ARQ AERA ACOUSTIX

PENDANT
DIRECT/INDIRECT, DIRECT

LUMENWERX

5 YEAR WARRANTY

Project: _____

_____

Type: _____

DESCRIPTION

Part of the Arq Acoustix series, the Arq Aera is an acoustic pendant equipped with an arc-shaped shade made of sound-absorbing felt created from recycled bottles. Its design integrates proprietary XPoint™ Refraction Technology optics to deliver soft, visually comfortable, low glare lighting.

Order Guide

LUMINAIRE ID	SIZE	DISTRIBUTION	INDIRECT OPTIC Specify NA for Direct		LIGHT SOURCE
ARQAEACOP	**24IN**				
ARQAEACOP - Arq Aera Acoustix Pendant	**24IN** - Ø 24"	**DI** - Direct/Indirect **D** - Direct	**FFFH** - Fully frosted flush diffuser **FF14** - Fully frosted 1/4" diffuser **FF34** - Fully frosted 3/4" diffuser **NA** - Not applicable		**SW** - Static white **FS** - Full spectrum
					SOLA - Dim-to-warm single channel control 35K to 22K **DUO** - Tunable white 2-channel control 65K to 27K

DIRECT BEAM	COLOR QUALITY	CRI	COLOR TEMP.	ACCESSORY	VOLTAGE
15DEG - 15° Narrow spot **25DEG** - 25° Spot **35DEG** - 35° Narrow flood **50DEG** - 50° Wide flood **80DEG** - 80° Very wide flood **90DEG** - 90° Open flood	**2STP [1]** - 2 Step MacAdam Ellipse **3STP** - 3 Step MacAdam Ellipse [1] Not available with full spectrum.	**90CRI [2]** - 90 CRI **95CRI** - 95 CRI **80CRI [2]** - 80 CRI [2] Not available with full spectrum.	**27K** - 2700K **30K** - 3000K **35K** - 3500K **40K** - 4000K	**LSDL** - Soft diffused lens, Solite **LFDL** - Frosted diffused lens **LCL** - Clear lens **HEX** - Hex louver	**120V** - 120V **277V** - 277V **UNV** - 120V-277V **347V [3]** - 347V [3] Available with RD1 driver only. Please consult factory.
50DEG - 50° Wide flood	**3STP** - 3 Step MacAdam Ellipse	**90CRI** - 90 CRI	**SOLA** - Dim-to-warm single channel control 35K to 22K **DUO** - Tunable white 2-channel control 65K to 27K		

DIRECT WATTAGE [4]	INDIRECT WATTAGE [6] Specify NA for Direct	DIMMING [7]		
10W - 10 W output, up to 1132 lm **14W** - 14 W output, up to 1545 lm **20W [5]** - 20 W output, up to 2135 lm [4] Lumen outputs are reduced with full spectrum, consult factory. [5] Not available for a DI fixture.	**10W** - 10 W output, up to 742 lm **14W** - 14 W output, up to 1007 lm **NA** - Not applicable [6] Lumen outputs are reduced with full spectrum, consult factory.	**CANOPY DRIVER** **D1** - 1% 0-10V **ELV [8]** - ELV 120V **TRI [8]** - TRIAC 120V [7] PoE (Power-over-Ethernet) compatible. Consult factory for details. [8] Available with 120V only.	**REMOTE DRIVER [9]** **RD1** - 1% 0-10V **RELV [10]** - ELV 120V **RTRI [10]** - TRIAC 120V [9] A remote driver box is provided, see page 4 for details. [10] Available with 120V only. [11] On-site commissioning is required.	**RLDE1 [11]** - Lutron Hi-lume 1% Eco **RDA [11]** - DALI **RELD1** - eldoLED 1% ECOdrive 0-10V **RELD0** - eldoLED 0.1% SOLOdrive 0-10V
SOLA **12W** - 12 W output, up to 725 lm	**SOLA** **12W** - 12 W output, up to 431 lm	**SOLA** **SD1** - Single 0-10V input **SELV [8]** - ELV 120V **STRI [8]** - TRIAC 120V	**SOLA** **RSD1** - Single 0-10V input **RSELV [10]** - ELV 120V **RSTRI [10]** - TRIAC 120V	**DUO** **RDMX [11]** - DMX **RDDA [11]** - DALI DT6 **RDDA8 [11]** - DALI DT8
DUO **11W** - 11 W output, up to 525 lm	**DUO** **11W** - 11 W output, up to 285 lm **NA** - Not applicable			**RDD1** - Dual 0-10V input for CCT/intensity **RPSQ0 [11]** - Lutron T-Series 1% tunable white

