

Project		Catalog #		Type	
Prepared by		Notes		Date	



HALO Commercial

HCD Professional Direct Mount Commercial Downlighting System

6" • 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

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Top Product Features

- 6" 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

Product Certification*



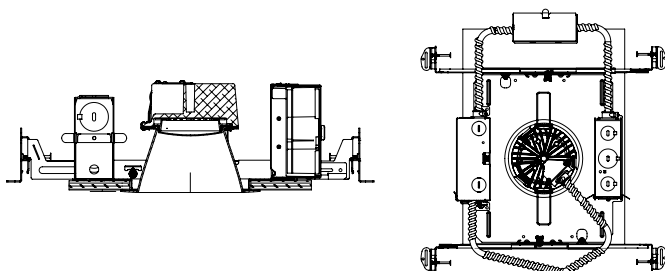
Product Features



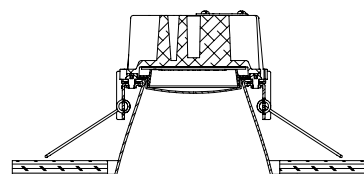
Control Compatibility



New Construction



Direct Mount



Dimensional and Mounting Details [page 19](#)

[Dimensional & Mounting Details](#)

Fixture Kits Overview

HCD LED Fixture Kits fit any 6" 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

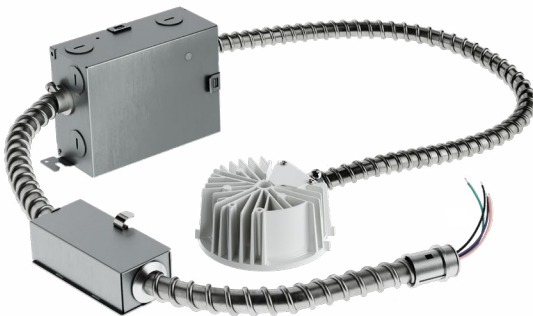
Junction Box Fixture Kit



Chicago Plenum Fixture Kit



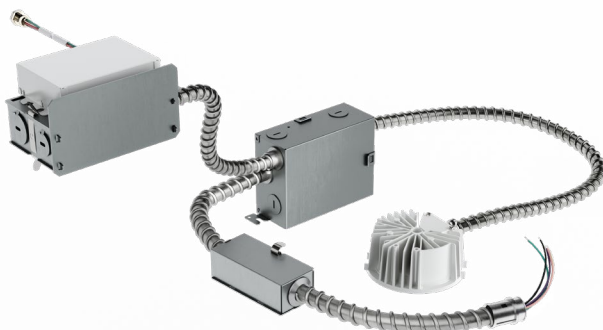
Quick Connect Fixture Kit



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.



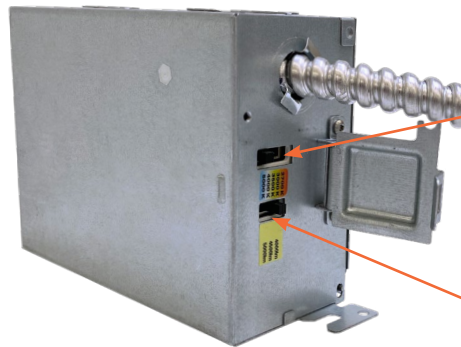
Junction Box Fixture Kit with 6" Reflector

Lumen & CCT Switches

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

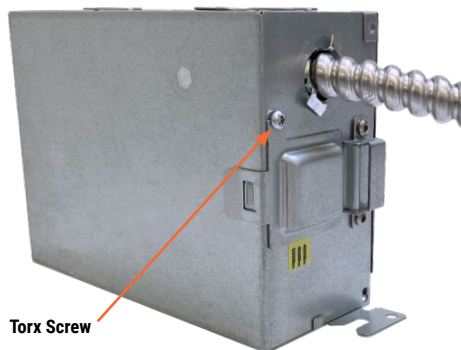
Selectable Fixture Kits

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.



Torx Screw

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

6" • Round

- 6" 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



HCD6TRXX

Wide-Shallow Distribution Reflectors

6" • Round

- 6" 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)



HCD61TRXX

Narrow Distribution Reflectors

6" • Round

- 6" round self-flanged, narrow distribution reflectors fit any fixture kit
- Narrow distribution reflectors equivalent with HC Series optical aperture, regression, and flange dimensions (HC6 – 61x)
- 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)



HCD62TRXX

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
6" Mounting Frames	HCD6MFR	6.375" Retrofit & New	10.5"	24.5"

Basic Mounting Frames (No junction box)



Mounting Frame only, no junction box

- HCD6MFR= 6" 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

- HCD6MFRJB = 6" 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 fixture kits.

Quick Connect Mounting Frames



Mounting Frame w/ 5-conductor Quick-Connect

- HCD6MFRQC = 6" 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 WaveLinX fixture kits.

Chicago Plenum Mounting Frames



Mounting Frame w/ CCEA compliant Chicago Plenum Junction Box

- HCD6MFRCP = 6" Round frame

Compatible Fixture Kits

- HCDCP Chicago Plenum fixture kits, CCEA compliant
- Chicago Plenum conduit/conduit connectors by installer, recommend 26in long.

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

LED Fixture Kits - Order Information

Direct mount = fixture kit + reflector

FIXTURE KITS	Sample Order Numbers:	
Luminaire has two parts ordered separately.	1) Fixture Kit	2) Reflector
Direct mounts to ceiling, mounting frame or retrofit existing fixture.	HCDQCLS510CSD	HCD6TRCWF

Domestic Preferences ⁽²⁾	Fixture 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.	Notes (5) Chicago Plenum (CP) fixture 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. All - Fixture Kits Notes 1. Fixture Kits are universal for all reflectors. 2. For installation from below a finished ceiling, direct-mount through the ceiling opening. The installer must cutout a precise aperture opening for the appropriate reflector size.	

Selectable Options ⁽⁹⁾			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 L10 = 1000 lumen - IC L15 = 1500 lumen - Non-IC L20 = 2000 lumen - Non-IC L25 = 2500 lumen - Non-IC L30 = 3000 lumen - Non-IC*** L35 = 3500 lumen - Non-IC*** L40 = 4000 lumen - Non-IC*** L41 = 4000 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⁾
Notes (0) Selectable Lumen and Selectable CCT must be specified together - Selectable example: LS510, CS Factory Preset Lumen and CCT must be specified together - Fixed Preset example: L05, 935 *Field-selected switch settings by installer accessed in hinged snap-latch cover over selectable switches, protects lumen and CCT settings yet allows for quick changes. OR ** 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 Non-IC, Marked Spacing - Marked Spacing Center to Center of Adjacent Luminaires = 36" / - Center of Luminaire to Building Member = 18" / - Minimum overhead = 0.5"			Notes (1) Not available with CP models

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. ⁽³⁾⁽⁴⁾ Emergency Options with WaveLinX (Add emergency with WaveLinX suffix code option to HCDE emergency fixture kits only) EM06WPN = 6-watt emergency with WaveLinX Pro Wireless Node EM06WLN = 6-watt emergency with WaveLinX LITE Wireless Node EM14WPN = 14-watt emergency with WaveLinX Pro Wireless Node EM14WLN = 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.

