PrentaLux

205

3D Printed Luminaire
Integral LED Light Engine
Decorative

Typical Applications
• Office • Education • Healthcare • Hospitality • Retail • National Accounts

Interactive Menu

Certifications | Features | Awards

UL CERTIFIED • RoHS COMPLIANT • BAA BUY AMERICAN ACT COMPLIANT OPTIONS AVAILABLE • Material Bank • LIVING BUILDING CHALLENGE • ISCC Bio-Based Plastics Mass Balance Approved — Filament only. See page 6

Best of NeoCon 2022 Innovation • HiP Architectural SSL Magazine • Best of NeoCon 2022 Gold • PIA'22 product innovation award • GOOD DESIGN 2022

Top Product Features

- PrentaLux 200's is a series of decorative products using Signify's 3D Printing technology with an integral LED light engine.
- Outer shade has 3 texture options, and inner shade has 3 different texture options.
- 16 opaque color options for outer shade and 4 opaque color options for inner shade.
- 2700K, 3000K, 3500K, 4000K and only available in 90 CRI.
- 8 Light Levels ranging from nominal 1000 to 7000+ lumens.
- Universal Voltage (120-277V).
- 1% Dimming.
- 3D printed mounting canopy available in disk or conical shape.
- 5 Year Warranty.
- Silver power cord.
- BAA compliant. RoHs compliant.
- Finishes available on Material Bank

Dimensions

16.41"
[417 mm]

16.34"
[415 mm]

61%   **55%**
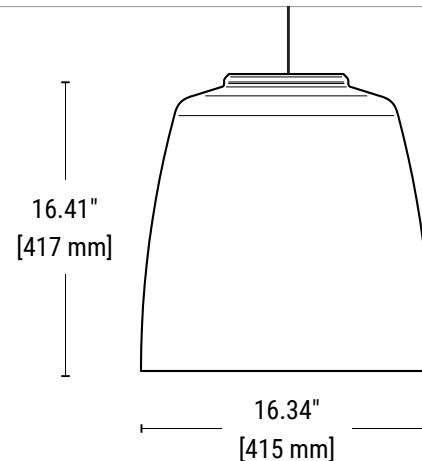
Sustainable Product Features

- PrentaLux 3D printed parts are produced with at least 55% mass balanced bio-circular materials. Effective Q3-2023.
- 61% of the 205 light fixture is made of 3D printed material.
- ISCC certified. Certification applies only to 3D printed material. See page 6
- Declare compliant
- LBC Red List Approved

Declare. • LBC Red List Approved
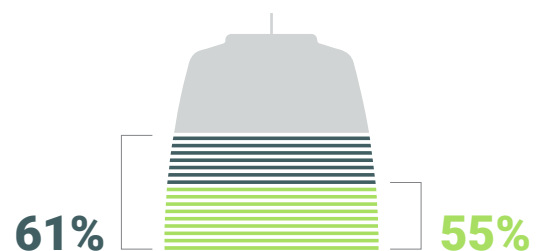
Order Information

SAMPLE CATALOG NUMBER: **PRLX-205-90-35K-LL5-UNV-STD-SLVR-LF-WHHR-BR-CC**

Brand	Series	Color Rendering Index	Correlated Color Temperature	Lumens/ Wattage	Voltage	Dimming
Brand	**Series**	**CRI**	**CCT**	**Light Level** (See Lumen, Wattage, & Efficacy Chart on Page 3)	**Voltage**	**Dimming**
PRLX	**205**	**90** = 90 CRI	**27K** = 2700K **30K** = 3000K **35K** = 3500K **40K** = 4000K	**LL1** = 1129 lms (at 3500K, 90CRI), 10W **LL2** = 1608 lms (at 3500K, 90CRI), 13W **LL3** = 2190 lms (at 3500K, 90CRI), 18W **LL4** = 2857 lms (at 3500K, 90CRI), 24W **LL5** = 3993 lms (at 3500K, 90CRI), 34W **LL6** = 4547 lms (at 3500K, 90CRI), 40W **LL7** = 5874 lms (at 3500K, 90CRI), 56W **LL8** = 6807 lms (at 3500K, 90CRI), 73W See Lumen Table on Page 3 for exact CCT to Lumen table values.	**UNV** = Universal Voltage (120-277V)	**STD** = 1% Dimming
Notes	Notes	Notes	Notes	Notes 1. Lumen targets above are based on 90 CRI and 3500K values. Use IES files for accurate calculations.	Notes	Notes

