Project	Catalog #	Туре	
Prepared by	Notes	Date	



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Top Product Features

- · 4" install-from-below retrofit/remodel or mounting frames for new construction
- · All HCD LED Fixture Kits accommodate any size, shape, or distribution HCD reflector
- Factory preset or Field-Selectable Lumens: 500 to 5000 lms (nominal)
- Factory preset or 5-color Field-Selectable CCT: 2700K, 3000K, 3500K, 4000K, 5000K; 90 CRI
- Distributions: Precision-formed round (●) reflectors:
 - Medium (●)
 - Wide (●)
 - Narrow (● match HC Series)
- · Field-installed wall wash distribution lens kit available
- · Finishes: Specular, Haze (Semi-Specular), Matte White (paintable), and Matte Black reflectors
- Dimming: 0-10V down to 1% (dim-to-off with WaveLinx) in UNV 120-277V; 347V (Canada)
- Emergency battery backup, WaveLinx Wireless PRO/LITE, and Chicago Plenum options available
- Wet location-listed; ENERGY STAR® certified (reference Certified Light Fixture Database for listings)
- L80 at 60,000 hours (80% lumen maintenance at 60,000 hours)
- · 5-year warranty

HALO Commercial

HCD Professional Direct Mount Commercial Downlighting System

4" · Round · Downlight/Wall Wash

The HCD System offers total flexibility as a modular downlighting system built on a series of Factory preset or Selectable (Lumen/ CCT) LED Fixture Kits that easily interchange with a complete fleet of reflectors. Available in both rounds and squares, in multiple sizes and beam distributions. HCD installs-from-below and mounts securely to any retrofit/remodel/new construction ceiling.

Typical Applications Healthcare • Hospitality • Education • Mixed Use • Services · Retail

Product Certification

















Product Features











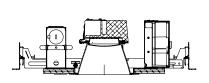


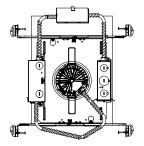
Control Compatibility



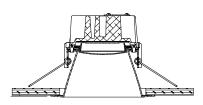


New Construction





Direct Mount



Dimensional and Mounting Details page 19





Fixture Kits Overview

HCD LED Fixture Kits fit any 4" round HCD reflector and direct mount to the finished ceiling. HCD Fixture Kits also offer Lumen and CCT Selectability with factory preset versions also available. Select from multiple Fixture Kit configurations including the Standard, Quick Connect, Emergency, WaveLinx, and Chicago Plenum.

- · Order LED Fixture Kits and Reflectors separately.
- (Mounting Frames available separately for New Construction installations)
- · Easily and securely attach to reflectors with 3 toolless slide locks.
- · Downlight installs-from-below through ceiling cutout and securely mounts with springs on the reflector holding the downlight in place

Junction Box Fixture Kit



Chicago Plenum Fixture Kit





Quick Connect Fixture Kit



WaveLinx Wireless Fixture Kit







Emergency Quick Connect Fixture Kits



EM06 - 6 Watt



EM14 - 14 Watt

Fixture Kits Overview

Junction Box fixture kit shown with reflector for example only, order reflectors and fixture kits separately.



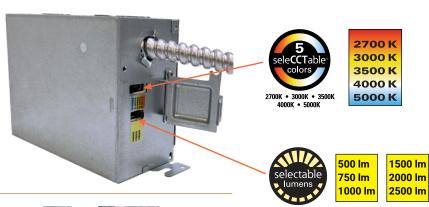
Junction Box Fixture Kit with 4" Reflector

Lumen & CCT Switches

Fixture Kits can be ordered Lumen and CCT Selectable or Factory Preset Lumen/CCT

Selectable Fixture Kits

A hinged snap-latch cover allows for quick access to the Lumen and CCT selector switches while also protecting against accidental adjustments.



Factory Preset Lumen/ CCT Fixture Kits

These kits ship factory set under a fixed cover and labeled at their defined lumen and CCT levels.



3000 lm

3500 lm

4000 lm

4000 lm

4500 lm

5000 lm

Reflectors Overview

Dimensions

Pair LED Fixture Kit with any HCD Reflector.

- · Order reflectors and fixture kits separately
- Downlight installs-from-below through ceiling cutout and securely mounts with springs on the reflector holding the downlight in place
- · All reflectors available in Specular, Haze (Semi-specular), Matte White (paintable), or Matte Black
- · Reflectors come in 3 distributions: Medium, Wide, and Narrow.

The direct-mount installation method requires a precise ceiling cut-out for secure reflector and fixture kit retention, see ceiling cutout table in reflector ordering section.

Medium Distribution Reflectors

- 4" round self-flanged, medium reflectors fit any LED Fixture Kit
- Medium reflectors feature medium 1.0 spacing criteria (SC) and 55° cutoff (nominal, field results may vary by aperture and finish)
- Field-installed rotatable spread lensed wall wash accessory kits available for round & square (sold separately)
- Oversized "Goof" Rings available separately for medium reflectors





HCD4TRXX

Wide-Shallow Distribution Reflectors

- 4" round self-flanged, ultra-shallow wide distribution reflectors fit any LED Fixture Kit
- Shallow reflector depth for reduced plenum height installations
- Wide distribution features 1.28 spacing criteria and 65° cutoff (nominal, field results may vary by aperture and finish)
- Field-installed round rotatable spread lensed wall-wash accessory kits available (separately)





HCD41TRXX

Narrow Distribution Reflectors

- 4" round self-flanged, narrow distribution reflectors fit any fixture kit
- Narrow distribution reflectors equivalent with HC Series optical aperture, regression, and flange dimensions (HC4 – 41x)
- Narrow reflectors feature 0.7 spacing criteria and 50° cutoff (nominal values, field results may vary by aperture and finish)
- Field-installed round rotatable spread lensed wall-wash accessory kits available (separately)





HCD42TRXX



New Construction Mounting Frames Overview

The HCD System is engineered for effortless remodel/retrofit applications and is ideal for new construction applications when used with an HCD New Construction Mounting Frame.

- 3/8" drywall/plaster collar for easy locating and cutting
- · Adjustable bar hangers for T-grid or wood-framed ceilings
- · Round aperture cutouts sized for industry-standard hole saws

Nominal Aperture	Catalog Series	Round Cutout (std. hole saw)	Minimum Grid / Framing Width	Maximum Grid / Framing Width
4" Mounting Frames	HCD4MFR	4.75" Retrofit 5.00" New	10.5"	24.5"

Basic Mounting Frames (No junction box)



Mounting Frame only, no junction box

· HCD4MFR= 4" Round frames

Compatible Fixture Kits

HCDJB Junction Box Fixture Kits (Installer supplies mains wiring & connections)

Junction Box Mounting Frames



Mounting Frame w/ Junction Box Only

· HCD4MFRJB = 4" Round frame

Compatible Fixture Kits

- HCDJB Junction Box Fixture Kits (Installer supplies mains wiring and connections)
- HCDQC Quick Connect fixture kits with quick connect & snap-in mains whip
- · HCDE Emergency fixture kits with EM quick connect & snap-in mains whip*
- · HCDW WaveLinx fixture kits with Wireless Node, quick connect & snap-in mains whip*

*Minimum plenum height 7.25" (2x8) with 24" grid/framing width for all Emergency and WaveLinx fixture kits.

Quick Connect Mounting Frames



Mounting Frame w/ 5-conductor Quick-Connect

• HCD4MFRQC = 4" Round frame

Compatible Fixture Kits

- · HCDQC Quick connect fixture kits with quick connect & snap-in mains whip
- · HCDW WaveLinx fixture kits with Wireless Node, quick connect & snap-in mains whip*
- HCDE Emergency fixture kits with EM quick connect & snap-in mains whip*

*Minimum plenum height 7.25" (2x8) with 24" grid/framing width for all Emergency and WaveLinx fixture kits.

Chicago Plenum Mounting Frames



Mounting Frame w/ CCEA compliant Chicago Plenum Junction Box

HCD4MFRCP = 4" Round frame

Compatible Fixture Kits

- · HCDCP Chicago Plenum fixture kits, CCEA compliant
- · Chicago Plenum conduit/conduit connectors by installer, recommend 26" long*

*Minimum plenum height 7.25" (2x8) with 24" grid/framing width for all Chicago Plenum fixture kits.



HALO Commercial

HCD 4" Round Direct Mount Downlights & Wall Washers

LED Fixture Kits - Order Information

Direct mount = fixture kit + reflector

FIXTURE	KITS	Sample Order Numbers:	
Luminaire ha	s two parts ordered separately.	1) Fixture Kit	2) Reflector
Direct mount	s to ceiling, mounting frame or retrofit existing fixture.	HCDQCLS510CSD	HCD4TRCWF

Domestic Preferences (2)	Fixtu	re Kit			
[Blank]=Standard BAA=Buy American Act TAA=Trade Agreements Act	Junction Box Fixture Kit HCDJB = 4"/6"/8" Junction Box Fixture Kit: LED Engine & Driver on 20" flex conduit (Input wiring and connectors by installer). Compatible mounting frames: Basic (HCD*MF*) and Junction Box (HCD*MF*JB)	WaveLinx Wireless Fixture Kit w/ Quick Connect HCDW = 4"/6"/8" WaveLinx Wireless Fixture Kit w/ Quick Connect: LED Engine & Driver on 20" flex conduit w/ 5-conductor quick connect on flex conduit & 1/2" snap-fitting for input KO. Add WaveLinx Wireless option code to model number: WPN (WaveLinx) or WLN (WaveLinx Lite)			
	Quick Connect Fixture Kit HCDQC = 4"/6"/8" Quick Connect Fixture Kit: LED Engine & Driver on 20" flex conduit w/ 5-conductor quick connect on flex conduit & 1/2" snap-fitting for input KO. Compatible mounting frames: Junction Box (HCD*MF*JB) & Quick Connect (HCD*MF*QC)	Compatible mounting frames: Junction Box (HCD*MF*JB) & Quick Connect (HCD*MF*QC)			
	Emergency Fixture Kit HCDE = 4"/6"/8" Emergency Fixture Kit: LED Engine & Driver with Battery Pack on 20" flex conduit w/ 6-conductor quick connect on flex conduit & 1/2" snap-fitting for input KO. Emergency battery with test switch is attached to fixture kit driver box. Add emergency option code to model number: EM06 or EM14 *IEM reflector must be ordered separately for integral emergency. (IEM not available with HCD41TR 4" shallow reflectors) Compatible mounting frames: Junction Box (HCD*MF*JB) & Quick Connect (HCD4MFRQC)	Chicago Plenum Fixture Kit (9) HCDCP = 4"/6"/8" Chicago Plenum Fixture Kit: LED Engine & Driver on 18" CCEA compliant FMT and junction box with wiring for power and 10-10V dimming between LED Engine and driver box (Input FMT wiring and connectors to driver box, by others). Compatible mounting frames: Chicago Plenum (HCD*MF*CP)			
Notes (2) Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information.	(5) Chicago Plenum (CP) fixture kits FMT conduit have larger bend radius, requiring deeper plenum height. Minin All - Fixture Kits Notes 1. Fixture Kits are universal for all reflectors:	Notes we kits FMT conduit have larger bend radius, requiring deeper plenum height. Minimum plenum height 7.25" (2x8) with 24" grid/framing width for all Chicago Plenum fixture kits. for all reflectors: w a finished ceiling, direct-mount through the ceiling opening. The installer must cutout a precise aperture opening for the appropriate reflector size.			

