



Armstrong[®]
World Industries



Technical Guide

Optima[®] Radial

Custom Ceiling Systems

Optima® Radial

Custom Ceiling System

Fine-textured panels designed for dramatic installations requiring outstanding acoustical performance

- Outstanding acoustical performance in both Articulation Class 190-200 and NRC 0.90-0.95
- Smooth, clean, durable finish – Washable, Impact-resistant, Scratch-resistant, Soil-resistant
- Mold- and Mildew-resistant surface
- Energy-saving high light-reflective finish
- Sag-resistant large panels
- 30-Year Limited System Warranty against visible sag, mold, and mildew

ProjectWorks® – Design Service

Get assistance with detailed layouts, specifications, materials budget, and 3D REVIT® models to help create your custom Optima Radial ceiling design.

armstrongceilings.com/projectworks





Optima® Radial Custom Ceiling System

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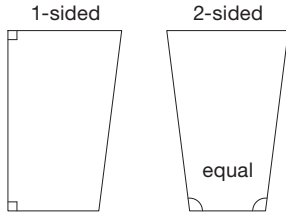
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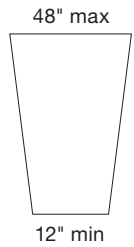
System Overview

Key Design Factors, System Capabilities, and Limitations

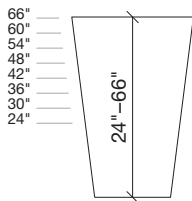
The following are key design factors to consider for use of Optima® Radial ceilings. Please review these system capabilities and limitations carefully.*



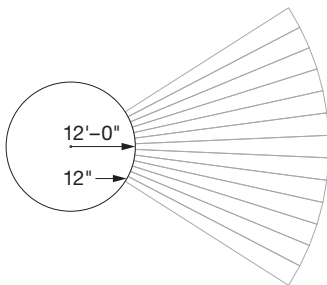
One-sided or symmetrical two-sided trapezoid



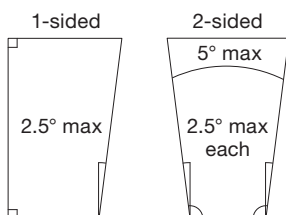
Width 12" - 48"



Length 24" - 66" in 6" increments



Minimum radius 12'-0"
(12" minimum panel edge)



Taper maximum 2.5° angle per side

One-sided:

- A one-sided trapezoidal panel is available

Two-sided:

- A two-sided trapezoidal panel is available
- Each tapered side **MUST** be symmetrical

Width:

- Trapezoid panels are available in widths from 12" to 48"
- See charts with sample widths on pages 5-6
(**NOTE:** capabilities are not limited to the 3" intervals shown)

Length:

- Trapezoidal panels are available in 8 lengths from 24" to 66"
- Lengths are only available in the following 6" increments: 24", 30", 36", 42", 48", 54", 60", and 66"

Minimum Radius:

- The minimum achievable radius is 12'. This is based on a minimum panel edge of 12" with the maximum tapers noted below
- Optima Radial **CANNOT** be used inside this 12' radius – drywall may be a suitable alternative.

Taper:

- The maximum taper angle per side for all trapezoids is 2.5°
- For two-sided trapezoids, the taper angle must be equal on both sides (i.e. symmetrical) for a maximum of 5°

