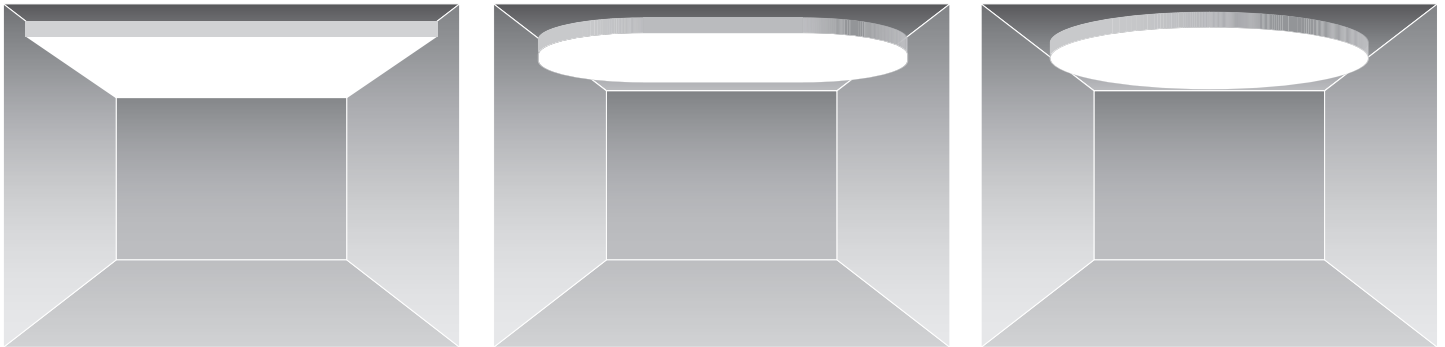


SKYSPAN SURFACE MOUNT: SPECIFICATIONS



PROJECT		REFERENCE TYPE	
SPECIFIED BY		QUANTITY	
DATE		NOTE	Luminous Ceiling

SKYSPAN - SURFACE MOUNT STANDARD CONFIGURATION



Surface Mounted SkySpan systems blend with the ceiling finish to provide a feeling of openness and volume.

GENERAL

Mounting Type	Surface Mount
Input Voltage	Nom. 120-277 VAC
Diffuser Material	Polyester Woven Fabric (coated) - Standard (other options available)
Frame Material	Extruded Aluminum
Light Source (Luminous Ceiling)	Cooledge TILE Products
Dust Ply Included	No (available upon request)
Maximum Seamless Dimensions	15.5ft (4.7m) x 161ft (49m) (WxL)
Frame Height	5.3 in (135mm)
Bend Radius (Curves)	Minimum 15" (380mm)

SPECIFICATION

A luminous surface of dimensions aa x bb consisting of a lighting system, woven polyester light emitting diffuser, and aluminum profile mounted directly to the ceiling surface.

The luminous ceiling fixture(s) forms a single or series of uniformly diffuse and seamless light emitting surfaces; providing a minimum of xx fc (lux) on the horizontal workplane; and are installable in occupied premises, without need for heating devices or water. The surface material(s) is of a coated polyester fabric with a fire rating ASTM E 84 Class A /EN:3501-1 Class B/CAN ULC S102.2. Light output from the luminous surface is CRI>90; provides f lux within 10% of nominal and has a color consistency of 2 SDCM over the entire surface. (Single CCT & Tunable White)

Cooledge SkySpan systems are UL Listed and/or CE Compliant.

FEATURES

- **Low Profile:** Mounts directly to the ceiling surface with a thin profile to create a large scale luminous surface that gives the impression of volume
- **Curves & Rounds:** A bendable profile allows curved shapes, rounded corners and circles with radii down to 15" (380mm)
- **Immersive Illumination:** A large luminous surface delivers a surprising amount of illumination without visual discomfort
- **Adaptable:** Choice of tunable white, dim-to-warm, W+RGB or static color temperature
- **Code Friendly:** Fire-rated polyester fabric and a fully certified lighting system eliminate inspection challenges.

SKYSPAN SURFACE MOUNT: SPECIFICATIONS

PHOTOMETRICS¹ (STATIC CCT & TUNABLE WHITE)

The following assumes Cooledge's standard smooth white fabric material as the primary luminous ceiling diffuser.