Continue here to make complete selections

Outer Shade Color	Outer Shade Texture	Inner Shade Color	Inner Shade Texture	Mounting
Outer Shade Color	**Outer Shade Texture**	**Inner Shade Color**	**Inner Shade Texture**	**Canopy Shape and Color**
Standard Outer Shade Colors (opaque): **WHTE** = White **BLAK** = Black **DKGY** = Dark Gray **MCHA** = Matcha **CAPP** = Cappuccino **MYBL** = Misty Blue **STBL** = Steel Blue **ENGR** = Enamel Green **STBR** = Stone Brown **MEBL** = Metallic Blue **MEGR** = Metallic Green **MEPK** = Metallic Pink **MEPU** = Metallic Purple **SLVR** = Silver **GOLD** = Gold **BRNZ** = Bronze	**Standard Outer Shade Texture:** **LF** = Layered Fine **NL** = Natural Lines **VF** = Vertical Fine	**Standard Inner Shade Color:** **WHHR** = High Reflective White **Premium Inner Shade Color (opaque):** **GOLD** = Gold Metallic **SLVR** = Silver Metallic **BLAK** = Black	**Standard Inner Shade Texture:** **SR** = Smooth reflector, layered fine texture **BR** = Baffle reflector, corrugated texture **FL** = Floral reflector, decorative texture **CST** = Custom Shade Texture (Consult factory for details and lead times. Shop drawings Required) Comments: _____	**DW** = Disk - White **DB** = Disk - Black **DS** = Disk - Silver **DC** = Disk - Custom (Custom = opaque color only. Translucents not available) **CW** = Conical - White **CB** = Conical - Black **CS** = Conical - Silver **CC** = Conical - Custom (Custom = opaque color only. Translucents not available)
Notes 1. See page 3 for color options.	Notes 1. See page 4 for texture details and options.	Notes 1. Consult factory on Premium Option lead times. 2. See page 3 for color options.	Notes 1. BR - Baffle and FL - Floral, textures only available for inner shade. 2. See page 4 for texture details and options.	Notes 1. Standard length of cord - 10ft [3050 mm]. Max available length is 25ft [7.62 m] and Consult factory for lengths longer than 10ft. 2. Power cord is always silver.

COOPER
Lighting Solutions

Product Specifications

Construction
- PrentaLux 200s consist of an integral LED light engine and a proprietary additive manufacturing process for the polycarbonate shade and components. Thermally, mechanically, and optically optimized for professional/commercial installations.
- Designed, engineered, and printed in the United States.

Electrical
- Standard 0-10V driver integrated into the pendant head (120/277V/ 50-60Hz).

LED and Light Engine
- Available in 2700K, 3000K, 3500K, and 4000K CCT and 90 CRI only. Lumen packages ranging from nominal 1000, 1500, 2000, 3000, 4500, 6000, 7000+ lumens. (subject to specific CCT and Light Level).

Driver
- Standard offering is 0-10V with 1% dimming.

Optics
- Polar plot and UGR data on page 5.

Environment
- Suited for 25° ambient. Dry location only.

Shielding
- Shade optic depth and design provides excellent physical cut off.

Finish
- 16 outer shade colors available. 4 inner shade colors, with standard option of high reflective white for maximum output and 3 colors as premium options with longer lead times. 3 inner shade textures offered. Additional colors and textures available with extended lead times. (Consult Factory)
- Finishes are available for review on Material Bank under Cooper Lighting Solutions PrentaLux brand.

Mounting
- Mounting options include UL certified cord and option of 3D printed disk shape or conical shape, mounting hardware.

Lengths
- Fixture comes with 10ft cord. Lengths up to 25 ft possible. (Consult factory as longer lead times apply).

Weight
- All products are light weight and much easier to install than traditional pendants. All fixtures are less than 10lbs

Warranty
- Standard five-year limited warranty on all parts.

Compliance
- Components are UL recognized and luminaires are cULus listed for 25°C ambient environments. Dry Location Listed
- Filament material is UL certified.
- BAA compliant
- RoHS compliant
- Declare Compliant, LBC Red List Approved, ISCC Certified
- Not to be installed in food prep areas and hazardous environments which may expose the product to pollutants such as oil, grease, or VOCs.
- IK02 impact rated. Not for installations in locations such as gymnasiums, arenas, sports complexes, multi-purpose rooms, and any other locations where the fixture potentially will be subject to impacts from external sources.

