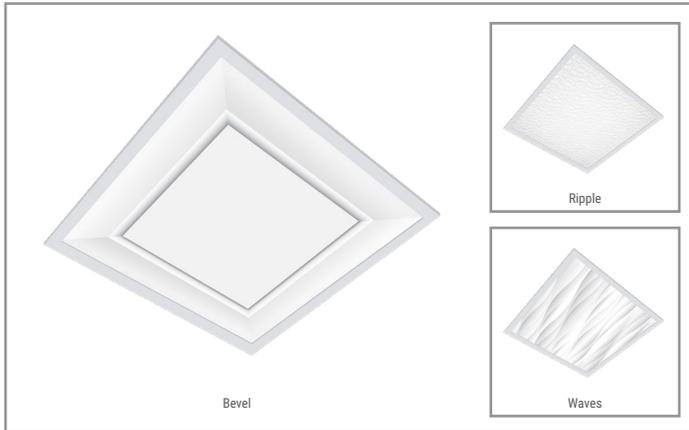


Project		Catalog #		Type	
Prepared by		Notes		Date	



Corelite

Perceive™ PT

Recessed LED Specification Series
2' x 2', 2' x 4', 1' x 4'

Typical Applications

Office • Education • Healthcare • Hospitality • Retail

Product Certification



Product Features



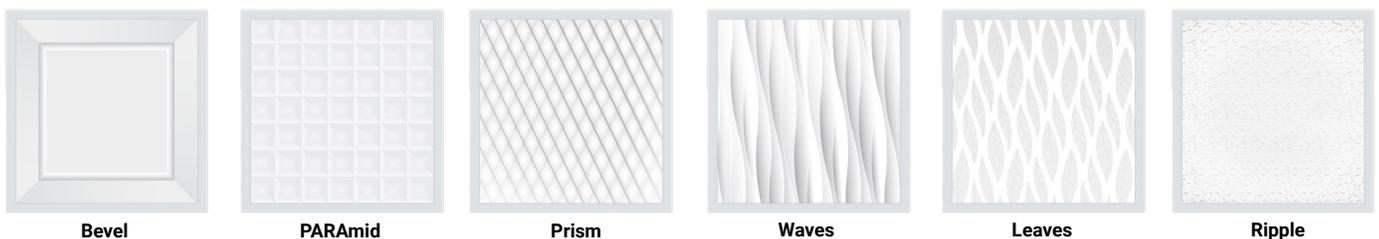
Interactive Menu

- Order Information page 2
- Photometric Data page 3
- Connected Systems page 6
- Product Warranty

Top Product Features

- Patented design with Perceive™ Technology based on cognitive science
- Unique optical patterns add dimensionality, visual interest and glare reduction with options <16 UGR
- Numerous options with luminance <6,000 cd/m2 between 45 and 90 degrees from nadir in accordance with Well v2.
- Lumen packages from 2,000 to 10,000 lumens (2x4)
- Efficacy up to 137 lumens per watt
- 80CRI and 90CRI options in 3000K, 3500K, 4000K, 5000K CCT
- Bottom surface can be wiped down for easy cleaning and maintenance
- Easy service from below with door frame access in the Perceive PD Series
- Shallow housing with no door frame available in the Perceive PT Series
- Integrated control available - WaveLinX Pro, WaveLinX Lite, Wavelinx CAT
- Flexible – recessed, drywall, and surface mount
- Seamlessly blend design with companion linear products like Corelite's SQ4

Options



[additional product diagrams](#)