MOUNTING FRAMES - Order Information

New construction luminaire = mounting frame + fixture kit + reflector

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.	HCD6MFRQC	HCDQCLS510CSD	HCD6TRCWF

Domestic Preferences ⁽²⁾	Accessories	
[Blank] =Standard BAA =Buy American Act TAA =Trade Agreements Act	Basic New Construction Mounting Frames HCD6MFR = 6" Round mounting frame Ceiling cut-outs: Round 6.375"	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 HCD6MFRJB = 6" Round mounting frame Ceiling cut-outs: Round 6.375"	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 HCD6MFRQC = 6" Round mounting frame Ceiling cut-outs: Round 6.375"	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 HCD6MFRCP = 6" Round mounting frame Ceiling cut-outs: Round 6.375"	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 PREFERENCES website for more information.	New Construction Mounting Frame Notes: <ul style="list-style-type: none"> • 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 	Notes

Reflectors - Medium Distribution Round - HCD6TR Series

>New construction luminaire = mounting frame + fixture kit + reflector

>Direct mount / Retrofit luminaire = fixture kit + reflector

Medium Reflectors – New Construction	Sample Order Numbers:			
New construction: Three parts ordered separately	1) Mounting Frame	2) Fixture Kit	3) Medium Reflector	Accessory (+ Medium Wall Wash)
+ Accessory: Lens Wall Wash Kit – field installed	HCD6MFRQC	HCDQCLS510CSD	HCD6TRCWF	HCD6TRLWW

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	HCD6TRCWF	HCD6TRLWW

Domestic Preferences ⁽²⁾	Medium Reflectors	Type	Finish	Emergency	Wall Wash Accessory Kits (Field Installed - Order Separately)
[Blank]=Standard BAA=Buy American Act TAA=Trade Agreements Act	HCD6T = 6" 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) MWB = 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.	HCD6TRLWW = 6" Round 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: • 6" round square work with all fixture kits • Medium reflectors compatible with HCD6MFR* round mounting frames • Reflectors attach to fixture kits 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 • 6" Round = 6.375" Retrofit & 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	Notes Wall wash kits are not available for IEM reflectors. For BAA/TAA wall wash option, add "WW" to the reflector catalog (example: TAA-HCD6TRCWW).

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	2) Fixture Kit	3) Medium Reflector	Accessory (+ Medium Goof Ring)
+ Accessory: Oversize Ring – field installed	HCD6MFRQC	HCDQCLS510CSD	HCD6TRCWF	HCD6GRC

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	HCD6TRCWF	HCD6GRC

Domestic Preferences ⁽²⁾	Oversize Medium "Goof" Ring	Type	Finish
[Blank]=Standard BAA=Buy American Act TAA=Trade Agreements Act	HCD6G = 6" Goof Ring for Medium Reflectors <i>Round - 6.50" MIN ceiling opening 7.875" MAX ceiling opening, 8.875" OD</i>	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 – HCD61TR Series

>New construction luminaire = mounting frame + fixture kit + reflector

>Direct mount / Retrofit luminaire = fixture kit + reflector

Wide (Shallow) Reflector – New Construction	Sample Order Numbers:			
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	HCD6MFRQC	HCDQCLS510CSD	HCD61TRC	HCD61TRLWW

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	HCD61TRC	HCD61TRLWW

Domestic Preferences ⁽²⁾	Wide (Shallow) Reflectors	Type	Finish	Emergency	Wall Wash Accessory Kits (Field Installed - Order Separately)
[Blank]=Standard BAA=Buy American Act TAA=Trade Agreements Act	HCD61T = 6" 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.	HCD61TRLWW = 6" Wide (Shallow) Round 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: • Wide (Shallow) reflectors work with all fixture kits • Compatible with HCD6MFR* 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 • 6" Round = 6.375" Retrofit & 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	Notes Wall wash kits are not available for IEM reflectors. For BAA/TAA wall wash option, add "WW" to the reflector catalog (example: TAA-HCD61TRCWW).

Reflectors - Narrow Distribution Round – HCD62TR Series

(Narrow distribution round reflectors equivalent with HC6 series 61x reflector dimensions)

>New construction luminaire = mounting frame + fixture kit + reflector

>Direct mount / Retrofit luminaire = fixture kit + reflector

Narrow Reflectors – New Construction	Sample Order Numbers:			
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	HCD6MFRQC	HCDQCLS510CSD	HCD62TRC	HCD62TRLWW

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	HCD62TRC	HCD62TRLWW

Domestic Preferences ⁽²⁾	Narrow Reflectors	Type	Finish	Emergency	Wall Wash Accessory Kits (Field Installed - Order Separately)
[Blank]=Standard BAA=Buy American Act TAA=Trade Agreements Act	HCD62T = 6" 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.	HCD62TRLWW = 6" 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 HCD6MFR* 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 • 6" Round = 6.375" Retrofit & 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	Notes Wall wash kits are not available for IEM reflectors. For BAA/TAA wall wash option, add "WW" to the reflector catalog (example: TAA-HCD62TRCWW).

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 [WaveLinx Connected Lighting website](#) 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 HCD6 = 6.375"
- 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-conductor 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", Shallow-Wide 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 5000K 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 quick-connect 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 [DOMESTIC PREFERENCES](#) 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

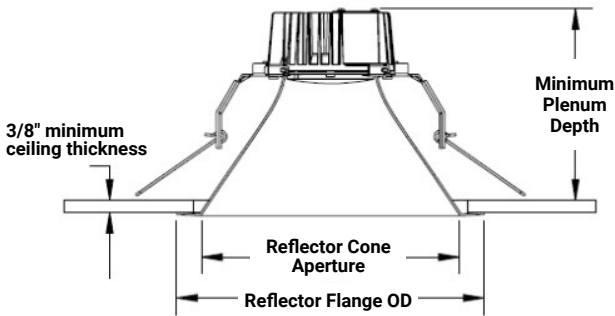
- Five year limited warranty, consult website for details. www.cooperlighting.com/legal

Technical Data

Ceiling Cutout Openings and Reflector Flange/Aperture

Ceiling Opening		Retrofit / Remodel & New Construction					
Type	Reflectors	Distribution	Nominal Ceiling Opening Remodel / Retrofit	Nominal Ceiling Opening New Construction	Minimum Plenum Depth*	Reflector Flange OD	Reflector Cone Aperture
Round	HCD6TR	Medium	6.375" Standard Hole Saw	6.375" Standard Hole Saw	5.50"	7.38"	5.95"
	HCD61TR	Wide			4.00"	7.76"	6.08"
	HCD62TR	Narrow			5.50"	7.76"	6.08"

* 12.5" 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	120V	277V	347V
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 - 6-inch HCD6

Values based on medium distribution haze (semi-specular) finish reflector; field results and alternate finishes may vary. (Refer also to finish multipliers in photometry.)

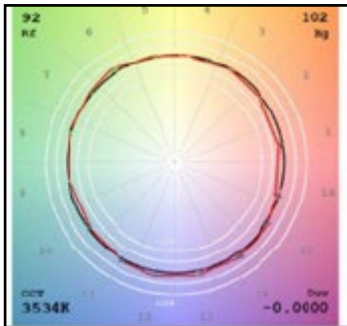
Photometric lab testing per IES LM-79-08; field results may vary.

