

# LightSync™ Cumulative Power Distance Worksheet

Due to cable limitations regarding data and power loss over distance, the Cumulative Power Distance is an important consideration in installing a LightSync network. The following worksheet is provided to assist in determining the cumulative power distances for your LightSync network. Be sure to include all LightSync devices (switches, photocells, switch interfaces, dry contact modules, etc.). Do not exceed the cumulative power distance supplied by the panel, Power Supply, Power Supply repeater, or LightSync Hub. The column marked Distance A refers to the distance from the source to the first device or distance between devices. The column marked Distance B refers to the distance from the power source to the individual device. The Cumulative Power Distance is the sum of these values for each device.

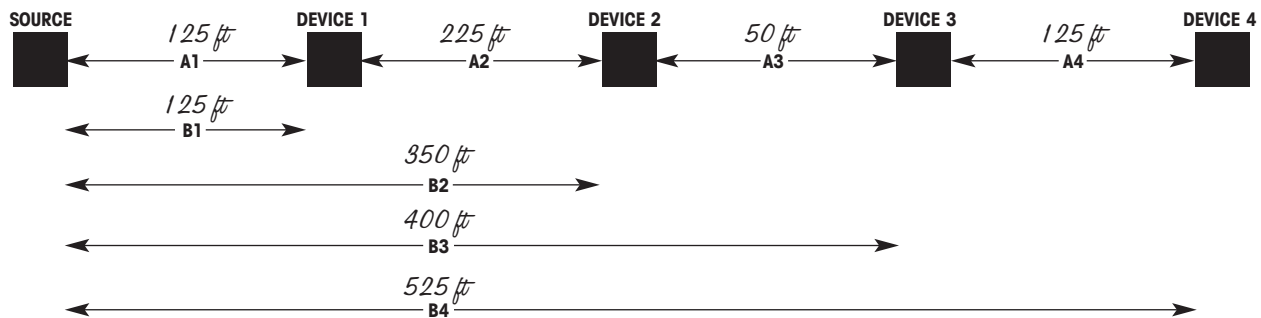
## LightSync Source Power and Data Device Requirements

ILC Power and/or Data Source	Total Data (end to end) Distance	Maximum No. of LightSync Devices Powered per Source	and	Maximum Cumulative Power Distance
Panel	3000 feet	8	and	2000 feet
Power Supply (PS)	N/A	20	and	3000 feet
Power Supply Repeater (PSR)	3000 feet(combined)	20	and	3000 feet
LightSync Hub(HUB)	1500 feet per port	20 total	and	1500 feet per port

NOTE: both requirements must be met

NOTE: A total number of devices or panels without a Power Supply Repeater (PSR) is 32

## LightSync Cumulative Power Distance Example (blank Worksheet found on next page)



## LightSync Cumulative Power Distance Example Worksheet

LightSync Device	Distance A (Power)	Distance B (Power)	Cumulative Distance Total
Device 1 <i>Hallway Switch</i>	Source to Device 1 (A1) <i>125 ft</i>	Source to Device 1 (B1) <i>125 ft</i>	Source to Device 1 <i>125 ft</i>
Device 2 <i>Office Switch</i>	Device 1 to Device 2 (A2) <i>225 ft</i>	Sum of 1 and 2 "A" (B2) <i>350 ft</i>	Add "B" to above total <i>475 ft</i>
Device 3 <i>Reception Switch</i>	Device 2 to Device 3 (A3) <i>50 ft</i>	Sum of 1 - 3 "A" (B3) <i>400 ft</i>	Add "B" to above total <i>875 ft</i>
Device 4 <i>Conference Switch</i>	Device 3 to Device 4 (A4) <i>125 ft</i>	Sum of 1 - 4 "A" (B4) <i>525 ft</i>	Add "B" to above total <i>1400 ft</i>

**Example:** In a LightSync network where a switch (Device 1) is located 125 feet from a controller (source) a second switch (Device 2) is located 225 feet from the first, a third is located 50 feet from the second, and a fourth is located 125 feet from that. The Cumulative Distance Total for all four switches would be 125 + 475 + 875 = 1400 cumulative feet.

# LightSync™ Cumulative Power Distance Worksheet

Use this worksheet to assist in determining the Cumulative Power Distance for your installation. Make additional copies as necessary to accommodate your layout. See previous page for an example worksheet.

## LightSync Cumulative Power Distance Worksheet

LightSync Device	Distance A (Power)	Distance B (Power)	Cumulative Distance Total
Device 1	Source to Device 1 (A1)	Source to Device 1 (B1)	Source to Device 1
Device 2	Device 1 to Device 2 (A2)	Sum of 1 and 2 "A" (B2)	Add "B" to above total
Device 3	Device 2 to Device 3 (A3)	Sum of 1 - 3 "A" (B3)	Add "B" to above total
Device 4	Device 3 to Device 4 (A4)	Sum of 1 - 4 "A" (B4)	Add "B" to above total
Device 5	Device 4 to Device 5 (A5)	Sum of 1 - 5 "A" (B5)	Add "B" to above total
Device 6	Device 5 to Device 6 (A6)	Sum of 1 - 6 "A" (B6)	Add "B" to above total
Device 7	Device 6 to Device 7 (A7)	Sum of 1 - 7 "A" (B7)	Add "B" to above total
Device 8	Device 7 to Device 8 (A8)	Sum of 1 - 8 "A" (B8)	Add "B" to above total
Device 9	Device 8 to Device 9 (A9)	Sum of 1 - 9 "A" (B9)	Add "B" to above total
Device 10	Device 9 to Device 10 (A10)	Sum of 1 - 10 "A" (B10)	Add "B" to above total