Order Information

SAMPLE ORDER NUMBER: **PT22-45-PB1-L935-UNV-STD-WPN-W**

Domestic Preferences	Series	Size	2x2 Lumen Output	2x4 Lumen Output	1x4 Lumen Output	Lens Options	CCT/CRI
Domestic Preferences ⁽¹⁾	Series	Size	2x2 Lumen Output	2x4 Lumen Output	1x4 Lumen Output	Lens Options	CCT/CRI
[Blank]=Standard BAA=Buy American Act TAA=Trade Agreements Act	PT=Perceive PT Series	22=2x2 24=2x4 14=1x4	20=2000 Lumens 25=2500 Lumens 35=3500 Lumens 45=4500 Lumens 50=5000 Lumens 60=6000 Lumens	20=2000 Lumens 30=3000 Lumens 35=3500 Lumens 40=4000 Lumens 45=4500 Lumens 50=5000 Lumens 60=6000 Lumens 72=7200 Lumens 80=8000 Lumens 90=9000 Lumens 100=10000 Lumens	20=2000 Lumens 30=3000 Lumens 35=3500 Lumens 70=7000 Lumens 80=8000 Lumens	PB1= Perceive Bevel PC3= Perceive PARAmid PP3= Perceive Prism PW1= Perceive Waves PR1= Perceive Ripple PL1= Perceive Leaves	L830=3000K, 80 CRI L835=3500K, 80 CRI L840=4000K, 80 CRI L850=5000K, 80 CRI L930=3000K, 90 CRI L935=3500K, 90 CRI L940=4000K, 90 CRI
Notes <small>(1) 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. Components shipped separately may be separately analyzed under domestic preference requirements.</small>	Notes		Notes				

Voltage	Ceiling	Driver/Dimming Options	Sensor Options
Voltage ⁽²⁾	Ceiling	Driver/Dimming Options	Sensor Options
UNV=120-277 347V=347 ⁽²⁾	[Blank]=15/16" & 9/16" Grid Lay-in (Flush), Concealed T, and Slot Grid	STD=CD 0-10V Driver (1%-100% Dimming) SLT=DALI Driver (1%-100% Dimming) ⁽⁶⁾ SD=Step Dimming Driver (50% or 100% Dimming) LH=Lutron HiLume (LDE1 series) 1%-100% EcoSystem Driver with Soft-on Fade to Black dimming ⁽⁷⁾	[Blank]=No Sensor WPN=WaveLinX Pro Wireless Node without Sensor WLN=WaveLinX Pro Wireless Node without Sensor WLS=WaveLinX LITE Wireless Sensor, Occupancy w/ photocell, Independent & Networked ^{(10)(A)} WPS=WaveLinX PRO Wireless Sensor, Occupancy w/ photocell, Networked ^{(10)(B)}
Notes <small>(2) 347V with sensor and/or emergencies only available with HCD.</small>	Notes	Notes <small>Integrated options must be used in conjunction with the associated system and may not be compatible with other options or accessories. Please refer to the additional details and compatibility. Compatible only with following: (F) Consult Marketplace Options - Lutron system pages for driver series shown, and may require two or more drivers. Requires field commissioning to operate or dim. Contact Lutron at www.lutron.com.</small>	Notes <small>(6) Fixture height increases to 3-3/4". (14) Must be used with CD or HCD driver. Integrated options must be used in conjunction with the associated system and may not be compatible with other options or accessories. Please refer to the following: (A) Consult WaveLinX PRO system pages for additional details and compatibility. (B) WaveLinX LITE devices are not currently compatible with the WaveLinX Wireless Area Controller. Consult WaveLinX LITE system pages for additional details and compatibility. (C) Consult WaveLinX Low-Voltage or DLVP system pages for additional details and compatibility. (D) Consult SVPD series system pages for additional details and compatibility.</small>

Options	Packaging	Accessories
Options	Packaging	Accessories (order separately)
[Blank]=None CP=Chicago Plenum Dimming Flex W6DIM= 3/8" Flex with 0-10V Dimming Leads Non-Dimming Flex W6=3/8" Flex with line and common	U=Unit Pack PAL=Job Pack, out of carton	DF-xxW-U=Drywall Frame Kit (See page 7) SK-xx-WS=Shallow Surface Mount Kit (See page 7) EQ-CLIP-U=T-BAR Safety Clips ⁽¹¹⁾
Notes Flexible Metal Conduit Options <small>Flex options available for 0-10V dimming control, DALI dimming control, emergency and night light functions. 72-inch factory-installed and pre-wired to luminaire housing access plate with 90° enclosed FMC connector. Not all options may be combined and installation ratings vary by type.</small>	Notes	Notes <small>(11) An EQ Grid Clip is recommended for all 9/16" ceiling systems. Four required per fixture. Perceive PT is compatible with Metalux DF Series Drywall Frame Kits and Metalux Universal Surface Mount Kits, ordered separately from Metalux.</small>