HCD6			2700K		3000K		3500K		4000K		5000K	
Fixture Kit Lumen Range	Lumen Selected	Wattage	Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW
LS510	500	5.0	597	119	609	122	618	124	627	125	636	127
LS510	750	7.5	884	118	901	120	915	122	928	124	942	126
LS510	1000	10.0	1148	115	1171	117	1188	119	1205	121	1223	122
LS1525	1500	15.0	1746	116	1781	119	1808	121	1833	122	1860	124
LS1525	2000	20.0	2283	114	2328	116	2363	118	2396	120	2432	122
LS1525	2500	25.0	2779	111	2834	113	2877	115	2917	117	2960	118
LS3040	3000	28.5	3405	119	3472	122	3525	124	3574	125	3627	127
LS3040	3500	33.5	3917	117	3995	119	4056	121	4112	123	4173	125
LS3040	4000	38.5	4404	114	4491	117	4559	118	4623	120	4692	122
LS4550	4000	38.0	4334	114	4419	116	4487	118	4549	120	4617	121
LS4550	4500	44.0	4793	109	4887	111	4962	113	5031	114	5106	116
LS4550	5000	48.0	5227	109	5330	111	5411	113	5487	114	5569	116

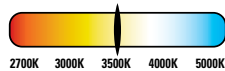
HCD6 WallWash			2700K		3000K		3500K		4000K		5000K	
Fixture Kit Lumen Range	Lumen Selected	Wattage	Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW	Delivered Lumens	LPW
LS510	500	5.0	535	107	545	109	554	111	561	112	570	114
LS510	750	7.5	792	106	807	108	819	109	831	111	843	112
LS510	1000	10.0	1028	103	1048	105	1064	106	1079	108	1095	110
LS1525	1500	15.0	1564	104	1595	106	1619	108	1642	109	1666	111
LS1525	2000	20.0	2044	102	2085	104	2116	106	2146	107	2178	109
LS1525	2500	25.0	2489	100	2538	102	2576	103	2612	104	2651	106
LS3040	3000	28.5	3049	107	3109	109	3156	111	3200	112	3248	114
LS3040	3500	33.5	3508	105	3577	107	3632	108	3682	110	3737	112
LS3040	4000	38.5	3944	102	4021	104	4083	106	4140	108	4201	109
LS4550	4000	38.0	3881	102	3957	104	4018	106	4074	107	4134	109
LS4550	4500	44.0	4292	98	4377	99	4443	101	4506	102	4572	104
LS4550	5000	48.0	4681	98	4773	99	4846	101	4914	102	4986	104

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

90 CRI Color Metric Summary - 3500K*

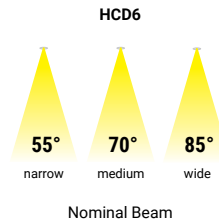


TM-30-15	Rf = 92
	Rg = 102
CRI/CIE	Ra = 95.3
	R9 = 77.9



Reference Illuminant — Test Source

BEAM ANGLES

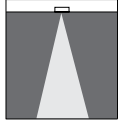
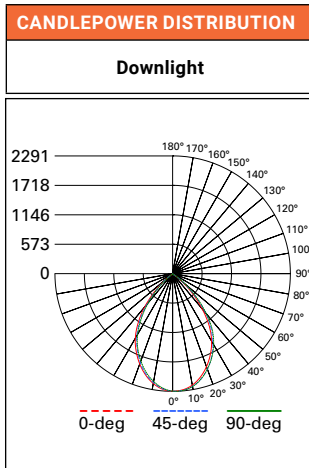


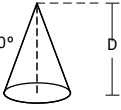
* Color values are based on HCD42TRMW reflector, other finishes and field results may vary.

Photometric Data

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

6" ROUND	
Test Number	P776082
Fixture Kit	HCDJBLS1525CSD
Reflector	HCD6TRH
Lumens	2877 Lm
Efficacy	115.1 Lm/W
SC	1.02
UGR	16

CONE OF LIGHT			
			
MH	FC	L	W
5.5'	75.7	5.5	5.5
7'	46.8	7.1	7.1
8'	35.8	8.1	8
9'	28.3	9.1	9.1
10'	22.9	10.1	10.1
12'	15.9	12.2	12.2

CANDELA TABLE	
Degrees Vertical	Candela
0	2288
5	2269
15	2084
25	1738
35	1247
45	575
55	98
65	1
75	0
85	0
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	1576	54.8
0-40	2328	80.9
0-60	2873	99.9
0-90	2877	100
90-180	0	0
0-180	2877	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	44609
55	9395
65	169
75	64
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	C	H	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

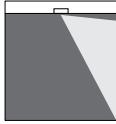
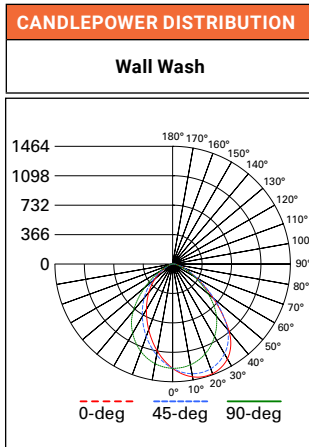
2700K	3000K	3500K	4000K	5000K
0.97	0.98	1.00	1.01	1.03

Multipliers for relative lumen values with other series color temperatures.

Photometric Data

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

6" ROUND WALL WASH	
Test Number	P776087
Fixture Kit	HCDJBL1525CSD
Reflector	HCD6TRH - HCD6TRLWW
Lumens	2576 Lm
Efficacy	1034 Lm/W
SC	1.17

CANDELA TABLE	
Degrees Vertical	Candela
0	1310
5	1386
15	1461
25	1428
35	1258
45	855
55	459
65	202
75	65
85	4
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	979	38
0-40	1550	60.2
0-60	2358	91.5
0-90	2576	100
90-180	0	0
0-180	2576	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	66317
55	43841
65	26190
75	13704
85	2830

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	18.8	13	5.4	1.9	0.7	0.3	0.1
2	44.8	32	15.2	6.2	2.5	1.1	0.5
3	45.9	36.2	20.4	9.7	4.5	2.1	1
4	31.7	27.7	19.2	10.9	5.7	3	1.6
5	20.2	18.5	14.5	9.9	6	3.5	2
6	13.2	12.3	10.3	7.9	5.5	3.5	2.2
7	8.9	8.4	7.4	6	4.6	3.3	2.2
8	6.2	6	5.4	4.5	3.7	2.8	2.1
9	4.5	4.3	4	3.5	2.9	2.4	1.8
10	3.3	3.2	3	2.7	2.3	1.9	1.6

MULTIPLE UNIT FOOTCANDLES									
2.5' from wall (Distance from fixture along wall)			2.5' from wall (Distance from fixture along wall)			2.5' from wall (Distance from fixture along wall)			
1	21.3	18.6	20.7	19.8	11.9	19.5	19.8	11.9	19.5
2	52.3	48.7	51	47.9	32.9	47.3	47.9	32.9	47.3
3	57.6	59.1	55.7	51.4	43.9	50.4	51.4	43.9	50.4
4	44.3	48.5	42.6	38.6	39.9	37.4	38.6	39.9	37.4
5	31	33.7	30.2	27.1	29.6	26.2	27.1	29.6	26.2
6	21.5	23.1	21	19.1	20.9	18.7	19.1	20.9	18.7
7	15.1	16.1	14.9	13.7	14.9	13.4	13.7	14.9	13.4
8	10.9	11.5	10.7	10	10.8	9.9	10	10.8	9.9
9	8.1	8.4	8	7.5	8	7.4	7.5	8	7.4
10	6.1	6.3	6	5.7	6.1	5.6	5.7	6.1	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
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	C	H	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

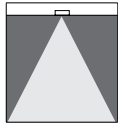
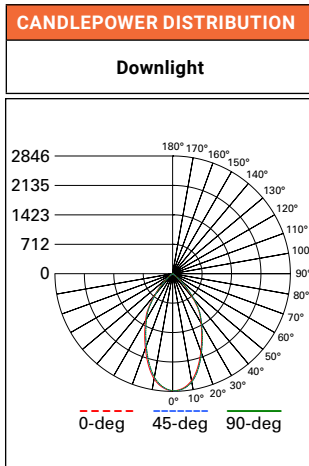
2700K	3000K	3500K	4000K	5000K
0.97	0.98	1.00	1.01	1.03

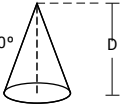
Multipliers for relative lumen values with other series color temperatures.