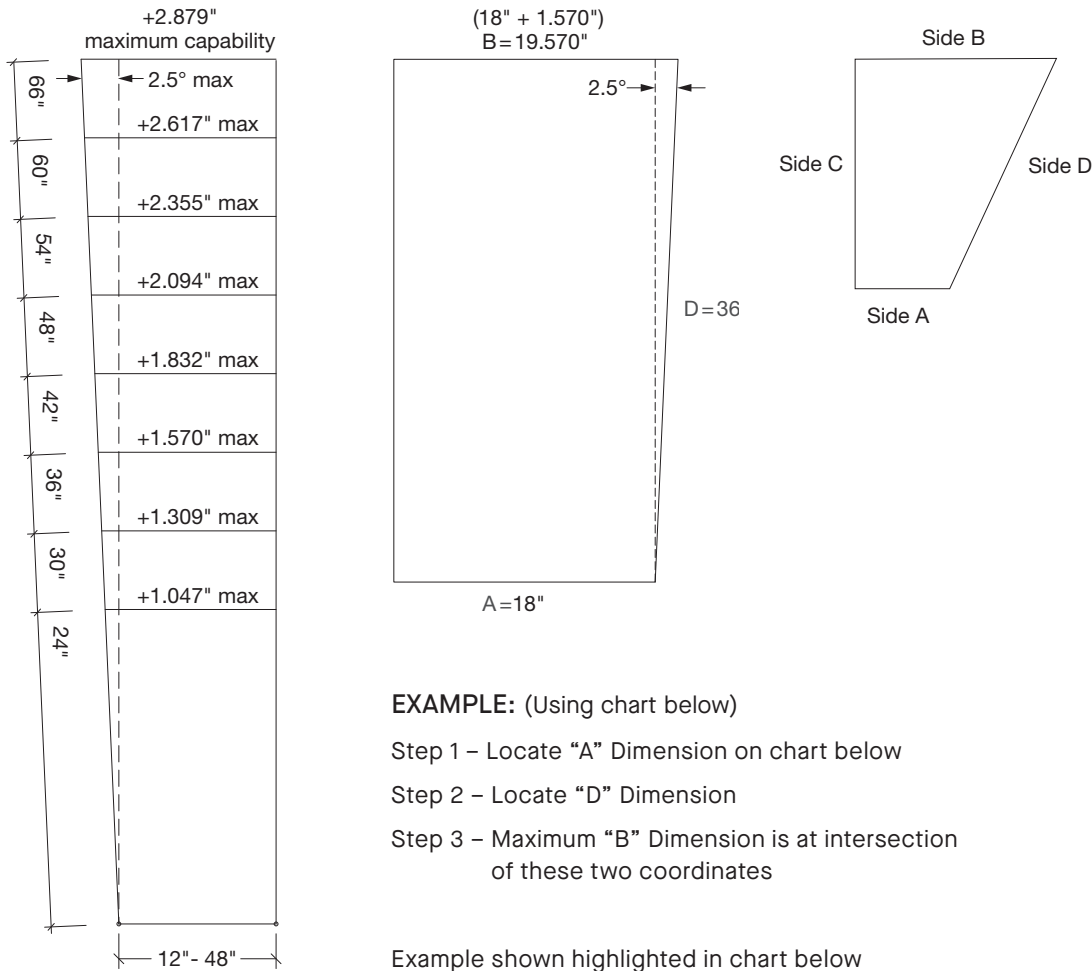
* **NOTE:** These do not apply to WoodWorks® or MetalWorks™ Radial ceilings. Please consult with Architectural Specialties at 877 276-7876 and select options 1-1-4, or visit armstrong.com/radial for more details.

Specific Capabilities for a One-sided Trapezoid

This shows some specific capabilities based on the design factors and limitations described on page 4 for a one-sided trapezoid.

Panel Size Limitations:

- Minimum 12" width by 24" length
- Maximum 45" width by 66" length



EXAMPLE: (Using chart below)

Step 1 – Locate “A” Dimension on chart below

Step 2 – Locate “D” Dimension

Step 3 – Maximum “B” Dimension is at intersection of these two coordinates

Example shown highlighted in chart below

THE INTERIOR AREA OF THE CHART REPRESENTS MAXIMUM “B” DIMENSIONS

		Width – Side “A” →											
		12	15	18	21	24	27	30	33	36	39	42	45
Length – Side “D” ↓	24	13.047	16.047	19.047	22.047	25.047	28.047	31.047	34.047	37.047	40.047	43.047	46.047
	30	13.309	16.309	19.309	22.309	25.309	28.309	31.309	34.309	37.309	40.309	43.309	46.309
	36	13.570	16.570	19.570	22.570	25.570	28.570	31.570	34.570	37.570	40.570	43.570	46.570
	42	13.832	16.832	19.832	22.832	25.832	28.832	31.832	34.832	37.832	40.832	43.832	46.832
	48	14.094	17.094	20.094	23.094	26.094	29.094	32.094	35.094	38.094	41.094	44.094	47.094
	54	14.355	17.355	20.355	23.355	26.355	29.355	32.355	35.355	38.355	41.355	44.355	47.355
	60	14.617	17.617	20.617	23.617	26.617	29.617	32.617	35.617	38.617	41.617	44.617	47.617
66	14.879	17.879	20.879	23.879	26.879	29.879	32.879	35.879	38.879	41.879	44.879	47.879	