Distribution	Lambertian
Light Output ² (lm/sqft) *Available in 3000K, 3500K, 4000K, and Tunable White 2700K-5700K only	Extra High Flux (XHF) = 590 High Flux (HF) = 395 *Medium High Flux (MHF) = 305 Medium Flux (MF) = 200 *Low Medium Flux (LMF) = 150 Low Flux (LF) = 100 *Eco Power (ECO) = 65
Light Output ² (lm/m ²) *Available in 3000K, 3500K, 4000K, and Tunable White 2700K-5700K only	Extra High Flux (XHF) = 6390 High Flux (HF) = 4260 *Medium High Flux (MHF) = 3280 Medium Flux (MF) = 2130 *Low Medium Flux (LMF) = 1620 Low Flux (LF) = 1065 *Eco Power (ECO) = 700
Correlated Color Temperature (CCT)	Single CCT: 2200K, 2700K, 3000K, 3500K, 4000K, 5700K Tunable White: 2700K-5700K, 2200K-3500K Dim-To-Warm: 3500K-2200K
Color Rendering Index (CRI)	≥ 90
Color Uniformity	2 SDCM (typical)
Lumen Maintenance ³	L80 = 75,000 hr

Cooledge has conducted extensive testing on the interaction between the light source and the surface materials to deliver the optical and photometric properties of the SkySpan/SkyLine system

TM-30-15 DATA

CCT	2200K	2700K	3000K	3500K	4000K	5700K	TNW*
Rf	88	91	90	89	86	88	90
Rg	99	99	98	98	96	98	100

For more details about Cooledge Solutions color rendering, please see "Light Quality Metrics" at www.cooledgelighting.com

* = Tunable White @50% point in the tunable range 2700K - 5700K

¹ Photometric files available from cooledgelighting.com

² Based on a 10'x10' (3mx3m) area - refer to SkySpan Size Factors for other sizes

³ Based on LM80 data & TM-21 calculations

PHOTOMETRICS (W+RGB)

	lm/sqft*	lm/m ² *
W (3500K)	320	3450
Full W+RGB	640	6900
Red only	95	1020
Green only	260	2800
Blue only	55	600

*Approximate; actual flux values may vary depending on the size and shape of the Specialty Illumination Solution.

WHITE - 3500K

Correlated Color Temperature (CCT)	3500K
CRI (Ra) - White	94
R9	64
Color Uniformity - White (Typical)	3 SDCM
Lumen Maintenance (L70)	50,000 hr

WHITE - W+RGB: OTHER CCTS*

Nominal CCT	Calculated CCT	CRI	R9
2700K	2752K	80	51
3000K	3080K	90	79
3500K	3465K	95	95
4000K	3985K	95	97
5000K	5031K	93	96
5700K	5640K	91	88

SKYSPAN SURFACE MOUNT: SPECIFICATIONS

POWER (SINGLE CCT & TUNABLE WHITE)

Flux Category	Light Output (lm/sqft)	Light Output (lm/m ²)	CCT	Power (W/sqft)	Power (W/m ²)
Extra High Flux (XHF)	590	6390	2200K	n/a	n/a
			2700K	7.8	83.4
			3000K	7.1	76.2
			3500K	7.0	75.0
			4000K	7.0	75.0
			5700K	7.0	75.0
High Flux (HF)	395	4260	2200K	5.6	60.4
			2700K	5.2	55.6
			3000K	4.8	52.0
			3500K	4.6	49.6
			4000K	4.6	49.6
			5700K	4.7	50.8
Medium High Flux (MHF)	305	3280	2700K	4.0	43.4
			3000K	3.7	40.0
			3500K	3.6	38.4
			4000K	3.6	38.4
Medium Flux (MF)	200	2130	2200K	2.8	30.2
			2700K	2.6	27.8
			3000K	2.5	26.6
			3500K	2.2	24.2
			4000K	2.4	25.4
			5700K	2.2	24.2
Low Medium Flux (LMF)	150	1620	2700K	2.0	21.0
			3000K	1.8	19.4
			3500K	1.7	18.6
			4000K	1.7	18.6
Low Flux (LF)	100	1065	2200K	1.3	14.5
			2700K	1.2	13.3
			3000K	1.2	13.3
			3500K	1.1	12.1
			4000K	1.1	12.1
			5700k	1.1	12.1
Eco Power (ECO)	65	700	2700K	0.9	9.3
			3000K	0.8	8.6
			3500K	0.8	8.2
			4000K	0.8	8.2