Photometric Data

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

6" ROUND	
Test Number	P776057
Fixture Kit	HCDJBL1525CSD
Reflector	HCD62TRH
Lumens	2644 Lm
Efficacy	105.8 Lm/W
SC	0.82
UGR	13

CONE OF LIGHT				
				
MH	FC	L	W	
5.5'	94	4.5	4.4	
7'	58.1	5.7	5.6	
8'	44.4	6.5	6.5	
9'	35.1	7.3	7.3	
10'	28.4	8.2	8.1	
12'	19.8	9.8	9.8	

CANDELA TABLE	
Degrees Vertical	Candela
0	2841
5	2798
15	2356
25	1675
35	1122
45	413
55	24
65	4
75	1
85	0
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	1652	62.5
0-40	2303	87.1
0-60	2638	99.8
0-90	2644	100
90-180	0	0
0-180	2644	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	32050
55	2256
65	558
75	275
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	C	H	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

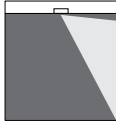
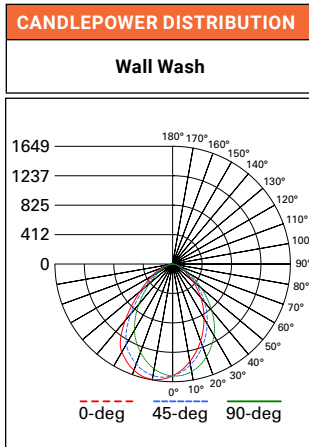
2700K	3000K	3500K	4000K	5000K
0.97	0.98	1.00	1.01	1.03

Multipliers for relative lumen values with other series color temperatures.

Photometric Data

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

6" ROUND WALL WASH	
Test Number	P776062
Fixture Kit	HCDJBL1525CSD
Reflector	HCD62TRH - HCD62TRLWW
Lumens	2859 Lm
Efficacy	114.4 Lm/W
SC	1.09

CANDELA TABLE	
Degrees Vertical	Candela
0	1575
5	1496
15	1281
25	1021
35	754
45	492
55	266
65	152
75	72
85	12
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	1135	39.7
0-40	1751	61.2
0-60	2567	89.8
0-90	2859	100
90-180	0	0
0-180	2859	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	38167
55	25452
65	19652
75	15293
85	7862

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	15.8	11	5.2	2.2	1	0.4	0.2
2	25.9	19.6	10	4.5	2.1	1	0.5
3	26.3	21.7	13.3	6.8	3.3	1.7	0.9
4	19.9	17.4	12.4	7.5	4.2	2.3	1.3
5	14	12.7	10	6.9	4.3	2.6	1.5
6	9.9	9.2	7.6	5.8	4	2.6	1.7
7	7.1	6.7	5.8	4.6	3.5	2.5	1.7
8	5.2	4.9	4.4	3.7	2.9	2.2	1.6
9	3.9	3.7	3.4	2.9	2.4	1.9	1.5
10	3	2.9	2.7	2.3	2	1.7	1.3

MULTIPLE UNIT FOOTCANDLES						
2.5' from wall (Distance from fixture along wall)			2.5' from wall (Distance from fixture along wall)			
1	18.8	17	18	17.2	11.7	16.8
2	31.6	31	30.4	28.7	21.9	28
3	34.5	36.7	33.2	30.5	28.3	29.7
4	28.4	31.1	27.4	24.8	25.9	24
5	21.6	23.5	20.9	19	20.6	18.3
6	16.1	17.3	15.6	14.4	15.7	13.9
7	12	12.8	11.7	10.9	11.8	10.6
8	9.1	9.6	8.9	8.3	9	8.1
9	7	7.3	6.8	6.5	6.9	6.3
10	5.4	5.6	5.3	5.1	5.4	5

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	C	H	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

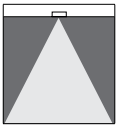
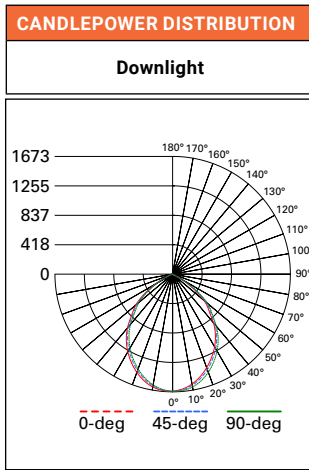
2700K	3000K	3500K	4000K	5000K
0.97	0.98	1.00	1.01	1.03

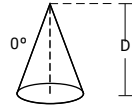
Multipliers for relative lumen values with other series color temperatures.

Photometric Data

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

6" ROUND	
Test Number	P776032
Fixture Kit	HCDJBL51525CSD
Reflector	HCD61TRH
Lumens	2982 Lm
Efficacy	119.3 Lm/W
SC	1.12
UGR	22

CONE OF LIGHT				
				
MH	FC	L	W	
5.5'	55.3	6.1	6.1	
7'	34.1	7.7	7.8	
8'	26.1	8.8	8.8	
9'	20.6	10	10	
10'	16.7	11.1	11.1	
12'	11.6	13.3	13.3	

CANDELA TABLE	
Degrees Vertical	Candela
0	1670
5	1647
15	1522
25	1323
35	1079
45	750
55	399
65	48
75	0
85	0
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	1216	40.8
0-40	1906	63.9
0-60	2899	97.2
0-90	2982	100
90-180	0	0
0-180	2982	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	58115
55	38116
65	6278
75	106
85	189

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	C	H	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

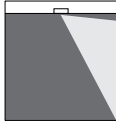
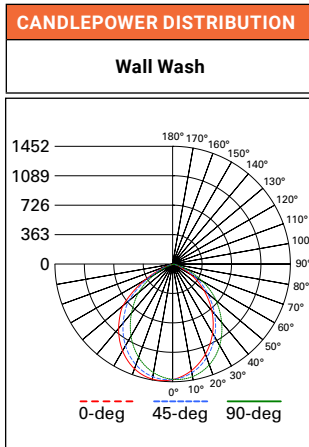
2700K	3000K	3500K	4000K	5000K
0.97	0.98	1.00	1.01	1.03

Multipliers for relative lumen values with other series color temperatures.