Product Specifications

Construction

- Robust die-formed steel back plate to ensure durability
- Housing is absent of holes to resist debris/bug intrusion
- Aluminum door frame weld and ground, for a seamless appearance

Finish

- Housing is high reflectance matte white finish painted after fabrication
- Bottom frame available in white or black finish
- Antimicrobial paint finish available

Mounting

- Integral grid/EQ clips provided and include suspension / wire retention features
- Grid clip includes fold up hang points. Use FPSUS2 or other desired suspension methods for direct suspension
- Large Junction box constructed of code gauge galvanized steel with access plate
- Multiple 7/8" KO's provided, suitable for up to 12AWG wiring
- Surface kits available for use in grid or hard surfaces
- Factory installed MWS fixture fitting or flexible conduit available to reduce installation time

Optics / Shielding

- Proprietary Perceive™ optical system enables dynamic perceived visual depth on a flat surface
- Bottom surface can be wiped down for easy cleaning and maintenance
- Durable lens system is greater than 2.7mm (0.107") thick and includes diffuser, 3D optical layer, and anti-glare lens
- Micro-optics enable uniform distribution in a low-profile direct lit LED platform

Controls

- 0-10V dimming to 10% standard, 1% dimming available
- WaveLinX wireless sensor compatible for standalone, controlled, connected, and IoT capability
- DALI 2.0, Lutron, and step-dimming available

Electrical

- TM21 life at 60,000 hours up to L86 and calculated L70 exceeds 120,000 hrs
- LED's available in 3000K, 3500K, 4000K, or 5000K at 80 CRI or 90 CRI minimum
- Color accuracy ≤3-Step MacAdam ellipse (SDCM)
- Integral emergency battery pack options available in 7W, 10W, and 14W. Test switch located on fixture lens band.
- Self-diagnostic emergency battery available (NFPA 101® Life Safety Code®)
- Emergency/generator transfer options available

Compliance

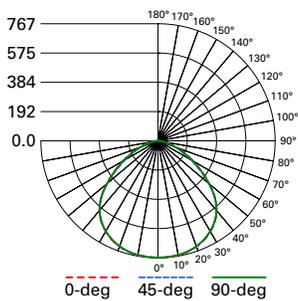
- cULus listed for 25°C ambient environments, indoor applications
- IC rated for direct insulation contact
- UL Damp location listed
- IP5X rated
- Tested to IESNA LM-79 and LM-80
- Stated life per TM21 standards
- Suitable for State of California Title 24 high efficacy luminaire
- Contributes to meeting several WELL™ v1 and v2 Features

Warranty

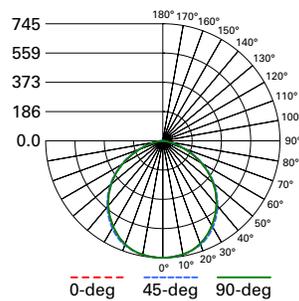
- Five year limited warranty
- Extended warranty to 10 years available

Photometric Data

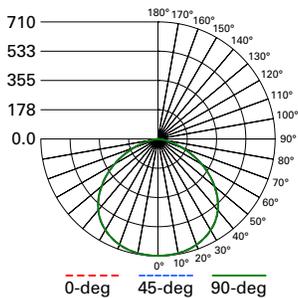
[View IES files](#)



22PT-35-PB1-L835
 Electronic Driver
 LED 3500K
 Spacing criterion: (H) 1.33 x mounting height, (L) 1.32 x mounting height
 Lumens: 2010
 Input Watts: 16.1W
 Efficacy: 125 LPW
 Test Report: 22PT-35-PB1-L835.IES



