STARTEK
ARCHITECTURAL LIGHTING

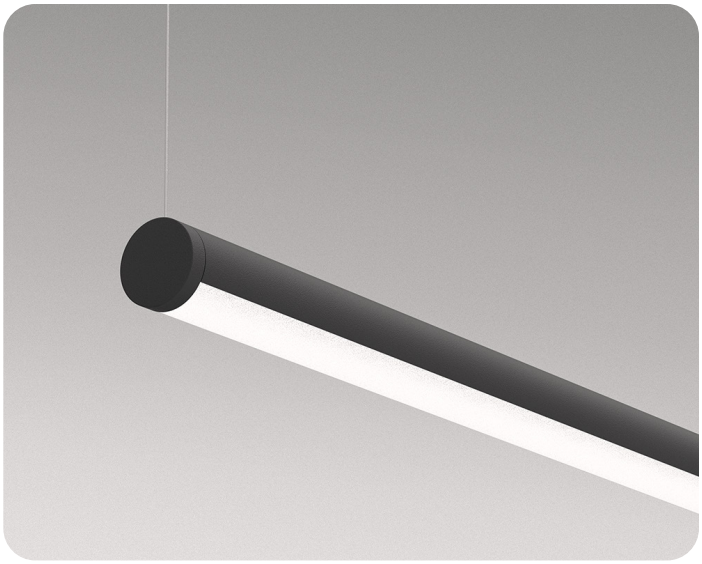
Rep/Agent		Type	
Project			
Order No.		Date	

Micro Optimo Suspended
Direct

Key Features

- Extruded aluminum single piece housing
- Soft diffuse direct lighting
- Toolless height adjustment at the ceiling
- 0-10V dimming to 1% is standard
- 120-277V for power enclosure
- Three power choices of Hyper Drive remote power system

5 Year Warranty | BABA Compliant | BAA Compliant | Intertek | RoHS Compliant



Specifications

Construction

- Continuous extruded 6063 T5 aluminum
- Mechanically attached end caps with no exposed fasteners enhance architectural aesthetic and prevent light leak.

Dimensions

- Nominal dimensions: 1.5" diameter

Finish

- Powder coated
- Colors: White, Black, Silver or Premium Finishes
- End Caps: Color-matched to housing
- Custom colors available. Consult factory for more information.

Luminaire Length

- Standard individual lengths: 2', 4', 6' or 8'

Source

- CCT options: 2700K, 3000K, 3500K, 4000K, or 5000K
- All within 3 MacAdam ellipses
- 90 CRI (R9 50 min) available

Lensing

- 0.060" thick impact resistant acrylic lens
- Soft diffuse direct lighting

Operating Temperature

- -40°C to 50°C (-40°F to 122°F)

Lithium Ion Battery

- Provides up to 780 lm (6W) or up to 1300 lm (10W) for 90 minutes.
- Certifications: UL924 listed, Class 2 compliant, and Title 20 CEC (California Energy Commission) compliant

Dimming Driver

- (0-10V) dimming driver with programmable current for configurable fixture lumen outputs (UL listed, Class P)
- Overcurrent protection: 2.5KV
- Power factor: >0.90

Certifications

- Build America Buy America compliant
- Buy American Act compliant
- Intertek cETLus Listed
- RoHS (Restriction of Hazardous Substances)
- Suitable for dry and damp locations

Packaging

- Sustainably manufactured outside cardboard box and biodegradable, protective poly-foam luminaire inserts.

Warranty

- 5-year limited warranty.

The information in this document is subject to change without notice.
Contact STARTEK for most up to date product details.

Ordering Logic

MOPTD-4-750-SD-35K-80-PW-CSW-1C-HD01

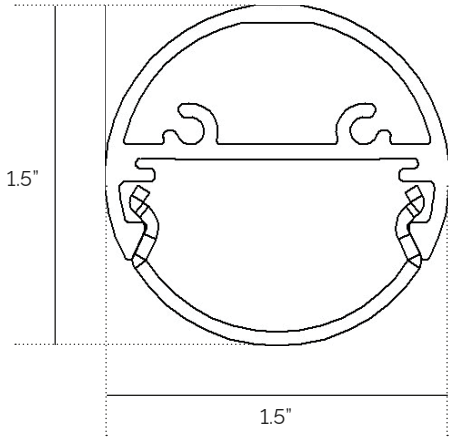
Series	Length	Direct Output[1]	Direct Distribution	CCT	CRI
MOPTD			SD		
	XX - Run Length	**250 -** 250 LPF	**SD -** SatinIce Diffuse	**27K -** 2700K	**80 -** 80 CRI
	SXX - Symmetrical Run Length	**500 -** 500 LPF		**30K -** 3000K	**90 -** 90 CRI (R9 50 min)
		750 - 750 LPF		**35K -** 3500K	
		1000 - 1000 LPF		**40K -** 4000K	
		XXX - Custom LPF		**50K -** 5000K	