ELECTRICAL	CYLINDER FINISH [13]	FELT COLOR		CANOPY TYPE [14]	CANOPY FINISH	SUSPENSION
1C - 1 circuit **2C [12]** - 2 circuits [12] Available with Direct/Indirect with remote driver only.	**FTMW** - Textured matte white **FTMB** - Textured matte black **CF#** - Custom finish, specify RAL# [13] Flanged trim will match cylinder finish.	**FONCDN** - Outside Fog, inside Cloudy **MDNCDN** - Outside Midnight blue, inside Cloudy **LENSAN** - Outside Latte, inside Sand **CYNSAN** - Outside Cherry, inside Sand		**FLR** - Flat round canopy, 4" octagonal junction box **CDR** - Conduit feed, round canopy **DMNC [15]** - Direct mount, new construction **DMRM [15, 16]** - Direct mount, remodel **DR [17]** - Deep round canopy, driver(s) in canopy [14] See page 4 for details. [15] Remote driver only. [16] Single wiring entry only. No daisy chain connections allowed. [17] Available with canopy driver only.	**FTMW** - Textured matte white **FTMB** - Textured matte black **CF#** - Custom finish, specify RAL#	**POWER CORD [18]** **BPC##IN** - Black PVC **WPC##IN** - White PVC [18] Min 36" - max 72", specify length (##) in inches.

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PoE Power over Ethernet

WELL   WELL   WELL
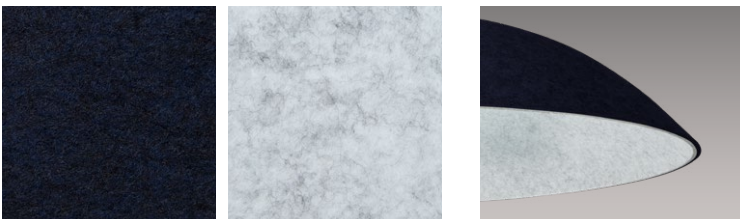
ARQ AERA ACOUSTIX

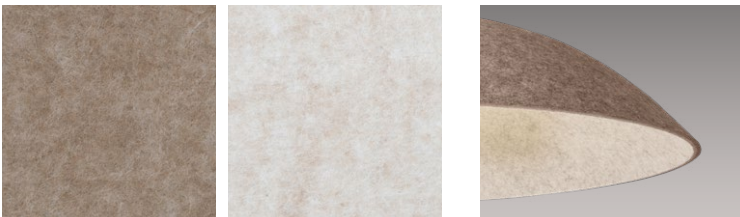## PENDANT
DIRECT/INDIRECT, DIRECT
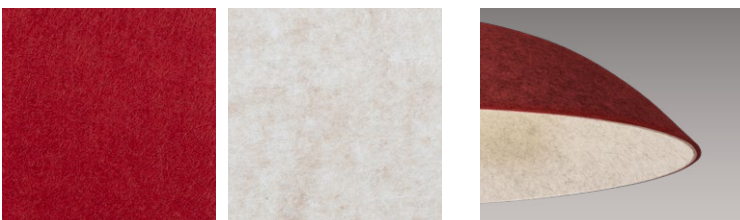
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Felt Color

