# 760155069 | Z-048-LA-5L-F12BK/25D



Fiber indoor/outdoor cable, LazrSPEED®, Single Jacket/Single Armor, Low Smoke Zero Halogen (LSZH), 48 fiber, Gel-Free, Stranded Loose Tube, Multimode OM3, Black jacket color, Feet jacket marking

 Corrugated steel tape armor is strong yet flexible, providing additional crush and rodent protection

#### Product Classification

| Regional Availability        | Asia   Australia/New Zealand   EMEA   Latin America   North<br>America |
|------------------------------|--|
| Portfolio                    | CommScope®   |
| Product Type                 | Fiber indoor/outdoor cable   |
| Product Series               | Z-LA   |
| General Specifications       |  |
| Armor Type                   | Corrugated steel   |
| Cable Type                   | Stranded loose tube  |
| Construction Type            | Armored  |
| Subunit Type                 | Gel-free   |
| Filler, quantity             | 1  |
| Jacket Color                 | Black  |
| Jacket Marking               | Feet   |
| Subunit, quantity            | 4  |
| Fibers per Subunit, quantity | 12   |
| Total Fiber Count            | 48   |
| Dimensions                   |  |
| Buffer Tube/Subunit Diameter | 2.5 mm   0.098 in  |
| Diameter Over Jacket         | 13 mm   0.512 in   |

#### Representative Image

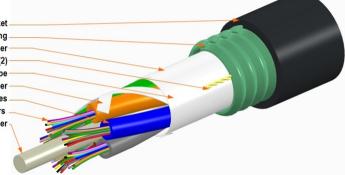
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## 760155069 | Z-048-LA-5L-F12BK/25D

LSZH Outer Jacket Steel Tape Armoring Binder Ripcord (2) Water Swellable Tape Binder 2.5mm Gel-Free Buffer Tubes 250 micron Fibers Dielectric Strength Member



### Mechanical Specifications

| Minimum Bend Radius, loaded       | 195 mm   7.677 in                         |
|-----------------------------------|---|
| Minimum Bend Radius, unloaded     | 130 mm   5.118 in                         |
| Tensile Load, long term, maximum  | 800 N   179.847 lbf                       |
| Tensile Load, short term, maximum | 2700 N   606.984 lbf                      |
| Compression                       | 22 N/mm   125.623 lb/in                   |
| Compression Test Method           | FOTP-41   IEC 60794-1 E3                  |
| Flex                              | 25 cycles                                 |
| Flex Test Method                  | FOTP-104   IEC 60794-1 E6                 |
| Impact                            | 3 N-m   26.552 in lb                      |
| 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                  |
| Vertical Rise, maximum            | 461 m   1,512.467 ft                      |
| Optical Specifications            |   |
| Fiber Type                        | OM3, LazrSPEED® 300   OM3, LazrSPEED® 300 |

#### **Environmental Specifications**

| Installation temperature | -30 °C to +60 °C (-22 °F to +140 °F) |
|--------------------------|--------------------------------------|
| Operating Temperature    | -40 °C to +70 °C (-40 °F to +158 °F) |

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| Storage Temperature           | -40 °C to +75 °C (-40 °F to +167 °F)                                 |
|-------------------------------|--|
| Cable Qualification Standards | ANSI/ICEA S-104-696   EN 187105   Telcordia GR-20   Telcordia GR-409 |
| Environmental Space           | Aerial, lashed   Buried   Low Smoke Zero Halogen (LSZH)              |
| Flame Test Listing            | NEC OFC-ST1 (ETL) and c(ETL)   |
| Flame Test Method             | IEC 60332-3   IEC 60754-2   IEC 61034-2   IEEE 1202   UL 1685        |
| Jacket UV Resistance          | UV stabilized  |
| Water Penetration             | 24 h   |
| Water Penetration Test Method | FOTP-82   IEC 60794-1 F5   |

#### **Environmental Test Specifications**

| Cable Freeze                  | -2 °C   28.4 °F                      |
|-------------------------------|--------------------------------------|
| Cable Freeze Test Method      | FOTP-98   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     | 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              |
|                               |                                      |