Note: for Tunable White use 2700K power value; for Dim-to-Warm use 3500K value

POWER (W+RGB)

	W/sqft	W/m ²
W (3500K)	5.8	62
Full W+RGB	23	248
Red only	5.8	62
Green only	5.8	62
Blue only	5.8	62

CERTIFICATIONS



RoHS

WARRANTY

Refer to Cooledge Terms and Conditions for full warranty details.

SKYSPAN SURFACE MOUNT: SPECIFICATIONS

BUILD-TO-ORDER FLUX VS POWER

For applications that require a more precise selection of flux/power combinations than is offered by standard SkySpan/SkyLine options, Cooledge offers a “Build-To-Order” (BTO) program that allows you to choose a non-standard flux/power combination to optimize for power density while still meeting the required illumination levels for your design.

Refer to the table below and select either a desired power level with corresponding light output level, or conversely, choose the minimum flux level that delivers the required illumination to determine the power level.

Flux (lm/sqft)	2200K	2700K	3000K	3500K	4000K	5700K	Flux (lm/sqft)	2200K	2700K	3000K	3500K	4000K	5700K
65	0.9	0.8	Standard			0.8	425	6.1	5.5	5.1	4.9	4.9	5.0
100	Standard						450	6.4	5.8	5.4	5.2	5.2	5.3
125	1.7	1.6	1.5	1.4	1.5	1.5	475	6.8	6.2	5.7	5.5	5.5	5.6
150	2.1	1.9	Standard			1.7	500	7.2	6.5	6.0	5.8	5.8	5.9
175	2.4	2.2	2.1	2.0	2.0	2.0	525	7.5	6.8	6.3	6.1	6.1	6.1
200	Standard						550	7.9	7.1	6.6	6.4	6.4	6.4
225	3.2	2.9	2.7	2.6	2.6	2.6	575	8.2	7.5	6.9	6.7	6.7	6.7
250	3.5	3.2	3.0	2.9	2.9	2.9	590	Standard					
275	3.9	3.5	3.3	3.2	3.2	3.2	625	9.0	8.1	7.5	7.2	7.3	7.3
300	4.3	3.9	3.6	3.5	3.5	3.5	650	9.3	8.4	7.8	7.5	7.6	7.6
305	4.4	4.0	Standard			3.6	675	9.7	8.8	8.1	7.8	7.8	7.9
325	4.6	4.2	3.9	3.8	3.8	3.8	700	10.1	9.1	8.4	8.1	8.1	8.2
350	5.0	4.5	4.2	4.0	4.1	4.1	725	10.4	9.4	8.7	8.4	8.4	8.5
375	5.3	4.9	4.5	4.3	4.4	4.4	750	10.8	9.8	9.0	8.7	8.7	8.8
395	Standard						775	11.2	10.1	9.3	9.0	9.0	9.1

Notes:

- 1 Power levels shown are for SkySpan/SkyLine systems including power supplies and control modules.
2. Luminous flux values are based on calculations with a tolerance of $\pm 5\%$ of the value shown.