Finish[2]	Mounting		Remote Option[4, 5]	Hyper Drive Circuit[6, 7]
Standard Powder Coat	**Powered Canopy[3]**	**Canopy Surface[4]**	**EX -** EM Battery Designated Fixture	**HDXX -** Hyper Drive Circuit
PW - White	**PCW -** Powered Canopy White	**CSW -** Canopy Surface White		
PB - Black	**PCB -** Powered Canopy Black	**CSB -** Canopy Surface Black		
PS - Silver	**Canopy Recessed[4]**	**Stem w/ Canopy Kits[4]**		
Premium	**CRW -** Canopy Recessed White	**STEMWXX -** XX" White Stem		
RALXXXX - Powder Coat Gloss Finish	**CRB -** Canopy Recessed Black	**STEMBXX -** XX" Black Stem		
PSFX - Premium Stock Finish	**Canopy T-Grid[4]**			
Custom Powder Coat	**CTW -** Canopy T-Grid White			
PO - Powder Other	**CTB -** Canopy T-Grid Black			

Ordering Notes

1. 200 LPF min. output / 1000 LPF max. output.
2. See page 5 for standard options.
3. 120-277V driver included. 50W max. dual driver required.
4. Must be ordered with Hyper Drive Remote Driver.
5. Specify quantity in 'X'. (ex: 3 batteries = 'E3')
6. Not required with the Powered Canopy mounting.
7. See pages 3-4 for more information.

Dimensions



The information in this document is subject to change without notice.
Contact STARTEK for most up to date product details.

Hyper Drive Remote Power System

Ordering Logic

HYPD-L8-NB-PW-U-DTZ-HD01

Series	Size & Quantity[1, 2, 3]	Optional Emergency Battery[4, 5]	Finish	Voltage
HYPD				U
	SX - 190W Small (2 max.)	**NB -** No EM Battery	**Standard Powder Coat**	**U -** 120-277V
	MX - 300W Medium (4 max.)	**#EMB6 -** 6W EM Battery (Provided by IOTA/Bodine)	**PW -** White	
	LX - 600W Large (8 max.)	**#EMB10 -** 10W EM Battery (Provided by IOTA/Bodine)	**PB -** Black	
		#FCEMB10 - 10W EM Battery (Factory Choice)	**Premium**	
			RALXXXX - Powder Coat Gloss Finish	

Options		Hyper Drive Circuit
Specialty Drivers[6, 7]	**Sensors**	**HDXX -** Hyper Drive Circuit
DT1 - eldoLED EcoDrive Dim to 1% (0-10V)	Consult factory	
DTZ - eldoLED SoloDrive Dim to 0.1% (0-10V)	**Others**	
PSRD - Philips Sensor Ready (DALI) Driver	**CP -** Chicago Plenum (CCEA)	
LDE1 - Lutron Hi-Lume EcoSystem LED Driver w/ Soft-on, Fade-to-Black	**RTS -** Remote Test Switch for Battery	
TW-A - Tunable White, 0-10V		
TW-EL - eldoLED DUALdrive Tunable White (DALI)		

Ordering Notes

1. Replace 'X' with driver quantity.
2. One driver is required per direct only fixture (8' maximum length).
3. Consult factory for custom configurations and drivers not listed.
4. Replace '#' with battery quantity.
5. Each emergency battery reduces the driver quantity of the Hyper Drive.
6. Standard driver is 0-10V, dim to 1% output current.
7. Consult factory for additional driver options.

