

Sag & Tension Tables (NESC: Light) Fiber + Tone Wire Outdoor Drop Cable O-001-DF-HY-F01NS/SP29/1X24AWG

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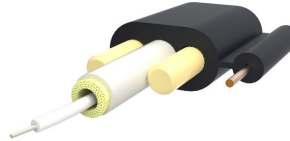
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Loading Conditions:	NESC LIGHT	SI	US
Ice Thickness mm (in):		0.00	(0.0)
Wind Pressure N/m ² (lb/ft ²):		430.92	(9.0)
Temperature °C (°F):		-1.1	(30.0)
Safety Factor N/m (ft*lb):		0.73	(0.54)

Environmental Conditions			
Max. Environmental Load N (lbf):		136	(31)
Max. Environmental Cable Strain (%):		0.51	(0.51)
Maximum Vertical Sag m (ft):		0.43	(1.4)



Design Specifications:		SI	US
Maximum Span m (ft):		91	(298)
Cable Weight kg/km (lb/mf):		43	(29)
Cable Diameter mm (in):		10.0	(0.39)
Cable Height mm (in):		4.6	(0.18)
Install Temp °C (°F):		20	(68.0)

Maximum Allowable Install Load and Strain			
Max. Install. Load N (lbf):		42	(9)
Max. Install. Cable Strain (%):		0.18	(0.18)

Install Location	Install Conditions at 20°C (68°F)					Loaded Conditions at -1°C (30°F)				
	Max Span m (ft)	Sag m (ft)	Install Sag (%)	Tension N (lbf)	Cable Strain (%)	Vertical Sag % of Span (%)	Vertical Sag m (ft)	Horizontal Sag m (ft)	Tension N (lbf)	Cable Strain (%)
 †	77 (253)	0.77 (2.5)	1.00	42 (92)	0.18	0.36%	0.28 (0.9)	2.80 (9.2)	136 (299)	0.51
	60 (197)	0.90 (3.0)	1.50	22 (48)	0.11	0.36%	0.21 (0.7)	2.18 (7.1)	106 (234)	0.40
	45 (148)	0.90 (3.0)	2.00	12 (27)	0.07	0.35%	0.16 (0.5)	1.60 (5.3)	81 (179)	0.30
	30 (98)	0.90 (3.0)	3.00	5 (12)	0.04	0.37%	0.11 (0.4)	1.14 (3.7)	51 (112)	0.19
 ‡	77 (253)	0.77 (2.5)	1.00	42 (92)	0.18	0.36%	0.28 (0.9)	2.80 (9.2)	136 (299)	0.51
	85 (279)	1.28 (4.2)	1.50	31 (68)	0.14	0.39%	0.33 (1.1)	3.41 (11.2)	136 (300)	0.51
	91 (298)	1.82 (6.0)	2.00	25 (55)	0.12	0.42%	0.39 (1.3)	3.92 (12.9)	135 (299)	0.51
	91 (298)	2.73 (9.0)	3.00	16 (36)	0.09	0.47%	0.43 (1.4)	4.35 (14.3)	122 (269)	0.46
 *	77 (253)	0.77 (2.5)	1.00	42 (92)	0.18	0.36%	0.28 (0.9)	2.80 (9.2)	136 (299)	0.51
	85 (279)	1.28 (4.2)	1.50	31 (68)	0.14	0.39%	0.33 (1.1)	3.41 (11.2)	136 (300)	0.51
	91 (298)	1.82 (6.0)	2.00	25 (55)	0.12	0.42%	0.39 (1.3)	3.92 (12.9)	135 (299)	0.51
	105 (344)	3.15 (10.3)	3.00	187 (42)	0.10	0.49%	0.51 (1.7)	5.20 (17.0)	1334 (300)	0.51

Note: Assumptions made regarding Install Locations. Changes to these assumptions may change the Max Spans.

† Street crossing distances with 18.0 ft attachment height and a 3.0 ft maximum vertical sag.

‡ Pedestrian crossing distances with 18.0 ft attachment height and a 9.0 ft maximum vertical sag.

* Max span with no limits imposed on sag.

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Specifications Subject to Change
Revision Date: 2/22/2024

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