Sustainable Products Specifications

- PrentaLux 3D printed parts are produced with at least 55% mass balanced bio-circular materials. Effective Q3-2023.
- 61% of the 205 lighting fixture, is made of 3D printed material.
- ISCC certified. Certification applies only to 3D printed material. See page 6
- Declare compliant
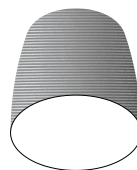- LBC Red List Approved

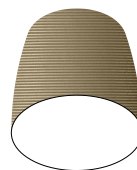## Outer Shade Colors

WHTE - White (Opaque)

DKGY - Dark Gray (Opaque)

BLAK - Black (Opaque)

SLVR - Silver (Opaque)

GOLD - Gold (Opaque)

BRNZ - Bronze (Opaque)

MEPU - Metallic Purple (Opaque)

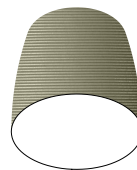**MEPK** - Metallic Pink (Opaque)

MCHA - Matcha (Opaque)

CAPP - Cappuccino (Opaque)

STBR - Stone Brown (Opaque)

ENGR - Enamel Green (Opaque)

MEGR - Metallic Green (Opaque)

STBL - Steel Blue (Opaque)
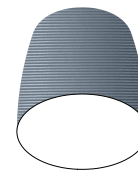
MEBL - Metallic Blue (Opaque)
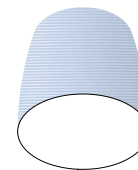
MYBL - Misty Blue (Opaque)

Inner Shade Color - Standard

WHHR - White (Opaque)
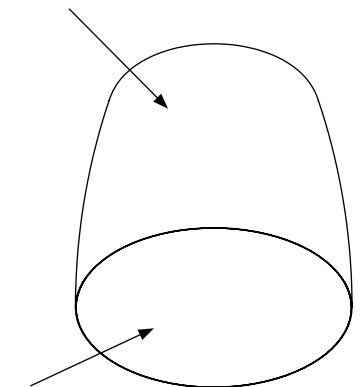
(High Performance Reflective White)

Inner Shade Colors - Premium
(consult factory for extended lead times)

SLVR - Silver Metallic (Opaque)

GOLD - Gold Metallic (Opaque)

BLAK - Black (Opaque)

Outer Shade

Inner Shade

Outer Shade Textures
Close up view of textures

Layered Fine **(LF)**
(Shown in BLAK)

Vertical Fine **(VF)**
(Shown in BLAK)

Natural Lines **(NL)**
(Shown in WHTE)

Inner Shade Textures
Close up view of textures

Smooth **(SR)**
(Outer Shade in WHTE)

Baffle **(BR)**
(Outer Shade in BLAK)

Floral **(FL)**
(Outer Shade in BLAK)
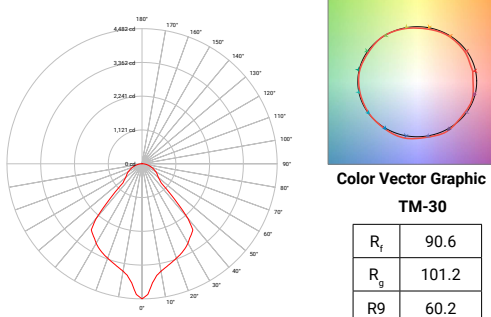
Mounting Canopy Options

Disk Canopy

1.3"
[34 mm]

4.7"
[120 mm]

Conical Canopy

3.3"
[84 mm]

4.7"
[120 mm]

Mounting Canopy Colors

DW
Disk - White

DB
Disk - Black

DS
Disk - Silver

DC
Disk - Custom
(Custom = Opaque color only.
Translucents not available)

