

LightScope ZWP® Fiber + Tone Wire Outdoor Drop Cable, 1–24 fiber Arid Core construction, central loose tube

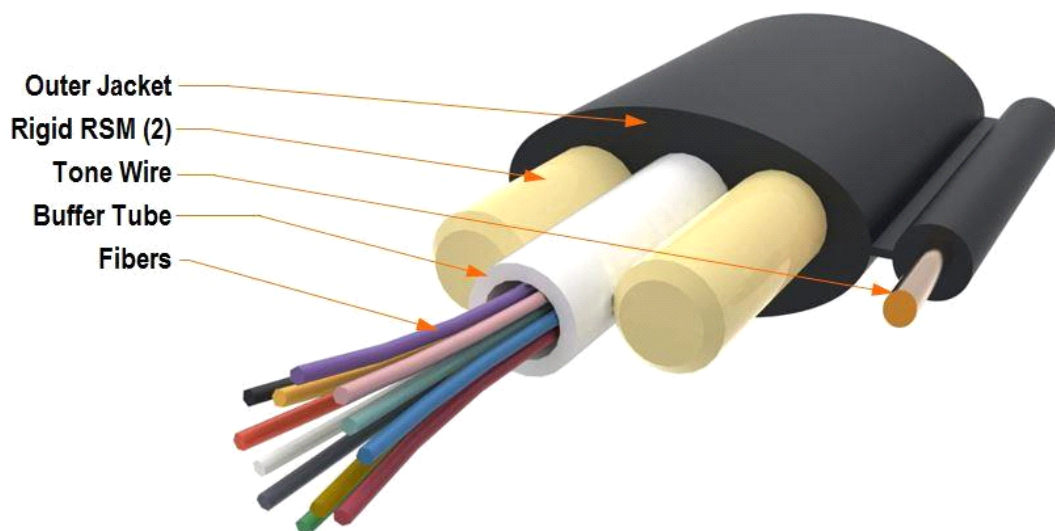
Product Classification

Portfolio	CommScope®
Brand	LightScope ZWP®
Product Type	Hybrid cable, fiber and tone-wire
Regional Availability	Asia Australia/New Zealand EMEA Latin America North America

Standards And Qualifications

Cable Qualification Standards	ANSI/ICEA S-110-717
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Representative Image



General Specifications

Cable Type	Central loose tube
Construction Type	Non-armored
Subunit Type	Gel-filled
Tone Wire Gauge	24 AWG
Tone Wire Type	Copper
Tone Wire, quantity	1

Construction Materials

Fiber Type Solution	G.652.D and G.657.A1
Total Fiber Count	24
Fiber Type	G.652.D and G.657.A1
Fiber Type, quantity	24
Fibers per Subunit, quantity	24
Jacket Color	Black
Jacket UV Resistance	UV stabilized

Dimensions

Buffer Tube/Subunit Diameter	3.00 mm 0.12 in
Cable Weight	24.8 lb/kft 37.0 kg/km
Diameter Over Jacket	10.00 mm 0.39 in
Diameter Over Messenger Jacket	2.00 mm 0.08 in
Height Over Jacket	4.50 mm 0.18 in
Subunit, quantity	1

Physical Specifications

Minimum Bend Radius, loaded	8.6 cm 3.4 in
Minimum Bend Radius, unloaded	6.4 cm 2.5 in
Tensile Load, long term, maximum	400 N 90 lbf
Tensile Load, short term, maximum	1334 N 300 lbf
Vertical Rise, maximum	2917.0 ft 889.0 m

Environmental Specifications

Environmental Space	Aerial, lashed Buried
Installation Temperature	-30 °C to +70 °C (-22 °F to +158 °F)
Operating Temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Storage Temperature	-40 °C to +75 °C (-40 °F to +167 °F)

Mechanical Test Specifications

Compression	10 N/mm 57 lb/in
Compression Test Method	FOTP-41 IEC 60794-1 E3
Flex	35 cycles
Flex Test Method	FOTP-104 IEC 60794-1 E6
Impact	2.17 ft lb 2.94 N-m
Impact Test Method	FOTP-25 IEC 60794-1 E4

