

HP-CDT

The High Power Compact Diffused Tube line light is one of the best kept secrets in line scan. It is a low profile, wide body version of Metaphase's diffused tube light with an aperture designed for line scan applications. Our High-Power version boasts brightness three times greater than the standard power Compact Diffused Tube Line Light. Its diffused and multi-directional light output makes this light ideal for inspecting highly specular applications. The CDT allows you to see beyond clear plastic and images the product with minimal glare and feedback from the plastic wrap. With its highly diffused light output you can image metallic materials and curved items with minimal glare or hot spotting.



HP-CDT (Wide Body)

FEATURES

- Compact design and aperture for line scan
- Diffused and multi-directional light output for highly specular applications
- Lengths range from 2 inches to 85 inches
- High Uniformity using Metaphase's unique diffuser technology
- Standard configurations are built with an In-Line Dimmer for manual intensity control
- Remote Intensity control option is available (ILZ)

WAVELENGTHS

Order ID	Description / nanometers
W	White (6000K), Nominal
R	Red / 630nm
G	Green / 530nm
B	Blue / 470nm
IR850 (or IRN)	Infrared / 850nm
IR880 (or IRL)	Infrared / 880nm
IR940	Infrared / 940nm
UV365 (or UVS)	Ultraviolet Short / 365nm
UV395 (or UVL)	Ultraviolet Long / 395nm
RGB	Red-Green-Blue

GENERAL SPECIFICATIONS

Power Source:	24VDC ±5%
Cable (Standard):	10-foot cable with flying leads
Housing:	Black Anodized Aluminum
Ambient Temp:	-20°C to 40°C
Lifetime Expectancy:	75,000 hours (except UV)
Illuminance (white):	170K Lux, minimal

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High Power Compact Diffused Tube Line Lights										
All models: Overall W=5.42", Camera Slot W=0.2"				Cable(s)			*Typical Current (Amps) @24VDC			
MODEL	Overall Length Inches / cm	Camera Slot Length Inches / cm	Weight lbs/Kg	Quantity	Length	AWG/ Conductors	Visible (White, Red, Green, Blue)	IR	UVS	UVL
HP-CDT106	2.72 / 69.2	2.0 / 5.080	1.1 / .45	1	10ft	24/4	0.5A max.			
HP-CDT206	5.72 / 14.54	5.0 / 12.70	2.3 / 1.1				1.2A max.			
HP-CDT306	10.72 / 27.24	10.0 / 25.40	4.4 / 2.0				2.0A max.			
HP-CDT406	15.72 / 39.94	15.0 / 38.10	6.4 / 2.9				2.7A max.			
HP-CDT506	20.72 / 52.64	20.0 / 50.80	8.7 / 3.9				3.5A max.			
HP-CDT606	25.72 / 65.34	25.0 / 63.50	10.8 / 4.9				4.5A max.			
HP-CDT706	30.72 / 78.04	30.0 / 76.20	12.9 / 5.8			18/4	5.4A max.			
HP-CDT806	35.72 / 90.74	35.0 / 88.90	15.4 / 7.0				6.3A max.			
HP-CDT906	40.72 / 103.4	40.0 / 101.6	17.9 / 8.1				7.0A max.			
HP-CDT1006	45.72 / 116.1	45.0 / 114.3	20.1 / 9.1				7.8A max.			
HP-CDT1106	50.72 / 128.8	50.0 / 127.0								
HP-CDT1206	55.72 / 141.5	55.0 / 139.7								
HP-CDT1306	60.72 / 154.2	60.0 / 152.4								
HP-CDT1406	65.72 / 166.9	65.0 / 165.1					2	20ft		
HP-CDT1506	70.72 / 179.6	70.0 / 177.8								
HP-CDT1606	75.72 / 192.3	75.0 / 190.5								
HP-CDT1706	80.72 / 205.0	80.0 / 203.2								
HP-CDT1806	85.72 / 217.7	85.0 / 215.9								

*Custom sizes and configurations are available

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Wiring (from attached ILD)	
Wire Color	Function
RED	+24VDC
WHITE	+24VDC
GREEN	GROUND (24 RTN)
BLACK	GROUND (24 RTN)

Wiring/Connections (from attached ILZ)	
Wire Color	Function
RED	+24VDC
WHITE	+24VDC
GREEN	GROUND (24 RTN)
BLACK	GROUND (24 RTN)
+IN (Terminal)	0-10VDC Intensity Control
GND (Terminal)	SIGNAL GROUND

M12 (from attached ILD)	
Pin #	Function
1	+24VDC
2	+24VDC
3	GROUND (24V RTN)
4	GROUND (24V RTN)
5	No Connection
The M12 connector option is not recommended for lights rated more than 4 amps	

RGB Wiring (from attached ILD3)	
Wire Color	Function
RED	+24VDC
WHITE	+24VDC
GREEN	GROUND (24 RTN)
BLACK	GROUND (24 RTN)

