Curved

Soft undulating shapes, curves, dramatic bulkheads - all design possibilities with Luxalon® Curved ceilings from Hunter Douglas. Explore your creativity and break boundaries - inside the curve.
Curved Soft, Skyward Sculpture

**FLEXIBLE BY DESIGN**
Luxalon® Curved ceilings from Hunter Douglas add a twist to the traditional. Imagine concave, convex, and undulating forms that tempt a look upwards.

Create soft curves and sculpted shapes with Luxalon® Curved ceilings. 300C (300 mm wide) and 84R (84 mm wide) panels can curve up to 90 degrees, perfect for opening up public spaces. The Luxalon® curved carrier system helps to transform standard flat panels into dynamic ceiling designs.

The curve doesn’t need to stop at the ceiling. Luxalon® Curved ceilings can partially - or completely - clad surrounding walls. Over 40 colours and finishes will ensure you create the perfect look for your project.

**LONG LASTING, LOW MAINTENANCE**
Luxalon® Curved ceilings are manufactured from roll-formed aluminium coil. Finished with a polyester paint, these ceilings are durable and low maintenance. The coating is stove enamelled in a continuous coil coating process, which ensures uniform coating thickness and absolute adhesion.

For exterior applications, please request aluminium panels with our exclusive Luxacote® finish.

**ALL-ACCESS PLENUM**
Most Luxalon® ceiling panels allow full plenum access, and can be easily demounted by hand.
Perfectly Perforated Acoustics

Improve the acoustics in a space with ceiling panel perforations Ø1, 1.5 or 2 mm. Luxalon® perforated panels come with a special sound-absorbing non-woven tissue glued into the panel, further enhancing acoustical performance.

Proven Fire Protection

All Luxalon® metal suspended ceilings are fully tested for reaction to fire in official fire tests at Efectis, Rijswijk - an independent Dutch fire research institute. The ceilings are classified A2, s1, d0 according to EN 13501-1, and will therefore not contribute to possible fires. For more information visit www.hunterdouglascontract.com

Luxalon® Curved ceilings give you freedom in design. Our ceiling systems are versatile, and create a variety of visual effects including unique radial and diagonal patterns and flowing curves.

Left: Metro Valencia, Estacion Santa Rosa
Location: Valencia, Venezuela
Product: Curved ceiling 300C

I n n o v a t i v e P r o d u c t s M a k e I n n o v a t i v e P r o j e c t s
300C Curved

面板
300 mm 宽的面板（1）被制成测量并弯曲，最大标准长度（L）为 6000 mm。容易安装，到标准 300C 运输（2），一侧的面板是挂在运输器的齿上，然后另一侧是按压并向上移动。

面板运输器，是黑色的，由 1.0 mm 厚的镀锌钢或 0.95 mm 厚的铝合金制成，提供了容纳面板的齿。集成的锁定夹在运输器上可以锁定面板，如需要。

运输器有标准长度的 5000 mm，并通过运输器接头（3）连接。面板通过在四面板的交叉部分（或两面板的边缘）应用面板端接头（4）连接，仍然允许容易拆卸。非姆胡尔挂钩（5）和固定件（6）提供悬挂。

Trimming curved and straight edges is possible - see our various edge trimming options for more information.

