 | -15.0 | -14.4 | -13.1 |
| | 3H | -13.5 | -12.9 | -12.5 | -11.9 | -10.6 | -12.5 | -11.9 | -11.5 | -10.9 | -9.6 |
| | 4H | -12.3 | -11.8 | -11.3 | -10.8 | -9.5 | -11.0 | -10.4 | -10.0 | -9.5 | -8.1 |
| | 6H | -10.6 | -10.0 | -9.5 | -9.1 | -7.7 | -9.4 | -8.9 | -8.4 | -7.9 | -6.6 |
| | 8H | -9.5 | -9.0 | -8.5 | -8.0 | -6.7 | -8.8 | -8.3 | -7.7 | -7.3 | -5.9 |
| | 12H | -8.6 | -8.1 | -7.6 | -7.1 | -5.8 | -8.1 | -7.7 | -7.1 | -6.7 | -5.3 |
| 4H | 2H | -16.5 | -16.0 | -15.5 | -15.0 | -13.6 | -15.5 | -14.9 | -14.4 | -13.9 | -12.6 |
| | 3H | -12.6 | -12.2 | -11.6 | -11.2 | -9.8 | -11.7 | -11.3 | -10.7 | -10.3 | -8.9 |
| | 4H | -11.5 | -11.1 | -10.4 | -10.0 | -8.7 | -10.1 | -9.7 | -9.1 | -8.7 | -7.4 |
| | 6H | -9.6 | -9.2 | -8.6 | -8.2 | -6.9 | -8.5 | -8.1 | -7.5 | -7.1 | -5.8 |
| | 8H | -8.4 | -8.0 | -7.3 | -7.0 | -5.7 | -7.7 | -7.4 | -6.7 | -6.4 | -5.0 |
| | 12H | -7.3 | -7.0 | -6.2 | -5.9 | -4.6 | -6.9 | -6.6 | -5.9 | -5.6 | -4.2 |
| 8H | 4H | -10.9 | -10.6 | -9.9 | -9.6 | -8.2 | -9.8 | -9.5 | -8.8 | -8.5 | -7.1 |
| | 6H | -8.9 | -8.7 | -7.9 | -7.6 | -6.2 | -8.0 | -7.8 | -7.0 | -6.7 | -5.3 |
| | 8H | -7.6 | -7.3 | -6.5 | -6.3 | -4.9 | -7.1 | -6.8 | -6.0 | -5.8 | -4.4 |
| | 12H | -6.2 | -6.0 | -5.1 | -4.9 | -3.5 | -6.0 | -5.8 | -4.9 | -4.7 | -3.3 |
| 12H | 4H | -10.8 | -10.5 | -9.8 | -9.5 | -8.1 | -9.8 | -9.5 | -8.7 | -8.4 | -7.1 |
| | 6H | -8.7 | -8.5 | -7.7 | -7.4 | -6.0 | -7.9 | -7.7 | -6.8 | -6.6 | -5.2 |
| | 8H | -7.3 | -7.1 | -6.2 | -6.0 | -4.6 | -6.8 | -6.6 | -5.8 | -5.6 | -4.2 |

Corrected UGR values based on total output energy
 SHR = 1.0

Corrected UGR values based on total output lumens

SHR = 1.0