FONCDN
Outside Fog, inside Cloudy

MDNCDN
Outside Midnight blue, inside Cloudy

LENSAN
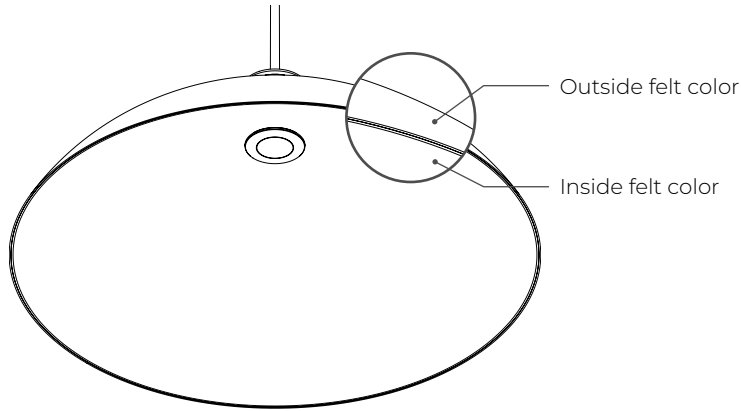Outside Latte, inside Sand

CYNSAN
Outside Cherry, inside Sand

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Overview

Outside felt color

Inside felt color
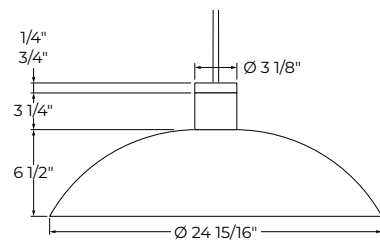
Dimensions

SIDE VIEW

Direct/Indirect

1/4"
3/4"
3 1/4"
6 1/2"
Ø 3 1/8"
Ø 24 15/16"

Direct

1 13/16"
Ø 3 1/8"
6 1/2"
Ø 24 15/16"

CUT-OFF ANGLE

25°
Cut-off

BOTTOM VIEW

Ø 1 11/16"
Ø 2 13/16"

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PoE
WELL   WELL   WELL
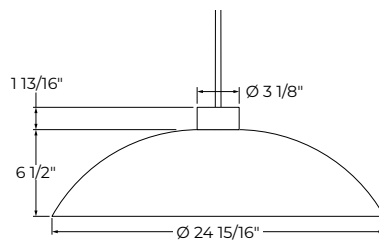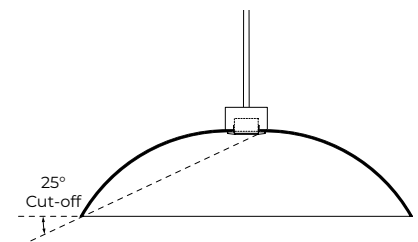
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Mounting

CANOPY

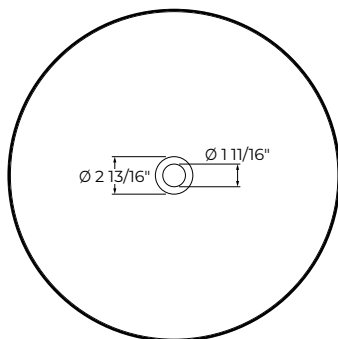|	CANOPY DRIVER			REMOTE DRIVER			
Order code	**FLR** Flat round canopy, 4" octagonal junction box	**CDR** Conduit feed, round canopy	**DR** Deep round canopy, driver(s) in canopy	**FLR** Flat round canopy, 4" octagonal junction box	**CDR** Conduit feed, round canopy	**DMNC** Direct mount, new construction	**DMRM** Direct mount, remodel
Canopy type	Driver	Driver	Driver(s)	Driver	Driver	Driver 2"	Driver 2"
Distribution	Direct		Direct/Indirect Direct	Direct/Indirect Direct			
Canopy size	Ø 4 5/8" Height 1/4"	Ø 5 1/2" Height 1 15/16"	Ø 5 5/8" Height 1 3/8"	Ø 4 5/8" Height 1/4"	Ø 5 1/2" Height 1 15/16"	Ø 3 1/8" Height 2"	
	Junction box requirments for **FLR** Deep j-box (2 1/8" deep)		D/I - 2 drivers in canopy D - 1 driver in canopy				Single wiring entry only. No daisy chain connections allowed.

