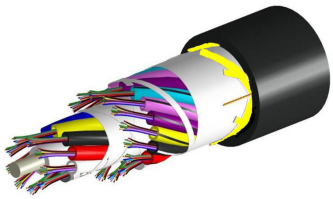
# 810009723/DB | S-288-LN-8W-F12NS/25G/S



Fiber OSP cable, LightScope® ZWP All-Dielectric Self-Supporting, 288 fiber, 2.5mm Gel-filled Tubes, Singlemode G.652.D and G.657.A1, Feet jacket marking, Black jacket color

## Product Classification

| | |
|---|---|
| **Regional Availability** | Asia \| Australia/New Zealand \| EMEA \| Latin America \| North America |
| **Portfolio** | CommScope® |
| **Product Type** | Fiber OSP cable |
| **Product Series** | S-LN |

## General Specifications

| | |
|---|---|
| **Cable Type** | Stranded loose tube |
| **Construction Type** | Non-armored |
| **Subunit Type** | Gel-filled |
| **Filler, quantity** | 0 |
| **Jacket Color** | Black |
| **Jacket Marking** | Feet |
| **Subunit, quantity** | 24 |
| **Fibers per Subunit, quantity** | 12 |
| **Total Fiber Count** | 288 |

## Dimensions

| | |
|---|---|
| **Buffer Tube/Subunit Diameter** | 2.5 mm \| 0.098 in |
| **Diameter Over Jacket** | 19.09 mm \| 0.752 in |

## Representative Image



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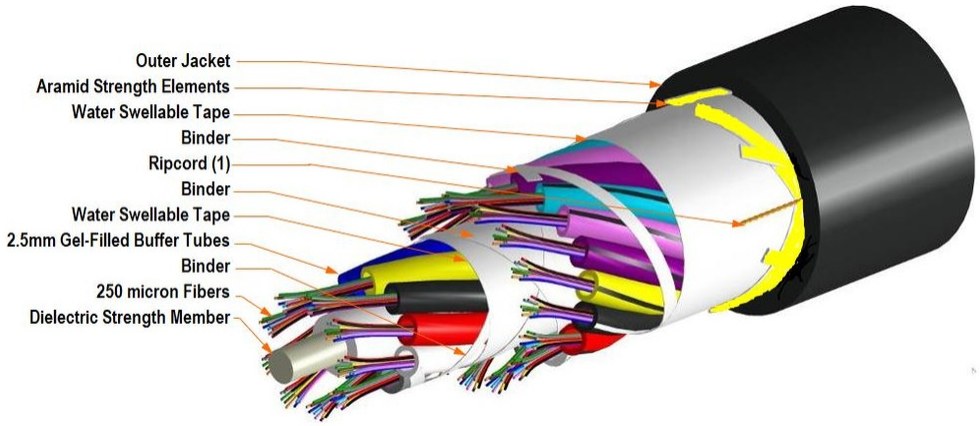


## Material Specifications

| | |
|---|---|
| **Jacket Material** | PE |

## Mechanical Specifications

| | |
|---|---|
| **Minimum Bend Radius, loaded** | 286 mm \| 11.26 in |
| **Minimum Bend Radius, unloaded** | 191 mm \| 7.52 in |
| **Tensile Load, long and short term** | See Sag and Tension tables in Product Documentation section |
| **Compression** | 22 N/mm \| 125.623 lb/in |
| **Compression Test Method** | FOTP-41 \| IEC 60794-1 E3 |
| **Flex** | 25 cycles |
| **Flex Test Method** | FOTP-104 \| IEC 60794-1 E6 |
| **Impact** | 2.94 N-m \| 26.021 in lb |
| **Impact Test Method** | FOTP-25 \| IEC 60794-1 E4 |
| **Strain** | See long and short term tensile loads |
| **Strain Test Method** | FOTP-33 \| IEC 60794-1 E1 |
| **Twist** | 10 cycles |
| **Twist Test Method** | FOTP-85 \| IEC 60794-1 E7 |

## Optical Specifications

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

## Environmental Specifications

| | |
|---|---|
| **Installation temperature** | -30 °C to +70 °C (-22 °F to +158 °F) |



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| | |
|---|---|
| **Operating Temperature** | -40 °C to +70 °C (-40 °F to +158 °F) |
| **Storage Temperature** | -40 °C to +75 °C (-40 °F to +167 °F) |
| **Cable Qualification Standards** | ANSI/ICEA S-87-640 \| IEEE-1222 |
| **Environmental Space** | Aerial, self-support |
| **Jacket UV Resistance** | UV stabilized |
| **Water Penetration** | 24 h |
| **Water Penetration Test Method** | FOTP-82 \| IEC 60794-1 F5 |