Limitations

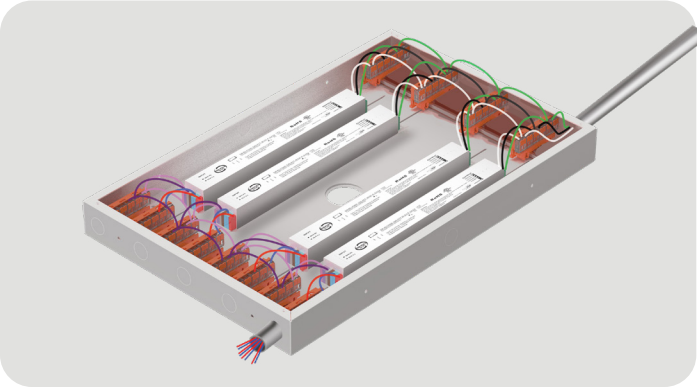
Reference chart for recommended maximum lengths of low voltage cable ran from Hyper Drive to fixture.

Wire Gauge (AWG)	18G	35'
	16G	60'
	14G	100'
	12G	150'

Configurations

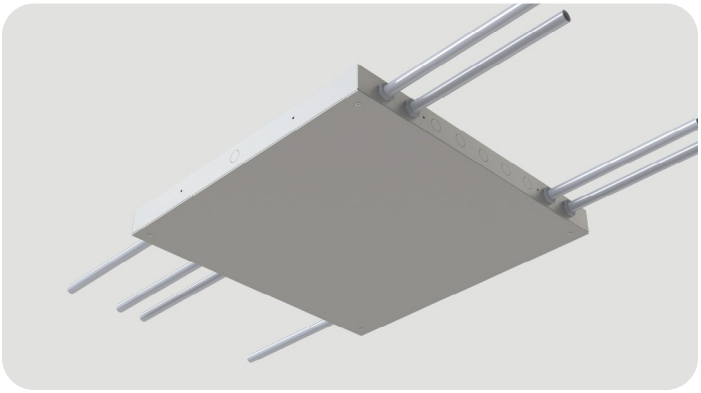
M4 Configuration *(Shown without front cover)*

Each driver is provided with a terminal block on both input and output side for ease of wiring and installation.



L8 Configuration *(Shown with front cover)*

Each driver is provided with a terminal block on both input and output side for ease of wiring and installation.



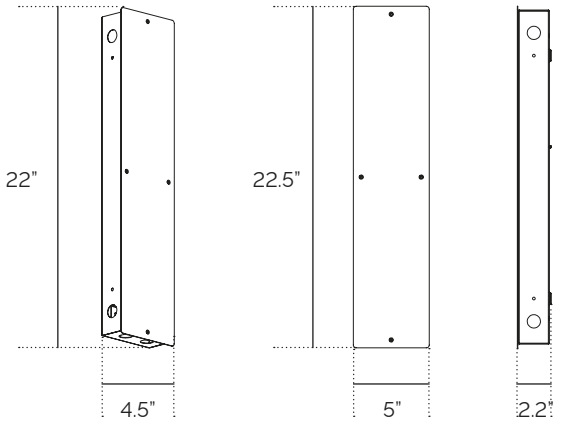
The information in this document is subject to change without notice.
Contact STARTEK for most up to date product details.

Hyper Drive Remote Power System

SX (Small Hyper Drive Remote Canopy)

190W / 2 Drivers Max.

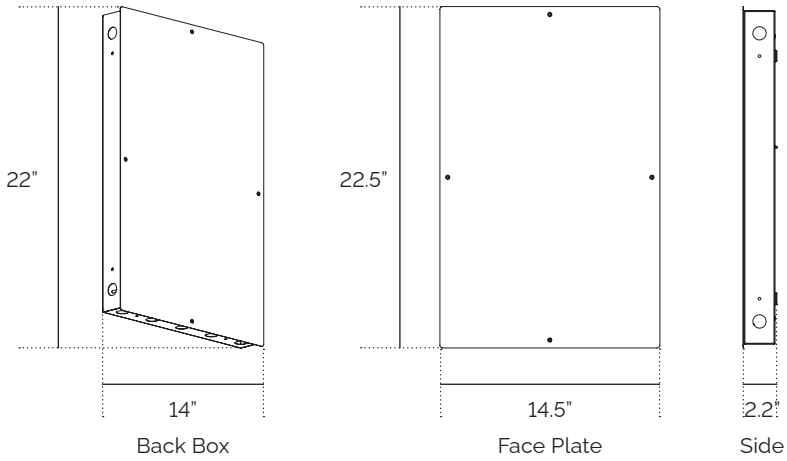
Driver Form Factor	Linear
Input Rating	120-277V
Outputs	Up to 2 (190W max)
Max. Remote Distance	Up to 150' (45m)
Knockouts	0.5" (x6)
Battery	Available



MX (Medium Hyper Drive Remote Canopy)

300W / 4 Drivers Max.