	Driver				
Lumen Selectable* LS510 = 500/750/1000lm (Preset 1000lm) Type IC, air permeable insulation contact LS1525 = 1500/2000/2500lm (Preset 2500lm) Type Non-IC, insulation 3" spacing LS3040 = 3000/3500/4000lm (Preset 4000lm) Type Non-IC, Marked Spacing, see note below*** LS4050 = 4000/4500/5000lm (Preset 5000lm) Type Non-IC, Marked Spacing, see note below***	Factory Preset Lumens** L05 = 500 lumen - IC L07 = 750 lumen - IC L15 = 1500 lumen - Non-IC L20 = 2000 lumen - Non-IC L25 = 2500 lumen - Non-IC L30 = 3000 lumen - Non-IC L30 = 3000 lumen - Non-IC*** L40 = 4000 lumen - Non-IC*** L41 = 4000 lumen - Non-IC*** L45 = 4500 lumen - Non-IC*** L45 = 4500 lumen - Non-IC*** L50 = 5000 lumen - Non-IC***	Color Selectable* CS = 90CRI, selectable 2700K-3000K-3500K-4000K-5000K (Preset at 3500K) Factory Preset CCT** 927 = 90CRI, 2700K 930 = 90CRI, 3000K 935 = 90CRI, 3500K 940 = 90CRI, 4000K 950 = 90CRI, 5000K	D = Dimmable, UNV 120-277V, 50/60Hz 0-10V 1%-100% dimming at 120-277V on 0-10V controls. Compatible with WaveLinx Wireless dim-to-off functionality. Canada Option D347 = Dimmable 347VAC 50/60Hz 0-10V 1%-100% dimming. Available on HCDQC fixture kits only. Canada only. (1)		
(0) Selectable Lumen and Selectable CCT must be specified togetl Factory Preset Lumen and CCT must be specified together - Fixed	Notes (1) Not available with CP models				
*Field-selected switch settings by installer accessed in hinged sna	ap-latch cover over selectable switches, protects l	lumen and CCT settings yet allows for quick changes.			
OR					
***3000/3500/4000, 4000/4500/5000lm Non-IC, Marked Spacing	**Factory preset individual switch settings secured under fixed cover. Torx screw on cover secures presets yet allows for re-set access if needed. Factory label notes preset lumen and CCT. ***3000/3500/4000, 4000/4500/5000lm				

Factory Options	Accessories
Emergency Options (Add emergency suffix code option to HCDE emergency fixture kits only) EM06 = 6-watt self-test emergency battery with test switch for remote or integral test. Remote switchplate included, back box by others. Integral reflector order separately. Use with "D" driver only. Option only with HCDE fixture kits. (1)(3)(4) EM14 = 14-watt self-test emergency battery with test switch for remote or integral test. Remote switchplate included, back box by others. Integral reflector order separately. Use with "D" driver only. Option only with HCDE fixture kits. (1)(3)(4) WaveLinx Options (Add WaveLinx suffix code option to HCDW WaveLinx fixture kits only) WPN = WaveLinx PRO Wireless Node & Power Pack. Add WPN code to HCDW fixture kits. Option only with HCDW fixture kits. (3)(4) WLN = WaveLinx LITE Wireless Node & Power Pack. Add WLN code to HCDW fixture kits. Option only with HCDW fixture kits. (9)(6) Emergency Options with WaveLinx (Add emergency with WaveLinx suffix code option to HCDE emergency fixture kits only) EM06WPN = 6-watt emergency with WaveLinx LITE Wireless Node EM06WLN = 6-watt emergency with WaveLinx LITE Wireless Node EM14WPN = 14-watt emergency with WaveLinx LITE Wireless Node EM14WPN = 14-watt emergency with WaveLinx LITE Wireless Node	Extension Cables Flex conduit w/ 5-conductor quick connects on each end. Extend connection between fixture kit and new construction frame. HCDX06 = 6 ft. Extension Cable HCDX12 = 12 ft. Extension Cable HCDX20 = 20 ft. Extension Cable Use with HCD4MFQC, HCD6MFQC & HCD8MFQC Quick Connect Mounting Frames only. Use with HCD468QC*, HCD468W* Quick Connect Fixture Kits only
Notes (1) Not available with CP models (3) Not available with D347 (347V models) (4) Use with "D" driver	Notes *Extension cables not compatible with HCD468E* emergency or HCD468CP* Chicago Plenum fixture kits If using the WaveLinx models, the dimming wires in the quick connect and the building junction box should not be connected.

HALO Commercial

HCD 4" Round Direct Mount Downlights & Wall Washers

MOUNTING FRAMES - Order Information

New construction luminaire = mounting frame + fixture kit + reflector

1	FIXTURE KITS	Sample Order Numbers:			
	New construction: Three required parts ordered separately.	1) Mounting Frame	2) Fixture Kit	3) Reflector	
	Mounting frames feature plaster lip for ease in locating in finished ceiling.	HCD4MFRQC	HCDQCLS510CSD	HCD4TRCWF	

Domestic Preferences (2)	Accessories			
[Blank]=Standard BAA=Buy American Act TAA=Trade Agreements Act	Basic New Construction Mounting Frames HCD4MFR = 4" Round mounting frame Ceiling cut-outs: Round 5.00"	Description Basic mounting frame only, no junction box Installer supplies mains wiring & connections to HCDJB* Fixture Kit driver box Thumb screws on frame for securing Fixture kit driver-box Compatible Fixture Kits HCDJB* fixture kits for installer wiring (input flex and wiring by others)		
	Junction Box New Construction Mounting Frames HCD4MFRJB = 4" Round mounting frame Ceiling cut-outs: Round 5.00"	Description Mounting frame with Trade-Size Junction box Installer supplies mains wiring & connections to mounting frame trade-size junction box Installer makes mains connections from junction box to snap-in conduit connector included on the HCDQC*, HCDE*, HCDW* Fixture Kits		
		Compatible Fixture Kits HCDJB* fixture kits for Installer supplied wiring & connections (flex and wiring from mounting frame junction box to fixture kit driver box) HCDQC*, HCDW*, HCDE* fixture kits have quick-connect flex wiring, allow connection of 1/2* KO snap-fitting on the tail of quick-connect flex (snap-fitting installs to mounting frame junction box)		
	Quick Connect New Construction Mounting Frames HCD4MFRQC = 4" Round mounting frame Ceiling cut-outs: Round 5.00"	Description Mounting frame w/ Quick Connect flex on the frame junction box. Quick connector has 5-conductor plug-ins for power and 10-10V dimming. Installer plugs quick connectors to 5-conductor quick connectors on HCDQC* and HCDW* Fixture kits. Compatible Quick Connect Fixture Kits HCDQC*, HCDW* quick connect fixture kits, with 5-conductor quick connect to mate with quick connect on mounting frame flex (fixture kit end whip on 1/2* KO snap-fitting is not used)		
	Chicago Plenum New Construction Mounting Frames HCD4MFRCP = 4" Round mounting frame Ceiling cut-outs: Round 5.00"	Description Chicago Plenum mounting frame with CCEA compliant Trade-Size Junction box Installer supplies wiring and connections to HCDCP* Fixture Kits CCEA compliant FMT wiring and connectors to mains junction box on frame and into fixture kit driver box are by installer Compatible Chicago Plenum Fixture Kits HCDCP* Chicago Plenum fixture kits, CCEA compliant (Does not include CCEA FMT wiring and connectors for power and 10-10V dimming)		
Notes (2) Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFER	Notes New Construction Mounting Frame Notes: - Type-IC with low-lumen fixture kits 500-750-1000lm - Type Non-IC with mid-lumen 1500-2000-2500lm - Type Non-IC, Marked Spacing with mid/high-lumen 3000-3500-4000lm and high-lumen 4000-4500-5000lm fixture kits (36" center-to-center, 18" center to building member, 0.5" minimum overhead spacing). - Chicago Plenum (CP) new construction mounting frames are CCEA compliant with pre-installed J-box for mains input, and Type Non-IC rated per CCEA			



Reflectors - Medium Distribution Round - HCD4TR Series

- >New construction luminaire = mounting frame + fixture kit + reflector
- >Direct mount / Retrofit luminaire = fixture kit + reflector

Medium Reflecto	rs - New Construction	Sample Order Numbers:			
New construction: Three p	arts ordered separately	1) Mounting Frame	2) Fixture Kit	3) Medium Reflector	Accessory (+ Medium Wall Wash)
+ Accessory: Lens Wall Wa	ash Kit – field installed	HCD4MFRQC	HCDQCLS510CSD	HCD4TRCWF	HCD4TRLWW

Medium Reflectors - Direct Mount / Retrofit	Sample Order Numbers:		
Direct mount: Two parts ordered separately	1) Fixture Kit	2) Medium Reflector	Accessory (+ Medium Wall Wash)
+ Accessory: Lens Wall Wash Kit – field installed	HCDQCLS510CSD	HCD4TRCWF	HCD4TRLWW