SUSPENSION

POWER CORD
Power Cord Lengths
Min 36" Max 72"

REMOTE DRIVER BOX

RDB8 / RDB18 / RDB24

2 3/8"

3 3/4"

B A

|	RDB8	RDB18	RDB24
A	10"	20"	26"
B	8"	18"	24"
DRIVER	**RD1** - 1% 0-10V **RELV** - ELV 120V **RTRI** - TRIAC 120V SOLA **RSD1** - Single 0-10V input **RSELV** - ELV 120V **RSTRI** - TRIAC 120V	**RLDE1** - Lutron Hi-lume 1% Eco **RDA** - DALI **RELD1** - eldoLED 1% ECOdrive 0-10V **RELD0** - eldoLED 0.1% SOLOdrive 0-10V	DUO **RDMX** - DMX **RDDA** - DALI DT6 **RDDA8** - DALI DT8 **RDD1** - Dual 0-10V input for CCT/intensity **RPSQ0** - Lutron T-Series 1% tunable white

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Color Quality

COLOR QUALITY - 3500K	
TM-30 R$_f$	90
TM-30 R$_g$	100
CRI	90
R9	> 50
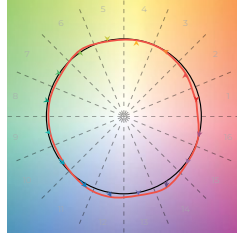
Photometrics

Please follow the multiplier tables to ensure correct lumen value. Beams, CCT, and accessories will change the lumen value.

DIRECT
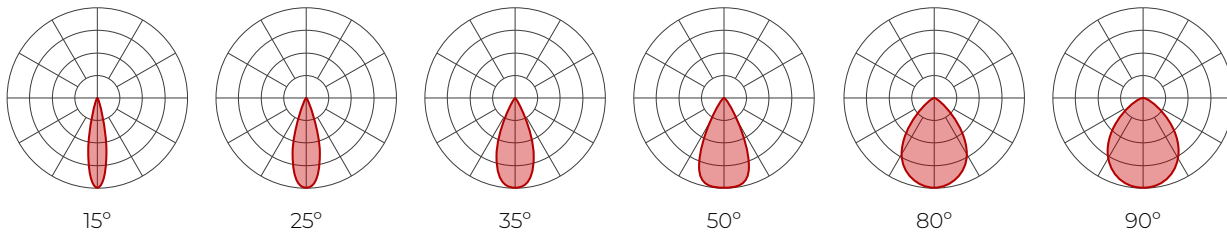
15° 25° 35° 50° 80° 90°

Delivered Lumens - At 35K, with LSDL lens option

CRI	90 CRI						95 CRI						80 CRI					
BEAM	15	25	35	50	80	90	15	25	35	50	80	90	15	25	35	50	80	90
10 W	987	1053	1058	937	843	843	760	811	815	721	649	649	1056	1127	1132	1003	902	902
14 W	1347	1438	1444	1280	1152	1152	1037	1107	1112	986	887	887	1441	1539	1545	1370	1233	1233
20 W	1861	1986	1995	1768	1591	1591	1433	1529	1536	1361	1225	1225	1991	2125	2135	1892	1703	1703

Efficacy Based on Delivered Lumens

CRI	90 CRI						95 CRI						80 CRI					
BEAM	15	25	35	50	80	90	15	25	35	50	80	90	15	25	35	50	80	90
10 W	99	105	106	94	84	84	76	81	81	72	65	65	106	113	113	100	90	90
14 W	96	103	103	91	82	82	74	79	79	70	63	63	103	110	110	98	88	88
20 W	93	99	100	88	80	80	72	76	77	68	61	61	100	106	107	95	85	85

MULTIPLIERS

CCT	
2700K	0.9
3000K	0.95
3500K	1
4000K	1.05

ACCESSORIES	
Soft diffused lens, Solite	1
Frosted lens	0.8
Clear lens	1.1
Hex louver	0.86

For SOLA and DUO, please consult factory.