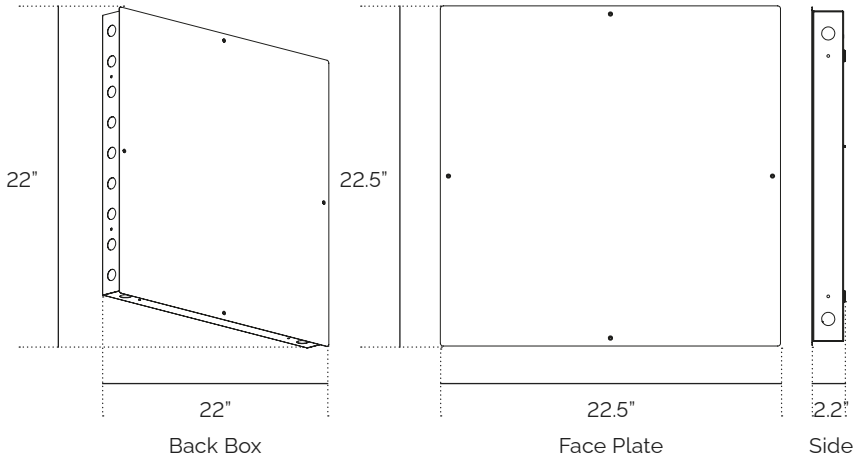
Driver Form Factor	Linear
Input Rating	120-277V
Outputs	Up to 4 (300W max)
Max. Remote Distance	Up to 150' (45m)
Knockouts	0.5" (x12)
Battery	Available



LX (Large Hyper Drive Remote Canopy)

600W / 8 Drivers Max.

Driver Form Factor	Linear
Input Rating	120-277V
Outputs	Up to 8 (600W max)
Max. Remote Distance	Up to 150' (45m)
Knockouts	0.5" (x20)
Battery	Available



The information in this document is subject to change without notice.
Contact STARTEK for most up to date product details.

Lumen Packages

Length	Lumens	Input Wattage	LPW
4'	4000	38	104
8'	8000	74	107

NOTE: Based on 3500K CCT. Other CCT available.

Finishes

Standard



PW: White



PB: Black



PS: Silver

Premium Stock



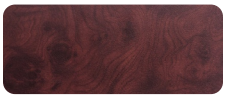
PSF001: Wood 1



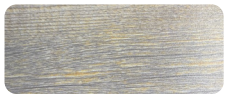
PSF002: Wood 2



PSF003: Wood 3



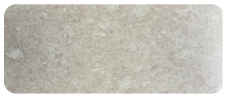
PSF004: Wood 4



PSF005: Wood 5



PSF006: Wood 6



PSF007: Stone 1



PSF008: Stone 2

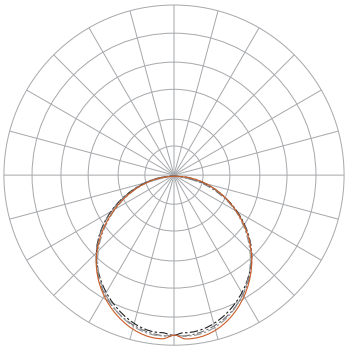


PSF009: Stone 3

NOTE: A minimal impact to lead times will apply to products specified with Premium Stock Finishes (PSF). It is not to be assumed that these finishes are stocked in our warehouse, but rather, are readily available to us for your project.

All other custom finishes (PO) will incur a set up fee and will add an extended lead time to your project.

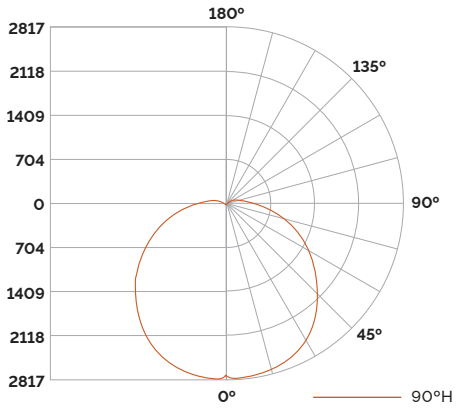
Distribution



Direct: SatinIce Diffuse (SD)

Performance

MOPTD-8-1000-SD-35K-80



Luminance Data (cd/sq.m)