Domestic Preferences (2)	Medium Reflectors	Туре	Finish	Emergency	Wall Wash Accessory Kits (Field Installed - Order Separately)
[Blank]=Standard BAA=Buy American Act TAA=Trade Agreements Act	HCD4T = 4" medium distribution reflector	R = Round	C = Specular Clear CWF = Specular Clear / White Flange CBF = Specular Clear/Black Flange H = Haze (Semi-specular) HWF = Haze (Semi-specular) / White Flange HBF = Haze (Semi-Specular)/Black Flange MW = Matte White (paintable) MWBF = Matte White/Black Flange MB = Matte Black	IEM = Reflector for use with integral emergency fixture kits only. Provides access hole for emergency test switch, if integral switch is desired. Use with HCDE emergency fixture kits.	HCD4TRLWW = 4* Round Lensed Wall Wash Kit
Notes	Notes	Notes	Notes	Notes	Notes
(2) Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information.	Reflector notes: 4 "round work with all fixture kits 4 "round work with all fixture kits 4 "round work with all fixture kits with HCD4MFR* round mounting frames 5 Reflectors statch to fixture kits install from below the ceiling opening with integral mousetrap springs 6 Maximum ceiling thickness 1.5" 7 Wall wash kits are accessories for field installation 8 Direct-mount requires a precise aperture cutout 4 "Round = 4.75" Retrofit / 5.00" New			IEM Notes: Emergency battery with test switch is attached to fixture kit. Add emergency suffix code to HCDE model number: EM06 or EM14 "HEM reflector ordered separately "HCD41" IEM round and square trims maximum ceiling thickness up to 1.25" to allow integral (IEM) switch clearance in IEM reflector.	Wall wash kits are not available for IEM reflectors. For BAA/TAA wall wash option, add "WW" to the reflector catalog (example: TAA-HCD4TRCWW)

Oversize "Goof" Rings - For use with Medium Distribution Reflectors

Oversize Goof Rings - New Construction	Sample Order Numbers:			
New construction: Three parts ordered separately	1) Mounting Frame	1) Mounting Frame 2) Fixture Kit 3) Medium Reflector		Accessory (+ Medium Goof Ring)
+ Accessory: Oversize Ring – field installed	HCD4MFRQC	HCDQCLS510CSD	HCD4TRCWF	HCD4GRC

Oversize Goof Rings - Direct Mount	Sample Order Numbers	:	
Direct mount: Two parts ordered separately	1) Fixture Kit	2) Medium Reflector	Accessory (+ Medium Goof Ring)
+ Accessory: Lens Wall Wash Kit – field installed	HCDQCLS510CSD	HCD4TRCWF	HCD4GRC

Domestic Preferences (2)	Oversize Medium "Goof" Ring	Туре	Finish
[Blank]=Standard BAA=Buy American Act TAA=Trade Agreements Act	HCD4G = 4" Goof Ring for Medium Reflectors Round - 4.75" MIN ceiling opening 6.25" MAX ceiling opening, 7.25" OD	R = Round	C = Specular Clear H = Haze (Semi-specular) MW = Matte White (paintable) MB = Matte Black
Notes (2) Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information.	Notes	Notes	Notes



Reflectors - Wide (Shallow) Distribution Round - HCD41TR Series

- >New construction luminaire = mounting frame + fixture kit + reflector
- >Direct mount / Retrofit luminaire = fixture kit + reflector

Wide (Shallow) Reflector - New Construction	Sample Order Number	ers:		
New construction: Three parts ordered separately	1) Mounting Frame	2) Fixture Kit	3) Shallow Reflector	Accessory (+ Shallow Wall Wash)
+ Accessory: Lens Wall Wash Kit – field installed	HCD4MFRQC	HCDQCLS510CSD	HCD41TRC	HCD41TRLWW

Wide (Shallow) Reflector – Direct Mount / Retrofit	Sample Order Numbers:		
Direct mount: Two parts ordered separately	1) Fixture Kit	2) Shallow Reflector	Accessory (+ Shallow Wall Wash)
+ Accessory: Lens Wall Wash Kit – field installed	HCDQCLS510CSD	HCD41TRC	HCD41TRLWW

Domestic Preferences (2)	Wide (Shallow) Reflectors	Туре	Finish	Emergency	Wall Wash Ad (Field Installed - 0
[Blank]=Standard BAA=Buy American Act TAA=Trade Agreements Act	HCD41T = 4" Wide (Shallow) Reflector*	R = Round	C = Specular Clear CWF = Specular Clear / White Flange CBF = Specular Clear/Black Flange H = Haze (Semi-specular) HWF = Haze (Semi-specular) / White Flange HBF = Haze (Semi-Specular)/Black Flange MW = Matte White (paintable) MWBF = Matte White/Black Flange MB = Matte Black	IEM = Reflector for use with integral emergency fixture kits only. Provides access hole for emergency test switch, if integral switch is desired. Use with HCDE emergency fixture kits.	HCD41TRLWW = 4" Round Lensed Wall
Notes	Notes	Notes	Notes	Notes	No
(2) Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information.	Reflector notes: Wide (Shallow) reflectors work with all fixture kits Compatible with HCD4MFR* round aperture mounting frames Reflectors attach to fixture kits and install from below the ceiling opening with integral mousetrap springs Maximum ceiling thickness 1.5" Wall wash kits are accessories for field installation Direct-mount requires a precise aperture cutout 4" Round = 4.75" Retrofit / 5.00" New			IEM Notes: Emergency battery with test switch is attached to fixture kit. Add emergency suffix code to HCDE model number: EM06 or EM14 "IEM reflector ordered separately; IEM not available with HCD41TR shallow reflectors	Wall wash kits are not ar reflectors. For BAA/TAA wall wash reflector catalog (examp

I" Wide (Shallow)

lotes

t available for IEM

sh option, add "WW" to the imple: TAA-HCD41TRCWW)

Reflectors - Narrow Distribution Round - HCD42TR Series (Narrow distribution round reflectors equivalent with HC4-6-8 series 41x-61x-81x reflector dimensions)

- >New construction luminaire = mounting frame + fixture kit + reflector
- >Direct mount / Retrofit luminaire = fixture kit + reflector

Narrow Reflectors - New Construction	Sample Order Numb	ers:		
New construction: Three parts ordered separately	1) Mounting Frame	2) Fixture Kit	3) Narrow Reflector	Accessory (+ Narrow Wall Wash)
+ Accessory: Lens Wall Wash Kit – field installed	HCD4MFRQC	HCDQCLS510CSD	HCD42TRC	HCD42TRLWW

Narrow Reflectors - Direct Mount / Retrofit	Sample Order Numbers	:	
Direct mount: Two parts ordered separately	1) Fixture Kit	2) Narrow Reflector	Accessory (+ Narrow Wall Wash)
+ Accessory: Lens Wall Wash Kit – field installed	HCDQCLS510CSD	HCD42TRC	HCD42TRLWW

Domestic Preferences (2)	Narrow Reflectors	Туре	Finish	Emergency	Wall Wash Accessory Kits (Field Installed - Order Separately)
[Blank]=Standard BAA=Buy American Act TAA=Trade Agreements Act	HCD42T = 4* Narrow distribution Reflector*	R = Round	C = Specular Clear CWF = Specular Clear / White Flange CBF = Specular Clear/Black Flange H = Haze (Semi-specular) HWF = Haze (Semi-specular) / White Flange HBF = Haze (Semi-Specular)/Black Flange MW = Matte White (paintable) MWBF = Matte White/Black Flange MB = Matte Black	IEM = Reflector for use with integral emergency fixture kits only. Provides access hole for emergency test switch, if integral switch is desired. Use with HCDE emergency fixture kits.	HCD42TRLWW = 4" Narrow Lensed Wall Wash Kit
Notes (2) Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information.	Notes Reflector notes: Narrow distribution reflectors work with all fixture kits Compatible with HCD4MFR* round aperture mounting frames Reflectors attach to fixture kits and install from below the ceiling opening with integral mousetrap springs Maximum ceiling thickness 1.5" Wall wash kits are accessories for field installation Direct-mount requires a precise aperture cutout 4" Round = 4.75" Retrofit / 5.00" New	Notes	Notes	Notes IEM Notes: Emergency battery with test switch is attached to fixture kit. Add emergency suffix code to HCDE model number: EM06 or EM14 "IEM reflector ordered separately "HCD42T 4" IEM round trims maximum ceiling thickness up to 1.25" to allow integral (IEM) switch clearance in IEM reflector	Notes Wall wash kits are not available for IEM reflectors. For BAA/TAA wall wash option, add "WW" to the reflector catalog (example: TAA-HCD42TRCWW).

