

CUBE2-HC90

Project Name:	
Type:	



APPLICATION

The CUBE2-HC90 creates a design statement for contemporary and traditional architectural interiors. The angular luminaires are decorative and suitable for a multiple of applications like offices, retails, museums and galleries as well as high ceiling application such as lobbies.

FEATURE:

- Housing is formed by cold-rolled steel with a highly reflective die-formed white painted steel reflector.
- The snap-in acrylic lens has a matte finish and a diffuser (.125" thick) which is removable for lamp replacement.
- 90 degree and 135 degree luminaires are available.

MOUNTING:

- Pendant, surface, wall mount, recessed (drywall and T-bar) mount available.
- Mounting restrictions apply on some of the recessed housings, please refer to the ordering chart or dimension page to find availability.

LED:

- High quality array LEDs.
- LM80
- Color Temperature: 3000/3500/4000/5000 (K)
- Color Rendering Index: > 80 (optional > 90).
- Nominal Lamp Life: 100,000 hours.
- Reported L70 hours: +60,000 (55°C).

ELECTRICAL:

- High power factor electronic driver, operate from a 120 ~ 277 Vac input range, 50 / 60 Hz.
- Features included over voltage protection, surge, short circuit protection and over load protection.
- Power Factor: typical > 0.95, THD <20, meets Class1 or Class 2 circuit.
- 0-10V dimmable driver as standard.
- 0-10VDC dimming 1%~100%.
- Operating temperature: -4°F (-20°C) ~ 122°F (50°C).

<ELCU-200>

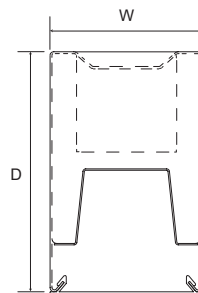
- Guarantees emergency lighting remains ON or is turned on when power to the control device is lost.
- Interfaces with fire alarm panel or security system.
- "Watchdog" feature allows emergency loads to be controlled in tandem with normal power loads.
- UL listed for use in emergency circuits.

FINISH:

- Standard powder-coat textured white painted finish on exposed trim, consult factory for custom colors.
- Comes with snap-in acrylic lens as standard.

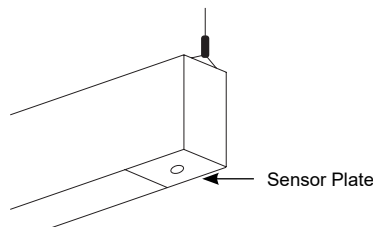
LISTING:

- UL / CUL listed.
- Listed to UL 1598 and UL 8750.
- UL listed for dry & damp location.
- Assembled in USA (optional).
- BAA compliant (optional).
- Trade Agreements Act compliant (optional).
- 5 years limited warranty.
- 7 or 10 years limited warranty. (optional) ⁵
- Bluetooth Mesh System available, please contact factory for more information.



Width: 2.5 (64)
Depth: 4 (101)

All dimensions are in inches (millimeters).



