



Fiber indoor/outdoor cable, LightScope ZWP® High Tensile Strength, LSZH, Singlemode G.652.D and G.657.A1, 24 fiber, Mini All-Dielectric Single Jacket, Gel-Filled, Stranded Loose Tube, Black jacket color, Dca flame rating, Provides Rodent Resistance

Product Classification

Regional Availability	Asia   Australia/New Zealand   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	4
Jacket Color	Black
Jacket Marking	Meters
Jacket Marking Method	Inkjet
Jacket Marking Text	COMMScope GB OPTICAL CABLE 810009766 /DB 24X OS2 SM LSZH EN50575 CLASS D [SERIAL NUMBER] [METER MARK]
Subunit, quantity	2
Fibers per Subunit, quantity	12
Total Fiber Count	24

Dimensions

Buffer Tube/Subunit Diameter	2 mm   0.079 in
Diameter Over Jacket	12.8 mm   0.504 in

Mechanical Specifications

Minimum Bend Radius, loaded	193 mm   7.598 in
Minimum Bend Radius, unloaded	128 mm   5.039 in
Tensile Load, long term, maximum	1350 N   303.492 lbf

# 810009766/DB | C-024-LN-8W-M12BK/20G/HTS /D

<b>Tensile Load, short term, maximum</b>	4500 N   1,011.641 lbf
<b>Compression</b>	22 N/mm   125.623 lb/in
<b>Compression Test Method</b>	IEC 60794-1 E3
<b>Flex</b>	25 cycles
<b>Flex Test Method</b>	IEC 60794-1 E6
<b>Impact</b>	4.41 N-m   39.032 in lb
<b>Impact Test Method</b>	IEC 60794-1 E4
<b>Strain</b>	See long and short term tensile loads
<b>Strain Test Method</b>	IEC 60794-1 E1
<b>Twist</b>	10 cycles
<b>Twist Test Method</b>	IEC 60794-1 E7
<b>Vertical Rise, maximum</b>	816 m   2,677.165 ft

## Optical Specifications

<b>Fiber Type</b>	G.652.D and G.657.A1, TeraSPEED®
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## Environmental Specifications

<b>Installation temperature</b>	-30 °C to +60 °C (-22 °F to +140 °F)
<b>Operating Temperature</b>	-40 °C to +70 °C (-40 °F to +158 °F)
<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>	s2
<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>	FOTP-82   IEC 60794-1 F5

## Environmental Test Specifications

<b>Cable Freeze</b>	-2 °C   28.4 °F
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# 810009766/DB | C-024-LN-8W-M12BK/20G/HTS /D

Cable Freeze Test Method	IEC 60794-1 F15
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	IEC 60794-1 E11
Temperature Cycle	-40 °C to +70 °C (-40 °F to +158 °F)
Temperature Cycle Test Method	IEC 60794-1 F1

## Packaging and Weights

Cable weight	180 kg/km   120.954 lb/kft
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## Included Products

CS-8W-250-EMEA – LightScope ZWP® Singlemode Fiber  
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)	±5 µm
Coating/Cladding Concentricity Error, maximum	12 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
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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

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

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