Photometric Data

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

6" ROUND WALL WASH	
Test Number	P776037
Fixture Kit	HCDJBL1525CSD
Reflector	HCD61TRH - HCD61TRLWW
Lumens	3037 Lm
Efficacy	121.5 Lm/W
SC	1.16

CANDELA TABLE	
Degrees Vertical	Candela
0	1428
5	1386
15	1256
25	1074
35	850
45	601
55	346
65	127
75	41
85	6
90	0

ZONAL LUMEN SUMMARY		
Zone	Lumens	% Fixture
0-30	1065	35.1
0-40	1690	55.6
0-60	2730	89.9
0-90	3037	100
90-180	0	0
0-180	3037	100

LUMINANCE	
Average Candela Degrees	Average 0° Luminance
45	46594
55	33098
65	16422
75	8705
85	3459

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	10.6	7.7	3.5	1.4	0.6	0.3	0.1
2	33.4	25.9	14	6.1	2.4	1	0.5
3	30.8	25.8	16.7	9.3	4.8	2.4	1.2
4	21.9	19.4	14.2	9.1	5.5	3.2	1.9
5	14.9	13.6	10.9	7.8	5.2	3.4	2.2
6	10.2	9.6	8	6.2	4.5	3.1	2.1
7	7.2	6.8	6	4.9	3.7	2.8	2
8	5.2	5	4.5	3.8	3.1	2.4	1.8
9	3.8	3.7	3.4	3	2.5	2	1.6
10	2.9	2.8	2.6	2.3	2	1.7	1.4

MULTIPLE UNIT FOOTCANDLES								
2.5' from wall (Distance from fixture along wall)			2.5' from wall (Distance from fixture along wall)					
1	12.2	11.3	12	11.3	7.4	11.1		
2	40.5	41.3	39.4	36.4	29.6	35.8		
3	41.1	43.8	40.1	36.3	34.6	35.6		
4	31.8	34.7	31.1	28.1	29.2	27.5		
5	23.2	25.2	22.7	20.5	22.2	20.1		
6	16.8	18	16.4	15	16.4	14.7		
7	12.3	13	12	11.2	12.1	10.9		
8	9.1	9.6	8.9	8.4	9.1	8.2		
9	6.9	7.2	6.8	6.4	6.9	6.3		
10	5.3	5.5	5.2	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	C	H	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

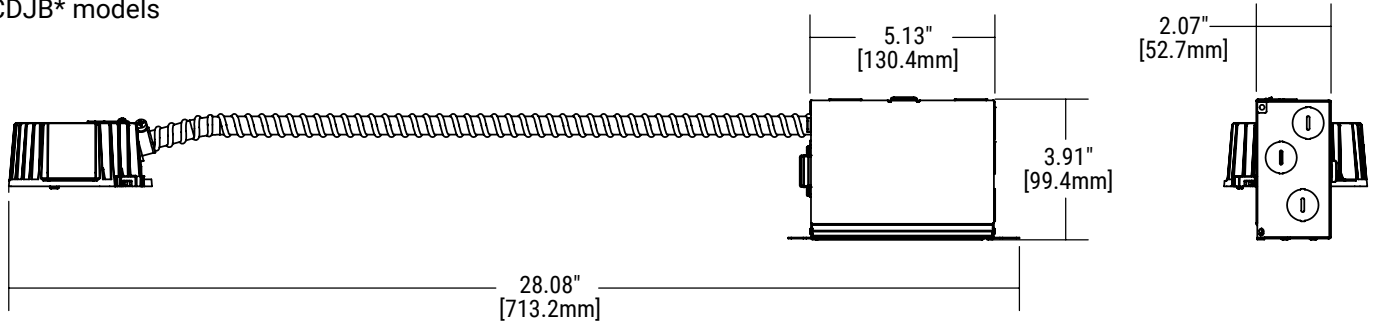
2700K	3000K	3500K	4000K	5000K
0.97	0.98	1.00	1.01	1.03

Multipliers for relative lumen values with other series color temperatures.

Dimensions

Junction Box Fixture Kit

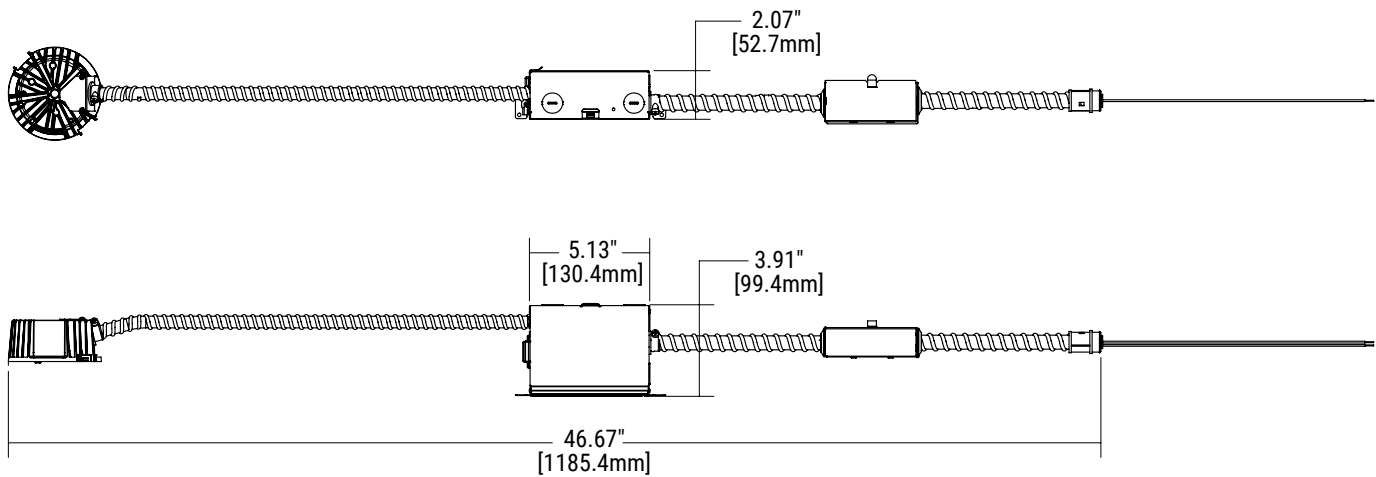
HCDJB* models



Quick Connect Fixture Kit

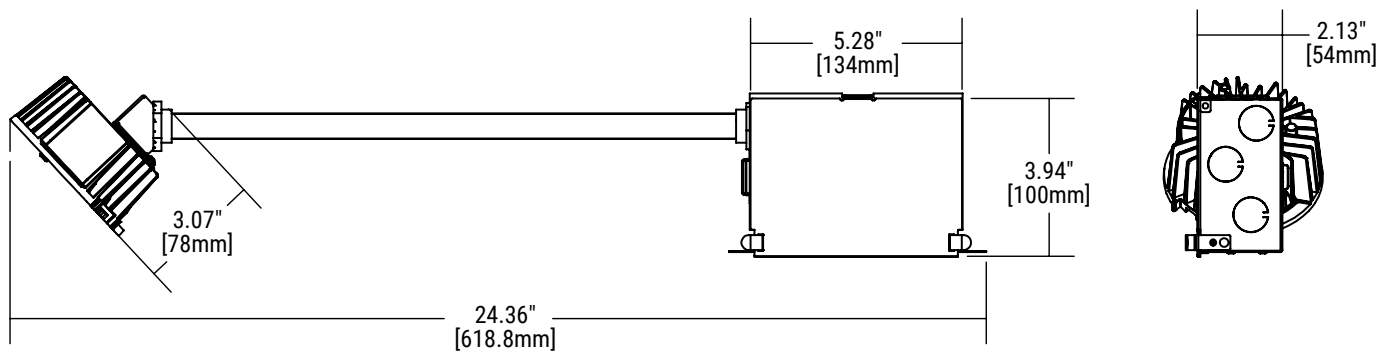
HCDQC* models

HCDQC*347 models (Canada only)