Lutron Vive Integral
fixture control installation



EasySense
fixture-mount installation

CUBE2-HC90

CONFIGURATIONS

Series	Size	Model #	AC Input	Fixture Lumen Output (4000K)		Lumen Efficiency (4000K)
CUBE2-HC90	11	D18L	9.9W	1280.46 lm (100% Down)	1280.46 lm	129.34 lm/W
		D27L	14.85W	1641.66 lm (100% Down)	1641.66 lm	110.55 lm/W
		D36L	19.8W	2122.36 lm (100% Down)	2122.36 lm	107.19 lm/W
		D48L	26.4W	2811.6 lm (100% Down)	2811.6 lm	106.5 lm/W
		D54L	29.7W	3146.41 lm (100% Down)	3146.41 lm	105.94 lm/W
		18L/18L	19.8W	1179.37 lm (57.6% Down) / 868.15 lm (42.4% Up)	2047.52 lm	103.41 lm/W
		27L/18L	24.75W	1651.86 lm (63% Down) / 970.15 lm (37% Up)	2622.01 lm	105.94 lm/W
		27L/27L	29.7W	1769.05 lm (57.6% Down) / 1302.22 lm (42.4% Up)	3071.27 lm	103.41 lm/W
		36L/18L	29.7W	2093.38 lm (65.5% Down) / 1102.63 lm (34.5% Up)	3196.01 lm	107.61 lm/W
		48L/18L	36.3W	2383.15 lm (64.6% Down) / 1305.95 lm (35.4% Up)	3689.1 lm	101.63 lm/W
		48L/27L	41.25W	2485.9 lm (59.3% Down) / 1706.3 lm (40.7% Up)	4192.2 lm	101.63 lm/W
		54L/18L	39.6W	2937.92 lm (73% Down) / 1086.63 lm (27% Up)	4024.55 lm	101.63 lm/W
		54L/27L	44.55W	3140 lm (65.5% Down) / 1654 lm (34.5% Up)	4794 lm	107.61 lm/W
	12 & 21	18L	14.85W	1921.29 lm (100% Down)	1921.29 lm	129.38 lm/W
		27L	22.27W	2461.50 lm (100% Down)	2461.50 lm	110.53 lm/W
		36L	29.7W	3182.95 lm (100% Down)	3182.95 lm	107.17 lm/W
		48L	39.6W	4217.4 lm (100% Down)	4217.4 lm	106.5 lm/W
		54L	44.55W	4720.51 lm (100% Down)	4720.51 lm	105.96 lm/W
		18L/18L	29.7W	1950.73 lm (57.6% Down) / 1435.96 lm (42.4% Up)	3386.69 lm	114.03 lm/W
		27L/18L	37.12W	2477.46 lm (63% Down) / 1455.03 lm (37% Up)	3932.49 lm	105.94 lm/W
		27L/27L	44.55W	2653.58 lm (57.6% Down) / 1953.32 lm (42.4% Up)	4606.91 lm	103.41 lm/W
		36L/18L	44.55W	3140.08 lm (65.5% Down) / 1653.94 lm (34.5% Up)	4794.02 lm	107.61 lm/W
		48L/18L	54.45W	3574.8 lm (64.6% Down) / 1958.95 lm (35.4% Up)	5533.75 lm	101.63 lm/W
		48L/27L	61.8W	3724.45 lm (59.3% Down) / 2556.25 lm (40.7% Up)	6280.7 lm	101.63 lm/W
		54L/18L	59.4W	4406 lm (73% Down) / 1629.63 lm (27% Up)	6035.63 lm	101.61 lm/W
		54L/27L	66.82W	4709.77 lm (65.5% Down) / 2480.73 lm (34.5% Up)	7190.5 lm	107.61 lm/W
	22	18L	19.8W	2562.12 lm (100% Down)	2562.12 lm	129.40 lm/W
		27L	29.7W	3283.33 lm (100% Down)	3283.33 lm	110.55 lm/W
		36L	39.6W	4244.72 lm (100% Down)	4244.72 lm	107.19 lm/W
		48L	52.8W	5623.2 lm (100% Down)	5623.2 lm	106.5 lm/W
		54L	59.4W	6294.02 lm (100% Down)	6294.02 lm	105.96 lm/W
		18L/18L	39.6W	2358.73 lm (57.6% Down) / 1736.30 lm (42.4% Up)	4095.03 lm	103.41 lm/W
		27L/18L	49.5W	3303.73 lm (63% Down) / 1940.30 lm (37% Up)	5244.03 lm	105.94 lm/W
		27L/27L	59.4W	3538.10 lm (57.6% Down) / 2604.45 lm (42.4% Up)	6142.55 lm	103.41 lm/W
		36L/18L	59.4W	3954.11 lm (65.5% Down) / 2082.71 lm (34.5% Up)	6036.82 lm	101.63 lm/W
		48L/18L	72.6W	4766.3 lm (64.6% Down) / 2612 lm (35.4% Up)	7378.3 lm	101.63 lm/W
		48L/27L	82.5W	4971.9 lm (59.3% Down) / 3412.5 lm (40.7% Up)	8384.4 lm	101.63 lm/W
		54L/18L	79.2W	5875.83 lm (73% Down) / 2173.26 lm (27% Up)	8049.09 lm	101.63 lm/W
		54L/27L	89.1W	6280.14 lm (65.5% Down) / 3307.86 lm (34.5% Up)	9588 lm	107.61 lm/W
CUBE2-HC135	22	18L	19.8W	2562.12 lm (100% Down)	2562.12 lm	129.40 lm/W
		27L	29.7W	3283.33 lm (100% Down)	3283.33 lm	110.55 lm/W
		36L	39.6W	4244.72 lm (100% Down)	4244.72 lm	107.19 lm/W
		48L	52.8W	5623.2 lm (100% Down)	5623.2 lm	106.5 lm/W
		54L	59.4W	6294.02 lm (100% Down)	6294.02 lm	105.96 lm/W
		18L/18L	39.6W	2358.73 lm (57.6% Down) / 1736.30 lm (42.4% Up)	4095.03 lm	103.41 lm/W
		27L/18L	49.5W	3303.73 lm (63% Down) / 1940.30 lm (37% Up)	5244.03 lm	105.94 lm/W
		27L/27L	59.4W	3538.10 lm (57.6% Down) / 2604.45 lm (42.4% Up)	6142.55 lm	103.41 lm/W
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		48L/18L	72.6W	4766.3 lm (64.6% Down) / 2612 lm (35.4% Up)	7378.3 lm	101.63 lm/W
		48L/27L	82.5W	4971.9 lm (59.3% Down) / 3412.5 lm (40.7% Up)	8384.4 lm	101.63 lm/W
		54L/18L	79.2W	5875.83 lm (73% Down) / 2173.26 lm (27% Up)	8049.09 lm	101.63 lm/W
		54L/27L	89.1W	6280.14 lm (65.5% Down) / 3307.86 lm (34.5% Up)	9588 lm	107.61 lm/W

