

# 810009650/DB | B-024-LN-8W-M12NS/15G



Fiber OSP cable, LightScope ZWP® Blown Micro Single Jacket, 24 fiber, All-Dielectric Stranded Loose Tube Arid-Core® Construction, Gel-filled, Singlemode G.652.D and G.657.A1, Meters jacket marking, Black jacket color

## Product Classification

|                              |   |
|------------------------------|---|
| <b>Regional Availability</b> | Asia   Australia/New Zealand   EMEA   Latin America   North America |
| <b>Portfolio</b>             | CommScope®  |
| <b>Product Type</b>          | Fiber OSP cable   |
| <b>Product Series</b>        | B-LN  |

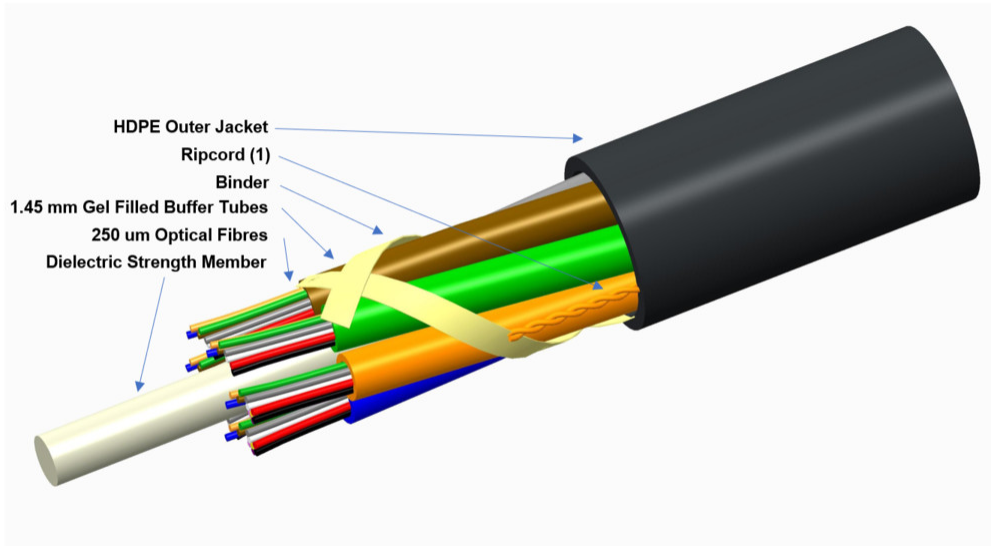
## General Specifications

|                                     |   |
|-------------------------------------|---|
| <b>Cable Type</b>                   | Stranded loose tube   |
| <b>Construction Type</b>            | Non-armored   |
| <b>Subunit Type</b>                 | Gel-filled  |
| <b>Filler, quantity</b>             | 3   |
| <b>Jacket Color</b>                 | Black   |
| <b>Jacket Marking</b>               | Meters  |
| <b>Jacket Marking Method</b>        | Laser   |
| <b>Jacket Marking Text</b>          | COMMSCOPE OPTICAL CABLE OS2 SM 24F (SERIAL NUMBER) MM/YYYY<br>XXXXXXXXM |
| <b>Subunit, quantity</b>            | 2   |
| <b>Fibers per Subunit, quantity</b> | 12  |
| <b>Total Fiber Count</b>            | 24  |

## Dimensions

|                                     |                    |
|-------------------------------------|--------------------|
| <b>Buffer Tube/Subunit Diameter</b> | 1.45 mm   0.057 in |
| <b>Diameter Over Jacket</b>         | 5.1 mm   0.201 in  |