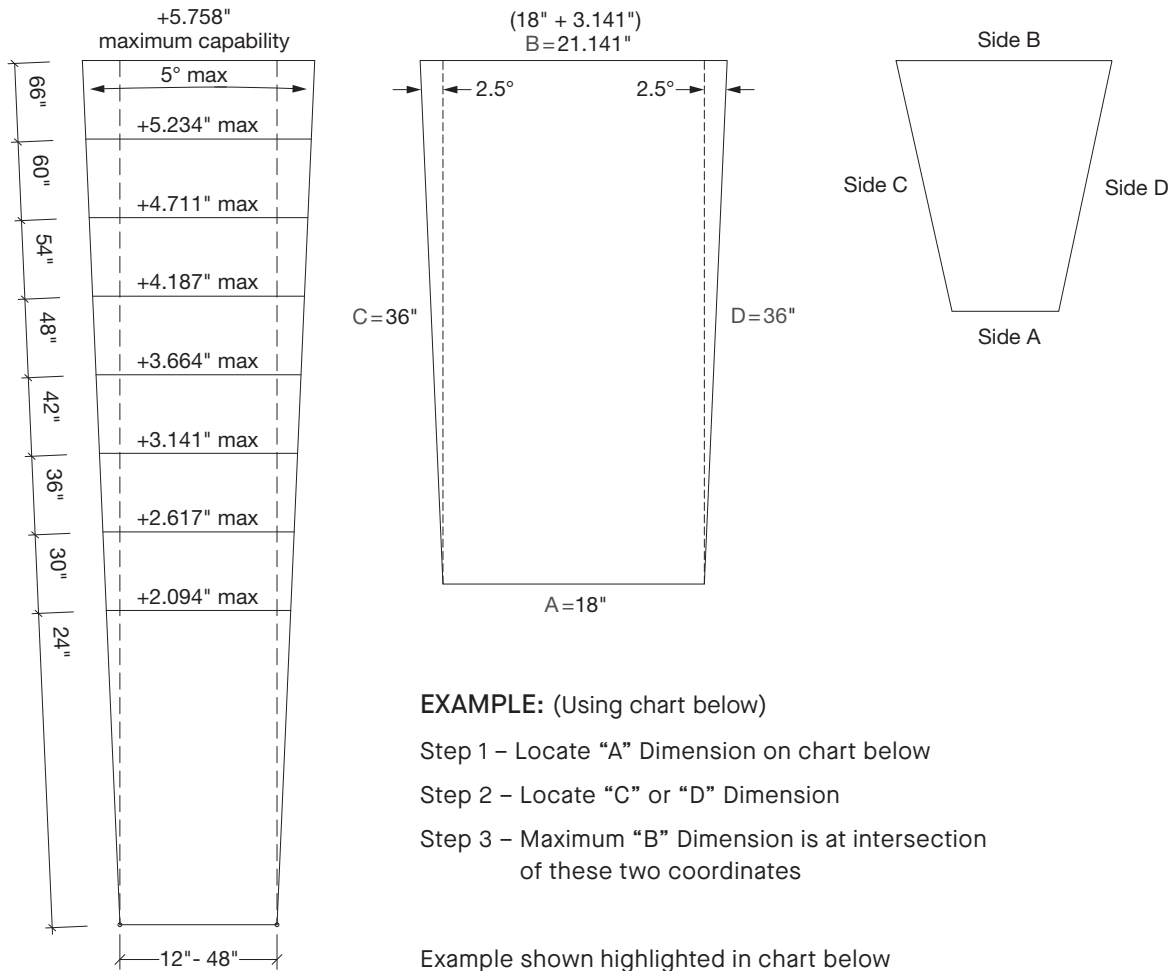
Two-sided Panel Capabilities

Specific Capabilities for a Two-sided Trapezoid

This shows some specific capabilities based on the design factors and limitations described on page 4 for a two-sided trapezoid.

Panel Size Limitations:

