



Fiber OSP cable, LightScope ZWP® Blown Micro Single Jacket All-Dielectric Outdoor Stranded Loose Tube Arid-Core® Construction, 144 fiber, Singlemode G.657.A1, Gel-filled, 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

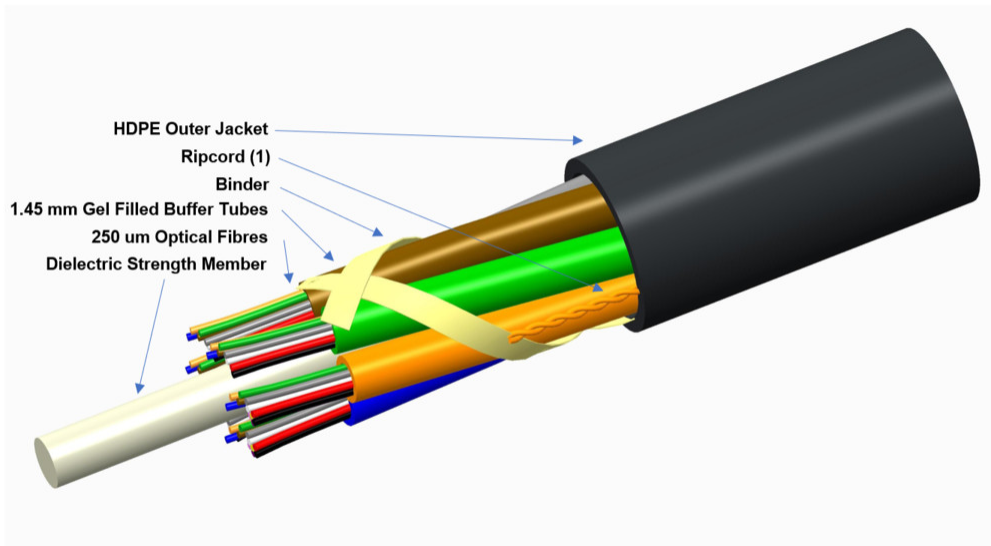
## General Specifications

<b>Cable Type</b>	Stranded loose tube
<b>Construction Type</b>	Non-armored
<b>Subunit Type</b>	Gel-filled
<b>Filler, quantity</b>	0
<b>Jacket Color</b>	Black
<b>Jacket Marking</b>	Meters
<b>Jacket Marking Method</b>	Laser
<b>Jacket Marking Text</b>	COMMSCOPE OPTICAL CABLE G657A1 SM 144F (SERIAL NUMBER) [MM /YYYY] [M]
<b>Subunit, quantity</b>	12
<b>Fibers per Subunit, quantity</b>	12
<b>Total Fiber Count</b>	144

## Dimensions

<b>Buffer Tube/Subunit Diameter</b>	1.45 mm   0.057 in
<b>Diameter Over Jacket</b>	8.4 mm   0.331 in

## Representative Image



## Material Specifications

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

## Mechanical Specifications

<b>Minimum Bend Radius, loaded</b>	348 mm   13.701 in
<b>Minimum Bend Radius, unloaded</b>	110 mm   4.331 in
<b>Tensile Load, long term, maximum</b>	469 N   105.435 lbf
<b>Tensile Load, short term, maximum</b>	1566 N   352.051 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>	769 m   2,522.966 ft

## Optical Specifications

# 810010138/DB | B-144-LN-8F-M12NS/15G

**Fiber Type** G.657.A1

## 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** 38 kg/km | 25.535 lb/kft

## Included Products

CS-8F-TB – Low Macrobending, Zero Water Peak, Dispersion-Unshifted Singlemode Fiber

## \* Footnotes

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

# CS-8F-TB

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Low Macrobending, Zero Water Peak, Dispersion-Unshifted 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
<b>Tight Buffer Diameter</b>	900 µm
<b>Tight Buffer Diameter Tolerance</b>	±40 µm

## Dimensions

<b>Fiber Curl, minimum</b>	4 m   13.123 ft
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## 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, 50 mm Ø mandrel, 100 turns</b>	0.03 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
<b>Dynamic Fatigue Parameter, minimum</b>	20

## Optical Specifications

<b>Cabled Cutoff Wavelength, maximum</b>	1260 nm
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# CS-8F-TB

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<b>Point Defects, maximum</b>	0.1 dB
<b>Zero Dispersion Slope, maximum</b>	0.09 ps/[km-nm-nm]
<b>Zero Dispersion Wavelength, maximum</b>	1324 nm
<b>Zero Dispersion Wavelength, minimum</b>	1300 nm

## Optical Specifications, Wavelength Specific

<b>Attenuation, maximum</b>	0.50 dB/km @ 1,310 nm   0.50 dB/km @ 1,385 nm   0.50 dB/km @ 1,490 nm   0.50 dB/km @ 1,550 nm
<b>Dispersion, maximum</b>	18 ps(nm-km) at 1550 nm   3.5 ps(nm-km) from 1285 nm to 1330 nm at 1310 nm
<b>Index of Refraction</b>	1.467 @ 1,310 nm   1.467 @ 1,385 nm   1.468 @ 1,550 nm
<b>Mode Field Diameter</b>	8.6 $\mu\text{m}$ @ 1,310 nm   9.8 $\mu\text{m}$ @ 1,550 nm
<b>Mode Field Diameter Tolerance</b>	$\pm 0.4 \mu\text{m}$ @ 1310 nm   $\pm 0.5 \mu\text{m}$ @ 1550 nm
<b>Polarization Mode Dispersion Link Design Value, maximum</b>	0.06 ps/sqrt(km)
<b>Standards Compliance</b>	ITU-T G.657.A1

## Environmental Specifications

<b>Heat Aging, maximum</b>	0.05 dB/km @ 85 °C
<b>Temperature Dependence, maximum</b>	0.05 dB/km
<b>Temperature Humidity Cycling, maximum</b>	0.05 dB/km
<b>Water Immersion, maximum</b>	0.05 dB/km @ 23 °C

## Regulatory Compliance/Certifications

<b>Agency</b>	<b>Classification</b>
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system

## \* Footnotes

<b>Temperature Dependence, maximum</b>	Temperature dependence is conducted at -60 °C to +85 °C (-76 °F to +185 °F)
<b>Temperature Humidity Cycling, maximum</b>	Temperature humidity cycling is conducted at -10 °C to +85 °C (+14 °F to +185 °F) up to 95% relative humidity