Angles	Avg. 0°	Avg. 45°	Avg. 90°
45°	23513	20330	20211
55°	21490	17715	17507
65°	18836	15107	14655
75°	15786	12718	12257
85°	12053	11247	10739

Candela Table

Vertical Angle	Horizontal Angle				
	0	22.5	45	67.5	90
0°	2765	2765	2765	2765	2765
5°	2702	2724	2749	2792	2814
10°	2661	2687	2726	2772	2793
15°	2581	2612	2666	2720	2742
20°	2482	2499	2566	2632	2665
25°	2366	2386	2436	2519	2557
30°	2210	2236	2306	2387	2428
35°	2033	2060	2155	2227	2277
40°	1830	1865	1969	2046	2104
45°	1618	1657	1775	1850	1914
50°	1417	1440	1574	1648	1711
55°	1203	1240	1371	1454	1505
60°	997	1036	1176	1256	1291
65°	780	833	983	1063	1093
70°	586	656	802	888	909
75°	404	492	647	731	747
80°	236	347	512	595	608
85°	109	232	394	476	488
90°	11	147	300	375	308

Power

Direct LPF	Total Lumens	Satin Diffuse (SD)	
		LPW	W/ft.
300	2945	107	4
500	4207	107	5
750	6310	107	7
1000	8416	107	10

NOTE: Based on 8' lengths at 35K CCT and 80 CRI modules. All wattage values are rounded up. Delivered lumens may vary +/- 5%. Actual wattage may vary +/- 5%.

Wattage Multiplier

CRI	CCT	4' Length	8' Length
80 CRI	3000K	1.11	1.05
	3500K	1.05	1.00
	4000K	1.03	0.98
	5000K	1.02	0.97
90 CRI	3000K	1.17	1.11
	3500K	1.11	1.05
	4000K	1.08	1.03
	5000K	1.07	1.02

Multiplier How-To

To determine CRI/CCT configuration wattage:
Choose wattage from Power matrix for desired optic and lumen output for 8' fixture length.

Wattage x Multiplier = New Configuration Wattage

Row Configurations

XX (Run Length)

The standard construction of run lengths follows the logic of the table below. Consult factory for additional information. Run lengths always start with the longest fixture and receives the power feed.

NOTE: Fixtures in continuous runs are available in 6" increments. Consult factory for smaller increments.

Total Length (Feet)	# of Sections						
	2	3	4	5	6	7	8
2	1						
3		1					
4			1				
5				1			
6					1		
7						1	
8							1
9			1	1			
10			1		1		
11		1					1
12			1				1
13				1			1
14					1		1
15						1	1
16							2
17			1	1			1
18			1		1		1
19		1					2
20			1				2
21				1			2
22					1		2
23						1	2
24							3
25			1	1			2
26			1		1		2
27		1					3
28			1				3
29				1			3
30					1		3
31						1	3
32							4
33			1	1			3
34			1		1		3
35		1					4
36			1				4
37				1			4
38					1		4
39						1	4
40							5

SXX (Symmetric Run)

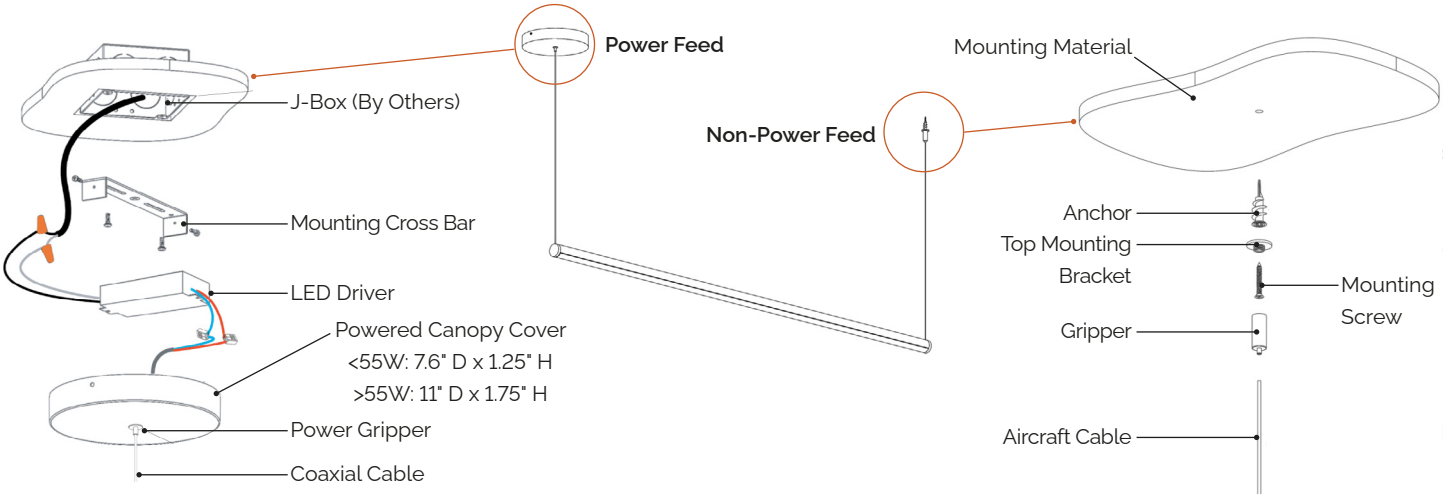
The construction of SXX (y') is to build with equal length fixtures. The xx indicates the run length. The y' indicates the fixture length used to create the run. Please indicate this on your P.O. when placing your order.