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INDIRECT

Fully frosted flush
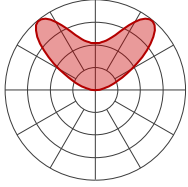
Delivered Lumens - At 35K

CRI	90 CRI	95 CRI	80 CRI
10 W	524	403	560
14 W	711	547	760

Efficacy Based on Delivered Lumens

CRI	90 CRI	95 CRI	80 CRI
10 W	52	40	56
14 W	51	39	54

Fully frosted 1/4"
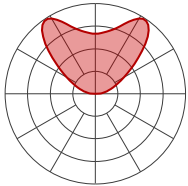
Delivered Lumens - At 35K

CRI	90 CRI	95 CRI	80 CRI
10 W	664	510	709
14 W	901	693	963

Efficacy Based on Delivered Lumens

CRI	90 CRI	95 CRI	80 CRI
10 W	66	51	71
14 W	64	49	69

Fully frosted 3/4"
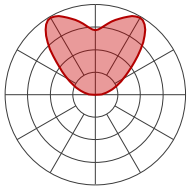
Delivered Lumens - At 35K

CRI	90 CRI	95 CRI	80 CRI
10 W	694	534	742
14 W	942	725	1007

Efficacy Based on Delivered Lumens

CRI	90 CRI	95 CRI	80 CRI
10 W	69	53	74
14 W	67	52	72

MULTIPLIERS

CCT	
2700K	0.9
3000K	0.95
3500K	1
4000K	1.05

For SOLA and DUO, please consult factory.

DIRECT/INDIRECT - EFFICACY CALCULATION

For Direct/Indirect performance values, follow the formula.

$$\frac{\left(\text{DIRECT DELIVERED LM} + \text{INDIRECT DELIVERED LM} \right)}{\left(\text{DIRECT WATTAGE} + \text{INDIRECT WATTAGE} \right)} = \text{EFFICACY}$$

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Acoustic Calculator

Using the Lumenwerx Acoustix Value Calculator table, you can determine the number of acoustic luminaires required in a space by fixture type. We have three levels of recommended sound reduction: good, better, and best. Choosing one of these options will reduce the sound accordingly. The best option indicates the best acoustic improvement. Calculations are based on a standard ceiling height of 9 feet.

① Calculate the square feet of your room (L x W).

② Choose the level of acoustical improvement you are looking for, and find the corresponding value based on your room dimension and luminaire configuration.

% in reduction in reverberation time		
☺ GOOD	25%
☺☺ BETTER	40%
☺☺☺ BEST	50%

LUMINAIRE	Room dimensions under 300 sq ft			Room dimensions over 300 sq ft		
	GOOD ☺	BETTER ☺☺	BEST ☺☺☺	GOOD ☺	BETTER ☺☺	BEST ☺☺☺
Arq Aera Acoustix, Ø 24"	25	14	11	39	22	17

③ Use the Lumenwerx Acoustix Value Formula to determine the number of luminaires needed in the room.

Square feet ÷ Value = Number of luminaires

Example:

Luminaires: Arq Aera Acoustix, Ø 24"

Room square feet: L: 20 ft x W: 18 ft = 360 sq ft

Desired acoustical improvement: Better = 22

Number of luminaires needed in the room: 360 ÷ 22 = **16 luminaires**

NOTES:
Lumenwerx acoustic calculators were developed to act as a guide. For precise acoustic performance in a space, please consult an acoustician.

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Technical Specifications

OPTIC
XPoint™ Refraction Technology optics provide precise optical control in a remarkably compact form. Micro optical paths from the chip on board converge and then disperse in precise beam angles, resulting in a crisp and exacting light quality.

LIGHT SOURCE
Compact COB (Chip-On-Board) LED module, available in 2700K, 3000K, 3500K and 4000K with a choice of 80 CRI, 90 CRI, or 95 CRI, with elevated R9 value for 90 CRI and above. Color consistency is maintained to within 2 SDCM. All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated. Optional full spectrum LEDs can be incorporated in the fixture to increase Cyanosis Observation Index (COI) and assist in regulating circadian rhythms.

