



Indoor/Outdoor Fiber Optic Cable, 48-fiber, OS2, ULSZH, loose tube, gel-filled. Provides Rodent Resistance.

**OBSOLETE**  
This product was discontinued on: March 31, 2023

Product Classification

Regional Availability	Australia/New Zealand   EMEA
Portfolio	CommScope®
Product Type	Fiber indoor/outdoor cable
Product Series	C-LA

General Specifications

Armor Type	Non-metallic rods
Cable Type	Loose tube
Subunit Type	Gel-filled
Filler, quantity	4
Jacket Color	Yellow
Jacket Marking	Meters
Fibers per Subunit, quantity	12
Total Fiber Count	48

Dimensions

Cable Length	1000 m   3,280.84 ft
Diameter Over Jacket	15 mm   0.591 in

Mechanical Specifications

Minimum Bend Radius, loaded	465 mm   18.307 in
Minimum Bend Radius, unloaded	350 mm   13.78 in
Tensile Load, long term, maximum	6000 N   1,348.854 lbf

2-599613-4 | C-048-LA-8W-M12YL/28G/GRP/E

Tensile Load, short term, maximum9000 N | 2,023.281 lbf

Optical Specifications

Fiber TypeOS2

Optical Specifications, Wavelength Specific

Attenuation, maximum0.35 dB/km @ 1,300 nm | 0.35 dB/km @ 1,550 nm | 0.45 dB/km @ 1,310 nm

Standards ComplianceIEC 60794-1 | TIA-492CAAB (OS2)

Environmental Specifications

Installation temperature-5 °C to +50 °C (+23 °F to +122 °F)

Operating Temperature-25 °C to +70 °C (-13 °F to +158 °F)

Storage Temperature-20 °C to +70 °C (-4 °F to +158 °F)

Environmental SpaceUniversal Low Smoke Zero Halogen (ULSZH)

Packaging and Weights

Cable weight230 kg/km | 154.553 lb/kft

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
REACH-SVHC	Compliant as per SVHC revision on <a href="https://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

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
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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
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