S12' (2')	2'	2'	2'	2'	2'	2'
S12' (3')	3'		3'		3'	
S12' (4')	4'		4'		4'	
S12' (6')	6'			6'		

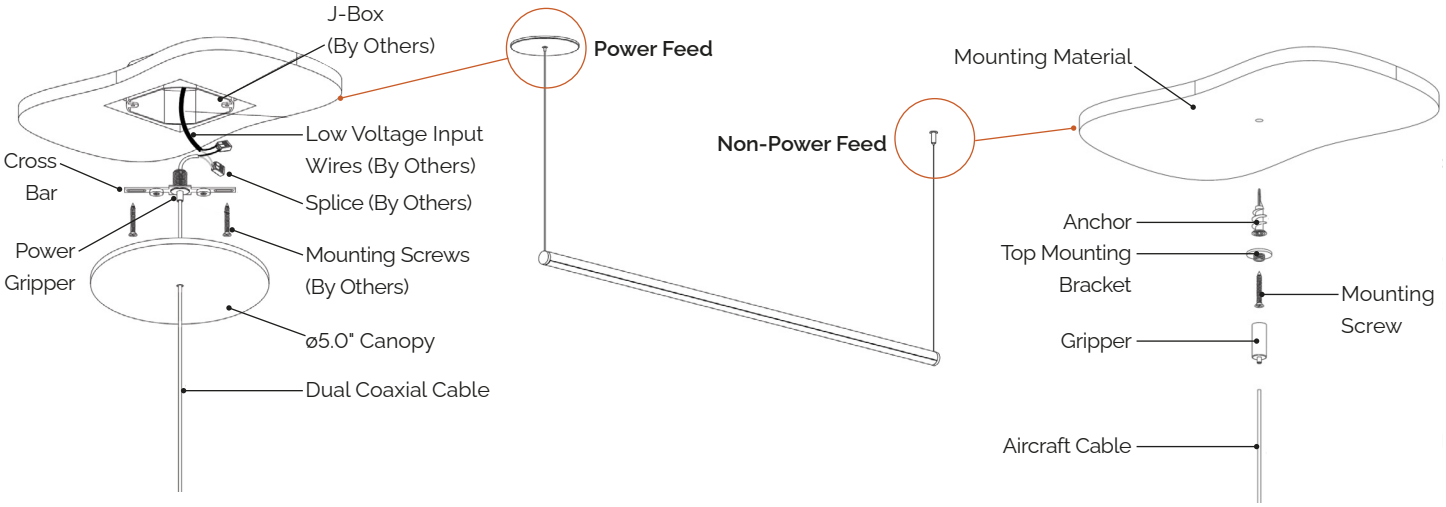
Mounting

2' - 6' Fixtures require one (1) Non-Feed Mount. Fixtures larger than 6' require two (2) Non-Feed Mount.