CHROMAWERX
Chromawerx SOLA
Chromawerx SOLA is single-channel control that dims output while warming the color temperature in a pre-determined relationship. A simple analog control adjusts a specially populated LED array to emulate the effect of dimming a filament source.

Chromawerx DUO
Chromawerx DUO offers a two-channel control system which uses analog or digital protocols for synchronous control of both cool (6500K) to warm (2700K) LED arrays - maintaining a CRI above 90. The range of color DUO offers is useful for entraining circadian rhythms, stimulating alertness, and compensating for jet lag among other applications. The Chromawerx drivers are programmed to limit maximum light output and power usage across all color temperatures. When paired with DALI drivers (DDA/DDA8), color tuning follows a linear dimming curve..

WELL for Light - The WELL building standard focuses on light quality in several features. There are three categories that are fully attributed to the construction and features of a luminaire. In WELL V1, it's Feature 54 Circadian Lighting, Feature 55 Glare Control, and Feature 58 Color Quality. In WELL V2, it's Feature L03 Circadian Lighting, Feature L04 Glare Control, and Feature L07 Electric Light Quality.

This fixture meets Features:
- Feature 54 or L03 when full spectrum or Duo is selected
- Feature 58 or L07 when 90 CRI or above is selected

All LED drivers used at Lumenwerx are deemed to have a low risk level of flicker, of 5 % or less below 90Hz operational as defined by IEEE standard 1789-2015 LED.

WELL for Sound - This luminaire is recommended for use as an acoustical absorption surface to limit reverberation times (RT) in a given space. This luminaire contributes to noise reduction and vibration dampening to promote focus and concentration. Reverberation needs to be calculated in each space based on the materials used.

WELL for Mind -This luminaire meets WELL for mind as it is a human centric luminaire offering quality light, excellent color, and smooth optics. If any of these features are incorporated in a luminaire, it can improve the ability to focus, concentrate, and persist longer on a given task. This fixture harmoniously operates in a space to assist the mind.
For more information, please contact well@lumenwerx.com

BEAM ANGLES

| 15° | 25° | 35° | 50° | 80° | 90° | Uplight |

ELECTRICAL
Unless otherwise specified, dimming down to 1%. At maximum driver load: efficiency>84%, PF>0.9, THD<20%.
Canopy driver: 0-10V, ELV, TRIAC.
Remote driver: 0-10V, ELV, TRIAC, Lutron Hi-Lume 1% EcoSystem, DALI, eldoLED 0.1% SOLOdrive 0-10V, eldoLED 1% ECOdrive 0-10V, DMX, Lutron T-series (tunable white).

PoE
Depending on the PoE manufacturer selected, Lumenwerx will install the node in factory as either integral to the luminaire, or as a remote module. Factory programming of the PoE node may or may not enable the following functionalities: lumen package, Duo (tunable white), emergency battery backup, and sensor integration. These must be addressed and evaluated on a case-by-case basis.

ACOUSTIC FINISH
Material is 100% polyester containing up to 50% of recycled plastic bottles (PET) with an ASTM E-84 Class A fire rating and is moisture resistant.

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CARE
Remove dust and debris with a clean, dry, soft, lint-free cloth, or vacuum.

CONSTRUCTION
Housing: Die-cast and extruded aluminum
Trim: Aluminum
Power cord: Black and white PVC. 36" to 72" standard length
Canopy: Flat, conduit feed, direct, and deep
Finish: Textured matte white, black. Custom colors also available (provide RAL #).

WEIGHT

Direct/Indirect	Direct
6.99 lbs - 3.17 kg	4.19 lbs - 1.9 kg

ACCESSORIES

Soft diffused lens, Solite

Frosted diffused lens

Clear lens

Hex Louver

ENVIRONMENT
Ambient temperature at fixture location shall not exceed 30°C/86°F. For indoor use only.

CERTIFICATION
ETL - Rated for Indoor Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

WARRANTY
Lumenwerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. Lumenwerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

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