Chicago Plenum Fixture Kit

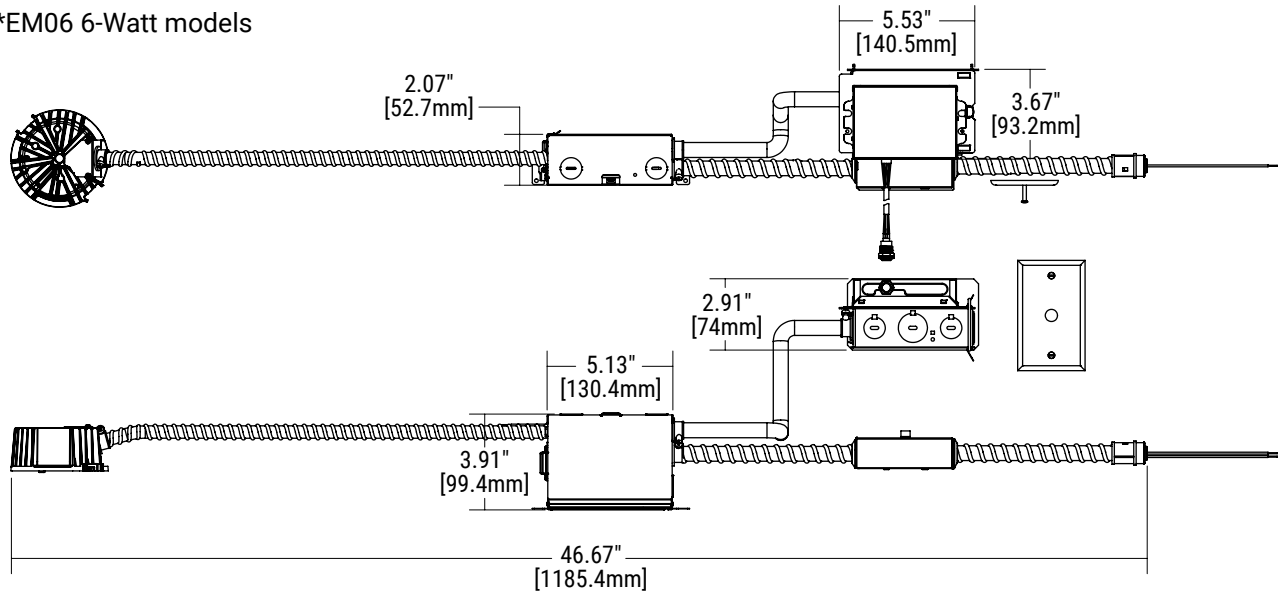
HCDCP* models



Dimensions

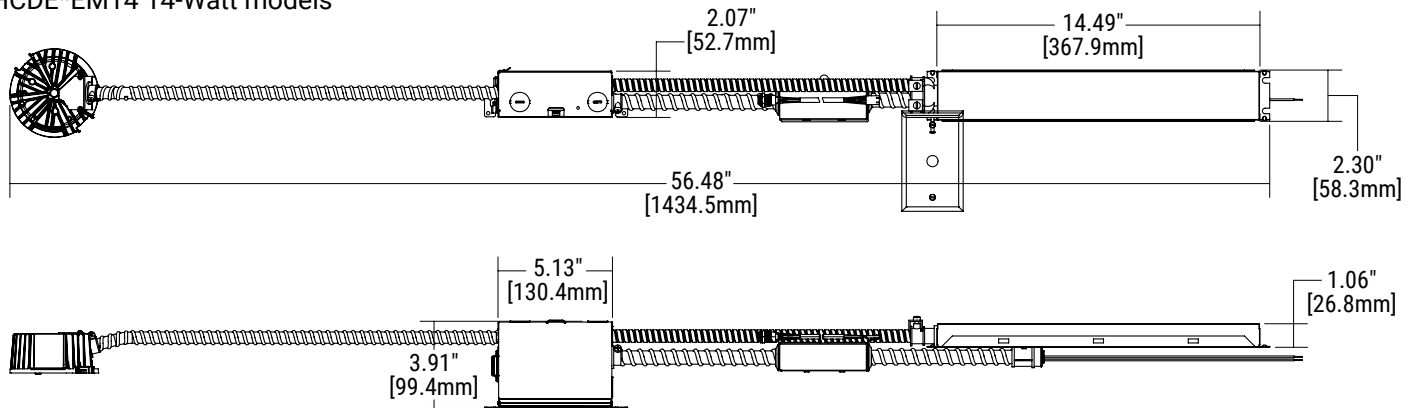
Emergency Fixture Kit

HCDE*EM06 6-Watt models



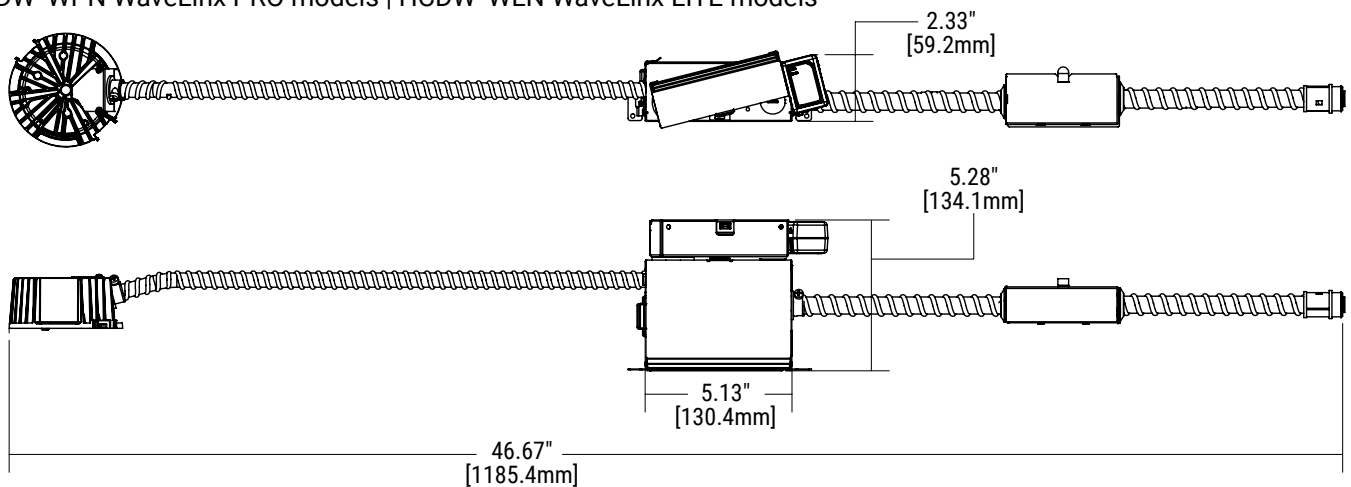
Emergency Fixture Kit

HCDE*EM14 14-Watt models



WaveLinx Wireless Fixture Kit

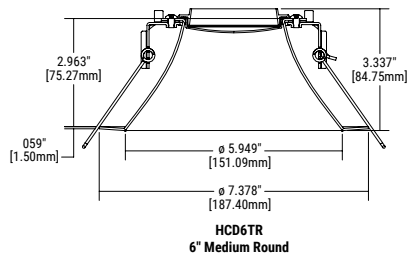
HCDW*WPN WaveLinx PRO models | HCDW*WLN WaveLinx LITE models