Product Specifications

Fixture Kit & LED Engine

- For use in retrofit, remodel, and new construction mounting types.
- Fixture kits universal fit to 4", 6", 8" all round or square reflectors (fixture kit and reflectors are ordered separately)
- Fixture kit LED engines attach to reflectors with three toolless lever clamps.
- Mousetrap springs on reflectors for direct-mount from below a finished ceiling, in retrofit, remodeling or in new construction mounting frames.
- LED engine aluminum heat sinks feature passive conduction of heat away from the LED array for optimal performance and long life
- Fixture kits include LED engine, driver junction box, and durable metal flex conduit; with quick-connect box on applicable models

Fixture Kits

- HCDJB Basic Junction Box Fixture Kit with LED Engine & driver box on 20" metal flex. Input wiring and connections to the driver box by installer.
- HCDQC Quick Connect Fixture Kit with LED Engine & driver box on 20" metal flex with 5-conductor quick-connect on a metal flex whip and 1/2" KO snap-fitting for mains terminations by others.
- HCDE Emergency Fixture Kit with LED Engine & driver box and battery pack & test switch on 20" metal flex with 6-conductor quick-connect on a metal flex whip and 1/2" KO snap-fitting for mains terminations by others.
 - Emergency battery pack and remote test switch are attached to fixture kit.
 - Add emergency suffix code option to catalog number: EM06 or EM14 (see Emergency Backup Options for details)
 - For emergency with WaveLinx Wireless add suffix code option to catalog number of HCDE fixture kits only: EM06WPN, EM06WLN, EM14WPN, EM14WLN
- HCDCP Chicago Plenum Fixture Kit with LED Engine & driver box on 18" CCEA compliant metal flex. CCEA compliant mains and dimmer wiring to HCDCP fixture kit driver box by installer.
- HCDW WaveLinx Fixture Kit with LED Engine & driver box on a 20" metal flex with 3-conductor quick-connect on a metal flex whip and 1/2" KO snap-fitting for mains terminations by others.
 - Add WaveLinx Wireless Node suffix code to catalog number: WPN - WaveLinx or WLN
 - WaveLinx Lite (see <u>WaveLinx Connected Lighting website</u> for details)

Fixture Kit Driver Box

- · Galvanized steel electrical box
- · Integral driver
- · 18 cubic inch internal volume
- Listed for six #12 AWG 90° C splice conductors, two in, two out plus ground
- (4) 1/2" trade size pry outs
- (3) 4-port push wire nuts for mains voltage with 1-port for fixture connection

New Construction Mounting Frames

- Galvanized steel plaster frame with integral bar hangers
- · Available in 4", 6", 8" Round and Square
- Integral 3/8" drywall/plaster collar for ease in position locating and ceiling cut-out
- Round aperture diameter sized for industry standard hole saws HCD4R = 5.00"
- Bar hanger vertical brackets adjust 2" vertically from above & below ceiling
- Bar hangers horizontal adjusting from 10-1/2" to 24-1/2" wide
- Setscrews provide positive horizontal and vertical locking
- Captive nail for use in standard dimensional and engineered framing lumber
- Through-hole in bar bracket ends for additional nail or screw attachment (nail or screw by others)
- Flange lip on bar bracket ends level platform in framing construction
- · Integral grid clip attaches directly to T-grid
- All mounting frames have knurled thumb screws for securing fixture kit driver box, when needed

Mounting Frame Junction Box

- · Trade-size galvanized steel junction box
- · 25 in3 internal total volume
- Voltage barrier for 0-10V dimming wires (occupies one 1/2" pry-out space)
- Listed for eight #12 AWG (four in, four out) 90°C conductors and feed-thru branch wiring
- Three 1/2" and two 3/4" trade size pry-outs

Quick Connect Box (available on HCDQC, HCDW, HCDE Fixture Kits)

- Galvanized steel enclosure on metal flex conduit whip end terminating with 1/2" KO snap-fitting for mains connections by others
- · Tool-less access snap cover
- HCDQC (Quick Connect fixture kits) and HCDW (WaveLinx fixture kits): Quick connect 5-conductor mains & dimming in/out wiring on 3-conductor line voltage mains & 2-conductor 0-10V connectors
 - HCDW Wavelinx use only the 3-condutor line quick connections
- HCDE (Emergency fixture kits): Quick connect 6-conductor mains & dimming in/out wiring on 4-conductor line voltage + battery mains & 2-conductor 0-10V connectors

Emergency Battery Backup Options

- · Available on HCDE Emergency Fixture Kits
- Provide 90 minutes of standby egress lighting; consult national Life Safety Code and local code authority for specific requirements
- EM06 6-Watt self-test emergency battery with test switch
- EM14 14-W self-test emergency battery with test switch
- · Self-Test (self-diagnostic) standard on models
- Emergency test switch may be installed with included remote switchplate or integral in reflector
 - Electrical box, as required, for remote switchplate by installer
 - · IEM reflector ordered separately
- IEM not available on HCD41T 4", Wide (Shallow) round reflectors.

LED

- Proximity phosphors over chip on board LEDs provide a uniform source with high efficiency and no pixilation
- · LED is 90 CRI minimum, R9 greater than 50
- LED color uniformity & accuracy within 3-step SDCM at 2700K and 50000K and 4-step SDCM at 3000K, 3500K, & 4000K
- Lumen maintenance 80% at 60,000 hours (L80 / 60,000 hours)

Lumen and CCT Color Selection

- Lumen and CCT selection switches are on the fixture kit driver box.
- Field-select switch settings by installer accessed under galvanized steel hinged snap-latch cover that protects lumen and CCT settings yet allows for quick changes

OR

- Factory ordered preset individual switch settings secure under galvanized steel fixed cover. Torx screw on cover secures presets yet allows for re-set access if needed. Factory label notes preset lumen and CCT. (See ordering information section for factory preset ordering codes.)
- 500/750/1000, 1500/2000/2500, 3000/3500/4000, 4000/4500/5000 field selectable lumens or factory preset lumen options
- 2700-3000-3500-4000-5000K field selectable CCT or factory preset CCT options
- Selectable lumen and CCT must be specified together, example: "LS510" lumen, "CS" CCT
- Factory preset lumen and CCT must be specified together, example: "L05" lumen, "935" CCT

Electronic Driver

- · Integrated in fixture kit driver box
- 120-277V 50/60 Hz constant current driver
- Continuous dimming from 100% to 1% with 0 -10V analog dimming controls
- · Dims to off after 1% level is reached
- Compatible with WaveLinx and WaveLinx Lite Wireless dim-to-off functionality

Canada Electronic Driver Option (Available on HCDQC fixture kits only)

- 347VAC 50/60Hz constant current driver
- Continuous dimming from 100% to 1%, with 0 -10V analog dimming controls
- · Dims to off after 1% level is reached
- 347VAC driver option available on HCDQC quickconnect fixture kits only
- 347V driver is not currently available with WaveLinx or WaveLinx Lite Wireless.

Reflectors

- Direct-mount feature of HCD4-6-8 series requires a precise ceiling cut-out for secure round & square reflectors for fixture kit retention. See technical data for ceiling cut-out sizes.
- Three lever clamps and a key-slot for accurate positioning and securing reflector to the LED engine
- Integral mousetrap springs on reflector secure assembly for direct-mount from below the finished ceiling

continued on next page





Product Specifications

Medium Distribution Round Reflectors

- 4", 6", 8" round reflectors designed to fit all fixture kits
- Round spun aluminum
- Available in specular and haze (semi-specular), matte white and matte black painted finishes.
 Matte white is paintable (overpaint by others)
- Prismatic lensed wall-wash accessory kits for field installation, in round and square reflectors.
- Reflector optical design delivers medium 1.0 spacing criteria and 55 degree cutoff (nominal, field results may vary by aperture and finish)
- Deep regressed LED source for low glare, UGR < 19
- Round accessory goof rings cover ceiling irregularities
- Goof rings for medium reflectors available in specular and haze (semi-specular), matte white and matte black painted finishes. Matte white is paintable (overpaint by others)

Narrow Distribution Round Reflectors

- · 4", 6", 8" round reflector designs fit all fixture kits
- Narrow distribution dimensions equivalent to HALO Commercial HC series 41x-61x-81x reflectors, allowing use of HCD and HC series on the same job for consistent appearance
- · Round spun aluminum
- Available in specular and haze (semi-specular), matte white and matte black painted finishes.
 Matte white is paintable (overpaint by others)
- Deep regressed LED source for low glare, UGR < 19
- Prismatic lensed wall-wash accessory kits for field installation
- Narrow reflector optical design delivers wide 0.7 spacing criteria and 50 degree cutoff (nominal, field results may vary by aperture and finish)

Wide (Shallow) Distribution Round Reflectors

- 4", 6", 8" round shallow reflector designs fit all fixture kits
- Ultra-shallow for installation in reduced plenum heights
- Wide distribution optical design delivers wide 1.28 spacing criteria and 65°+ cutoff (nominal, field results may vary by aperture and finish)
- · Round spun aluminum
- Available in specular and haze (semi-specular), matte white and matte black painted finishes.
 Matte white is paintable (overpaint by others)
- Shallow regression of LED source, UGR < 23
- Shallow prismatic lensed wall-wash accessory kits 6" and 8" for field installation (shallow wall wash not available in 4")

Compliance

- cULus damp and wet location listed, covered ceilings only and IP65 rated below the ceiling (IP64 with lensed wall wash accessory)
- Airtight per ASTM-E283
- IC listed LS510: 500, 750, 1000 lumen fixture kit - suitable for direct contact with air permeable insulation. IC models are also suitable for Non-IC installations. (Emergency battery fixture kits are not IC, Non-IC only)
- Non-IC listed LS1525: 1500-2000-2500 lumen, LS3040: 3000-3500-4000 lumen and LS4050: 4000-4500-5000 fixture kits. Insulation must be kept 3" from top and sides of luminaire.

- Marked spacing: 3000-3500-4000 lumen and 4000-4500-5000 lumen are Non-IC AND require marked spacing.
 - Center to Center Adjacent Luminaires = 36"
 - Center of Luminaire to Building = 18"
 - · Minimum overhead = 0.5"
- Not for use in direct contact with spray foam insulation, consult NEMA LSD57-2013
- Suitable for use in clothes closets when installed in accordance with the NEC 410.16 spacing requirements
- EMI/RFI emissions per FCC CFR Title 47 Part 15 Class A at 277V and Class B at 120V CAN ICES-005(B)/NMB-005(B) at 120VAC and CAN ICES-005(A)/NMB-005(A) at 277VAC
- · Contains no mercury or lead and RoHS compliant
- · Photometric testing per IES LM-79-08
- · Photometric file format per IES LM-63-19
- Lumen maintenance projections per IES LM-80-08 and TM-21-11
- ENERGY STAR® reference Certified Light Fixtures database (not applicable: matte black reflectors, WaveLinx, and 347V fixture kits)
- 500-750-1000 lumen, ICAT models certified to State of California Title 24, JA8. Refer to MAEDBS Database JA8 High Efficacy LED Lighting
- All models may be used to comply with State of California Title 24 non-residential code as a dimmable LED luminaire
- BAA and TAA product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to Cooper Lighting Solutions <u>DOMESTIC</u> <u>PREFERENCES</u> website for more information.