24PT-40-PB1-L835
 Electronic Driver
 LED 3500K
 Spacing criterion: (H) 1.25 x mounting height, (L) 1.25 x mounting height
 Lumens: 2000
 Input Watts: 16.1W
 Efficacy: 124 LPW
 Test Report: 24PT-40-PB1-L835.IES



14PT-40-PB1-L835
 Electronic Driver
 LED 3500K
 Spacing criterion: (H) 1.33 x mounting height, (L) 1.33 x mounting height
 Lumens: 2034
 Input Watts: 16.1W
 Efficacy: 126 LPW
 Test Report: 14PT-40-PB1-L835.IES

Energy and Performance Data

Electrical Performance - Perceive PT (3500K, 80 CRI)

Size	Lumen Package	Delivered Lumens						Input Watts	Efficacy (LPW)						Current (A)	
		Bevel (PB1)	PARAmid (PC3)	Prism (PP3)	Waves (PW1)	Leaves (PL1)	Ripple (PR1)		Bevel (PB1)	PARAmid (PC3)	Prism (PP3)	Waves (PW1)	Leaves (PL1)	Ripple (PR1)	120V	277V
1x4 PT	2000	2027	2036	2056	2069	2055	2038	16.2	125	126	127	128	127	126	0.14	0.06
	3000	2900	2913	2942	2960	2941	2916	23.4	124	124	126	126	126	125	0.20	0.08
	4000	3899	3917	3955	3980	3953	3921	32.1	121	122	123	124	123	122	0.27	0.12
	5000	4867	4889	4937	4968	4935	4894	40.9	119	120	121	121	121	120	0.34	0.15
	6000	5796	5822	5879	5916	5877	5828	49.8	116	117	118	119	118	117	0.42	0.18
	7000	7017	7049	7118	7162	7115	7056	62.7	112	112	114	114	113	113	0.52	0.23
	8000	7738	7773	7850	7898	7846	7781	71.0	109	109	111	111	111	110	0.59	0.26
2x2 PT	2000	1990	1999	2019	2031	2018	2001	14.8	134	135	136	137	136	135	0.12	0.05
	2500	2563	2471	2495	2511	2494	2474	18.6	138	133	134	135	134	133	0.16	0.07
	3500	3406	3422	3455	3477	3454	3425	26.3	130	130	131	132	131	130	0.22	0.09
	4500	4515	4536	4580	4608	4578	4540	35.3	128	128	130	131	130	129	0.29	0.13
	5000	4956	4979	5027	5058	5025	4984	39.3	126	127	128	129	128	127	0.33	0.14
	6000	6202	6230	6291	6330	6289	6236	51.8	120	120	121	122	121	120	0.43	0.19
2x4 PT	2000	1925	1936	1952	1959	1956	1938	15.1	127	128	129	130	130	128	0.13	0.05
	3000	3002	3018	3043	3055	3050	3021	23.8	126	127	128	128	128	127	0.20	0.09
	3500	3549	3568	3598	3612	3606	3572	28.2	126	127	128	128	128	127	0.24	0.10
	4000	4086	4108	4142	4158	4152	4113	32.7	125	126	127	127	127	126	0.27	0.12
	4500	4658	4682	4722	4740	4733	4688	37.2	125	126	127	127	127	126	0.31	0.13
	5000	5110	5137	5180	5200	5192	5143	41.0	125	125	126	127	127	125	0.34	0.15
	6000	6260	6293	6346	6370	6361	6301	50.7	123	124	125	126	125	124	0.42	0.18
	7200	7282	7321	7383	7411	7400	7330	60.1	121	122	123	123	123	122	0.50	0.22
	8000	8186	8230	8299	8331	8318	8240	68.3	120	120	122	122	122	121	0.57	0.25
	9000	9079	9021	9097	9132	9118	9032	75.7	120	119	120	121	120	119	0.63	0.27
	10000	9871	9923	10007	10045	10030	9935	85.4	116	116	117	118	117	116	0.71	0.31

Nominal Lumen Maintenance

TM-21 Lumen Maintenance (60,000 hours) ⁽³⁾	Theoretical L70 (hours) ⁽⁴⁾
> 86%	> 120,000

Notes: (3) Supported by IES TM-21 standards. (4) Theoretical values represent estimations commonly used; however, refer to the IES position on LED Product Lifetime Prediction, IES PS-10-18, that explains proper use of IES TM-21 and LM-80.