## Environmental Test Specifications

| | |
|---|---|
| **Cable Freeze** | -2 °C \| 28.4 °F |
| **Cable Freeze Test Method** | FOTP-98 \| IEC 60794-1 F15 |
| **Drip** | 80 °C \| 176 °F |
| **Drip Test Method** | FOTP-81 \| IEC 60794-1 E14 |
| **Heat Age** | -40 °C to +85 °C (-40 °F to +185 °F) |
| **Heat Age Test Method** | IEC 60794-1 F9 |
| **Low High Bend** | -30 °C to +60 °C (-22 °F to +140 °F) |
| **Low High Bend Test Method** | FOTP-37 \| IEC 60794-1 E11 |
| **Temperature Cycle** | -40 °C to +70 °C (-40 °F to +158 °F) |
| **Temperature Cycle Test Method** | FOTP-3 \| IEC 60794-1 F1 |

## Packaging and Weights

| | |
|---|---|
| **Cable weight** | 197 kg/km \| 132.378 lb/kft |

## Regulatory Compliance/Certifications

| Agency | Classification |
|---|---|
| CHINA-ROHS | Below maximum concentration value |
| REACH-SVHC | Compliant as per SVHC revision on www.commscope.com/ProductCompliance |
| ROHS | Compliant |
| UK-ROHS | Compliant |

## Included Products

DB-8W-LT – LightScope® ZWP Singlemode Fiber



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## * Footnotes

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



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# DB-8W-LT

LightScope® ZWP Singlemode Fiber

## Product Classification

| | |
|---|---|
| **Portfolio** | CommScope® |
| **Product Type** | Optical fiber |

## General Specifications

| | |
|---|---|
| **Cladding Diameter** | 125 µm |
| **Cladding Diameter Tolerance** | ±0.7 µm |
| **Cladding Non-Circularity, maximum** | 0.7 % |
| **Coating Diameter (Colored)** | 249 µm |
| **Coating Diameter (Uncolored)** | 242 µm |
| **Coating Diameter Tolerance (Colored)** | ±13 µm |
| **Coating Diameter Tolerance (Uncolored)** | ±5 µm |
| **Coating/Cladding Concentricity Error, maximum** | 12 µm |
| **Core Diameter** | 8.3 µm |
| **Core/Clad Offset, maximum** | 0.5 µm |
| **Proof Test** | 689.476 N/mm² \| 100000 psi |

## Dimensions

| | |
|---|---|
| **Fiber Curl, minimum** | 4 m \| 13.123 ft |

## Mechanical Specifications

| | |
|---|---|
| **Macrobending, 20 mm Ø mandrel, 1 turn** | 0.75 dB @ 1,550 nm \| 1.50 dB @ 1,625 nm |
| **Macrobending, 30 mm Ø mandrel, 10 turns** | 0.25 dB @ 1,550 nm \| 1.00 dB @ 1,625 nm |
| **Macrobending, 60 mm Ø mandrel, 100 turns** | 0.05 dB @ 1,550 nm \| 0.05 dB @ 1,625 nm |
| **Coating Strip Force, maximum** | 8.9 N \| 2.001 lbf |



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| | |
|---|---|
| **Coating Strip Force, minimum** | 1.3 N \| 0.292 lbf |
| **Dynamic Fatigue Parameter, minimum** | 20 |

## Optical Specifications

| | |
|---|---|
| **Cabled Cutoff Wavelength, maximum** | 1260 nm |
| **Point Defects, maximum** | 0.1 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** | 0.22 dB/km @ 1,550 nm \| 0.25 dB/km @ 1,490 nm \| 0.25 dB/km @ 1,625 nm \| 0.36 dB/km @ 1,310 nm \| 0.36 dB/km @ 1,385 nm |
| **Attenuation, typical** | 0.19 dB/km @ 1,550 nm \| 0.33 dB/km @ 1,310 nm |
| **Backscatter Coefficient** | -79.6 dB @ 1,310 nm \| -82.1 dB @ 1,550 nm |
| **Dispersion, maximum** | 18 ps(nm-km) at 1550 nm \| 3.5 ps(nm-km) from 1285 nm to 1330 nm at 1310 nm |
| **Index of Refraction** | 1.467 @ 1,310 nm \| 1.467 @ 1,385 nm \| 1.468 @ 1,550 nm |
| **Mode Field Diameter** | 10.4 µm @ 1,550 nm \| 9.2 µm @ 1,310 nm \| 9.6 µm @ 1,385 nm |
| **Mode Field Diameter Tolerance** | ±0.4 µm @ 1310 nm \| ±0.5 µm @ 1550 nm \| ±0.6 µm @ 1385 nm |
| **Polarization Mode Dispersion Link Design Value, maximum** | 0.04 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 |

## Regulatory Compliance/Certifications

| Agency | Classification |
|---|---|
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |



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## * 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 |



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