SKYSPAN SURFACE MOUNT: SPECIFICATIONS

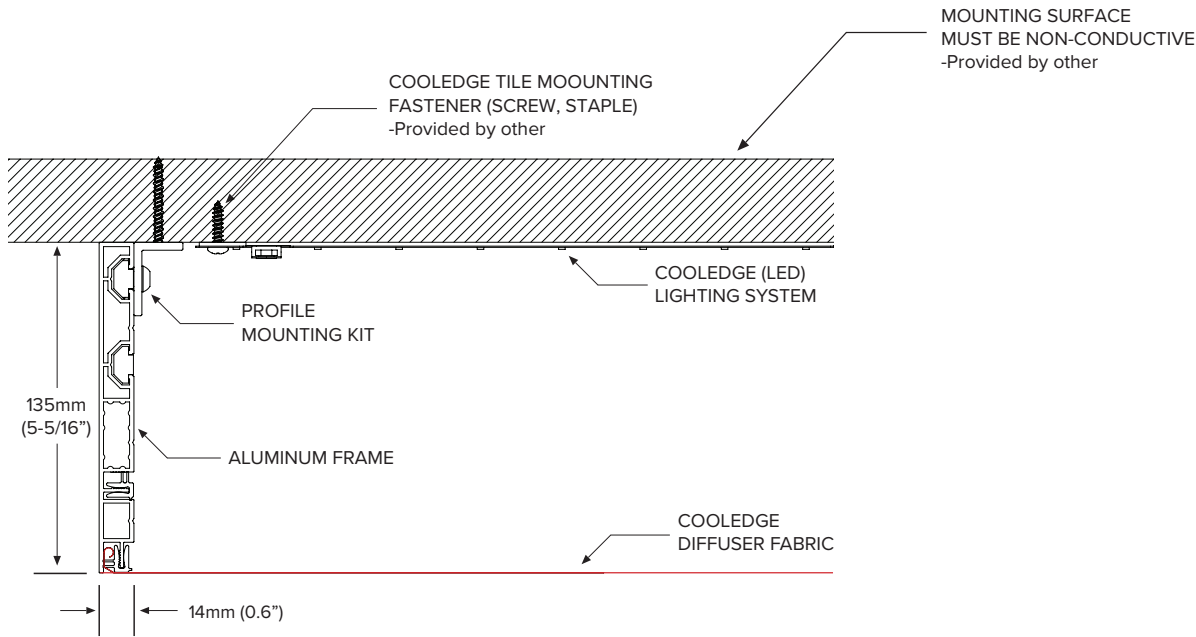
Flux (lm/m ²)	2200K	2700K	3000K	3500K	4000K	5700K	Flux (lm/m ²)	2200K	2700K	3000K	3500K	4000K	5700K	
700	9.2	8.8	Standard			8.2	4610	65.3	59.3	55.0	52.8	53.2	53.5	
1065	Standard						4790	69.2	62.8	58.2	56.0	56.3	56.7	
1420	18.5	17.1	16.4	15.4	15.7	15.6	5150	73.1	66.3	61.4	59.1	59.4	59.9	
1620	22.4	20.6	Standard			18.8	5330	77.0	69.8	64.6	62.2	62.6	63.0	
1950	26.3	24.1	22.9	21.6	22.0	21.9	5680	81.0	73.3	67.8	65.3	65.7	66.2	
2130	Standard						5860	84.8	76.8	71.0	68.4	68.8	69.3	
2490	34.1	31.2	29.3	27.9	28.2	28.3	6220	88.8	80.3	74.2	71.6	71.9	72.5	
2670	38.0	34.7	32.5	31.0	31.3	31.4	6390	Standard						
3020	41.9	38.2	35.7	34.1	34.5	34.6	6750	96.6	87.4	80.7	77.8	78.2	78.8	
3190	45.8	41.7	38.9	37.2	37.6	37.7	6920	100.5	90.9	83.9	80.9	81.3	82.0	
3280	46.9	42.7	Standard			38.6	7280	104.4	94.4	87.1	84.1	84.4	85.1	
3550	49.7	45.2	42.1	40.4	40.7	40.9	7460	108.3	97.9	90.3	87.2	87.5	88.3	
3730	53.6	48.7	45.4	43.5	43.8	44.1	7810	112.2	101.4	93.5	90.3	90.7	91.4	
4090	57.5	52.2	48.6	46.6	47.0	47.2	7990	116.1	104.9	96.7	93.4	93.8	94.6	
4260	Standard						8340	120.0	108.4	99.9	96.5	96.9	97.8	

Notes:

- 1 Power levels shown are for SkySpan/SkyLine systems including power supplies and control modules.
2. Luminous flux values are based on calculations with a tolerance of $\pm 5\%$ of the value shown.