RGB Wiring/Connections (from attached ILZ3)	
Wire Color	Function
RED	+24VDC
WHITE	+24VDC
GREEN	GROUND (24 RTN)
BLACK	GROUND (24 RTN)
RED +IN (Terminal)	RED 0-10VDC Intensity Control
GND (Terminal)	SIGNAL GROUND
GREEN +IN (Terminal)	GREEN 0-10VDC Intensity Control
GND (Terminal)	SIGNAL GROUND
BLUE +IN (Terminal)	BLUE 0-10VDC Intensity Control
GND (Terminal)	SIGNAL GROUND

Note: The 0-10VDC Intensity Control input can accept voltages from 0-24VDC where the light will operate at full intensity in the 10-24VDC range. The light is proportionally dimmer for any Intensity Control voltage less than 10VDC and the light is OFF at approximately 0V or not connected (floating).

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MODEL NUMBER KEY							
MODEL	SIZE	-	COLOR/WAVELENGTH	-	OPTION 1	-	OPTION 2
HP-CDT	XXX	-	XXXXX	-	XXX	-	XXX-XXX
HP-CDT	106 (2")		W (White 6000K, Nominal)		24 (+24VDC) (standard)		T (M12 quick disconnect) ILZ (Remote 0-10V Intensity Control) Note: Standard models have an attached ILD with a potentiometer for manual Intensity control. The ILZ option removes the pot and adds two terminals to the box, 0-10V IN and Signal Ground for remote intensity control.
	206 (5")		R (Red 630nm)				
	306 (10")		G (Green 530nm)				
	406 (15")		B (Blue 470nm)				
	506 (20")		IR850 (or IRN) (Infrared 850nm)		U (ULC-2 interface) KEY (Keyence Controller)		
	606 (25")		IR880 (or IRL) (Infrared 880nm)				
	706 (30")		IR940 (Infrared 940nm)				
	806 (35")		UV365 (or UVS) (UV Short 365nm)				
	906 (40")		UV395 (or UVL) (UV Long 395nm)				
	1006 (45")					ILZ3 (Remote 0-10V Intensity Control) Note: Standard RGB models have an attached ILD3 with 3 potentiometers for manual Intensity control. The ILZ3 option removes the pots and adds six terminals to the box, 0-10V IN for R, G and B and Signal Grounds for independent remote intensity control.	
	1106 (50")						
	1206 (55")		RGB (Red-Green-Blue)				
	1306 (60")						
	1406 (65")						
	1506 (70")						
	1606 (75")						
1706 (80")							
1806 (85")							
					XXX Customizable per order (All Models)		

Contact Metaphase Technologies or your local representative for options such as custom diffusers, lenses, polarizers, IP-rated enclosures for harsh environments, higher intensity, custom wavelengths, higher uniformity, etc. Not all options are available for all lights.

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Sample Model Number: HP-CDT706-W-24

REVISIONS		
REV.	DESCRIPTION	DATE
A	INITIAL RELEASE	11/25/2013
B	CHANGED SCREW HOLES FROM THRU TO BLIND - REMOVED PREVIOUS SET SCREWS AND SILICONE.	5/24/2016
C	CABLE SPEC UPDATE	11/10/2017
D	ADDED LD BOX	4/26/2018

THIS LIGHT IS A HIGH PERFORMANCE VERSION OF THE STANDARD CDT706 30" LIGHT. THIS LIGHT FEATURES ADDED HEATSINKS FOR IMPROVED CONTROL OF THE EXTRA HEAT AND POWER.

Metaphase Technologies, Inc. 211 Sinclair Road, Suite 100, Bristol, PA. 19007 215-639-8699 Fax 215-639-0977			
QUANTITY: Per order	TOLERANCE/FINISH UNLESS OTHERWISE SPECIFIED	THIS DOCUMENT IS THE PROPERTY OF METAPHASE TECHNOLOGIES, INC. WHOM MAY LOAN IT. SUBJECT TO RETURN UPON DEMAND. IT INCLUDES CONFIDENTIAL & PROPRIETARY INFORMATION WHICH MAY NOT BE DISCLOSED TO ANY THIRD PARTY, AND/OR USED FOR ANY PURPOSE CONTRARY TO ITS INTENDED USE, WITHOUT THE EXPRESSED PRIOR WRITTEN CONSENT OF METAPHASE TECHNOLOGIES, INC.	
MATERIAL: Per BOM	X .X .XX .XXX (R3.2UM)		
FINISH: Black Anodized	[±.76] [±.03] [±.010] [±.13] [±.005] ANGLES ±1°		
TREATMENT: N/A		TITLE: Top Assy.; HP-CDT706 -30" Light	USED ON: Per customer
Approval Signature	Date	SIZE: B	DRAWING NUMBER: HP-CDT706-1
		SCALE: 1:5	REV: D SHEET 1 OF 1

SEE SHEET 2 FOR EXPLODED VIEW AND BOM.

COMPLIANCE



CONTACT US

Contact Metaphase Technologies at **215-639-8699** or your local representative for additional details, options and customizations.