CCT	Multiplier		
	3000K	3500K	5000K
Down only	0.9642	0.9822	1.0357
Up&Down	0.971	0.9856	1.029

OUTPUT CURRENT

		Bi-Level		Tri-Level (Default)	
SW1	SW2	Config Range	Default	Config Range	Default
Close	Open	10% - 70%	40%	10% - 70%	30%
Open	Close	10% - 70%	40%	10% - 70%	70%
Close	Close	100%	100%	100%	100%
Open	Open	0%	0%	0%	0%

WEIGHT

Item	lbs	kg
CUBE2-HC90	15.19	6.89
CUBE2-HC90-FT	17.37	7.88

CUBE2-HC90

ORDERING INFORMATION

EXAMPLE: CUBE2-HC90-12-D27L-30K-UNV-X1-AC48

MODEL	SHAPE	SIZE	LED Downlight (per/each section)	LED Uplight ¹ (per/each section)	Uplight DISTRIBUTION	COLOR TEMP.
CUBE2	HC90	90 Degree	11 1' x 1'	D18L 18W LED D27L 27W LED D36L 36W LED D54L 54W LED	/U18L 18W LED /U27L 27W LED	(Blank) Leave blank if you wish to have different CCT for up and down, and fill out next section. UN15 3000K UN30 3500K UM 4000K UASY 5000K UBAT UPC
		12 1' x 2'				
		21 2' x 1'				
		22 2' x 2'				
	HC135	135 Degree	22 2' x 2'			
	CM	Custom pattern (must provide a sketch on the last page of this spec sheet)				

SEPARATE COLOR TEMP. ¹	CRI	MOUNTING	VOLTAGE
(Blank) Leave blank if you wish to have different CCT for up and down, and fill out next section DXXUYU Indicate 27,30,35,40 or 50 for XX and YY (D represents Downlight, U represents Uplight)	(Blank) C9 80+ CRI 90+ CRI ³	(Blank) FT Pendant G1 Standard 1/2" Flange (drywall) ² SF 9/16", 15/16", 1" T-bar Ceiling Grid ^{15, 20} S Spackle Flange (Trimless) ^{16, 17, 20} W Ceiling Surface Wall * Limited mounting option(s) depending on the shape & size. Please see dimensions page to find availability.	UNV 120-277V 120 120V 277 277V 347 347V ¹⁸

EM SECTION	FIXTURE FINISH ¹⁰	CORD FINISH (for pendant)	CANOPY FINISH (for pendant)	CEILING TYPE (for pendant)
(Blank) 1SE None EM 1 Section	(Blank) *BK Matte White RAL #9003 (Std.) *SV Black RAL #9011 **CC Silver (RAL #9022) *AMB Custom Color ⁸ Anti-Microbial Coating (Matte Sky White)	(Blank) *BKC White (Std.) Black	(Blank) *BC White (Std.) *SC Black Canopy *CSS Silver Canopy Custom Canopy Color (White is Std.)	X1 15/16" grid T-bar ceiling X2 Hard ceiling X3 Sloped Hard ceiling X4 9/16" T-bar ceiling X5 9/16" Screw Slot ceiling