WaveLinx Wireless Connected Lighting

- WaveLinx PRO WPN wireless when used with wireless sensors can provide daylight dimming, PIR motion sensing, scene and zone configuration, automatic commissioning; and optional RLTS -Real Time Location Services.
- WaveLinx LITE WLN wireless when used with wireless sensors may provide daylight dimming and PIR motion sensing, scene and grouping configuration.
- WPN and WLN wireless include wireless node for communication with WaveLinx wireless sensors and control devices (ordered separately from WaveLinx Controls group). Wireless node with integral power supply is factory installed on the fixture kit driver box, using one 1/2" KO.
- Refer to WaveLinx PRO and WaveLinx LITE specifications and guides for details.

Warranty

 Five year limited warranty, consult website for details. www.cooperlighting.com/legal

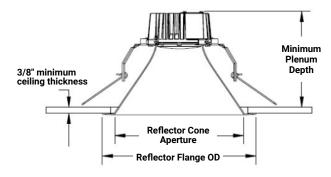


Technical Data

Ceiling Cutout Openings and Reflector Flange/Aperture

Ceiling Opening		Retrofit / Remodel & New Construction					
Туре	Reflectors	Distribution	Оренинд		Minimum Plenum Depth*	Reflector Flange OD	Reflector Cone Aperture
			Remodel / Retrofit	New Construction			
	HCD4TR	Medium	4.750" Standard Hole Saw		5.50"	5.75"	4.29"
Round	HCD41TR	Wide		5.000" Standard Hole Saw	4.00"	6.12"	4.41"
	HCD42TR	Narrow			5.50"	6.12"	4.43"

^{* 12.5&}quot; of plenum height required for Chicago Plenum fixture kits installation.



Energy Data

500 LM	120V	277V	347V
Input Voltage (V)	120V	277V	347V
Frequency (Hz)	50/60Hz	50/60Hz	50/60Hz
Input Current (A)	0.053A	0.025A	0.018A
Input Power (W)	6.34W	6.47W	5.86W
Inrush (A)	3.7A	9.5A	1.05A
Inrush Duration (mS)	0.015ms	0.011ms	0.050ms
THD %	≤ 20%	≤ 20%	≤ 20%
PF	≥ 0.90	≥ 0.90	≥ 0.90
Min start temp*	-40°	-40°	-40°
T Ambient	35°C	35°C	35°C
Sound Rating**	≤ 22dba	≤ 22dba	≤ 22dba
	•		

750 LM	120V	277V	347V
Input Voltage (V)	120V	277V	347V
Frequency (Hz)	50/60Hz	50/60Hz	50/60Hz
Input Current (A)	0.080A	0.036A	0.026A
Input Power (W)	9.61W	9.76W	8.68W
Inrush (A)	3.7A	9.5A	1.05A
Inrush Duration (mS)	15ms	11ms	50ms
THD %	≤ 20%	≤ 20%	≤ 20%
PF	≥ 0.90	≥ 0.90	≥ 0.90
Min start temp*	-40°	-40°	-40°
T Ambient	35°C	35°C	35°C
Sound Rating**	≤ 22dba	≤ 22dba	≤ 22dba

1000 LM	120V	277V	347V
Input Voltage (V)	120V	277V	347V
Frequency (Hz)	50/60Hz	50/60Hz	50/60Hz
Input Current (A)	0.104A	0.046A	0.033A
Input Power (W)	12.54W	12.61W	11.12W
Inrush (A)	3.7A	9.5A	1.05A
Inrush Duration (mS)	15ms	11ms	50ms
THD %	≤ 20%	≤ 20%	≤ 20%
PF	≥ 0.90	≥ 0.90	≥ 0.90
Min start temp*	-40°	-40°	-40°
T Ambient	35°C	35°C	35°C
Sound Rating**	≤ 22dba	≤ 22dba	≤ 22dba

1500 LM	1201/	277V	347V	
1500 LM	120V	2//٧	34/V	
Input Voltage (V)	120V	277V	347V	
Frequency (Hz)	50/60Hz	50/60Hz	50/60Hz	
Input Current (A)	0.131A	0.060A	0.048A	
Input Power (W)	15.68W	15.84W	15.71W	
Inrush (A)	11.5A	22.8A	3.3A	
Inrush Duration (mS)	0.004ms	0.003ms	0.034ms	
THD %	≤ 20%	≤ 20%	≤ 20%	
PF	≥ 0.90	≥ 0.90	≥ 0.90	
Min start temp*	-40°	-40°	-40°	
T Ambient	35°C	35°C	35°C	
Sound Rating**	≤ 22dba	≤ 22dba	≤ 22dba	

2000 LM	120V	277V	347V	
Input Voltage (V)	120V	277V	347V	
Frequency (Hz)	50/60Hz	50/60Hz	50/60Hz	
Input Current (A)	0.173A	0.077A	0.073A	
Input Power (W)	20.77W	20.9W	20.76W	
Inrush (A)	11.5A	22.8A	3.3A	
Inrush Duration (mS)	0.004ms	0.003ms	0.034ms	
THD %	≤ 20%	≤ 20%	≤ 20%	
PF	≥ 0.90	≥ 0.90	≥ 0.90	
Min start temp*	-40°	-40°	-40°	
T Ambient	35°C	35°C	35°C	
Sound Rating**	≤ 22dba	≤ 22dba	≤ 22dba	

2500 LM	120V	277V	347V	
Input Voltage (V)	120V	277V	347V	
Frequency (Hz)	50/60Hz	50/60Hz	50/60Hz	
Input Current (A)	0.216A	0.095A	0.077A	
Input Power (W)	25.91W	25.88W	25.82W	
Inrush (A)	11.5A	22.8A	3.3A	
Inrush Duration (mS)	0.004ms	0.003ms	0.034ms	
THD %	≤ 20%	≤ 20%	≤ 20%	
PF	≥ 0.90	≥ 0.90	≥ 0.90	
Min start temp*	-40°	-40°	-40°	
T Ambient	35°C	35°C	35°C	
Sound Rating**	≤ 22dba	≤ 22dba	≤ 22dba	

3000 LM	120V	277V	347V	
Input Voltage (V)	120V	277V	347V	
Frequency (Hz)	50/60Hz	50/60Hz	50/60Hz	
Input Current (A)	0.255A	0.116A	0.093A	
Input Power (W)	30.5W	30.6W	29.93W	
Inrush (A)	12.5A	30A	3.9A	
Inrush Duration (mS)	0.005ms	0.004ms	0.065ms	
THD %	≤ 20%	≤ 20%	≤ 20%	
PF	≥ 0.90	≥ 0.90	≥ 0.90	
Min start temp*	-40°	-40°	-40°	
T Ambient	35°C	35°C	35°C	
Sound Rating**	≤ 22dba	≤ 22dba	≤ 22dba	

3500 LM	120V	277V	347V	
Input Voltage (V)	120V	277V	347V	
Frequency (Hz)	50/60Hz	50/60Hz	50/60Hz	
Input Current (A)	0.3A	0.135A	0.108A	
Input Power (W)	35.9W	36.18W	34.85W	
Inrush (A)	12.5A	30A	3.9A	
Inrush Duration (mS)	0.005ms	0.004ms	0.065ms	
THD %	≤ 20%	≤ 20%	≤ 20%	
PF	≥ 0.90	≥ 0.90	≥ 0.90	
Min start temp*	-40°	-40°	-40°	
T Ambient	35°C	35°C	35°C	
Sound Rating**	≤ 22dba	≤ 22dba	≤ 22dba	

4000 LM	120V	277V	347V	
Input Voltage (V)	120V	277V	347V	
Frequency (Hz)	50/60Hz	50/60Hz	50/60Hz	
Input Current (A)	0.338A	0.151A	0.121A	
Input Power (W)	40.45W	40.45W	39.65W	
Inrush (A)	12.5A	30A	3.9A	
Inrush Duration (mS)	0.005ms	0.004ms	0.065ms	
THD %	≤ 20%	≤ 20%	≤ 20%	
PF	≥ 0.90	≥ 0.90	≥ 0.90	
Min start temp*	-40°	-40°	-40°	
T Ambient	35°C	35°C	35°C	
Sound Rating**	≤ 22dba	≤ 22dba	≤ 22dba	

4500 LM	120V	277V	347V	
Input Voltage (V)	120V	277V	347V	
Frequency (Hz)	50/60Hz	50/60Hz	50/60Hz	
Input Current (A)	0.382A	0.17A	0.192A	
Input Power (W)	45.63W	45.74W	44.93W	
Inrush (A)	15.9A	38A	3.7A	
Inrush Duration (mS)	0.005ms	0.004ms	0.075ms	
THD %	≤ 20%	≤ 20%	≤ 20%	
PF	≥ 0.90	≥ 0.90	≥ 0.90	
Min start temp*	-40°	-40°	-40°	
T Ambient	35°C	35°C	35°C	
Sound Rating**	≤ 22dba	≤ 22dba	≤ 22dba	

5000 LM	120V	277V	347V	
Input Voltage (V)	120V	277V	347V	
Frequency (Hz)	50/60Hz	50/60Hz	50/60Hz	
Input Current (A)	0.431A	0.189A	0.154A	
Input Power (W)	50.75W	50.77W	49.64W	
Inrush (A)	15.9A	38A	3.7A	
Inrush Duration (mS)	0.005ms	0.004ms	0.075ms	
THD %	≤ 20%	≤ 20%	≤ 20%	
PF	≥ 0.90	≥ 0.90	≥ 0.90	
Min start temp*	-40°	-40°	-40°	
T Ambient	35°C	35°C	35°C	
Sound Rating**	≤ 22dba	≤ 22dba	≤ 22dba	

^{*} Emergency Battery packs are rated for Non-Insulated ceiling installation, and have a minimum starting temperature of 0°C.

^{**} Sound rating: Max at 1 ft at any dimming level.



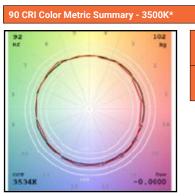
Lumen Data - 4-inch HCD4

Values based on medium distribution haze (semi-specular) finish reflector; field results and alternate finishes may vary. (Refer also to finish multipliers in photometry.) Photometric lab testing per IES LM-79-08; field results may vary.