CW
Conical - White

CB
Conical - Black

CS
Conical - Silver

CC
Conical - Custom
(Custom = Opaque color only.
Translucents not available)
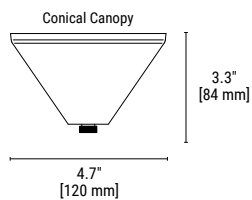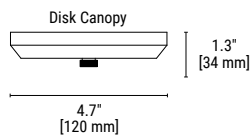
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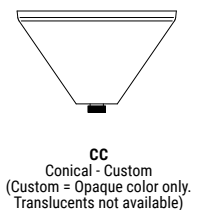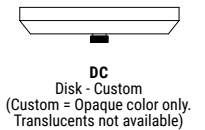
Photometric Data

PRENTALUX - 205 - @ 3500K / 90 CRI			
	Light Level 1	**Light Level 8**	
Filename	205-90-35K-LL1-UNV-STD-X-X-WHHR-SR-X.ies	205-90-35K-LL8-UNV-STD-X-X-WHHR-SR-X.ies	
Test No.	P600606	P600627	
Lumcat	205-90-35K-LL1-UNV-STD-X-X-WHHR-SR-X	205-90-35K-LL8-UNV-STD-X-X-WHHR-SR-X	
Lumens	1128.9 Lm	6807.4 Lm	
Input Watts	9.5 W	72.2 W	
Efficacy	118.8 Lm/W	94.3 Lm/W	
CCT	3500K	3500K	
SC (0/90/45)	1.01 / 1.01 / 1.17	1.01 / 1.01 / 1.17	

Color Vector Graphic
TM-30

R_f	90.6
R_g	101.2
R9	60.2

Lumen/Wattage/LPW Table

LUMEN Table per CRI, CCT, and Light Level			205 (inner diam nominal 16", inner textures)			WATTS	EFFICACY (Lm/W)
			Smooth	Floral	Baffle		
CRI	**CCT**	**LL**	**SR**	**FL**	**BR**		
90	2700	LL1	1031	1027	1036	10	96
		LL2	1468	1463	1475	13	105
		LL3	2000	1992	2009	18	103
		LL4	2609	2599	2621	24	101
		LL5	3646	3633	3663	34	99
		LL6	4152	4137	4172	40	96
		LL7	5364	5344	5389	56	89
		LL8	6215	6193	6245	73	79
	3000	LL1	1093	1089	1098	10	101
		LL2	1556	1551	1564	13	111
		LL3	2120	2112	2130	18	109
		LL4	2766	2756	2779	24	107
		LL5	3865	3851	3883	34	105
		LL6	4402	4386	4422	40	102
		LL7	5686	5666	5713	56	94
		LL8	6589	6565	6620	73	84
	3500	LL1	1129	1125	1134	10	105
		LL2	1608	1602	1616	13	115
		LL3	2190	2182	2201	18	113
		LL4	2857	2847	2871	24	110
		LL5	3993	3979	4012	34	109
		LL6	4547	4531	4569	40	105
		LL7	5874	5853	5902	56	97
		LL8	6807	6783	6840	73	86
	4000	LL1	1171	1167	1176	10	109
		LL2	1668	1662	1676	13	119
		LL3	2271	2263	2282	18	117
		LL4	2963	2953	2978	24	114
		LL5	4141	4126	4161	34	113
		LL6	4716	4699	4739	40	109
		LL7	6093	6071	6122	56	101
		LL8	7060	7035	7094	73	90

UGR Data Table

Light Level @ 3500K [205] Smooth Reflector		CCT	UGR [CIE 190:2010] [1] (4H, 8H; Reflectance: 70%Ceiling, 50% Wall, 20% Ref. Plane)	MAX LUMINANCE [45-90 DEG FROM NADIR] [2] (CD/M^2)
			90 CRI	**90 CRI**
			205	205
LL1	1129	3500K	15.7	1608
LL2	1608	3500K	16.9	2289
LL3	2190	3500K	18.0	3119
LL4	2857	3500K	18.9	4069
LL5	3993	3500K	20.1	5687
LL6	4547	3500K	20.5	6476
LL7	5874	3500K	21.4	8366
LL8	6807	3500K	21.9	9694

Lumen Maintenance

Ambient Temperature
25°C
Lumen Maintenance: TM-21-11 (60,000 Hours)
>80%
Theoretical L70 (Hrs)
>=66,000

Circularity

The Circular Economy is "an industrial system that is restorative or regenerative by intention and design." and relates to the production and consumption through: Reducing, Reusing, and Recycling products. The PrentaLux 3D printed lighting products contribute to the Circular Economy by reducing carbon emissions, reducing components by design and technology of 3D printing, reuse our misprints that reduce carbon dioxide impact, and are recycling waste from food processing and wood pulp industries to be repurposed into the filaments used to 3D print the PrentaLux products.