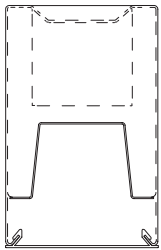
SUSPENSION LENGTH (for pendant)	LED DRIVER
AC48 Adjustable Aircraft Cable Canopy 48"L AC96 Adjustable Aircraft Cable Canopy 96"L ST24 Stem Canopy 24"L ST48 Stem Canopy 48"L * Contact factory for custom length. ** add "FC" at the end of stem length for field cuttable stem kit (Ex) ST48FC)	(Blank) 0-10V dim to 1% (Std.) (dim both uplight and downlight simultaneously) UDSD Separate Dimming Control of Uplight and Downlight (0-10V dim to 1%) ^{7, 14} SP Separate Power Control for Uplight and Downlight ES566 eldoLED SOLOdrive Natural Dimming to dark, 0-10V, 100% ~ 0.1% dim SD40 40% / 100% Bi-Level Step dim SDXX XX% / 100% Bi-Level Step dim (Specify XX : 10% ~ 70%) PHSR Philips Xitanium Sensor-Ready, Dali 5%~100% dim. PHDL Philips Xitanium DALI driver, Dim to 5% ED560 eldoLED LightShape DALI dim to dark, 0.1% ~ 100% TDM Triac Dim. (120V only) TD30/70 30% / 70% / 100% Tri-Level Step dim TDXX/YY XX% / YY% / 100% Tri-Level Step dim (Specify XX, YY : 10% ~ 70%) LDE1 Hi-lume 1% EcoSystem LED driver with Soft-on, Fade-to-Black dimming technology, 100% ~ 1% dim ELV ELV compatible (reverse-phase or trailing-edge), (120V only) TRIOT Tridonic IoT ready, 1-100% dim via Smart Module Interface (SMI), automated dimming/lighting controls via Enlighted Sensor Interface DTO 0-10V DIM-TO-OFF DMX DMX512 control system (Only available with RGB+W option) DLM Wattstopper's DLM interface (Only available with RGB+W option) LTEA2W Hi-lume 1% 2-wire LED driver (120V forward phase only) BLT Bluetooth Mesh System (contact factory for more information)

OPTIONS		LIGHTING CONTROL SYSTEM	
STB Slip Through Bracket ³ EM5MC 810 LUMEN Emergency Ballast (32°F (0°C) ~ 131°F (55°C)) EM7MC 1134 LUMEN Emergency Ballast (32°F (0°C) ~ 122°F (50°C)) EM10MC 1620 LUMEN Emergency Ballast (32°F (0°C) ~ 131°F (55°C)) EMG25 4050 LUMEN EM Battery Backup (CEC Compliant EM) ^{22, 23} EMC CEC compliant EM ⁴ GTD Bodine Generator Transfer Device GTD10DIM Bodine Generator Transfer Device (0-10VDC Dimmer Override) GLR Fast Blow Fuse ¹⁹ GMF Slow Blow Fuse ¹⁹ ARRA Assembled in USA for Buy American Act BAA BAA(Buy American Act) and BABA(Buy America) compliant TAA Trade Agreements Act compliant O7W Optional 7 Years Limited Warranty ⁵ O10W Optional 10 Years Limited Warranty ⁵ AMS Bluetooth Mesh Wireless Sensor. Occupancy/Daylight/0-10V Dimming ²⁵ DPMS Daylight Dimming Photo Sensor (0-10 VDC Control) ²¹ SO Dimming Wires connected to Sensor Only (available option on FS-205 non-Bluetooth AMS sensor only) ⁶ COC Separated EM feed for City of Chicago code compliance ²² E1F End feed on one end (Pre-drilled hole for 1/2" fitting) E2F End feed on both ends (Pre-drilled holes for 1/2" fitting)		LUTRON VIVE  Click Here! SNS200 <EasySense> EasySense Fixture-mount occupancy sensing, daylight harvesting and task tuning in one device (Must be ordered with PHSR driver) ^{11, 12} RS-IR IR dongle v2.0 for EasySense control SU-5E <Enlighted> Enlighted IoT ready 0-10V Indoor Micro sensor with occupancy/vacancy detection, daylight harvesting, thermal sensing, task tuning, and room and zone control, Bluetooth enabled (Must be ordered with TRIOT) ¹³ RS-WS Enlighted Room controller providing basic control functions of a standard wall switch with preset dimming capability IFS105SE <Bluetooth> Bluetooth Mesh Wireless Sensor. Occupancy/Daylight/0-10V Dimming PPA102S Bluetooth Powerpack (Consult factory for installation location) CASAMBI Contact factory for CASAMBI READY options	

