

Fiber OSP cable, LightScope® ZWP Blown Micro Single Jacket All-Dielectric, 12 fiber, Stranded Loose Tube Arid-Core™ Construction, Singlemode G.652.D, Gel-filled, Meters 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	B-LN
General Specifications	
Cable Type	Stranded loose tube
Construction Type	Non-armored
Subunit Type	Gel-filled
Filler, quantity	4
Jacket Color	Black
Jacket Marking	Meters
Jacket Marking Method	Laser
Jacket Marking Text	COMMSCOPE OPTICAL CABLE G657A1 SM 12F (SERIAL NUMBER) [MM /YYYY] [M]
Subunit, quantity	1
Fibers per Subunit, quantity	12
Total Fiber Count	12
Dimensions	
Buffer Tube/Subunit Diameter	1.45 mm   0.057 in
Diameter Over Jacket	5.1 mm   0.201 in

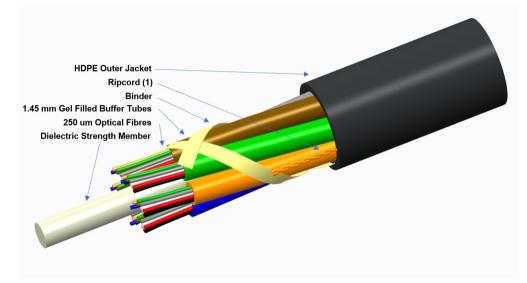
#### Representative Image

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High density polyethylene (HDPE)



#### Material Specifications

**Jacket Material** 

#### Mechanical Specifications

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

#### **Optical Specifications**

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#### Fiber Type

G.652.D | G.652.D

#### **Environmental Specifications**

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

#### **Environmental Test Specifications**

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

#### Packaging and Weights

**Cable weight** 

22 kg/km | 14.783 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

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Included Products

CS-8F-250-EMEA – LightScope® ZWP Singlemode Fiber

\* Footnotes

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

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### CS-8F-250-EMEA

#### 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/Clad Offset, maximum	0.5 μm
Proof Test	689.476 N/mm <sup>2</sup>   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
Coating Strip Force, minimum	1.3 N   0.292 lbf

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### CS-8F-250-EMEA

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 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	0.06 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

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