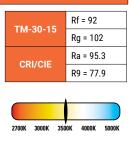
HCD4			270	ок	300	ок	350	00K	400	00K	500	10K
Fixture Kit Lumen Range	Lumen Selected	Wattage	Delivered Lumens	LPW								
LS510	500	5.0	561	112	572	114	581	116	589	118	597	119
LS510	750	7.5	830	111	846	113	859	115	871	116	884	118
LS510	1000	10.0	1078	108	1099	110	1116	112	1132	113	1148	115
LS1525	1500	15.0	1640	109	1672	111	1698	113	1721	115	1747	116
LS1525	2000	20.0	2144	107	2186	109	2219	111	2250	113	2284	114
LS1525	2500	25.0	2610	104	2661	106	2701	108	2739	110	2780	111
LS3040	3000	28.5	3197	112	3260	114	3310	116	3356	118	3406	120
LS3040	3500	33.5	3679	110	3751	112	3808	114	3862	115	3919	117
LS3040	4000	38.5	4135	107	4217	110	4281	111	4341	113	4405	114
LS4550	4000	38.0	4070	107	4150	109	4213	111	4272	112	4335	114
LS4550	4500	44.0	4501	102	4589	104	4659	106	4725	107	4795	109
LS4550	5000	48.0	4909	102	5005	104	5081	106	5153	107	5229	109

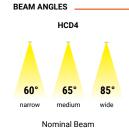
HCD4 WallWash			270	ок	300	юк	350	ок	400	ок	500	ок
Fixture Kit Lumen Range	Lumen Selected	Wattage	Delivered Lumens	LPW								
LS510	500	5.0	530	106	540	108	548	110	556	111	564	113
LS510	750	7.5	784	105	799	107	811	108	823	110	835	111
LS510	1000	10.0	1018	102	1038	104	1054	105	1069	107	1084	108
LS1525	1500	15.0	1549	103	1579	105	1603	107	1626	108	1650	110
LS1525	2000	20.0	2024	101	2064	103	2096	105	2125	106	2157	108
LS1525	2500	25.0	2464	99	2513	101	2551	102	2587	103	2625	105
LS3040	3000	28.5	3019	106	3079	108	3126	110	3169	111	3216	113
LS3040	3500	33.5	3474	104	3542	106	3596	107	3647	109	3701	110
LS3040	4000	38.5	3905	101	3982	103	4043	105	4100	106	4160	108
LS4550	4000	38.0	3843	101	3919	103	3978	105	4034	106	4094	108
LS4550	4500	44.0	4250	97	4334	98	4400	100	4462	101	4528	103
LS4550	5000	48.0	4635	97	4727	98	4799	100	4866	101	4938	103

COLOR METRICS - TM-30-15 & CRI/CIE (3500K)



___ Test Source





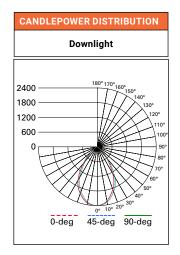
* Color values are based on HCD42TRMW reflector, other finishes and field results may vary.



Reference Illuminant

4" ROUND - MEDIUM DISTRIBUTION - HAZE FINISH, 2500 LUMEN MODEL, 90 CRI, 3500K

4" ROUND					
Test Number	P775982				
Fixture Kit	HCDJBLS1525CSD				
Reflector	HCD4TRH				
Lumens	2702 Lm				
Efficacy	108.1 Lm/W				
sc	0.98				
UGR	18				



CONE OF LIGHT						
000						
МН	FC	L	W			
5.5'	79.3	5.3	5.3			
7'	49	6.7	6.8			
8'	37.5	7.8	7.8			
9'	29.6	8.8	8.8			
10'	24	9.7	9.8			
12'	16.7	11.7	11.8			

CANDELA TABLE				
Degrees Vertical	Candela			
0	2397			
5	2356			
15	2070			
25	1623			
35	936			
45	372			
55	86			
65	14			
75	3			
85	0			
90	0			

ZONAL LUMEN SUMMARY					
Zone	Lumens	% Fixture			
0-30	1604	59.4			
0-40	2259	83.6			
0-60	2682	99.3			
0-90	2702	100			
90-180	0	0			
0-180	2702	100			

LUMINANCE					
Average Candela Degrees	Average 0° Luminance				
45	66172				
55	18826				
65	4109				
75	1459				
85	433				

Values are nominal for haze (semi-specular) reflectors, other may vary. SC = Spacing Criteria UGR = Unified Glare Rating

Photometric Multipliers (Nominal Lumen Values)

500 Lumen	750 Lumen	1000 Lumen	1500 Lumen	2000 Lumen	2500 Lumen	3000 Lumen	3500 Lumen	4000 Lumen	4000 Lumen	4500 Lumen	5000 Lumen
0.21	0.32	0.41	0.63	0.82	1.00	1.23	1.41	1.58	1.56	1.72	1.88

Multipliers for relative lumen values with other series models.

Color Finish Multipliers

Finish code	С	Н	W/WB	BB
Finish	Specular Clear	Haze (Semi-Specular)	Matte White	Matte Black
Multiplier	1.08	1.00	0.94	0.59

Multipliers for relative lumen values with other color finishes.

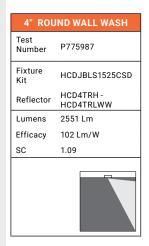
CCT Multipliers - 90CRI

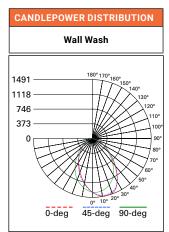
2700K	3000K		4000K	5000K
0.97	0.98	1.00	1.01	1.03

Multipliers for relative lumen values with other series color temperatures.



4" ROUND - MEDIUM WALL WASH DISTRIBUTION - HAZE FINISH, 2500 LUMEN MODEL, 90 CRI, 3500K





CANDELA TABLE			
Degrees Vertical	Candela		
0	1359		
5	1437		
15	1489		
25	1397		
35	1076		
45	723		
55	447		
65	244		
75	94		
85	6		
90	0		

ZONAL LUMEN SUMMARY					
Zone	Lumens	% Fixture			
0-30	981	38.5			
0-40	1504	59			
0-60	2257	88.5			
0-90	2551	100			
90-180	0	0			
0-180	2551	100			

LUMINANCE				
Average Candela Degrees	Average 0° Luminance			
45	128625			
55	98077			
65	72541			
75	45853			
85	8664			

SC = Spacing Criteria, nominal for haze (semi-specular) reflector, other may vary.

SINGLE UNIT FOOTCANDLES									
2.5' from wall (distance from fixture along wall)									
1	24.3	16.8	7.3	2.8	1.1	0.5	0.2		
2	40.9	30.1	15.3	6.8	3	1.4	0.7		
3	37.8	29.6	17.2	8.8	4.4	2.2	1.2		
4	28.2	23.4	15.4	8.9	4.9	2.7	1.5		
5	19.4	16.9	12.3	7.9	4.8	2.9	1.7		
6	13.1	11.9	9.4	6.6	4.4	2.8	1.8		
7	8.9	8.3	7	5.3	3.8	2.6	1.8		
8	6.3	5.9	5.2	4.2	3.2	2.3	1.6		
9	4.6	4.3	3.9	3.3	2.6	2	1.5		
10	3.4	3.3	3	2.6	2.2	1.7	1.3		

MULTIPLE UNIT I				
		2.5' from wa from fixture a		
1	28.3	25.2	27.1	
2	49.4	47.3	47.7	
3	48.6	49.5	46.6	
4	39	41.4	37.1	
5	29	31	27.4	
6	21	22.4	19.7	
7	15.1	16	14.2	
8	11	11.5	10.5	
9	8.2	8.5	7.9	
10	6.2	6.4	6	

2.5' from wall (Distance from fixture along wall) 4 ———						
26.1	16.8	25.4				
44.8	33.4	43.9				
43.3	37.4	42.2				
34.3	33.3	33.1				
25.4	26.4	24.3				
18.5	19.8	17.5				
13.5	14.6	12.7				
10	10.8	9.5				
7.6	8	7.2				
5.9	6.1	5.6				

OOTCANDLES

Photometric Multipliers (Nominal Lumen Values)

500 Lumen	750 Lumen	1000 Lumen	1500 Lumen	2000 Lumen	2500 Lumen	3000 Lumen	3500 Lumen	4000 Lumen	4000 Lumen	4500 Lumen	5000 Lumen
0.21	0.32	0.41	0.63	0.82	1.00	1.23	1.41	1.58	1.56	1.72	1.88

Multipliers for relative lumen values with other series models.

Color Finish Multipliers

Finish code	С	Н	W/WB	BB
Finish	Specular Clear	Haze (Semi-Specular)	Matte White	Matte Black
Multiplier	1.08	1.00	0.94	0.59

Multipliers for relative lumen values with other color finishes.

CCT Multipliers - 90CRI

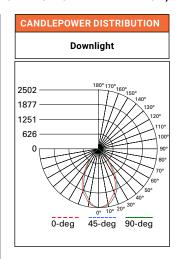
2700K	3000K		4000K	5000K
0.97	0.98	1.00	1.01	1.03

 $\label{lem:multipliers} \mbox{Multipliers for relative lumen values with other series color temperatures}.$



4" ROUND - NARROW DISTRIBUTION - HAZE FINISH, 2500 LUMEN MODEL, 90 CRI, 3500K

	4" ROUND		
Test Number	P775957		
Fixture Kit	HCDJBLS1525CSD		
Reflector	HCD42TRH		
Lumens	2519 Lm		
Efficacy	100.7 Lm/W		
SC	0.93		
UGR	15		



CONE OF LIGHT						
0.						
МН	FC	L	W			
5.5'	82.7	5.1	5			
7'	51	6.5	6.4			
8'	39.1	7.4	7.4			
9'	30.9	8.4	8.3			
10'	25	9.3	9.2			
12'	17.4	11.2	11.1			

CANDE	LA TABLE
Degrees Vertical	Candela
0	2496
5	2465
15	2172
25	1724
35	953
45	361
55	67
65	8
75	1
85	0
90	0

ZONAL LUMEN SUMMARY					
Zone	Lumens	% Fixture			
0-30	1590	63.1			
0-40	2168	86.1			
0-60	2509	99.6			
0-90	2519	100			
90-180	0	0			
0-180	2519	100			

LUMIN	NANCE
Average Candela Degrees	Average 0° Luminance
45	64250
55	14745
65	2382
75	632
85	0

Values are nominal for haze (semi-specular) reflectors, other may vary. SC = Spacing Criteria UGR = Unified Glare Rating

Photometric Multipliers (Nominal Lumen Values)

500 Lumen	750 Lumen	1000 Lumen	1500 Lumen	2000 Lumen	2500 Lumen	3000 Lumen	3500 Lumen	4000 Lumen	4000 Lumen	4500 Lumen	5000 Lumen
0.21	0.32	0.41	0.63	0.82	1.00	1.23	1.41	1.58	1.56	1.72	1.88

Multipliers for relative lumen values with other series models.