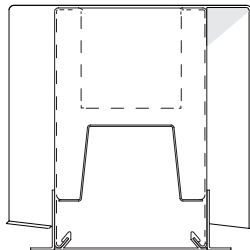
NOTES:

- Pendant only.
- Requires # STB as standard.
- Standard with "FT" mounting.
- Check with factory for more details.
- This limited warranty covers electrical parts only and does not apply to labor, equipment lease, or defect from improper installation or operation.
- Dimming wires provided and connected to sensor only, not for dimmer switch. (available with AMS and DPMS option)
- For separate dimming control, please be advised it may not be available when EM battery backup is added due to limited space. Please contact us for more information.
- Refer to color charts (RAL and/or Cardinal) in the separate attachment.
- Lumen per watt is around 15% less than standard CRI (80+).
- Cord is available in white or black. (Black is not available for the EM option)
- See NFC and IR manual in the separate attachment. If your phone is not compatible, please order "RS-IR" and follow the manual.
- Refer to Advanced Grouping Datasheet for its default setting and compatible wireless switches.
- "RS-WS" option can be added if wish to have a wall switch, please see Enlighted Room Controller in the separate attachment.
- Can have up to 2 power feeds depending on the configuration.
- Compatible with X1 ceiling type.
- Requires # STB as standard.
- Compatible with X2 ceiling type.
- 347V cannot work with Emergency Battery Backup.
- Must specify voltage, not available with 347V.
- Only available with HC90-22.
- Automatic on/off is not available. For automatic on/off, additional occupancy sensor is required or a manual on/off switch can be done.
- Contact factory for other emergency ballast options.
- For 3ft configuration, EM can only be remote mounted. Remote box is provided by others.
- Standard optic illuminates the wall. Optics can be field modified (reversed) to illuminate room.
- With TDM/ELV/SDxx/TDxx: Only available with line-voltage on/off occupancy sensor.

