

VOLTAGE DROP CALCULATIONS

USM - Luther Bonney Hall
Portland, ME

Circuit 1

Amperage 0.808
Length of Run 158

Voltage Drop **2.80%**

VDC Applied **19.73**

Circuit 2

Amperage 1.95
Length of Run 360

Voltage Drop **15.37%**

VDC Applied **16.71**

Circuit 3

Amperage 2.4
Length of Run 325

Voltage Drop **17.08%**

VDC Applied **16.3**

Circuit 4

Amperage 2.32
Length of Run 354

Voltage Drop **17.98%**

VDC Applied **16.08**

Circuit 5

Amperage 0.714
Length of Run 148

Voltage Drop **2.31%**

VDC Applied **19.85**

Circuit 6

Amperage 1.56
Length of Run 201

Voltage Drop **6.87%**

VDC Applied **18.75**

Circuit 7

Amperage 1.15
Length of Run 187

Voltage Drop **4.71%**

VDC Applied **19.27**

Circuit 8

Amperage 1.086
Length of Run 201

Voltage Drop **4.78%**

VDC Applied **19.25**

Voltage Drop Parameters:
16 VDC = Minimum Power to any Appliance
4.4 VDC = Maximum Permissible Voltage Drop in Wiring System
20.4 VDC = Reduced Battery Potential at End of Life