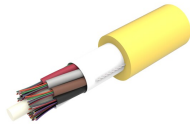


# 810010181/DB | L-096-LN-8W-M12YL/15D/B



Single Jacket All-Dielectric, Gel-Free, Indoor Stranded Microsheath Tube Cable

## Product Classification

|                       |   |
|-----------------------|---|
| Regional Availability | Asia   Australia/New Zealand   EMEA   Latin America |
| Portfolio             | CommScope®  |
| Product Type          | Fiber indoor cable                                  |
| Product Series        | L-LN  |

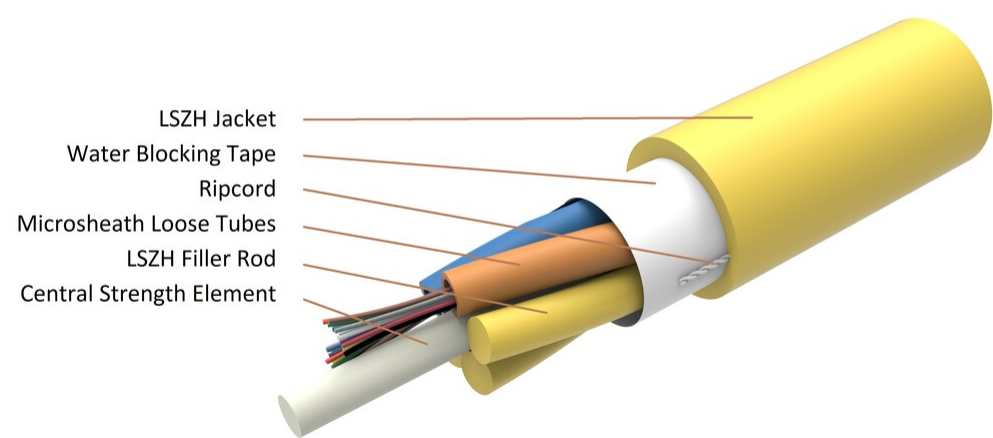
## General Specifications

|                              |   |
|------------------------------|---|
| Cable Type                   | Stranded microsheath tube   |
| Construction Type            | Non-armored   |
| Subunit Type                 | Gel-free  |
| Jacket Color                 | Yellow  |
| Jacket Marking               | Custom printing   |
| Jacket Marking Method        | Inkjet  |
| Jacket Marking Text          | COMMScope GB OPTICAL CABLE 810010178/DB 24 X G657A1 EN50575<br>CLASS C ULSZH [Serial number] [metre mark] |
| Subunit, quantity            | 8   |
| Fibers per Subunit, quantity | 12  |
| Total Fiber Count            | 96  |

## Dimensions

|                              |                   |
|------------------------------|-------------------|
| Buffer Tube/Subunit Diameter | 1.5 mm   0.059 in |
| Diameter Over Jacket         | 8.7 mm   0.343 in |

## Representative Image



## Material Specifications

Inner Jacket Material

Low Smoke Zero Halogen (LSZH)

## Mechanical Specifications

|                                   |                                       |
|-----------------------------------|---------------------------------------|
| Minimum Bend Radius, unloaded     | 130 mm   5.118 in                     |
| Tensile Load, long term, maximum  | 150 N   33.721 lbf                    |
| Tensile Load, short term, maximum | 700 N   157.366 lbf                   |
| Compression                       | 10 N/mm   57.101 lb/in                |
| Compression Test Method           | IEC 60794-1 E3                        |
| Impact                            | 2 N-m   17.701 in lb                  |
| Impact Test Method                | IEC 60794-1 E4                        |
| Strain                            | See long and short term tensile loads |
| Strain Test Method                | IEC 60794-1 E1                        |
| Twist                             | 5 cycles                              |
| Twist Test Method                 | IEC 60794-1 E7                        |

## Optical Specifications

Fiber Type

G.652.D and G.657.A1

## Environmental Specifications

# 810010181/DB | L-096-LN-8W-M12YL/15D/B

|  |                                      |
|--|--------------------------------------|
| Installation temperature                     | 0 °C to +50 °C (+32 °F to +122 °F)   |
| Operating Temperature                        | -10 °C to +60 °C (+14 °F to +140 °F) |
| Storage Temperature                          | -40 °C to +70 °C (-40 °F to +158 °F) |
| Cable Qualification Standards                | IEC 60794-1-2                        |
| EN50575 CPR Cable EuroClass Fire Performance | B2ca                                 |
| EN50575 CPR Cable EuroClass Smoke Rating     | s1a                                  |
| EN50575 CPR Cable EuroClass Droplets Rating  | d0                                   |
| EN50575 CPR Cable EuroClass Acidity Rating   | a1                                   |
| Environmental Space                          | Low Smoke Zero Halogen (LSZH)        |

## Environmental Test Specifications

|                               |                                      |
|-------------------------------|--------------------------------------|
| Temperature Cycle             | -10 °C to +60 °C (+14 °F to +140 °F) |
| Temperature Cycle Test Method | IEC 60794-1 F1                       |

## Packaging and Weights

|              |                          |
|--------------|--------------------------|
| Cable weight | 82 kg/km   55.101 lb/kft |
|--------------|--------------------------|

## Regulatory Compliance/Certifications

| Agency     | Classification                    |
|------------|-----------------------------------|
| CHINA-ROHS | Below maximum concentration value |
| ROHS       | Compliant                         |
| UK-ROHS    | Compliant                         |



## Included Products

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

## \* Footnotes

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

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)        | ±7 µm                  |
| Coating/Cladding Concentricity Error, maximum | 12 µm                  |
| Core/Clad Offset, maximum                     | 0.5 µm                 |
| Proof Tensile Stress                          | 100,000 psi (0.69 GPa) |

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

Optical Specifications

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

|                                     |                     |
|-------------------------------------|---------------------|
| 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                                    | 0.20 dB/km @ 1550 nm   0.23 dB/km @ 1,625 nm   0.344 dB/km @ 1310 nm   0.344 dB/km @ 1380 – 1385 nm  |
| Dispersion, maximum                                     | 18 ps(nm-km) at 1550 nm   22 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   1.467 @ 1,385 nm   1.468 @ 1,550 nm   |
| Mode Field Diameter                                     | 10.4 µm @ 1,550 nm   9.2 µm @ 1,310 nm   |
| Mode Field Diameter Tolerance                           | ±0.4 µm @ 1310 nm   ±0.5 µm @ 1550 nm  |
| Polarization Mode Dispersion Link Design Value, maximum | 0.05 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 |