

LightScope ZWP® Fiber + Tone Wire Outdoor Drop Cable, 1–12 fiber Arid Core construction, central loose tube

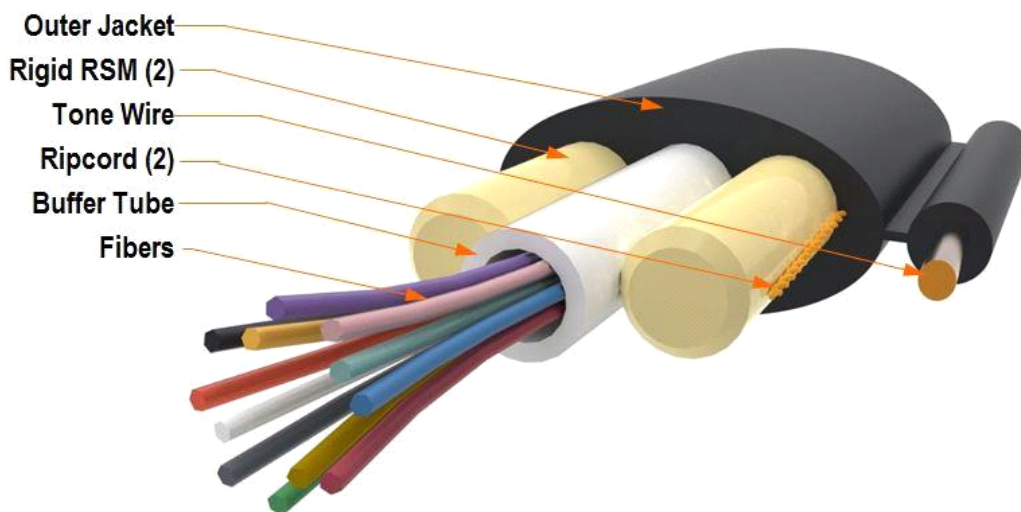
## Product Classification

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

## Standards And Qualifications

<b>Cable Qualification Standards</b>	ANSI/ICEA S-110-717
--------------------------------------	---------------------

## Representative Image



## General Specifications

<b>Cable Type</b>	Central loose tube
<b>Construction Type</b>	Non-armored
<b>Subunit Type</b>	Gel-filled
<b>Tone Wire Gauge</b>	24 AWG

<b>Tone Wire Type</b>	Copper
<b>Tone Wire, quantity</b>	1

## Construction Materials

<b>Fiber Type Solution</b>	G.652.D and G.657.A1
<b>Total Fiber Count</b>	6
<b>Fiber Type</b>	G.652.D and G.657.A1
<b>Fiber Type, quantity</b>	6
<b>Fibers per Subunit, quantity</b>	6
<b>Jacket Color</b>	Black
<b>Jacket UV Resistance</b>	UV stabilized

## Dimensions

<b>Buffer Tube/Subunit Diameter</b>	2.00 mm   0.08 in
<b>Cable Weight</b>	30.9 lb/kft   45.9 kg/km
<b>Diameter Over Jacket</b>	10.00 mm   0.39 in
<b>Diameter Over Messenger Jacket</b>	2.00 mm   0.08 in
<b>Height Over Jacket</b>	4.30 mm   0.17 in
<b>Subunit, quantity</b>	1

## Physical Specifications

<b>Minimum Bend Radius, loaded</b>	8.6 cm   3.4 in
<b>Minimum Bend Radius, unloaded</b>	8.1 cm   3.2 in
<b>Tensile Load, long term, maximum</b>	400 N   90 lbf
<b>Tensile Load, short term, maximum</b>	1334 N   300 lbf
<b>Vertical Rise, maximum</b>	2917.0 ft   889.0 m

## Environmental Specifications

<b>Environmental Space</b>	Aerial, lashed   Buried
<b>Installation Temperature</b>	-30 °C to +70 °C (-22 °F to +158 °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)

## Mechanical Test Specifications

<b>Compression</b>	10 N/mm   57 lb/in
<b>Compression Test Method</b>	FOTP-41   IEC 60794-1 E3
<b>Flex</b>	35 cycles
<b>Flex Test Method</b>	FOTP-104   IEC 60794-1 E6

<b>Impact</b>	2.17 ft lb   2.94 N-m
<b>Impact Test Method</b>	FOTP-25   IEC 60794-1 E4
<b>Strain</b>	See long and short term tensile loads
<b>Strain Test Method</b>	FOTP-33   IEC 60794-1 E1
<b>Twist</b>	10 cycles
<b>Twist Test Method</b>	FOTP-85   IEC 60794-1 E7
<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 °F
<b>Cable Freeze Test Method</b>	FOTP-98   IEC 60794-1 F15
<b>Drip</b>	70 °C   158 °F
<b>Drip Test Method</b>	FOTP-81   IEC 60794-1 E14
<b>Heat Age</b>	-40 °C to +85 °C (-40 °F to +185 °F)
<b>Heat Age Test Method</b>	IEC 60794-1 F9
<b>Low High Bend</b>	-30 °C to +60 °C (-22 °F to +140 °F)
<b>Low High Bend Test Method</b>	FOTP-37   IEC 60794-1 E11
<b>Temperature Cycle</b>	-40 °C to +70 °C (-40 °F to +158 °F)
<b>Temperature Cycle Test Method</b>	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

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

## Optical Specifications, Wavelength Specific

<b>Standards Compliance</b>	ITU-T G.652.D   ITU-T G.657.A1   TIA-492CAAB (OS2)
<b>Attenuation, maximum</b>	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
<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>Mode Field Diameter</b>	9.2 μm @ 1310 nm 9.6 μm @ 1385 nm 10.4 μm @ 1550 nm
<b>Mode Field Diameter Tolerance</b>	±0.3 μm @ 1310 nm   ±0.5 μm @ 1550 nm   ±0.6 μm @ 1385 nm
<b>Index of Refraction</b>	1.467 @ 1310 nm 1.468 @ 1385 nm 1.468 @ 1550 nm
<b>Polarization Mode Dispersion Link Design Value, maximum</b>	0.04 ps/sqrt(km)
<b>Backscatter Coefficient</b>	-82.1 dB @ 1550 nm -79.6 dB @ 1310 nm

## Physical Specifications

<b>Cladding Diameter</b>	125.0 μm
<b>Cladding Diameter Tolerance</b>	±0.7 μm
<b>Cladding Non-Circularity, maximum</b>	0.7 %
<b>Coating Diameter (Colored)</b>	253 μm
<b>Coating Diameter (Uncolored)</b>	240 μm
<b>Coating Diameter Tolerance (Colored)</b>	±7 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

## Optical Specifications, General

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

## Mechanical Specifications

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

## 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