



Product Classification

|                       |                            |
|-----------------------|----------------------------|
| Regional Availability | EMEA                       |
| Portfolio             | CommScope®                 |
| Product Type          | Fiber indoor/outdoor cable |
| Product Series        | C-LN                       |

General Specifications

|                              |  |
|------------------------------|--|
| Cable Type                   | Stranded loose tube  |
| Construction Type            | Non-armored  |
| Subunit Type                 | Gel-filled   |
| Filler, quantity             | 5  |
| Jacket Color                 | Black  |
| Jacket Marking               | Meters   |
| Jacket Marking Method        | Inkjet   |
| Jacket Marking Text          | COMMScope GB OPTICAL CABLE OS2 SM 6 FIBER EN50575 CLASS D [SERIAL NUMBER] [MM/YY] [METRE MARK] |
| Subunit, quantity            | 1  |
| Fibers per Subunit, quantity | 6  |
| Total Fiber Count            | 6  |

Dimensions

|                              |                  |
|------------------------------|------------------|
| Buffer Tube/Subunit Diameter | 2 mm   0.079 in  |
| Diameter Over Jacket         | 11 mm   0.433 in |

Representative Image



Mechanical Specifications

|                                   |                                       |
|-----------------------------------|---------------------------------------|
| Minimum Bend Radius, loaded       | 165 mm   6.496 in                     |
| Minimum Bend Radius, unloaded     | 110 mm   4.331 in                     |
| Tensile Load, long term, maximum  | 800 N   179.847 lbf                   |
| Tensile Load, short term, maximum | 2700 N   606.984 lbf                  |
| Compression                       | 22 N/mm   125.623 lb/in               |
| Compression Test Method           | IEC 60794-1 E3                        |
| Flex                              | 25 cycles                             |
| Flex Test Method                  | IEC 60794-1 E6                        |
| Impact                            | 10 N-m   88.507 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                             | 10 cycles                             |
| Twist Test Method                 | IEC 60794-1 E7                        |
| Vertical Rise, maximum            | 643 m   2,109.58 ft                   |

Optical Specifications

|            |  |
|------------|--|
| Fiber Type | G.652.D and G.657.A1, TeraSPEED®   OS2   OS2 |
|------------|--|

Environmental Specifications

|                          |                                      |
|--------------------------|--------------------------------------|
| Installation temperature | -30 °C to +60 °C (-22 °F to +140 °F) |
| Operating Temperature    | -40 °C to +70 °C (-40 °F to +158 °F) |

# 760241041 | C-006-LN-8W-M06BK/20G/D

|   |   |
|---|---|
| <b>Storage Temperature</b>                          | -40 °C to +75 °C (-40 °F to +167 °F)                    |
| <b>Cable Qualification Standards</b>                | EN 187105   IEC 60794-1-2                               |
| <b>EN50575 CPR Cable EuroClass Fire Performance</b> | Dca   |
| <b>EN50575 CPR Cable EuroClass Smoke Rating</b>     | s1a   |
| <b>EN50575 CPR Cable EuroClass Droplets Rating</b>  | d0  |
| <b>EN50575 CPR Cable EuroClass Acidity Rating</b>   | a1  |
| <b>Environmental Space</b>                          | Aerial, lashed   Buried   Low Smoke Zero Halogen (LSZH) |
| <b>Flame Test Method</b>                            | IEC 60332-1-2   IEC 60754-2   IEC 61034-2               |
| <b>Jacket UV Resistance</b>                         | UV stabilized   |
| <b>Water Penetration</b>                            | 24 h  |
| <b>Water Penetration Test Method</b>                | IEC 60794-1 F5  |

## 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 E14                      |
| <b>Heat Age</b>                      | -40 °C to +85 °C (-40 °F to +185 °F) |
| <b>Heat Age Test Method</b>          | IEC 60794-1 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 E11                      |
| <b>Temperature Cycle</b>             | -40 °C to +70 °C (-40 °F to +158 °F) |
| <b>Temperature Cycle Test Method</b> | IEC 60794-1 F1                       |

## Packaging and Weights

|                     |                          |
|---------------------|--------------------------|
| <b>Cable weight</b> | 127 kg/km   85.34 lb/kft |
|---------------------|--------------------------|

## Regulatory Compliance/Certifications

| <b>Agency</b> | <b>Classification</b>  |
|---------------|--|
| CENELEC       | EN 50575 compliant, Declaration of Performance (DoP) available   |
| 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  
8W-250um

## \* Footnotes

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

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 |