#### Packaging and Weights

#### Cable weight

177 kg/km | 118.939 lb/kft

#### Regulatory Compliance/Certifications

| Agency        | Classification   |
|---------------|--|
| CENELEC       | EN 50575 compliant, Declaration of Performance (DoP) available                 |
| ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system |

#### CENELEC

#### Included Products

CS-5L-LT

LazrSPEED® 300 OM3 Bend-Insensitive Multimode Fiber

#### \* Footnotes

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

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#### LazrSPEED® 300 OM3 Bend-Insensitive Multimode Fiber

## LazrSPEED® 300

#### Product Classification

| Portfolio                                     | CommScope®                 |
|---|----------------------------|
| Product Type                                  | Optical fiber              |
| General Specifications                        |                            |
| Cladding Diameter                             | 125 µm                     |
| Cladding Diameter Tolerance                   | ±0.8 µm                    |
| Cladding Non-Circularity, maximum             | 1 %                        |
| Coating Diameter (Colored)                    | 254 µm                     |
| Coating Diameter (Uncolored)                  | 245 µm                     |
| Coating Diameter Tolerance (Colored)          | ±7 μm                      |
| Coating Diameter Tolerance (Uncolored)        | ±10 μm                     |
| Coating/Cladding Concentricity Error, maximum | 12 µm                      |
| Core Diameter                                 | 50 µm                      |
| Core Diameter Tolerance                       | ±2.5 µm                    |
| Core/Clad Offset, maximum                     | 1.5 µm                     |
| Proof Test                                    | 689.476 N/mm²   100000 psi |
|   |                            |

### Mechanical Specifications

| Macrobending, 15 mm Ø mandrel, 2 turns   | 0.20 dB @ 850 nm   0.50 dB @ 1,300 nm |
|--|---------------------------------------|
| Macrobending, 30 mm Ø mandrel, 2 turns   | 0.10 dB @ 850 nm   0.30 dB @ 1,300 nm |
| Macrobending, 75 mm Ø mandrel, 100 turns | 0.50 dB @ 1,300 nm   0.50 dB @ 850 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       | 18                                    |

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# CS-5L-LT

### **Optical Specifications**

| Numerical Aperture                  | 0.2                 |
|-------------------------------------|---------------------|
| Numerical Aperture Tolerance        | ±0.015              |
| Point Defects, maximum              | 0.15 dB             |
| Zero Dispersion Slope, maximum      | 0.105 ps/[km-nm-nm] |
| Zero Dispersion Wavelength, maximum | 1316 nm             |
| Zero Dispersion Wavelength, minimum | 1297 nm             |

### Optical Specifications, Wavelength Specific

| 1 Gbps Ethernet Distance     | 1,020 m @ 850 nm   600 m @ 1,300 nm                  |
|------------------------------|--|
| 10 Gbps Ethernet Distance    | 300 m @ 850 nm                                       |
| Attenuation, maximum         | 1.00 dB/km @ 1,300 nm   3.00 dB/km @ 850 nm          |
| Backscatter Coefficient      | -68.0 dB @ 850 nm   -75.7 dB @ 1,300 nm              |
| Bandwidth, Laser, minimum    | 2,000 MHz-km @ 850 nm   500 MHz-km @ 1,300 nm        |
| Bandwidth, OFL, minimum      | 1,500 MHz-km @ 850 nm   500 MHz-km @ 1,300 nm        |
| Differential Mode Delay      | 0.70 ps/m @ 850 nm   0.88 ps/m @ 1,300 nm            |
| Differential Mode Delay Note | Superior to TIA-492AAAC and IEC 60793-2-10 at 850 nm |
| Index of Refraction          | 1.479 @ 1,300 nm   1.483 @ 850 nm                    |
| Standards Compliance         | TIA-492AAAC (OM3)                                    |

### **Environmental Specifications**

| Heat Aging, maximum                   | 0.20 dB/km @ 85 °C |
|---------------------------------------|--------------------|
| Temperature Dependence, maximum       | 0.1 dB/km          |
| Temperature Humidity Cycling, maximum | 0.2 dB/km          |
| Water Immersion, maximum              | 0.20 dB/km @ 23 °C |

#### Regulatory Compliance/Certifications

| Agency C | 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) |

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up to 95% relative humidity

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