PCX (Powered Canopy with Included Driver)



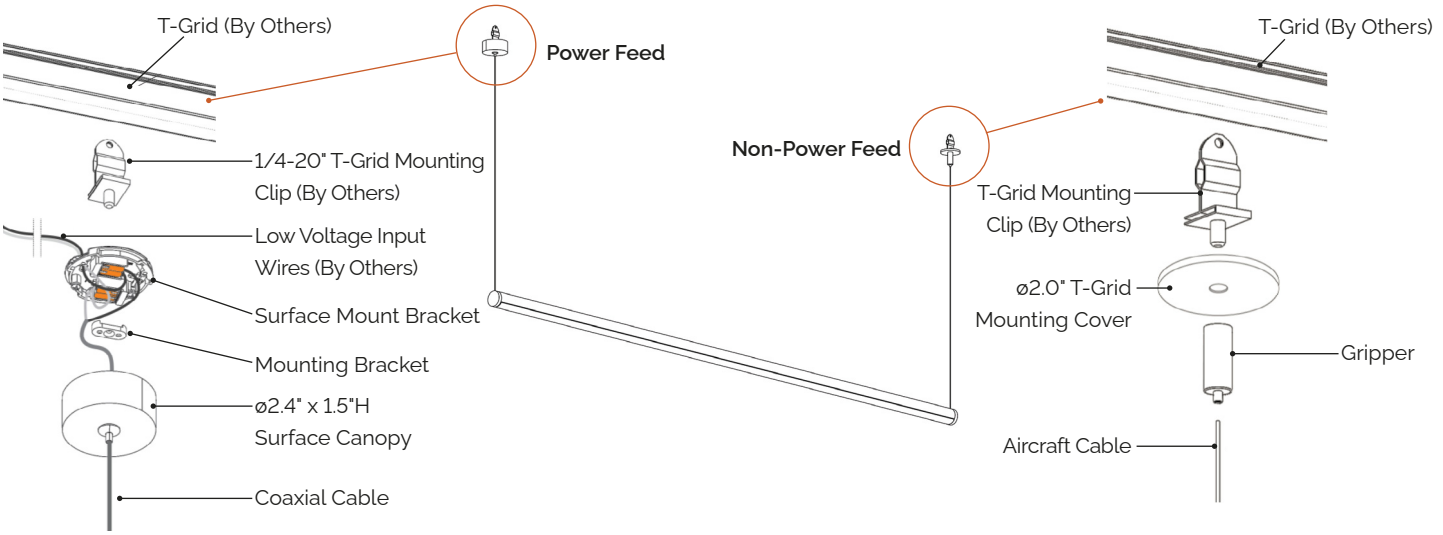
CRX (Canopy Recessed) Requires Hyper Drive



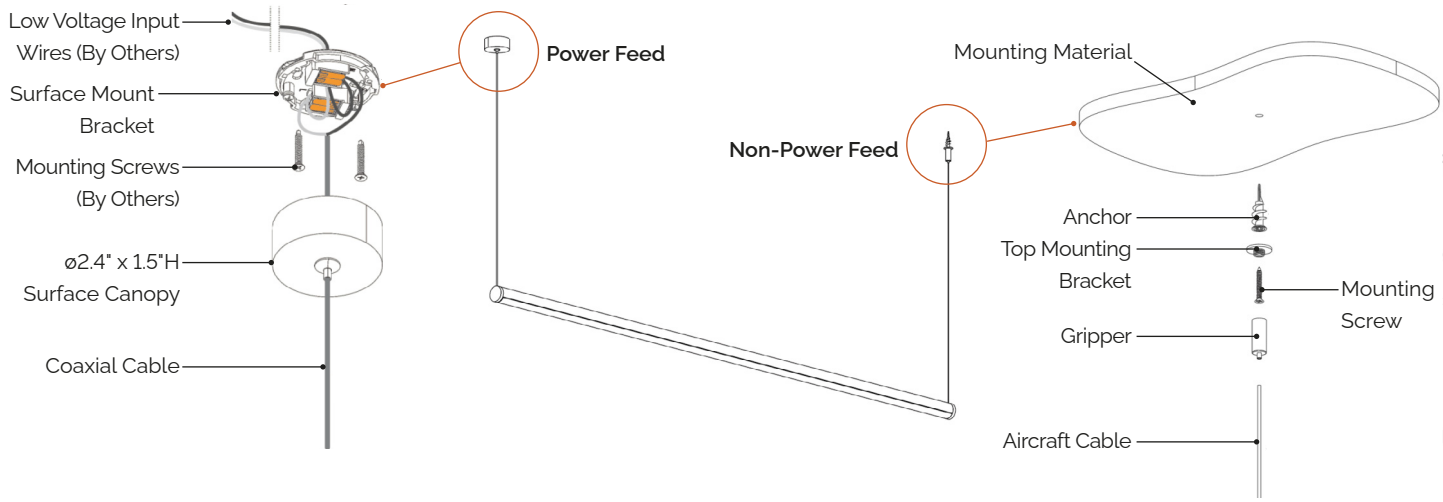
Mounting

2' - 6' Fixtures require one (1) Non-Feed Mount. Fixtures larger than 6' require two (2) Non-Feed Mount.