Color Finish Multipliers

Finish code	С	Н	W/WB	ВВ
Finish	Specular Clear	Haze (Semi-Specular)	Matte White	Matte Black
Multiplier	1.08	1.00	0.94	0.59

Multipliers for relative lumen values with other color finishes.

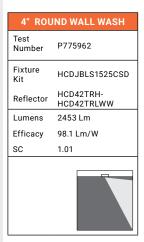
CCT Multipliers - 90CRI

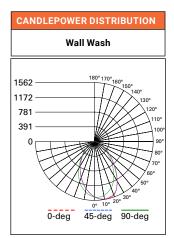
2700K	3000K	3500K	4000K	5000K
0.97	0.98	1.00	1.01	1.03

 $\label{eq:multipliers} \mbox{Multipliers for relative lumen values with other series color temperatures.}$



4" ROUND - NARROW WALL WASH DISTRIBUTION - HAZE FINISH, 2500 LUMEN MODEL, 90 CRI, 3500K





CANDEL	A TABLE
Degrees Vertical	Candela
0	1477
5	1535
15	1552
25	1384
35	996
45	644
55	401
65	224
75	84
85	6
90	0

ZONAL LUMEN SUMMARY						
Zone	Lumens	% Fixture				
0-30	1027	41.9				
0-40	1525	62.1				
0-60	2194	89.4				
0-90	2453	100				
90-180	0	0				
0-180	2453	100				

LUMINANCE				
Average Candela Degrees	Average 0° Luminance			
45	114583			
55	88072			
65	66734			
75	40845			
85	9386			

SC = Spacing Criteria, nominal for haze (semi-specular) reflector, other may vary.

SINGLE UNIT FOOTCANDLES							
2.5' from wall (distance from fixture along wall)							
1	22.4	14.2	5.9	2.2	0.9	0.4	0.2
2	36.6	26.1	12.9	5.6	2.4	1.1	0.6
3	34.1	25.9	14.8	7.4	3.6	1.8	1
4	26.6	21.3	13.5	7.7	4.2	2.3	1.3
5	19	16	11.2	7	4.1	2.4	1.5
6	13.3	11.6	8.8	6	3.8	2.4	1.5
7	9.2	8.4	6.8	5	3.4	2.3	1.5
8	6.5	6.1	5.2	4	2.9	2.1	1.4
9	4.7	4.5	4	3.2	2.5	1.8	1.3
10	3.6	3.4	3.1	2.6	2.1	1.6	1.2

		MULT	IPLE UNIT	FOOTCAND	.ES
		2.5' from wa from fixture a		(Distar	2.5 nce fr
1	25.6	21.3	24.6	23.8	
2	43.8	41.1	42.2	39.9	
3	43.3	43.4	41.5	38.8	
4	36.1	37.5	34.3	31.9	
5	27.7	29.3	26	24.2	
6	20.6	21.8	19.2	18.1	
7	15.2	16	14.2	13.5	
8	11.3	11.8	10.5	10.1	
9	8.5	8.8	8	7.7	
10	6.5	6.6	6.1	6	

2.5' from wall (Distance from fixture along wall) 4						
23.8	13.8	23.3				
39.9	28.6	39				
38.8	32.5	37.7				
31.9	29.7	30.8				
24.2	24.5	23.2				
18.1	19	17.1				
13.5	14.5	12.6				
10.1	10.9	9.5				
7.7	8.3	7.2				
6	6.3	5.6				

Photometric Multipliers (Nominal Lumen Values)

	500 Lumen	750 Lumen	1000 Lumen	1500 Lumen	2000 Lumen	2500 Lumen	3000 Lumen	3500 Lumen	4000 Lumen	4000 Lumen	4500 Lumen	5000 Lumen
ſ	0.21	0.32	0.41	0.63	0.82	1.00	1.23	1.41	1.58	1.56	1.72	1.88

Multipliers for relative lumen values with other series models.

Color Finish Multipliers

Finish code	С	Н	W/WB	BB
Finish	Specular Clear	Haze (Semi-Specular)	Matte White	Matte Black
Multiplier	1.08	1.00	0.94	0.59

Multipliers for relative lumen values with other color finishes.

CCT Multipliers - 90CRI

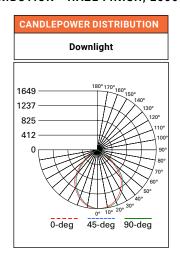
2700K	3000K		4000K	5000K
0.97	0.98	1.00	1.01	1.03

 $\label{lem:multipliers} \mbox{Multipliers for relative lumen values with other series color temperatures.}$



4" ROUND - WIDE DISTRIBUTION - HAZE FINISH, 2500 LUMEN MODEL, 90 CRI, 3500K

	4" ROUND
Test Number	P775932
Fixture Kit	HCDJBLS1525CSD
Reflector	HCD41TRH
Lumens	2935 Lm
Efficacy	117.4 Lm/W
sc	1.15
UGR	23



CONE OF LIGHT					
0.00					
МН	FC	L	W		
5.5'	54.4	6.2	6.2		
7'	33.6	8	8		
8'	25.7	9.1	9.1		
9'	20.3	10.3	10.3		
10'	16.4	11.5	11.4		
12'	11.4	13.8	13.8		

CANDELA TABLE				
Degrees Vertical	Candela			
0	1640			
5	1637			
15	1568			
25	1411			
35	1177			
45	826			
55	381			
65	72			
75	7			
85	0			
90	0			

ZONAL LUMEN SUMMARY					
Zone	Lumens	% Fixture			
0-30	1222	41.6			
0-40	1930	65.8			
0-60	2847	97			
0-90	2935	100			
90-180	0	0			
0-180	2935	100			

LUMINANCE							
Average Candela Degrees	Average 0° Luminance						
45	147046						
55	83552						
65	21441						
75	3306						
85	722						

Values are nominal for haze (semi-specular) reflectors, other may vary. SC = Spacing Criteria UGR = Unified Glare Rating

Photometric Multipliers (Nominal Lumen Values)

500 Lumen	750 Lumen	1000 Lumen	1500 Lumen	2000 Lumen	2500 Lumen	3000 Lumen	3500 Lumen	4000 Lumen	4000 Lumen	4500 Lumen	5000 Lumen
0.21	0.32	0.41	0.63	0.82	1.00	1.23	1.41	1.58	1.56	1.72	1.88

Multipliers for relative lumen values with other series models.

Color Finish Multipliers

Finish code	С	СН		ВВ
Finish	Specular Clear	Haze (Semi-Specular)	Matte White	Matte Black
Multiplier	1.08	1.00	0.94	0.59

Multipliers for relative lumen values with other color finishes.

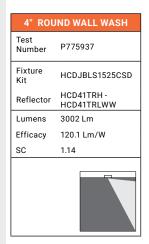
CCT Multipliers - 90CRI

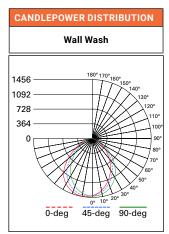
2700K	3000K	3500K	4000K	5000K
0.97	0.98	1.00	1.01	1.03

Multipliers for relative lumen values with other series color temperatures.



4" ROUND - WIDE WALL WASH DISTRIBUTION - HAZE FINISH, 2500 LUMEN MODEL, 90 CRI, 3500K





A TABLE
Candela
1431
1388
1249
1050
820
580
352
161
78
12
0

ZONAL LUMEN SUMMAR							
Zone	Lumens	% Fixture					
0-30	1064	35.4					
0-40	1680	56					
0-60	2643	88					
0-90	3002	100					
90-180	0	0					
0-180	3002	100					

LUMINANCE							
Average Candela Degrees	Average 0° Luminance						
45	103281						
55	77343						
65	47824						
75	37927						
85	17328						

SC = Spacing Criteria, nominal for haze (semi-specular) reflector, other may vary.

	SINGLE UNIT FOOTCANDLES										
	2.5' from wall (distance from fixture along wall)										
1		14.7	10.9	5.6	2.5	1.2	0.6	0.3			
2	2	33	25.1	13.3	6.1	2.7	1.3	0.7			
3	3	29.6	24.5	15.5	8.4	4.3	2.2	1.2			
4		21.2	18.6	13.4	8.4	4.9	2.8	1.6			
5	5	14.5	13.2	10.4	7.3	4.8	3	1.9			
e	5	10	9.3	7.8	5.9	4.2	2.9	1.9			
7	,	7.1	6.7	5.8	4.7	3.6	2.6	1.8			
8	3	5.1	4.9	4.4	3.7	2.9	2.3	1.7			
g	,	3.8	3.7	3.4	2.9	2.4	1.9	1.5			
1	0	2.9	2.8	2.6	2.3	2	1.6	1.3			

		MULT	IPLE UNIT	FOO	TCANDLE	S
		2.5' from wa from fixture a	long wall)		(Distance	2. :
1	18.1	17.8	17.3		16.4	
2	40.9	40.9	39.1		36.8	
3	39.8	42.3	38		35.1	
4	31	33.7	29.7		27.2	
5	22.8	24.7	21.8		20.1	
6	16.6	17.8	16		14.8	
7	12.2	12.9	11.8		11.1	
8	9.1	9.5	8.8		8.4	
9	6.9	7.2	6.7		6.4	
10	5.3	5.5	5.2		5	

	2.5' from wa from fixture a	
16.4	12.7	15.9
36.8	29.5	35.8
35.1	33.3	33.9
27.2	28.3	26.2
20.1	21.7	19.3
14.8	16.1	14.3
11.1	12	10.6
8.4	9	8.1
6.4	6.8	6.2
5	5.3	4.9

Photometric Multipliers (Nominal Lumen Values)

500 Lumen	750 Lumen	1000 Lumen	1500 Lumen	2000 Lumen	2500 Lumen	3000 Lumen	3500 Lumen	4000 Lumen	4000 Lumen	4500 Lumen	5000 Lumen
0.21	0.32	0.41	0.63	0.82	1.00	1.23	1.41	1.58	1.56	1.72	1.88

Multipliers for relative lumen values with other series models.