- Minimum 12" width by 24" length
- Maximum 45" width by 66" length



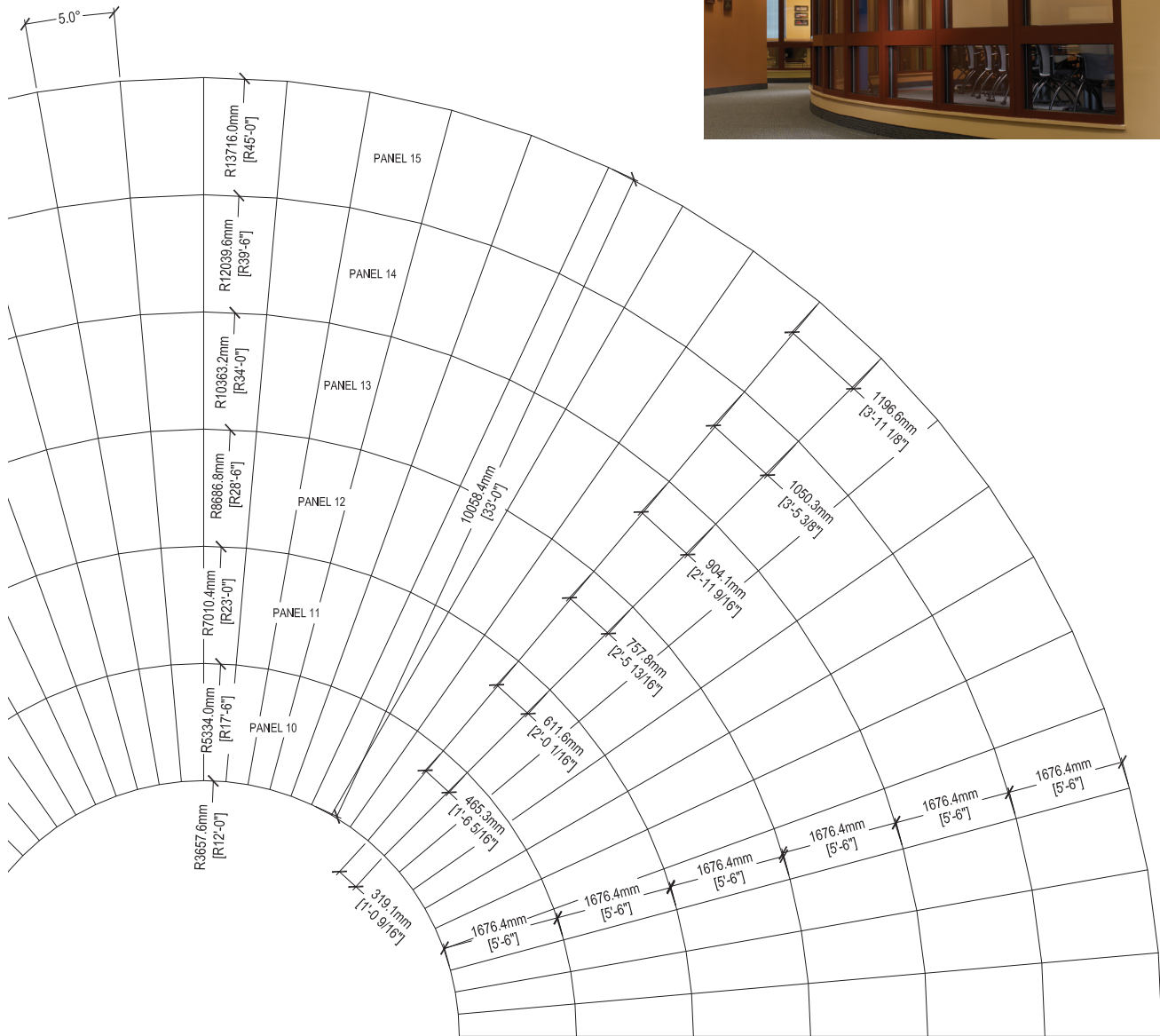
THE INTERIOR AREA OF THE CHART REPRESENTS MAXIMUM “B” DIMENSIONS

		Width – Side “A” →											
		12	15	18	21	24	27	30	33	36	39	42	45
Length – Side “C” or “D” ↓	24	14.094	17.094	20.094	23.094	26.094	29.094	32.094	35.094	38.094	41.094	44.094	47.094
	30	14.617	17.617	20.617	23.617	26.617	29.617	32.617	35.617	38.617	41.617	44.617	47.617
	36	15.141	18.141	21.141	24.141	27.141	30.141	33.141	36.141	39.141	42.141	45.141	48.000
	42	15.664	18.664	21.664	24.664	27.664	30.664	33.664	36.664	39.664	42.664	45.664	48.000
	48	16.187	19.187	22.187	25.187	28.187	31.187	34.187	37.187	40.187	43.187	46.187	48.000
	54	16.711	19.711	22.711	25.711	28.711	31.711	34.711	37.711	40.711	43.711	46.711	48.000
	60	17.234	20.234	23.234	26.234	29.234	32.234	35.234	38.234	41.234	44.234	47.234	48.000
	66	17.758	20.758	23.758	26.758	29.758	32.758	35.758	38.758	41.758	44.758	47.758	48.000