CTX (Canopy T-Grid) Requires Hyper Drive



CSX (Canopy Surface) Requires Hyper Drive



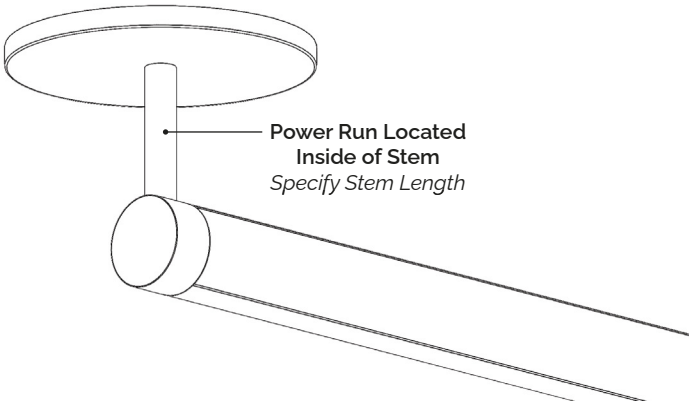
Mounting

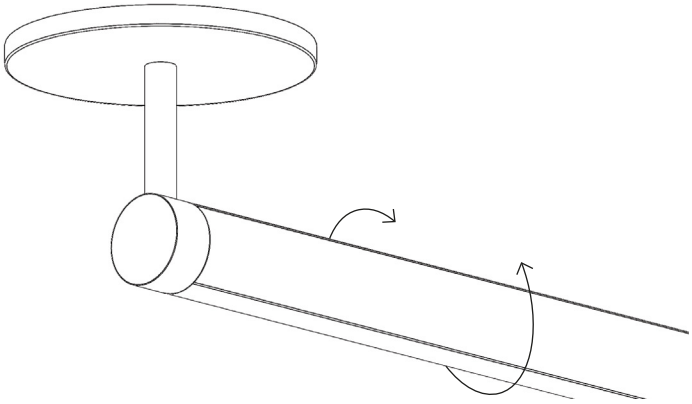
STEMXX (Stem Mount) & RSTEMXX (Rotational Stem Mount with Canopy)

Requires Hyper Drive

Please specify stem length when ordering. See "Stem Lengths" table for available options.

Stem Length Specify stem length in 0.75" shorter when measured from ceiling to fixture.	
STEMXX	Ceiling to Fixture
6"	5.25"
8"	7.25"
9"	8.25"
12"	11.25"
15"	14.25"
18"	17.25"
21"	20.25"
24"	23.25"
27"	26.25"
30"	29.25"
36"	35.25"
42"	41.25"
48"	47.25"
54"	53.25"
60"	59.25"
66"	65.25"
72"	71.25"
78"	77.25"
84"	83.25"
90"	89.25"
96"	95.25"





Submit With Order

Bill of Materials Guide

How to use: Fill out the worksheet to specify your requirements for your configurations.
Be sure to call out battery and sensor locations.

Refer to the run chart for standard run configurations on linear lengths. Consult factory for custom configurations.
Use the order guide to create your BOM for you configuration.

Submit this worksheet along with your order.

Order Guide

Qty.	Type

Configuration

NOTE: Low voltage power transfer wire between fixture and Hyper Drive Remote Power System provided by others.

Example

Qty.	Type
3	MOPTD-8-750-SD-35K-80-PW-CSW-1C-HD01
2	MOPTD-6-750-SD-35K-80-PW-CSW-1C-HD01
1	MOPTD-10-750-SD-35K-80-PW-CSW-1C-HD01
1	MOPTD-10-750-SD-35K-80-PW-CSW-1C-HD02
1	MOPTD-2-750-SD-35K-80-PW-CSW-1C-HD02
1	MOPTD-6-750-SD-35K-80-PW-CSW-1C-E1-HD02
1	HYPD-L7-NB-PW-U-DTZ-HD01
1	HYPD-L4-1EMB6-PW-U-DTZ-HD02

Example Configuration