Color Finish Multipliers

Finish code	С	Н	W/WB	BB
Finish	Specular Clear	Haze (Semi-Specular)	Matte White	Matte Black
Multiplier	1.08	1.00	0.94	0.59

Multipliers for relative lumen values with other color finishes.

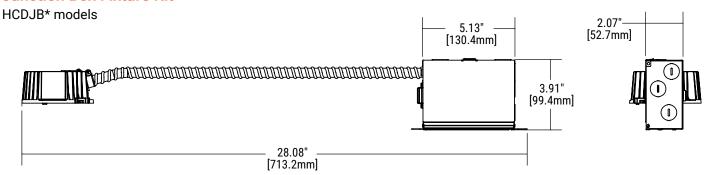
CCT Multipliers - 90CRI

2700K	3000K		4000K	5000K
0.97	0.98	1.00	1.01	1.03

Multipliers for relative lumen values with other series color temperatures.

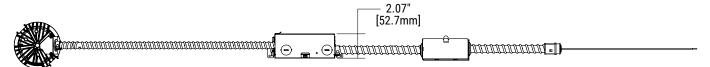


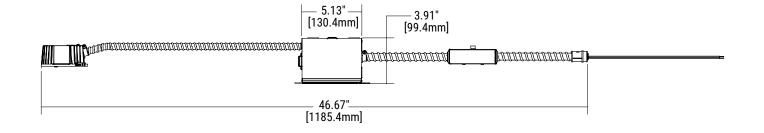
Junction Box Fixture Kit



Quick Connect Fixture Kit

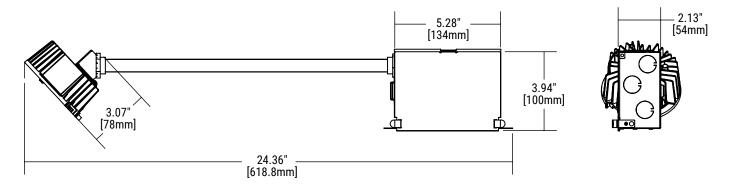
HCDQC* models HCDQC*347 models (Canada only)





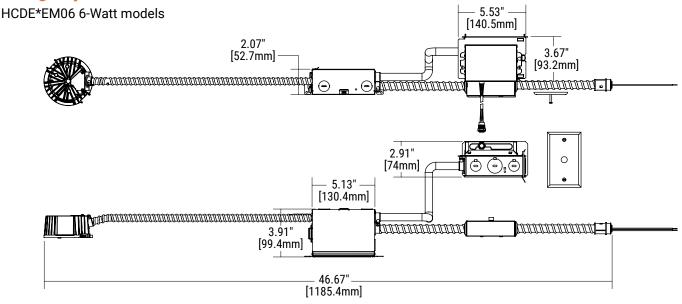
Chicago Plenum Fixture Kit

HCDCP* models

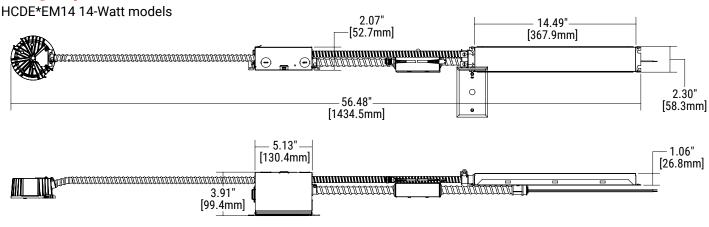




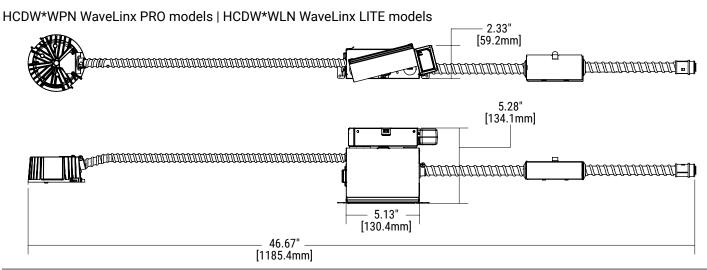
Emergency Fixture Kit



Emergency Fixture Kit



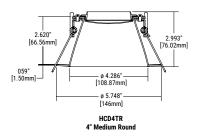
WaveLinx Wireless Fixture Kit



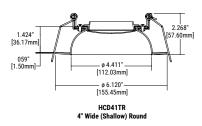


Reflectors

Medium Round Reflectors

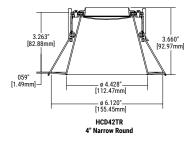


Wide (Shallow) Reflectors



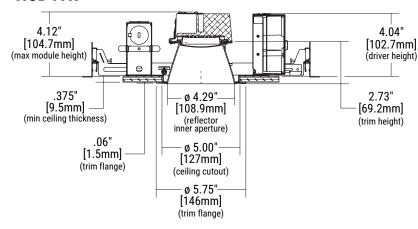
Narrow Reflectors

Flange & optic dimensions match HC Series Round Reflectors (41x)



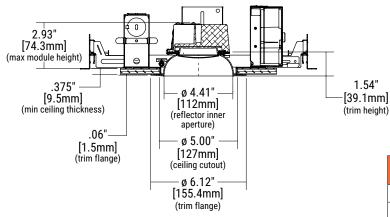
4" New Construction - Round

HCD4TR*



13.88" [352.5mm]

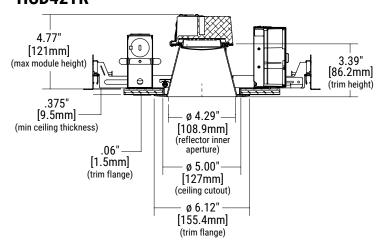
HCD41TR*



Model	Distribution	Max. Module Height	Trim Height	Trim Flange
HCD42TR	Narrow	4.77"	3.39"	6.12"
HCD4TR	Medium	4.12"	2.73"	5.75"
HCD41TR	Wide	2.93"	1.54"	6.12"

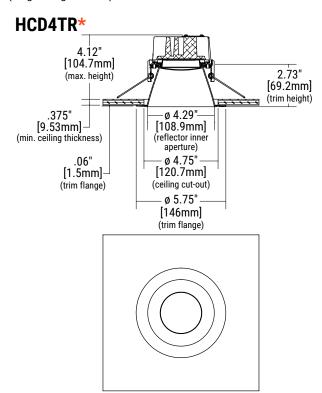
^{*} Max. height with hanger bar bracket 4.0".

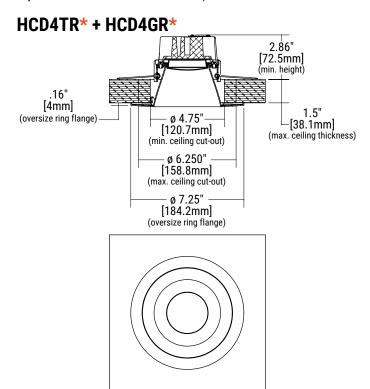
HCD42TR*



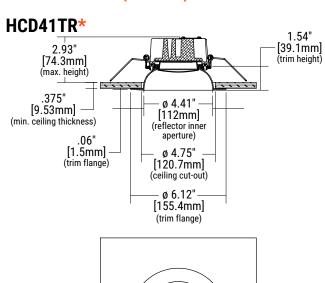
4" Retrofit - Medium Round Reflector & Oversized Goof Ring

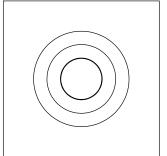
(Rings designed for optimum fit with medium distribution series reflectors, but may be used with others as noted below)

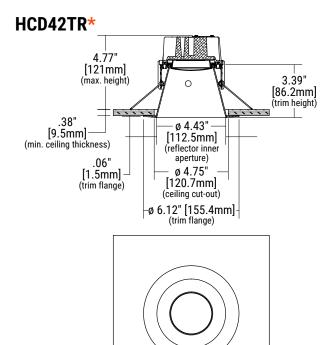




4" Retrofit - Wide (Shallow) Round Reflector & Narrow Round Reflector







Connected Solutions



WaveLinx LITE Wireless Node - WLN

WaveLinx LITE devices only compatible with the WaveLinx LITE system.

- · Intuitive Android™ or Apple® iOS® app for basic system code compliant set up and configuration via Bluetooth
- Up to 28 unique areas per project site (WaveLinx LITE Bluetooth network)
- Up to 50 devices for an area, any one of 16 control zones, up to 6 occupancy sets, and custom lighting scenes
- · Refer to the WaveLinx system specifications for details

WaveLinx mobile app settings







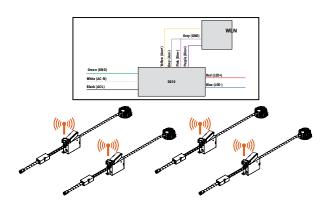








WaveLinx LITE Wireless Node (WLN) Wiring Diagram





WaveLinx PRO Wireless Node - WPN

WaveLinx PRO devices only compatible with the WaveLinx PRO system.

- · WaveLinx Wireless functionality configures zones and customizes settings from one secure mobile app
- Automatic code commissioning that meets the strictest codes
- Fixtures and sensors integrate with WaveLinx Area Controller, Wall Stations, and Control Devices
- Stand-Alone Offices or Entire Building Network Installations



WaveLinx mobile app settings









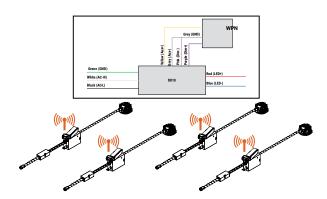








WaveLinx PRO Wireless Node (WPN) Wiring Diagram



WaveLinx CORE Building Management Integration

