

Section 7.4 General Consideration Tables (Needs work to place on one page; two tables could be consolidated)

Table X : Voltage Selection Criteria

Table X: Conductor Material Selection Criteria

Table X: Conductor Insulation Selection Criteria

Representative Specifications: 1000 feet, 16 amperes, 90 degree insulation 5 percent voltage drop

Voltage	CU	AL	Voltage Drop
208	#4	#2	197
240	#4	#2	228
277	#4	#3	263
347	#6	#4	329
480	#6	#4	456

Conductor Insulation Selection Criteria

	PRO	CON
NMWU90		
RW 90	Cannot be used for direct buried	
RWU90	Can be used for direct buried	
UF-B		
THHW	Cheaper, easier to install	Life cycle limits. Less expensive

THHN	Better heat resistance	
UF-B		
USEI75, USEI90		
XHHW	Pulls easily, extra layer, moisture resistant	More expensive? Tree-ing problems reported.

Stranding, shielding, w or w.o ground wires. Example assumes separately pulled

TABLE: To be consolidated with voltage conduit and voltage information

AWG	Diameter (mm)	Allowable Ampacity 75 Deg Cu	ohms/km
#12	2.05232	25	5.20864
#10	2.58826	35	3.276392
#8	3.2639	50	2.060496
#6	4.1148	65	1.295928
#4	5.18922	85	0.81508
#2	6.54304	115	0.512664

Shaded rows identify wiring to splice boxes/poles. Unshaded areas identify the branch circuit tap from the splice box to the terminals of the modular connector that snaps into the LED luminaire driver.

NEC Table 310.15(x), Table 8 Conductor Properties, stranded

310.16 Insulated Conductors with not more than three current carrying conductors.

Neither neutral nor ground are current ca.