SKYSPAN SURFACE MOUNT: SPECIFICATIONS

MECHANICAL DETAILS



X-Section

Cooledge SkySpan systems include the illumination source, frame, mounting hardware, diffuser fabric, and installation of all non-electrical components

GENERAL

Location	Indoor, dry location only
Operating Temp. Range	0-40°C (32-104°F)
Storage Temp. Range	-40-85°C (-40-185°F)
Relative Humidity	90% max (non-condensing)
Fire Spread	ASTM E84: Class A (FSI = 0–25); EN13501-1: Class B – s1,d0; CAN ULC S102.2.

ACOUSTIC PERFORMANCE

When used in conjunction with an acoustic lighting system from Cooledge, SkySpan and SkyLine products provide exceptional acoustic performance that when combined with their large surface area result in significant noise reduction capability.

Mounting Type	Noise Reduction Coefficient	Sound Absorption Average
	NRC	SAA
Suspended	0.90	0.91
Surface Mount	0.50	0.51
Flush Mount	0.30	0.31

SKYSPAN SURFACE MOUNT: SPECIFICATIONS

COMPLEX SHAPES

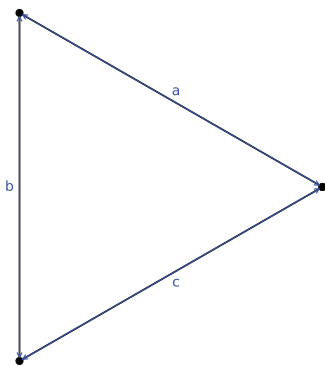
Cooledge SkySpan systems are generally configured in simple geometric shapes such as squares, rectangles, and circles. However, many other forms are possible – especially with Flush Mount systems. Symmetrical and non-symmetrical polygons as well as curved shapes including but not restricted to ovals are all possible.



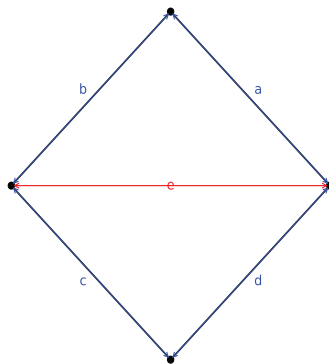
Cooledge will work with you to define the required dimensions for inclusion in your design and to guide related construction details. Below are examples of symmetrical polygons and the dimensions required to correctly define them.