Lumen Adjustment Factors

CCT Multiplier	80 CRI	90 CRI
3000K	0.99	0.83
3500K	1.00	0.85
4000K	1.03	0.87
5000K	1.05	N/A

Shipping Data

	1x4	2x2	2x4
Product Weight (lb.)	7.3	6.8	11.9
Packaged Weight (lb.)	8.4	8.4	14.5
Pallet Qty	54	72	36
Pallet Size	52x40	52x49	

Example of Lumen Adjustment Calculation

22PT-35-PB1-L835 at 80CRI at 5000K
 Lumen Adjustment Factor = 1.05
 Total Light Output =
 3,406 lm x 1.05 = 3,576 lm
 Efficacy = 3,576 lm = 138 lm/W
 26.0W

Energy and Performance Data

Optical Performance - Perceive PT (3500K, 80 CRI)

Size	Lumen Package	UGR [CIE 190:2010] (4H, 8H; Reflectance: 70% Ceiling, 50% Wall, 20% Ref. Plane)						Max Luminance [45-90 Deg from NADIR] (CD/M^2)					
		Bevel (PB1)	PARAmid (PC3)	Prism (PP3)	Waves (PW1)	Leaves (PL1)	Ripple (PR1)	Bevel (PB1)	PARAmid (PC3)	Prism (PP3)	Waves (PW1)	Leaves (PL1)	Ripple (PR1)
1x4 PT	2000	16.5	16.7	17	17.3	17.1	16.6	2011	1933	1908	1941	1928	1954
	3000	17.7	17.9	18.2	18.5	18.3	17.8	2877	2765	2730	2776	2760	2795
	4000	18.8	19	19.3	19.6	19.4	18.9	3868	3719	3669	3733	3709	3759
	5000	19.5	19.7	20	20.3	20.1	19.6	4829	4641	4580	4660	4631	4691
	6000	20.1	20.3	20.6	20.9	20.7	20.2	5751	5527	5454	5549	5514	5587
	7000	20.8	21	21.3	21.6	21.4	20.9	6962	6692	6604	6718	6676	6764
	8000	21.1	21.3	21.6	21.9	21.7	21.2	7677	7379	7283	7408	7362	7459
2x2 PT	2000	16.2	16.6	17.2	16.5	16.9	17	1918	1897	1925	1923	1877	1912
	2500	16.9	17.4	18	17.3	17.7	17.7	2371	2345	2380	2378	2320	2363
	3500	18	18.5	19.1	18.4	18.8	18.8	3282	3247	3295	3292	3212	3273
	4500	19	19.5	20.1	19.4	19.8	19.8	4351	4304	4367	4364	4258	4338
	5000	19.3	19.8	20.4	19.7	20.1	20.1	4776	4725	4794	4791	4674	4762
	6000	20.1	20.6	21.2	20.5	20.9	20.9	5977	5912	5999	5994	5849	5960
2x4 PT	2000	13.8	14.1	14.4	14.7	14.5	14	935	919	908	928	921	931
	3000	15.4	15.7	16	16.3	16.1	15.6	1458	1432	1415	1448	1436	1452
	3500	15.9	16.2	16.5	16.8	16.6	16.1	1723	1693	1673	1711	1698	1717
	4000	16.4	16.7	17	17.3	17.1	16.6	1984	1949	1926	1970	1955	1977
	4500	16.9	17.2	17.5	17.8	17.6	17.1	2262	2222	2196	2246	2229	2253
	5000	17.2	17.5	17.8	18.1	17.9	17.4	2481	2437	2408	2464	2445	2472
	6000	17.9	18.2	18.5	18.8	18.6	18.1	3040	2986	2951	3018	2995	3028
	7200	18.4	18.7	19	19.3	19.1	18.6	3536	3474	3433	3511	3484	3523
	8000	18.8	19.1	19.4	19.7	19.5	19	3975	3905	3859	3947	3916	3960
	9000	19.2	19.5	19.8	20.1	19.9	19.4	4357	4280	4230	4327	4293	4341
	10000	19.5	19.8	20.1	20.4	20.2	19.7	4793	4708	4653	4759	4723	4775