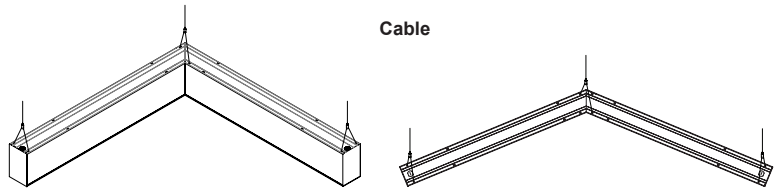
Surface



Drywall

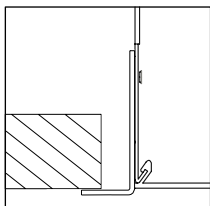


Cable



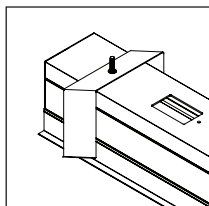
- INACCESSIBLE CEILING MOUNTING

Flange Detail

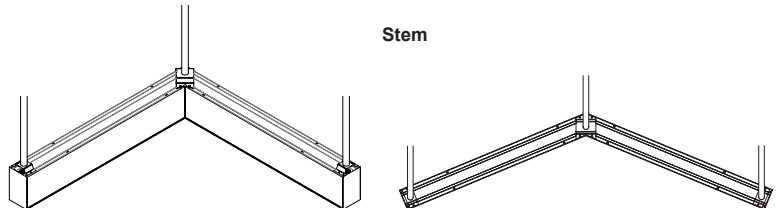


- SPECIALTY MOUNTS

Rotating Crossbar



Stem

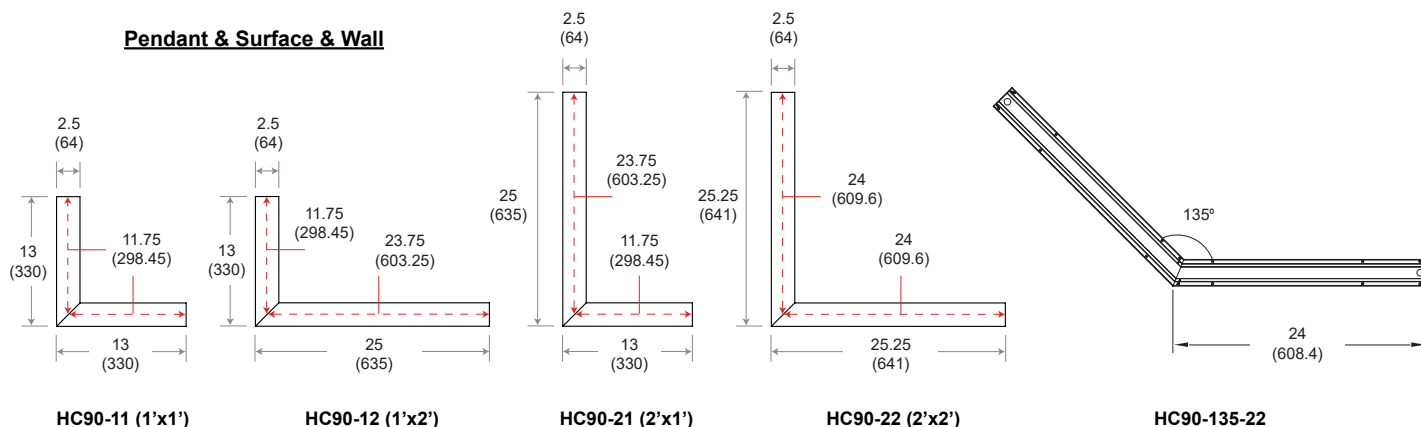


Exposed Flange Detail:
Specify FT in part #

Unavailable Structure Support:
Specify STB in part #

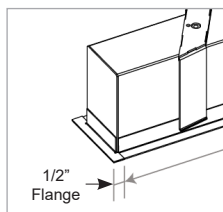
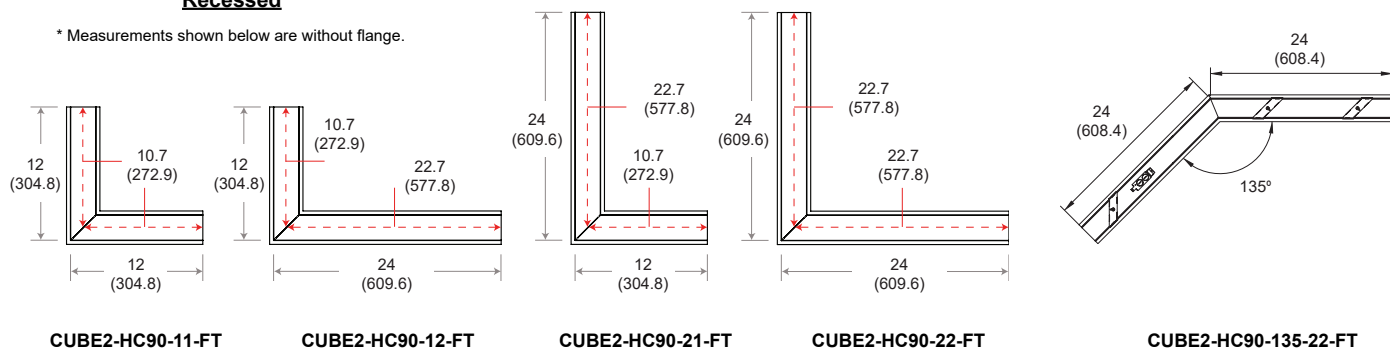
CUBE2-HC90

Pendant & Surface & Wall

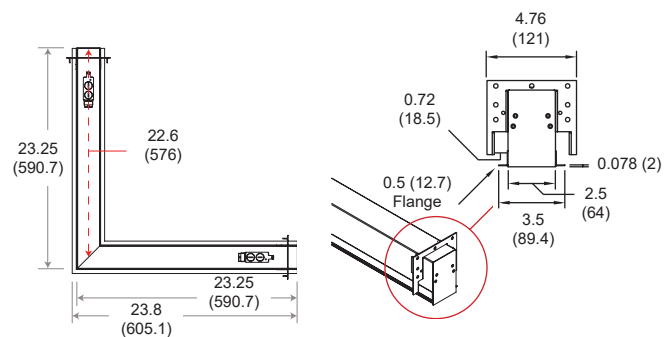
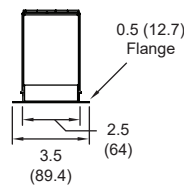


Recessed

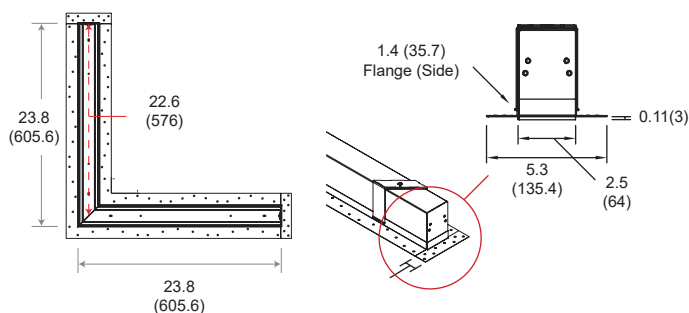
* Measurements shown below are without flange.