REQUIRED DIMENSIONS FOR POLYGONS

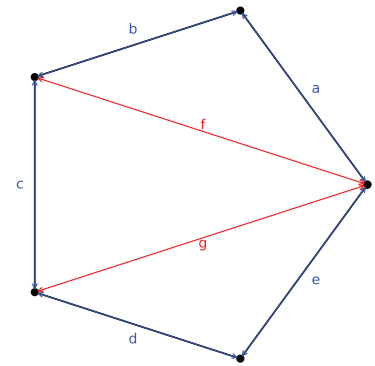
3-sided Polygon



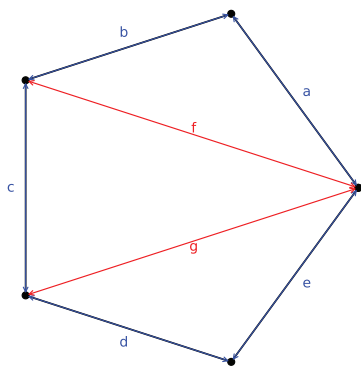
4-sided Polygon



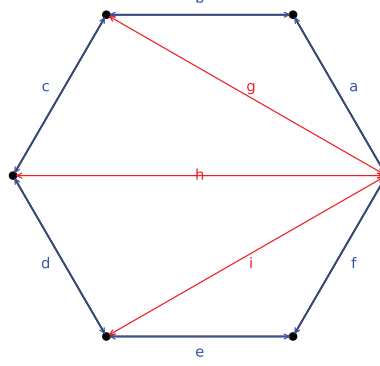
5-sided Polygon



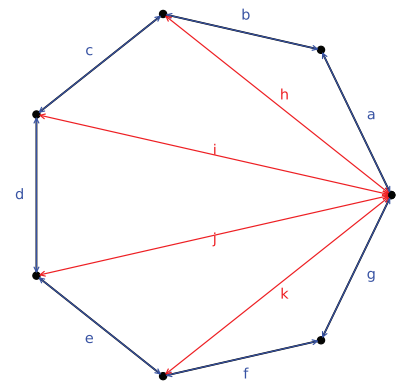
5-sided Polygon



6-sided Polygon



7-sided Polygon



SKYSPAN SURFACE MOUNT: SPECIFICATIONS

POWER AND CONTROL

Cooledge's SkySpan and SkyLine products include all mechanical, electrical, and lighting components required including power supplies and Cooledge Control Modules selected from the options listed below.

Specifications for the power supplies and Cooledge Control Modules shown below are available in:

[- Cooledge SCT Power and Control 54V](#)

[- Cooledge TNW DTW Power and Control 54V](#)

[- Cooledge W+RGB Power & Control \(24V\)](#)

POWER SUPPLIES (54V) - cUL Listed

Order Code	# Controller Channels *	Enclosure
EPSS-092-54V-UL	1	Yes
EPSS-200-54V-UL	2	Yes
EPSS-400-54V-UL	4	Yes

*Class 2 (max 90W) output

POWER SUPPLIES (54V) - CE Compliant

Order Code	# Controller Channels*	Enclosure
EPSS-092-54V-CE	1	Yes
EPSS-200-54V-CE	2	Yes
EPSS-400-54V-CE	4	Yes

*Class 2 (max 90W) output



COOLEDGE CONTROL MODULES (54V) - Static CCT

Order Code	Protocols
CTR-SCT-DAL/010-48/58V	0-10V, DALI
CTR-SCT-DMX-48/58V	DMX
CTR-SCT-CAS-48/58V	Casambi (wireless)

COOLEDGE CONTROL MODULES (54V) - TUNABLE WHITE

Order Code	Function	Protocols
CTR-TNW-DAL/010-48/58V	Tunable White	0-10V, DALI
CTR-TNW-DMX-48/58V	Tunable White	DMX
CTR-TNW-CAS-48/58V	Tunable White	Casambi (Wireless)
CTR-DTW-DAL/010-48/58V	Dim-to-Warm	0-10V, DALI
CTR-DTW-DMX-48/58V	Dim-to-Warm	DMX
CTR-DTW-CAS-48/58V	Dim-to-Warm	Casambi (Wireless)

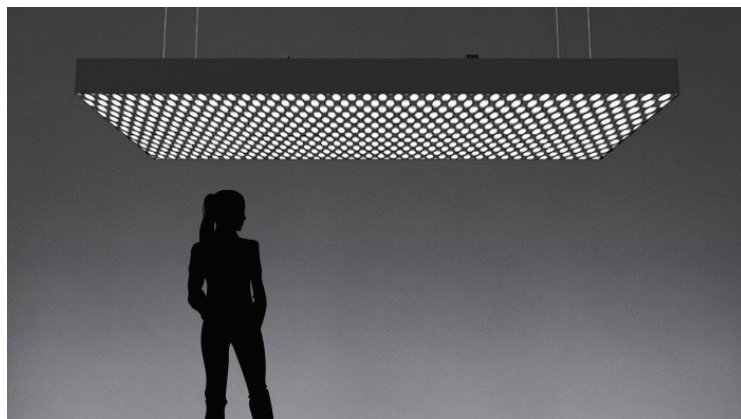
W+RGB solutions require alternate power & controls (DMX & Casambi only). Please contact Cooledge for details.

SKYSPAN SURFACE MOUNT: SPECIFICATIONS

FAUX PERFORATED METAL (PRINTED)

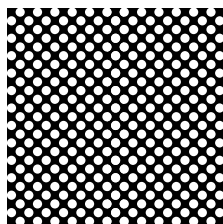
Make your design unique by adding the look of illuminated perforated metal panels to your SkySpan or SkyLine systems using images printed right on the diffuser fabric.

Combine exceptional quality illumination, true acoustic performance, and visual interest in one simple luminaire solution.