Notes:
 UGR and Luminance values that meet WELL v2 L04 requirements for Managing Glare are shown with green highlighted cell (UGR < 16, Luminance < 6,000).
 UGR and Luminance values that meet LEED v4.1 requirements for Glare Control are shown with green text (UGR < 19, Luminance < 7,000).

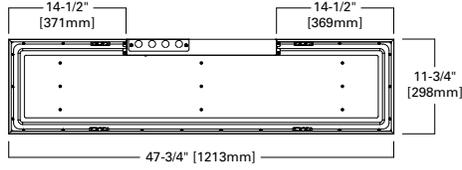
Key

	Meets WELL v2
TEXT	Meets LEED v4.1

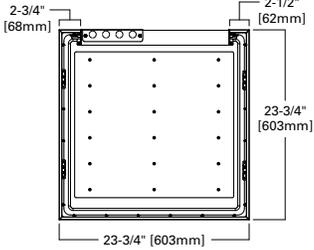
Dimensional and Mounting Details

Standard driver - no controls, EM, or flex

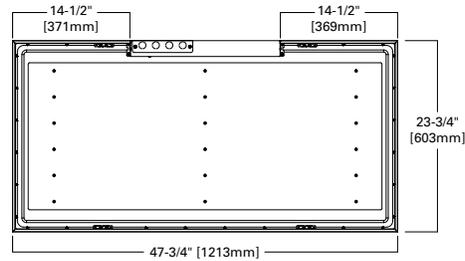
1x4



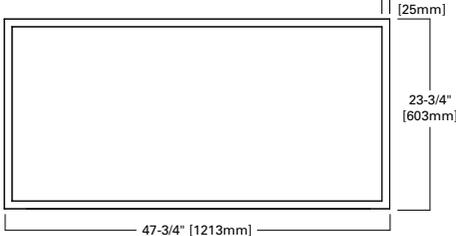
2x2



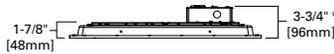
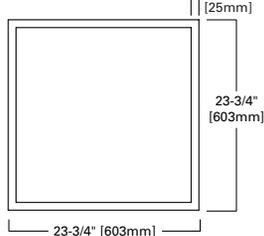
2x4



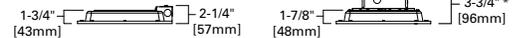
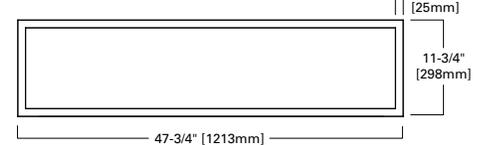
2x4