Circular Radial Layout

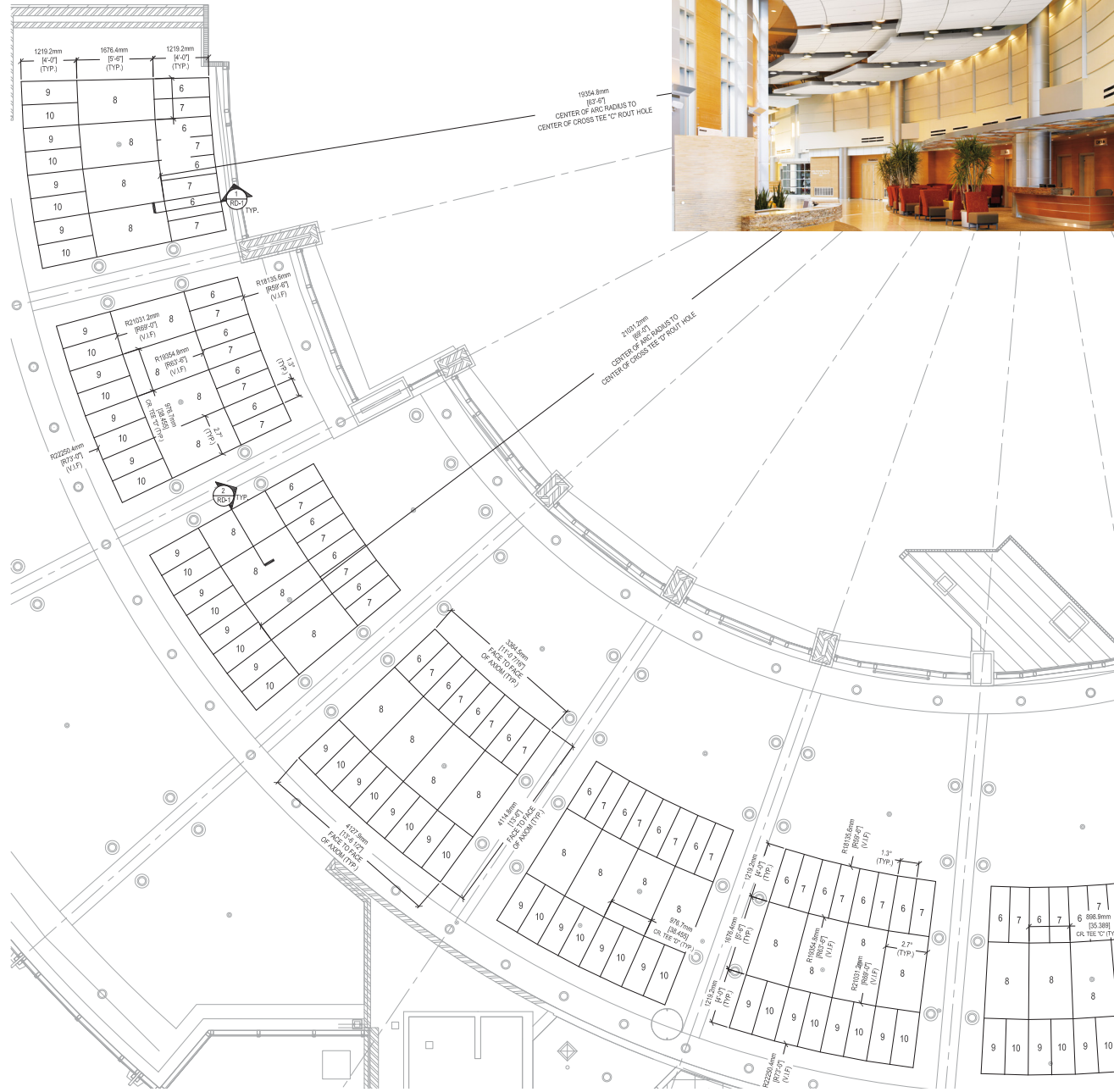
Design Considerations for a Typical 66" Layout

- Maximum of 6 panel types can be manufactured for a Circular Radial Layout
- Maximum panel length is 66" and minimum panel length is 24"
- Maximum panel width is 48" and minimum panel width is 12"
- Cost-efficient approach with fewer panel types and larger sizes



Layout Options

Sectional Cloud Radial Layout



Experience, Above All™

The Next Step

877 276-7876

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7:45 a.m. to 5:00 p.m. EST

Monday through Friday

TechLine – Technical information, detail drawings, CAD design assistance, installation information, other technical services – 8:00 a.m. to 5:30 p.m. EST, Monday through Friday.

FAX: 800 572-8324 or

EMAIL: techline@armstrongceilings.com

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