## Representative Image



## Material Specifications

**Jacket Material** High density polyethylene (HDPE)

## Mechanical Specifications

|  |                                       |
|--|---------------------------------------|
| <b>Minimum Bend Radius, loaded</b>       | 77 mm   3.031 in                      |
| <b>Minimum Bend Radius, unloaded</b>     | 51 mm   2.008 in                      |
| <b>Tensile Load, long term, maximum</b>  | 97 N   21.806 lbf                     |
| <b>Tensile Load, short term, maximum</b> | 324 N   72.838 lbf                    |
| <b>Compression</b>                       | 10 N/mm   57.101 lb/in                |
| <b>Compression Test Method</b>           | IEC 60794-1-21 E3                     |
| <b>Flex</b>                              | 25 cycles                             |
| <b>Flex Test Method</b>                  | IEC 60794-1 E6                        |
| <b>Impact</b>                            | 0.3 N-m   2.655 in lb                 |
| <b>Impact Test Method</b>                | IEC 60794-1-21 E4                     |
| <b>Strain</b>                            | See long and short term tensile loads |
| <b>Strain Test Method</b>                | IEC 60794-1-21 E1                     |
| <b>Twist</b>                             | 10 cycles                             |
| <b>Twist Test Method</b>                 | IEC 60794-1-21 E7                     |
| <b>Vertical Rise, maximum</b>            | 492 m   1,614.173 ft                  |

## Optical Specifications

# 810009650/DB | B-024-LN-8W-M12NS/15G

**Fiber Type** G.652.D | G.652.D and G.657.A1

## Environmental Specifications

|                                      |                                      |
|--------------------------------------|--------------------------------------|
| <b>Installation temperature</b>      | -30 °C to +70 °C (-22 °F to +158 °F) |
| <b>Operating Temperature</b>         | -30 °C to +70 °C (-22 °F to +158 °F) |
| <b>Storage Temperature</b>           | -30 °C to +75 °C (-22 °F to +167 °F) |
| <b>Cable Qualification Standards</b> | IEC 60794-5-10                       |
| <b>Environmental Space</b>           | Air-blown, microduct                 |
| <b>Jacket UV Resistance</b>          | UV stabilized                        |
| <b>Water Penetration</b>             | 24 h                                 |
| <b>Water Penetration Test Method</b> | IEC 60794-1 F4                       |

## Environmental Test Specifications

|                                      |                                      |
|--------------------------------------|--------------------------------------|
| <b>Cable Freeze</b>                  | -2 °C   28.4 °F                      |
| <b>Cable Freeze Test Method</b>      | IEC 60794-1 F15                      |
| <b>Drip</b>                          | 70 °C   158 °F                       |
| <b>Drip Test Method</b>              | IEC 60794-1-21 E14                   |
| <b>Heat Age</b>                      | -30 °C to +85 °C (-22 °F to +185 °F) |
| <b>Heat Age Test Method</b>          | IEC 60794-1-22 F9                    |
| <b>Low High Bend</b>                 | -30 °C to +60 °C (-22 °F to +140 °F) |
| <b>Low High Bend Test Method</b>     | IEC 60794-1-21 E11                   |
| <b>Temperature Cycle</b>             | -30 °C to +70 °C (-22 °F to +158 °F) |
| <b>Temperature Cycle Test Method</b> | IEC 60794-1-22 F1                    |

## Packaging and Weights

**Cable weight** 22 kg/km | 14.783 lb/kft

## Regulatory Compliance/Certifications

| <b>Agency</b> | <b>Classification</b>  |
|---------------|--|
| CHINA-ROHS    | Below maximum concentration value  |
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system   |
| REACH-SVHC    | Compliant as per SVHC revision on <a href="http://www.commscope.com/ProductCompliance">www.commscope.com/ProductCompliance</a> |
| ROHS          | Compliant  |
| UK-ROHS       | Compliant  |



## Included Products

CS-8W-250-EMEA – LightScope ZWP® Singlemode Fiber  
250um

## \* Footnotes

**Operating Temperature** Specification applicable to non-terminated bulk fiber cable

## LightScope ZWP® Singlemode Fiber



### Product Classification

|                     |               |
|---------------------|---------------|
| <b>Portfolio</b>    | CommScope®    |
| <b>Product Type</b> | Optical fiber |