2x2

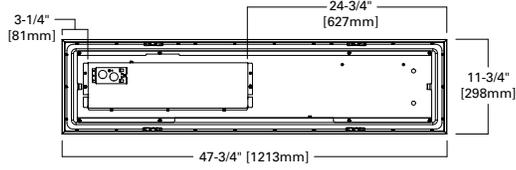


1x4

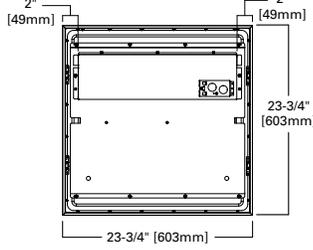


Alternative driver, with controls, EM and/or flex

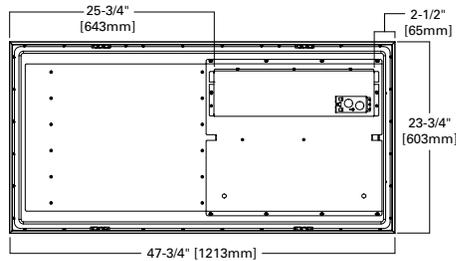
1x4



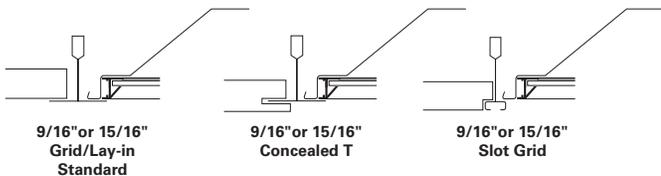
2x2



2x4



Ceiling Compatibility



Ceiling Mounting Choices

Application	Catalog	UPC	Description
Hard Ceiling Recessed	DF-22W-U	662401232963	2x2 Dry Wall Frame Kit
Surface Mount	SK-22-WS	080083719402	2x2 Shallow Surface Mount Kit

Perceive PT Optic Patterns

Cooper Lighting Solutions' Perceive™ technology enables a wide-variety of 3D visual forms; all on an easy-to-clean flat surface.



Bevel (PB1):
Distinct regressed
coffer appearance



PARAMid (PC3):
Dynamic pyramid stud 3"
cells



Prism (PP3):
Diamond prismatic
geometry



Waves (PW1):
Energetic flowing waves,
sculpted appearance



Leaves (PL1):
Subtle organic leaves



Ripple (PR1):
Soft undulating form

Surface Mounting Options

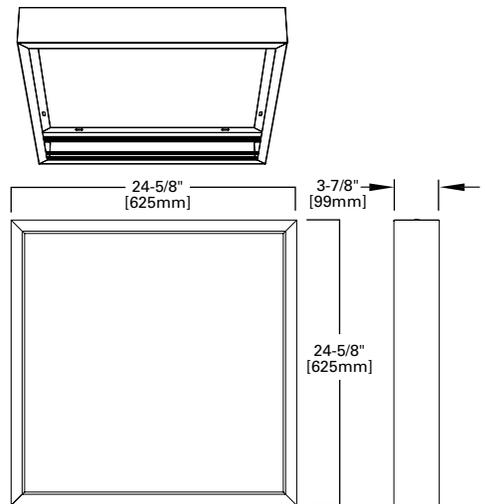
Catalog No.	Description	UPC	Kit Height
CGTSURF24	2x4 CGT Surface Mount Kit	080083083107	3-7/8"
CGTSURF22	2x2 CGT Surface Mount Kit	080083083121	3-7/8"
CGTSURF14	1x4 CGT Surface Mount Kit	080083083145	3-7/8"
SK-24-WS	2x4 SK Surface Mount Kit, Shallow	080083719389	5-1/16"
SK-22-WS	2x2 SK Surface Mount Kit, Shallow	080083719402	5-1/16"
SK-14-WT	1x4 SK Surface Mount Kit, Tall	080083906703	5-1/16"
<p>Note: Cannot be used with EL10W, EL10WSD, GTRD, 100HE lumen output, MWS, or 347V with alternative driver. Metalux Universal Surface Mount kits are compatible with these configurations – see #SK-24, #SK-22, and #SK-14). Metalux Universal Surface Mount</p>			

Drywall Frame Kit

Catalog No.	Description	UPC
DF-24W-U	2x4 dry wall frame kit	662401232970
DF-22W-U	2x2 dry wall frame kit	662401232963
DF-14W-U	1x4 dry wall frame kit	662401232949

Surface Mount Kit

Size	Width	Length
1x4	12-5/8"	48-5/8"
2x2	24-5/8"	24-5/8"
2x4	24-5/8"	48-5/8"



CGTSURF22 Shown

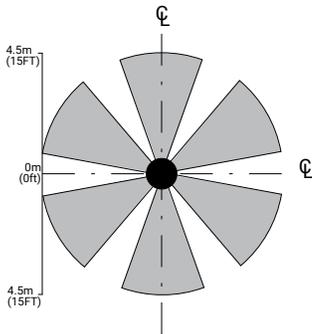
Suspension Kit

Catalog	UPC	Description
FPSUS2-ML	080083802784	ML / Max Load Kit for CGTX with options. 2 point Y-hanger suspension kit includes aircraft cable, carabiner, ceiling connection, SO cord, cord connectors, round 4" J-box cover plate, and #8 sheet metal screws.
<p>Mounting height from ceiling Min. = 7-1/4" [184mm] Max. = 27" [286mm]</p> <p>Note: Suspension kit is intended to be used without surface mount box.</p>		