Flange is 0.078 (2) elevated.



CUBE2-HC90-22-G1



CUBE2-HC90-22-SF

CUBE2-HC90

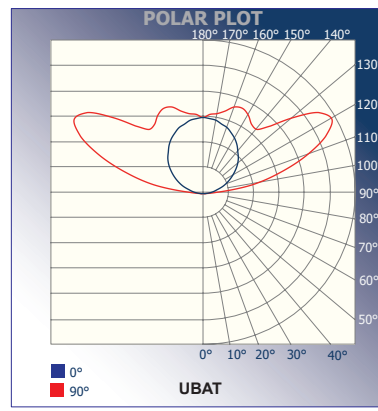
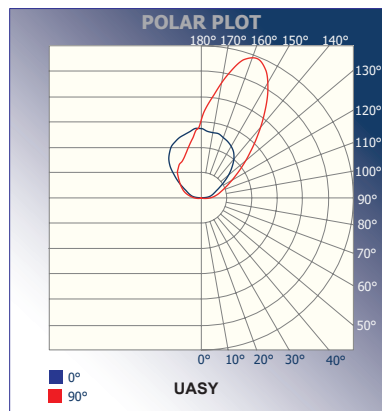
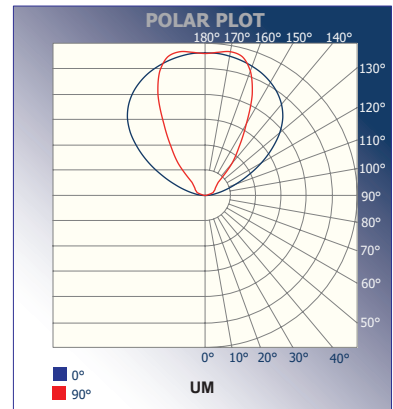
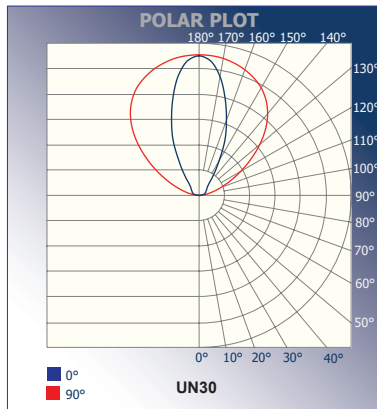
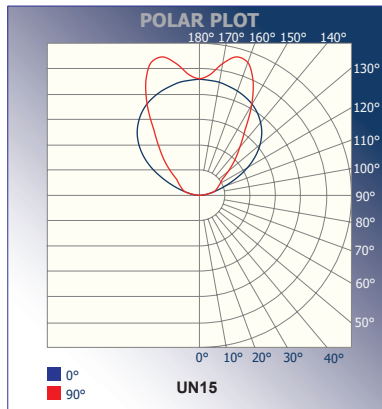
COMPATIBLE DIMMER SWITCH (TABLE 1)