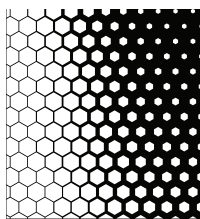


STANDARD PATTERNS

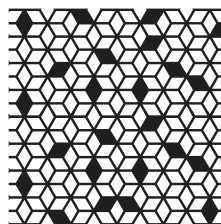
The following are standard patterns available from Cooledge. We are also able to work with other images that you have selected.



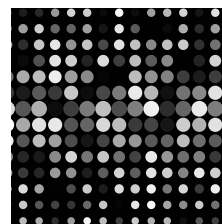
PATTERN A



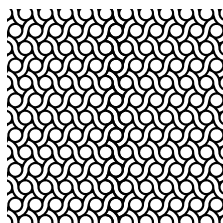
PATTERN B



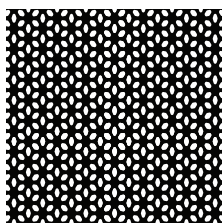
PATTERN C



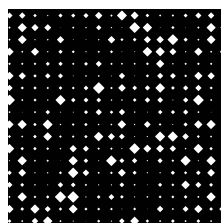
PATTERN D



PATTERN E



PATTERN F



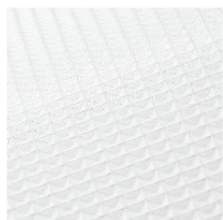
PATTERN G



PATTERN H

DIFFUSER OPTIONS – DESIGNER SERIES FOR LUMINOUS CEILINGS

In addition to our standard smooth white fabric diffuser, Cooledge offers options to change aesthetic appeal of its luminous ceiling product by introducing the Designer Series of fabric diffusers. These fabrics add an element of texture to your design and elevates the luminous ceiling from the appearance of a traditional light fixture to a unique architectural element.



WAFFLE
CONTOURS

Add some sparkle and depth with this fabric option that allows a hint of the LEDs to shine through a waffle pattern structured surface



TEXTURED

The fabric (cotton) weave pattern adds a subtle texture to the appearance of the fabric without impacting the light transmission performance.

SKYSPAN SURFACE MOUNT: SPECIFICATIONS

HOW TO SPECIFY

NOTE: By their nature, Cooledge SkySpan and SkyLine are custom products. These Specification Codes are provided for use as simple references to SkySpan/SkyLine in specifications and/or construction documents and do not include all details required to define the system. Specification Codes are NOT ordering codes. In order to receive quotations or purchase these products from Cooledge, the dimensions and are required. Cooledge may also request additional information before issuing a quotation or accepting a purchase order.

SKYS		SM																	
1	2	3	4	5	6	7	8	9	10										
1 PRODUCT	2 TYPE	3 SHAPE	4 FLUX	5 CCT	6 CONTROL	7 DIFFUSER	8 ACOUSTIC												
SKYS = SkySpan	SU = Suspended	REC = Rectangle	XHF = Extra High Flux	22 = 2200K	010 = 0-10V	STD = Smooth White	STD = Standard (Not tested)												
	SM = Surface Mount	CIR = Circle	HF = High Flux	27 = 2700K	DAL = DALI	TXT = Textured White	ACU = Acoustic (NRC=0.60)												
	FM = Flush Mount	CUR = Curve	MF = Med Flux	30 = 3000K	DMX = DMX	WAF = Waffle Contour White													
		POLY = Polygon	MHF = Med High Flux	35 = 3500K	CAS = Casambi (Wireless)	FPRF-x = Faux Perforated Metal – Pattern x (printed)													
			LF = Low Flux	40 = 4000K	ATH = Athena (Wireless)	GRPH = Custom Graphic Image (printed)													
			LMF = Low Medium Flux	57 = 5700K															
			ECO=Eco Power	TNW2757 = Tunable White 2700-5700K															
				TNW2235 = Tunable White 2200-3500K															
				DTW3522 = Dim-To-Warm 3500-2200K															
9 PROFILE FINISH	10 CERTIFICATION																		
B = Black	UL = UL Listed																		
W = White	CE = CE Compliant																		

INSTALLATION

Installation of Cooledge SkySpan and SkyLine products is included in the purchase of the product. Installation of these products must be done by a Cooledge approved installer.