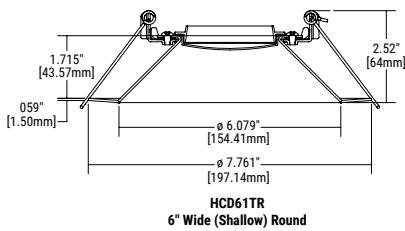
Dimensions

Reflectors

Medium Round Reflectors

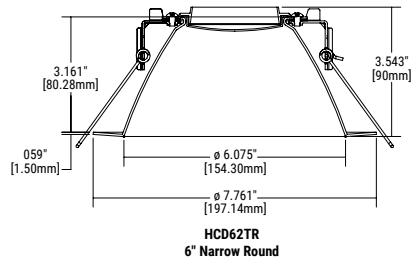


Wide (Shallow) Reflectors



Narrow Reflectors

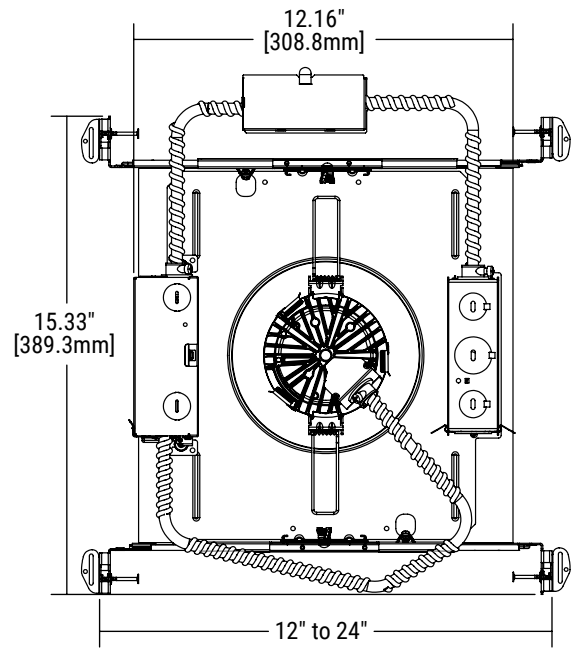
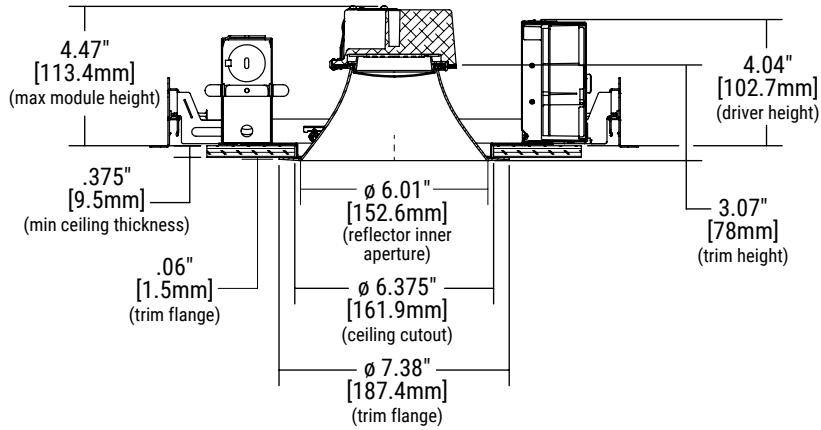
Flange & optic dimensions match HC Series Round Reflectors (61x)



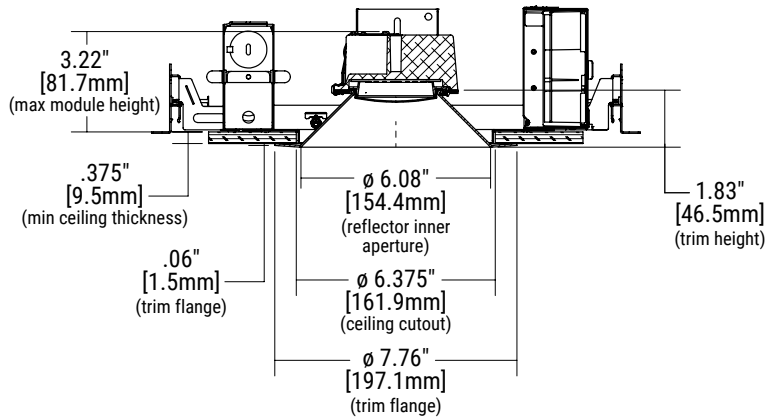
Dimensions

6" New Construction - Round

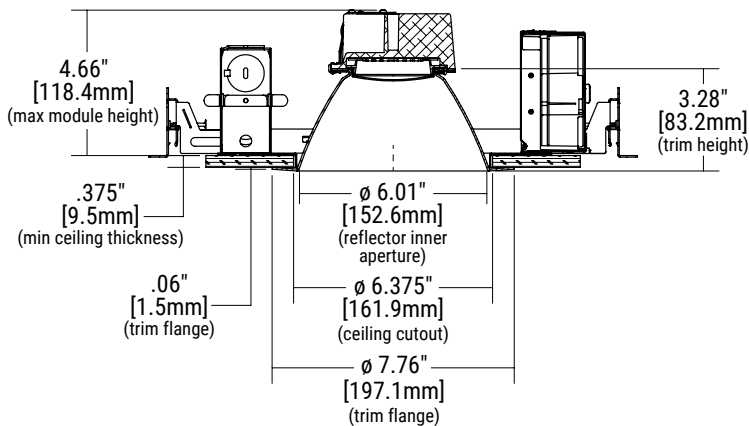
HCD6TR*



HCD61TR*



HCD62TR*



Model	Distribution	Max. Module Height	Trim Height	Trim Flange
HCD62TR	Narrow	4.66"	3.28"	7.76"
HCD6TR	Medium	4.47"	3.07"	7.38"
HCD61TR	Wide	3.22"	1.83"	7.76"

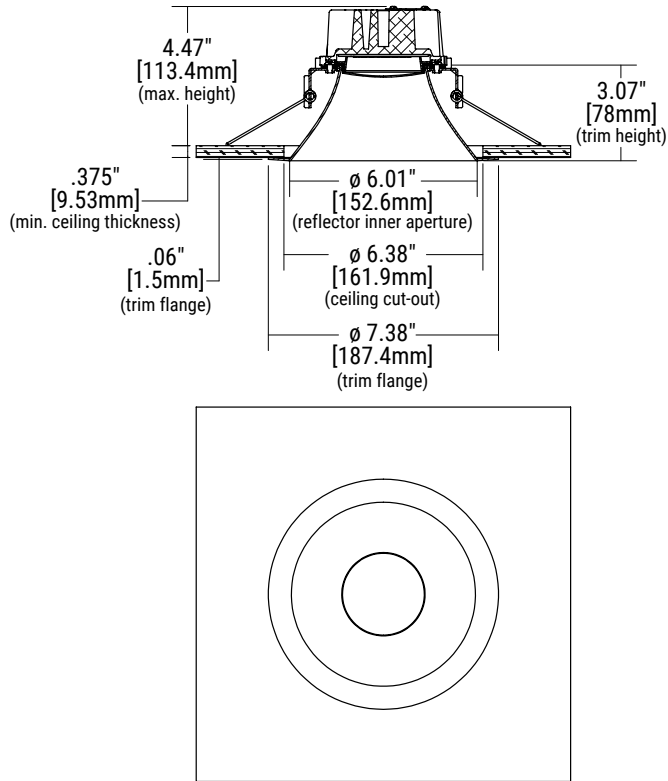
* Max. height with hanger bar bracket 4.0".