35%
REDUCE
35% weight reduction reduces carbon emissions by requiring less fuel for shipping

86%
REUSE
When polycarbonate is recycled, it generates up to 86% lower CO2 impact compared to virgin polycarbonate.

55%
RECYCLE
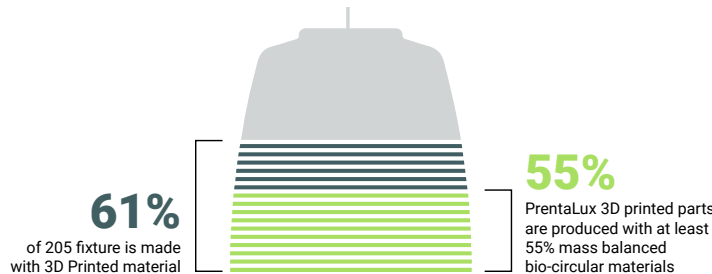Our 3D printed parts are created with over 55% recycled or bio-circular materials.

Material Sustainability through Production and Supply Chain

50% BIO-BASED PLASTIC
ISCC CERTIFIED
MASS BALANCE APPROACH

Each of our 3D printing manufacturing plants have been audited by the ISCC (International Sustainability and Carbon Certification) organization to verify the implementation and use of environmentally, socially and economically sustainable production and materials.

* PrentaLux products will convert to printing our 3D parts with over 55% recycled or bio-circular materials (using an ISCC certified mass balance approach) within Q3 2023. Bio-circular materials are raw materials from ISCC Plus certified waste streams and residues including tall oils from the wood processing industry or used cooking oil from the food processing industry.

PrentaLux products have a high percentage of the entire product that is 3D printed as well as having the filament come from bio-circular materials.

61%
of 205 fixture is made with 3D Printed material

55%
PrentaLux 3D printed parts are produced with at least 55% mass balanced bio-circular materials

ZERO WASTE TO LANDFILL
PrentaLux products are produced in a manufacturing facility where over 99% of generated waste is diverted from landfills

Material Transparency

LIVING BUILDING CHALLENGE™

LBC Red List Approved

The ILFI (International Living Future Institute) has created a program where manufacturers can disclose the components or "ingredients" of a product. This disclosure has a rating system that shows transparency in the materials chosen in developing products, and whether there are any chemicals of concern, to help meet the requirements of leading green building standards that support human and environmental health.

☑ LBC Red List Approved
- Disclosed 100% at content inventory of 100ppm
- Suitable as a compliance pathway for LEED v4.1 Material Ingredients credit Option 1 Material Ingredient Reporting
- Suitable as a compliance pathway for WELL v2 Feature X07 Materials Transparency Parts 1 and 2

To see the full listing of Cooper Lighting products that participate in Declare, click here.

Declare.

PrentaLux - 200 Series 3D Printed Decorative Pendants
Cooper Lighting Solutions

Final Assembly: Littlestown, Pennsylvania, USA
Life Expectancy: 10 Year(s)
End of Life Options: Recyclable (90%), Landfill (10%)

Ingredients:
Carbonic acid, polymer with 4,4'-(1-methylethylidene)bis[phenol]; DIMETHYLALUMINUM I-PROPOXIDE; Steel; Small Electrical Component Exception¹; Steel manufacture, chemicals; 2-Propenoic acid, 2-methyl-, polymer with ethyl 2-propenoate and methyl 2-methyl-2-propenoate, ACRYLIC PLASTIC, MODIFIED; Acrylonitrile-Butadiene-Styrene Copolymer; Cobalt (II) oxide; Poly[imino(1,6-dioxo-1,6-hexanediyl)imino-1,6-hexanediyl]; Polyacrylic acid; Zinc

¹LBC Temp Exception RL-002 - Small Electrical Components

Living Building Challenge Criteria: Compliant

I-13 Red List:
☐ LBC Red List Free   % Disclosed: 100% at 100ppm
■ LBC Red List Approved   VOC Content: Not Applicable
☐ Declared

I-10 Interior Performance: Not Applicable
I-14 Responsible Sourcing: Not Applicable

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