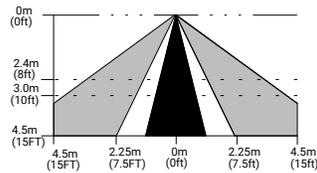
Control Systems

- WaveLinx LITE
- WaveLinx PRO
- WaveLinx Wired

TOP VIEW:



SIDE VIEW:



Note: Installation of integrated sensors within 3-ft (1m) of HVAC air vents is not recommended. The pattern shown is intended solely as a general guide and is not to scale.

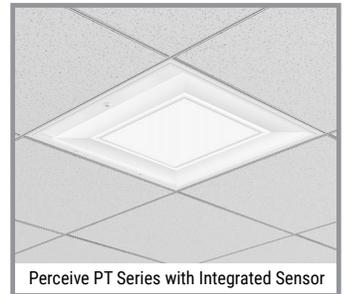
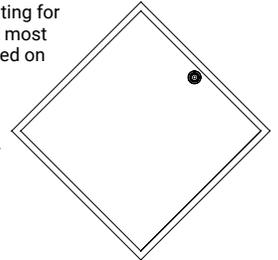
The Perceive PT Series with WaveLinx offers no-hassle lighting control with multiple luminaire level control solutions.

WaveLinx PRO is used for applications where spaces need to be connected to a lighting or building management system and to help building owners improve their operations, building environment, and tenants' experience by leveraging the data generated by the sensors. The WaveLinx PRO devices communicate with each other via the WaveLinx Area Controller which coordinates the data traffic between the devices, lighting apps and CORE platform. The WaveLinx Area Controller also hosts the time clock required if spaces need to be turned on/off at a specific time.

The WaveLinx PRO Sensor offers built-in occupancy and daylighting controls as well as luminaire level control including white tuning while the WaveLinx PRO Node offers luminaire level control and white tuning. If opting for the WaveLinx PRO Node option, a PRO Ceiling Sensor will most likely be needed within the space to control the lights based on occupancy and daylight levels.

WaveLinx LITE is used for single spaces where there is no need to manage the spaces remotely or exchange the sensor data with other sub-systems within the building or smart applications.

The WaveLinx LITE Sensor offers built-in occupancy and daylighting controls as well as luminaire level control.



Systems comparison chart

Cooper Lighting Solutions provides many lighting system solutions designed to satisfy code requirements and meet the unique needs of any project.



Luminaire with standalone sensor



Standalone Spaces WaveLinx LITE



Networked Spaces WaveLinx PRO



Enterprise WaveLinx CORE

	Luminaire with standalone sensor	Standalone Spaces WaveLinx LITE	Networked Spaces WaveLinx PRO	Enterprise WaveLinx CORE
Occupancy	Yes	Yes	Yes	Yes
Daylighting	Yes	Yes	Yes	Yes
Wallstations	-	Yes	Yes	Yes
Gateways	-	-	1 WAC	300 WACs
Devices (MAX)	-	50 per Area (1400 per site)	200 per WAC2	32,500 per CORE Enterprise
Software	-	WaveLinx LITE Mobile App	WaveLinx Mobile App	CORE
Areas	-	28 per Site	50 per WAC2	up to 3,000
Zones	-	16 per Area	16 per Area	up to 9,000
Scheduling	-	-	Local	Global
VividTune™	-	-	Yes	Yes
Plug-Load Control	-	-	Yes	Yes
Low-Voltage Power	-	-	Yes	Yes
Integration	-	-	-	BACnet, API
Dashboards	-	-	-	Energy, Occupancy
Configuration	-	Installer	Technician	Technician / IT

SCALABILITY