Dimensions

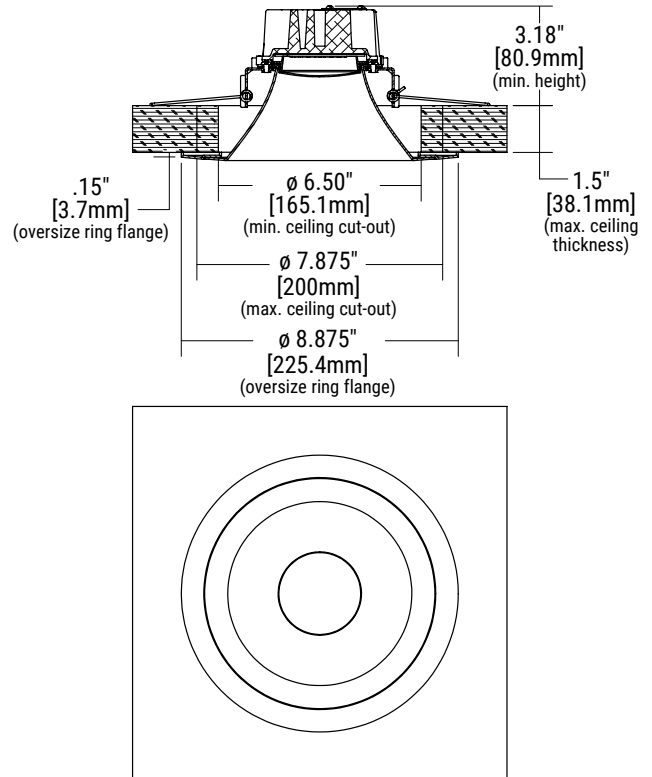
6" Retrofit - Medium Round Reflector & Oversized Goof Ring

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

HCD6TR*

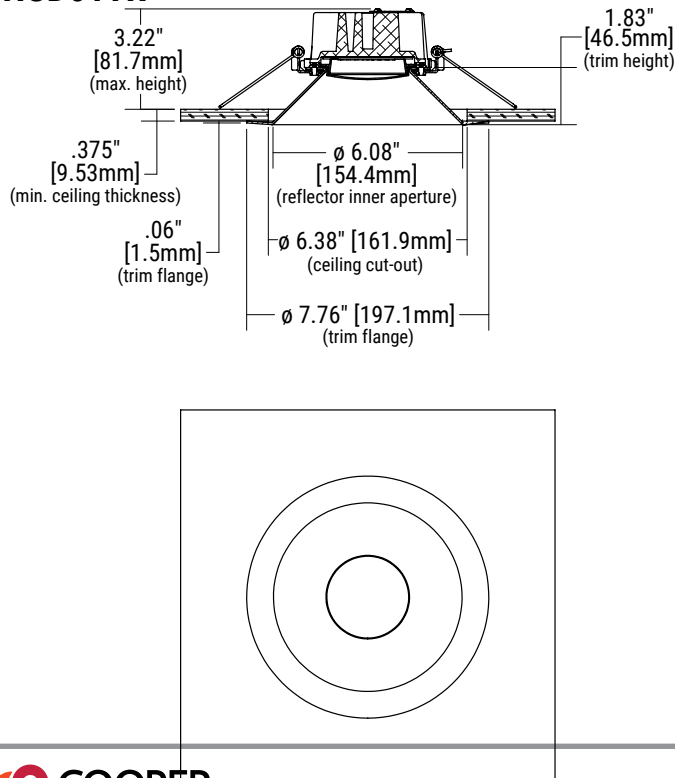


HCD6TR* + HCD6GR*

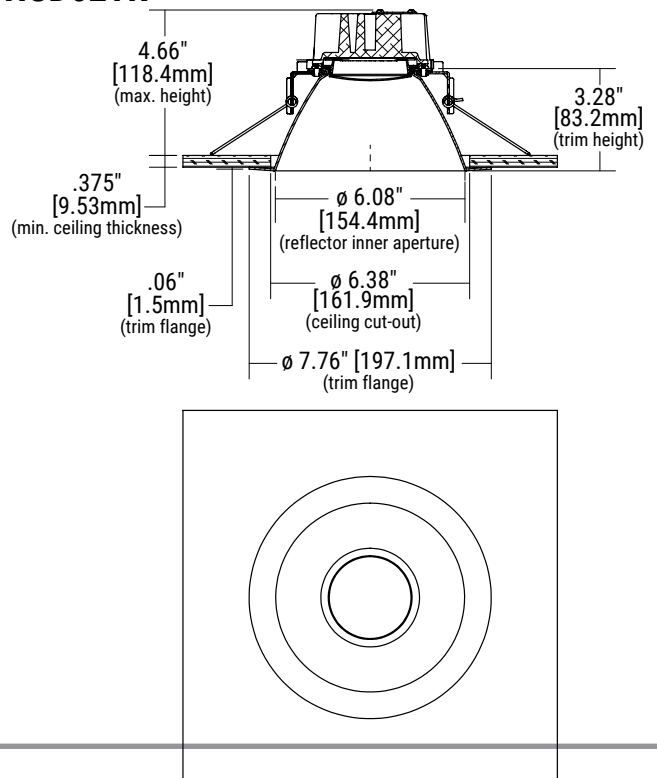


6" Retrofit - Wide (Shallow) Round Reflector & Narrow Round Reflector

HCD61TR*



HCD62TR*



Connected Solutions



WaveLinX LITE Wireless Node - WLN

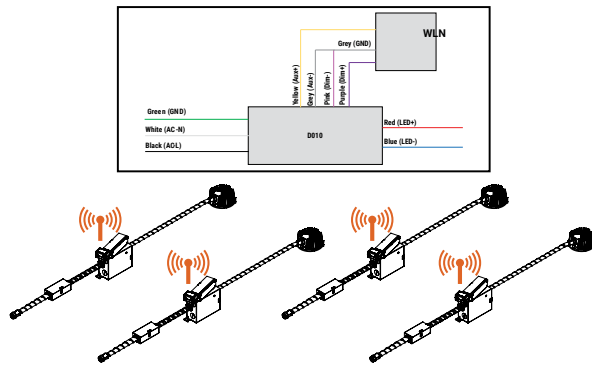
WaveLinX LITE devices only compatible with the WaveLinX LITE system.

- 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 LITE Bluetooth Enabled System



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

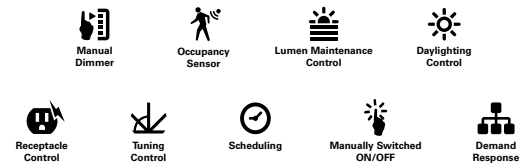
Downlights with wireless communication
Highly efficient LED fixtures

WaveLinX Area Controller
Provides centralized coordination of multiple area control options

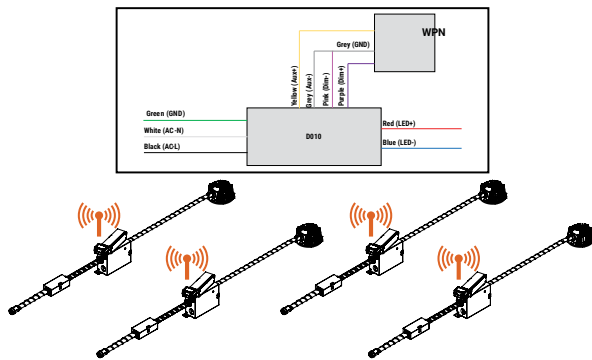
Wireless Wall Station/Receptacle
Provides customized wireless control of each area

Mobile Applications
Provides personalized, local control from a tablet or smartphone

WaveLinX mobile app settings



WaveLinX PRO Wireless Node (WPN) Wiring Diagram



WaveLinX CORE Building Management Integration