### General Specifications

|  |  |
|--|--|
| <b>Cladding Diameter</b>                             | 125 µm                                 |
| <b>Cladding Diameter Tolerance</b>                   | ±0.7 µm                                |
| <b>Cladding Non-Circularity, maximum</b>             | 0.7 %                                  |
| <b>Coating Diameter (Colored)</b>                    | 249 µm                                 |
| <b>Coating Diameter (Uncolored)</b>                  | 242 µm                                 |
| <b>Coating Diameter Tolerance (Colored)</b>          | ±13 µm                                 |
| <b>Coating Diameter Tolerance (Uncolored)</b>        | ±5 µm                                  |
| <b>Coating/Cladding Concentricity Error, maximum</b> | 12 µm                                  |
| <b>Core/Clad Offset, maximum</b>                     | 0.5 µm                                 |
| <b>Proof Test</b>                                    | 689.476 N/mm <sup>2</sup>   100000 psi |

### Dimensions

|                            |                 |
|----------------------------|-----------------|
| <b>Fiber Curl, minimum</b> | 4 m   13.123 ft |
|----------------------------|-----------------|

### Mechanical Specifications

|   |   |
|---|---|
| <b>Macrobending, 20 mm Ø mandrel, 1 turn</b>    | 0.75 dB @ 1,550 nm   1.50 dB @ 1,625 nm |
| <b>Macrobending, 30 mm Ø mandrel, 10 turns</b>  | 0.25 dB @ 1,550 nm   1.00 dB @ 1,625 nm |
| <b>Macrobending, 60 mm Ø mandrel, 100 turns</b> | 0.05 dB @ 1,550 nm   0.05 dB @ 1,625 nm |
| <b>Coating Strip Force, maximum</b>             | 8.9 N   2.001 lbf                       |
| <b>Coating Strip Force, minimum</b>             | 1.3 N   0.292 lbf                       |

# CS-8W-250-EMEA | 250um

**Dynamic Fatigue Parameter, minimum** 20

## Optical Specifications

**Cabled Cutoff Wavelength, maximum** 1250 nm

**Point Defects, maximum** 0.05 dB

**Zero Dispersion Slope, maximum** 0.092 ps/[km-nm-nm]

**Zero Dispersion Wavelength, maximum** 1324 nm

**Zero Dispersion Wavelength, minimum** 1300 nm

## Optical Specifications, Wavelength Specific

**Attenuation, maximum** 0.21 dB/km @ 1,550 nm | 0.24 dB/km @ 1625 nm | 0.25 dB/km @ 1,490 nm | 0.35 dB/km @ 1,310 nm | 0.35 dB/km @ 1,385 nm

**Dispersion, maximum** 18 ps(nm-km) at 1550 nm | 2.2 ps(nm-km) at 1625 nm | 3.5 ps(nm-km) from 1285 nm to 1330 nm at 1310 nm

**Index of Refraction** 1.467 @ 1,310 nm | 1.468 @ 1,550 nm

**Mode Field Diameter** 10.4  $\mu\text{m}$  @ 1,550 nm | 9.2  $\mu\text{m}$  @ 1,310 nm

**Mode Field Diameter Tolerance**  $\pm 0.4 \mu\text{m}$  @ 1310 nm |  $\pm 0.5 \mu\text{m}$  @ 1550 nm

**Polarization Mode Dispersion Link Design Value, maximum** 0.06 ps/sqrt(km)

**Standards Compliance** ITU-T G.652.D | ITU-T G.657.A1

## Environmental Specifications

**Heat Aging, maximum** 0.05 dB/km @ 85 °C

**Temperature Dependence, maximum** 0.05 dB/km

**Temperature Humidity Cycling, maximum** 0.05 dB/km

**Water Immersion, maximum** 0.05 dB/km @ 23 °C

## \* Footnotes

**Temperature Dependence, maximum** Temperature dependence is conducted at -60 °C to +85 °C (-76 °F to +185 °F)

**Temperature Humidity Cycling, maximum** Temperature humidity cycling is conducted at -10 °C to +85 °C (+14 °F to +185 °F) up to 95% relative humidity