Strain	See long and short term tensile loads
Strain Test Method	FOTP-33 IEC 60794-1 E1
Twist	10 cycles
Twist Test Method	FOTP-85 IEC 60794-1 E7
Water Penetration	24 h
Water Penetration Test Method	FOTP-82 IEC 60794-1 F5

Environmental Test Specifications

Cable Freeze	-2 °C 28 °F
Cable Freeze Test Method	FOTP-98 IEC 60794-1 F15
Drip	70 °C 158 °F
Drip Test Method	FOTP-81 IEC 60794-1 E14
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	FOTP-37 IEC 60794-1 E11
Temperature Cycle	-40 °C to +70 °C (-40 °F to +158 °F)
Temperature Cycle Test Method	FOTP-3 IEC 60794-1 F1

Regulatory Compliance/Certifications

Agency	Classification
RoHS 2011/65/EU	Compliant
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system



Included Products

DB-8W-LT (Product Component—not orderable) — LightScope ZWP® Singlemode Fiber

* Footnotes

Operating Temperature Specification applicable to non-terminated bulk fiber cable

Product Classification

Portfolio	CommScope®
Product Type	Optical fiber
Regional Availability	Asia Australia/New Zealand EMEA Latin America North America

Optical Specifications, Wavelength Specific

Standards Compliance	ITU-T G.652.D ITU-T G.657.A1 TIA-492CAAB (OS2)
Attenuation, maximum	0.22 dB/km @ 1550 nm 0.23 dB/km @ 1575 nm 0.25 dB/km @ 1490 nm 0.25 dB/km @ 1625 nm 0.31 dB/km @ 1385 nm 0.34 dB/km @ 1310 nm 0.35 dB/km @ 1650 nm 0.45 dB/km @ 1270 nm
Dispersion, maximum	18 ps/(nm-km) at 1550 nm 3.5 ps/(nm-km) from 1285 nm to 1330 nm at 1310 nm
Mode Field Diameter	9.2 μm @ 1310 nm 9.6 μm @ 1385 nm 10.4 μm @ 1550 nm
Mode Field Diameter Tolerance	±0.3 μm @ 1310 nm ±0.5 μm @ 1550 nm ±0.6 μm @ 1385 nm
Index of Refraction	1.467 @ 1310 nm 1.468 @ 1385 nm 1.468 @ 1550 nm
Polarization Mode Dispersion Link Design Value, maximum	0.04 ps/sqrt(km)
Backscatter Coefficient	-82.1 dB @ 1550 nm -79.6 dB @ 1310 nm

Physical Specifications

Cladding Diameter	125.0 μm
Cladding Diameter Tolerance	±0.7 μm
Cladding Non-Circularity, maximum	0.7 %
Coating Diameter (Colored)	253 μm
Coating Diameter (Uncolored)	240 μm
Coating Diameter Tolerance (Colored)	±7 μm
Coating Diameter Tolerance (Uncolored)	±5 μm
Coating/Cladding Concentricity Error, maximum	12 μm
Core/Clad Offset, maximum	0.5 μm

Optical Specifications, General

Cabled Cutoff Wavelength, maximum	1260 nm
Point Defects, maximum	0.10 dB
Zero Dispersion Slope, maximum	0.090 ps/[km-nm-nm]
Zero Dispersion Wavelength, maximum	1322 nm
Zero Dispersion Wavelength, minimum	1302 nm

Mechanical Specifications

Coating Strip Force, maximum	8.9 N 2.0 lbf
Coating Strip Force, minimum	1.3 N 0.3 lbf
Dynamic Fatigue Parameter, minimum	20
Fiber Curl, minimum	4.0 m 13.1 ft
Macrobending, 20 mm mandrel, 1 turn	0.75 dB @ 1550 nm 1.50 dB @ 1625 nm
Macrobending, 30 mm mandrel, 10 turns	0.25 dB @ 1550 nm 1.00 dB @ 1625 nm
Macrobending, 50 mm mandrel, 100 turns	0.03 dB @ 1550 nm 0.03 dB @ 1625 nm
Proof Test	689.48 N/mm ² 100000.00 psi

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

Regulatory Compliance/Certifications

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



* 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