

# 760243335 | C-144-LN-5L-M12BK/20G/HTS/D



Fiber indoor/outdoor cable, LazrSPEED® High Tensile Strength (LSZH) Mini All-Dielectric Single Jacket, 144 fiber, Gel-Filled, Stranded Loose Tube, Multimode OM3, Meters jacket marking, Black jacket color, Dca flame rating. Provides Rodent Resistance

## Product Classification

|                              |                                     |
|------------------------------|-------------------------------------|
| <b>Regional Availability</b> | Asia   Australia/New Zealand   EMEA |
| <b>Portfolio</b>             | CommScope®                          |
| <b>Product Type</b>          | Fiber indoor/outdoor cable          |
| <b>Product Series</b>        | C-LN                                |

## General Specifications

|                                     |  |
|-------------------------------------|--|
| <b>Cable Type</b>                   | Stranded loose tube  |
| <b>Construction Type</b>            | Non-armored  |
| <b>Subunit Type</b>                 | Gel-filled   |
| <b>Filler, quantity</b>             | 0  |
| <b>Jacket Color</b>                 | Black  |
| <b>Jacket Marking</b>               | Meters   |
| <b>Jacket Marking Method</b>        | Inkjet   |
| <b>Jacket Marking Text</b>          | COMMSCOPE GB OPTICAL CABLE 760243335 144X OM3 MM LSZH EN50575 CLASS D [SERIAL NUMBER] [METER MARK] |
| <b>Subunit, quantity</b>            | 12   |
| <b>Fibers per Subunit, quantity</b> | 12   |
| <b>Total Fiber Count</b>            | 144  |

## Dimensions

|                                     |                    |
|-------------------------------------|--------------------|
| <b>Buffer Tube/Subunit Diameter</b> | 2 mm   0.079 in    |
| <b>Diameter Over Jacket</b>         | 16.1 mm   0.634 in |

## Representative Image



## Mechanical Specifications

|  |                                       |
|--|---------------------------------------|
| <b>Minimum Bend Radius, loaded</b>       | 241 mm   9.488 in                     |
| <b>Minimum Bend Radius, unloaded</b>     | 161 mm   6.339 in                     |
| <b>Tensile Load, long term, maximum</b>  | 800 N   179.847 lbf                   |
| <b>Tensile Load, short term, maximum</b> | 2700 N   606.984 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>                            | 10 N-m   88.507 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>            | 363 m   1,190.945 ft                  |

## Optical Specifications

|                   |                     |
|-------------------|---------------------|
| <b>Fiber Type</b> | OM3, LazrSPEED® 300 |
|-------------------|---------------------|

## 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) |

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|   |   |
|---|---|
| <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>                | IEC 60794-1 F5  |

## Environmental Test Specifications

|                                      |                                      |
|--------------------------------------|--------------------------------------|
| <b>Cable Freeze</b>                  | -2 °C   28.4 °F                      |
| <b>Cable Freeze Test Method</b>      | IEC 60794-1 F15                      |
| <b>Drip</b>                          | 70 °C   158 °F                       |
| <b>Drip Test Method</b>              | 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>     | IEC 60794-1 E11                      |
| <b>Temperature Cycle</b>             | -40 °C to +70 °C (-40 °F to +158 °F) |
| <b>Temperature Cycle Test Method</b> | IEC 60794-1 F1                       |

## Packaging and Weights

|                     |                          |
|---------------------|--------------------------|
| <b>Cable weight</b> | 264 kg/km   177.4 lb/kft |
|---------------------|--------------------------|

## Included Products

|          |   |   |
|----------|---|---|
| CS-5L-LT | - | LazrSPEED® 300 OM3 Bend-Insensitive Multimode Fiber |
|----------|---|---|

## \* Footnotes

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

## LazrSPEED® 300 OM3 Bend-Insensitive Multimode Fiber

### LazrSPEED® 300

#### Product Classification

|                     |               |
|---------------------|---------------|
| <b>Portfolio</b>    | CommScope®    |
| <b>Product Type</b> | Optical fiber |

#### General Specifications

|  |  |
|--|--|
| <b>Cladding Diameter</b>                             | 125 µm                                 |
| <b>Cladding Diameter Tolerance</b>                   | ±0.8 µm                                |
| <b>Cladding Non-Circularity, maximum</b>             | 1 %                                    |
| <b>Coating Diameter (Colored)</b>                    | 254 µm                                 |
| <b>Coating Diameter (Uncolored)</b>                  | 245 µm                                 |
| <b>Coating Diameter Tolerance (Colored)</b>          | ±7 µm                                  |
| <b>Coating Diameter Tolerance (Uncolored)</b>        | ±10 µm                                 |
| <b>Coating/Cladding Concentricity Error, maximum</b> | 12 µm                                  |
| <b>Core Diameter</b>                                 | 50 µm                                  |
| <b>Core Diameter Tolerance</b>                       | ±2.5 µm                                |
| <b>Core/Clad Offset, maximum</b>                     | 1.5 µm                                 |
| <b>Proof Test</b>                                    | 689.476 N/mm <sup>2</sup>   100000 psi |

#### Mechanical Specifications

|   |                                       |
|---|---------------------------------------|
| <b>Macrobending, 15 mm Ø mandrel, 2 turns</b>   | 0.20 dB @ 850 nm   0.50 dB @ 1,300 nm |
| <b>Macrobending, 30 mm Ø mandrel, 2 turns</b>   | 0.10 dB @ 850 nm   0.30 dB @ 1,300 nm |
| <b>Macrobending, 75 mm Ø mandrel, 100 turns</b> | 0.50 dB @ 1,300 nm   0.50 dB @ 850 nm |
| <b>Coating Strip Force, maximum</b>             | 8.9 N   2.001 lbf                     |
| <b>Coating Strip Force, minimum</b>             | 1.3 N   0.292 lbf                     |
| <b>Dynamic Fatigue Parameter, minimum</b>       | 18                                    |

# CS-5L-LT

## Optical Specifications

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

## Optical Specifications, Wavelength Specific

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

## Environmental Specifications

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

# CS-5L-LT

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up to 95% relative humidity