Model #	Brand	Compatible Dimmer Switch	
(Blank)	-	<Leviton>	IP710-LFZ
		<Lutron>	Nova: NDTV-dimmer plus PP-DV relay pack(s) Nova T: NTSTV-DV-dimmer Diva: DDTV-dimmer, DVSCSTV-dimmer, plus PP-DV, relay pack(s), DVSTV-dimmer, DVSCSTV-dimmer GRAFIK Eye QS: QSGRJ-XP, plus GRX-TVI 0-10V interface GRAFIK Eye QS w/EcoSystem: QSGRJ-XE, QSGR-XE, plus GRX-TVI 0-10V interface PowPak: RMJ-5T
ES566	eldoLED SOLOdrive	<Busch-Jaeger>	2112U-101
		<Jung>	240-10
		<Leviton>	IllumaTech - IP710-DLX
		<Lightolier Controls>	ZP600FAM120
		<Merten>	5729
		<Pass & Seymour>	CD4FB-W
		<Wattstopper>	DCLV1
		<Sensor Switch>	nIO EZ
		<Synergy>	ISD BC
		<ABB>	SD/S 2.16.1
		<Lutron>	Nova T: NTFTV Diva - DDTV-xx, NDTV GRAFIK Eye: GRX-TVI w GRX3503 Energy Savr Node: QSN-4T16-S TVM2 Module
		<Crestron>	GLX-DIMFLV8, GLXP-DIMFLV8, GLPAC-DIMFLV8-*, GLPP-DIMFLVEX-PM, GLPP-1DIMFLV2EX-PM, GLPP-1DIMFLV3EX-PM, DIN-AO8, DIN-4DIMFLV4, CLS-EXP-DIMFLV, CLCI-1DIMFLV2EX
ED560	eldoLED DUALdrive	<Lunatone>	SS-LUNAT PS2 30mA SS-LUNAT Touch or BT SS-LUNAT Comm
LDE1	Lutron 5-Series EcoSystem	<Lutron>	PowPak Dimming Modules: RMJ-ECO32-DV-B, FCJ/FCJS-ECO ^{1,2} Energi Savr Node (120V only): QSN-1ECO-S, QSN-2ECO-S GRAFIK Eye QS/Homeworks QS control unit (120V only): QSGRJ- _E(wireless) QSGR- _E Quantum Hub (120V only): QP2- _2C/4C/6C/8C Homeworks QS/myRoom Plus power module (120V only): LQSE-2ECO-D
PHSR ³	Philips Xitanium Sensor-Ready	<Illumra>	<u>Single Rocker Self-Powered Light Switch (on/off, dim-up/down)</u> Illumra# ZBT-S1AWH Digi-Key# 1082-1033-ND <u>Dual Rocker Self-Powered Light Switch (on/off, dim-up/down, scene1,2)</u> Illumra# ZBT-S2AWH Digi-Key# 1082-1034-ND
TDM	KEystone	<Lutron>	Diva DV-600P, SkyLark S-600P, Ariadni AY-600P, Ariadni TG-603P, Maestro MA-600 (Digital), Diva CFL/LED DVCL-153P, Satin Colors DVSC-600P-SW
		<Leviton>	6641, IllumaTech IPI06-1LX, ToggleTouch TGI06-1LW (Digital)
ELV	KEystone	<Lutron>	MAELV-600BL (Digital), DVELV-300P, SkyLark SELV-300P
DTO	Philips Xitanium Gen.2 Philips Xitanium Sensor-Ready	<Lutron>	Nova T: #NTSTV-DV http://www.lutron.com/TechnicalDocumentLibrary/NovaTB.pdf See page13.
LTEA2W	Lutron Hi-lume 2-wire (120V forward voltage only)	<Lutron>	Visit http://www.lutron.com/TechnicalDocumentLibrary/369543_ENG.pdf for a list of compatible dimmer switches.

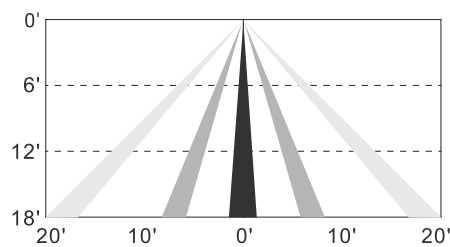
NOTES:

- All devices connected to one FCJ/FCJS-ECO will be controlled together. Devices will dim to the same level as the result of a control command.
For more detail on adjusting low-end light level refer to Application Note#556 at www.lutron.com.
- For the Line/Hot (L/H) terminal on the driver, it is preferred not to use the switched hot (red) wire from the control but rather the hot wire directly from the power source.
- Recommended for EasySense System.

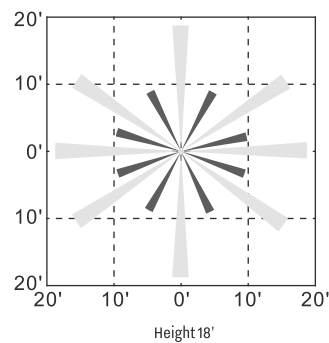
CUBE2-HC90



SIDE VIEW



TOP VIEW



AMS, IFS105SE coverage pattern

CUBE2-HC90 LIT CONNECTOR PATTERNS

The lit connector system allows continuous illumination all the way through the corner section.

- Instruction:**
- Please provide sketches illustrating corner types, overall dimensions including corner dimensions, and locations required.
 - HC90, TC, and XC connectors are 90 degree corners (overall, outside dimension).

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