最大跨度
* 根据半径：最小跨度为 1000 mm，最大跨度为半径 > 50 米。

尺寸及重量
面板从 250-1000 mm 和 > 6000 mm 可以根据需要提供。
* 平面面板的最小重量；最大重量为半径 1000 mm

材料要求
* 根据曲线和天花板的执行，对于平面天花板，材料要求将为：
** 根据面板长度从 1 到 6 米。
** 根据半径和运输器类型。

<table>
<thead>
<tr>
<th>板材类型</th>
<th>宽度</th>
<th>最小长度</th>
<th>最大长度</th>
<th>材料/立方米</th>
</tr>
</thead>
<tbody>
<tr>
<td>铝 0.7</td>
<td>300</td>
<td>1000</td>
<td>6000</td>
<td>2.9 - 4.5 kg</td>
</tr>
<tr>
<td>钢 0.6</td>
<td>6.7</td>
<td>-</td>
<td>-</td>
<td>6.7 - 10.4 kg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>板材类型</th>
<th>单位</th>
<th>300C 曲面面板系统</th>
</tr>
</thead>
<tbody>
<tr>
<td>板材</td>
<td>m</td>
<td>3.33</td>
</tr>
<tr>
<td>运输器</td>
<td>m</td>
<td>1.33</td>
</tr>
<tr>
<td>运输器接头</td>
<td>pcs</td>
<td>0.27</td>
</tr>
<tr>
<td>非姆胡尔挂钩</td>
<td>pcs</td>
<td>0.65 - 3.33**</td>
</tr>
<tr>
<td>非姆胡尔挂钩</td>
<td>pcs</td>
<td>0.65 - 1.33**</td>
</tr>
</tbody>
</table>
300C Curved

AVAILABLE CURVED PANEL TYPES
Minimum radius (R) for convex curves approx. 1000 mm, for concave curves approx. 1100 mm.

<table>
<thead>
<tr>
<th>Type of Curve</th>
<th>Concave</th>
<th>Convex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous curve</td>
<td><img src="#" alt="Diagram" /></td>
<td><img src="#" alt="Diagram" /></td>
</tr>
<tr>
<td>Curve + straight end(s) C + D</td>
<td><img src="#" alt="Diagram" /></td>
<td><img src="#" alt="Diagram" /></td>
</tr>
</tbody>
</table>

APPEARANCE
* Curved panels feature straight ends of min. 200 mm. Multiple panel curved ceilings with an approx. radius of 5000 mm or less not advisable.

I: Multiple panel curved ceilings:

* ![Diagram](#)

II: Single panel curved ceilings:

VALUES

<table>
<thead>
<tr>
<th>Legend</th>
<th>Min/Max Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>L = Length of straight panel</td>
<td>L_min = 1 mtr (std)</td>
</tr>
<tr>
<td></td>
<td>L_max = 6 mtr (std)</td>
</tr>
<tr>
<td>C/D = Length of straight ends</td>
<td>C/D_min = 200 mm</td>
</tr>
<tr>
<td>R = Radius</td>
<td>R_min convex = 1000 mm</td>
</tr>
<tr>
<td></td>
<td>R_min concave = 1100 mm</td>
</tr>
<tr>
<td>α = Angle (alpha degrees)</td>
<td>α_max = 90°</td>
</tr>
</tbody>
</table>

Legend: M_in/M_max Values

- L = Length of straight panel
- C/D = Length of straight ends
- R = Radius
- α = Angle (alpha degrees)
300C Curved

STANDARD CONSTRUCTION DETAILS

EDGE TRIMMING OPTIONS
Note: all edge materials non-Luxalon®

<table>
<thead>
<tr>
<th>Edge Solutions</th>
<th>Curved edges</th>
<th>Straight edges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wall-to-wall</td>
<td><img src="image1" alt="Wall-to-wall Curved" /></td>
<td><img src="image2" alt="Wall-to-wall Straight" /></td>
</tr>
<tr>
<td>Floating</td>
<td><img src="image3" alt="Floating Curved" /></td>
<td><img src="image4" alt="Floating Straight" /></td>
</tr>
<tr>
<td>Floating (max. gap 1/2 M)</td>
<td><img src="image3" alt="Floating Curved" /></td>
<td><img src="image4" alt="Floating Straight" /></td>
</tr>
<tr>
<td>Floating/Island</td>
<td><img src="image5" alt="Floating/Island Curved" /></td>
<td><img src="image6" alt="Floating/Island Straight" /></td>
</tr>
</tbody>
</table>

PLENUM ACCESSIBILITY
The 300C Carrier System allows for easy panel demounting. Each panel is fixed to the carrier, which allows each to be removed individually. Use a special shoe-horn shaped tool to remove the panels (available on request).

Apply panel end connectors at cross sections between four panels (or at edges of two panels) to keep the panels aligned.
ACOUSTIC PERFORMANCE
To improve acoustic performance, the Luxalon® 300C Wide Panel Ceilings can be perforated with a Ø of 1.5 or 2.0 mm (open area of 15% and 23%). A sound-absorbing non-woven tissue comes standard with perforated panels for enhanced acoustical performance. To further increase acoustic absorption, consider the ceiling radius: an increase in material surface quantity can result in up to 55% enhancement of absorption surface.

PERFORATION OPTIONS
300C Carrier panels are available in 2 standard perforation patterns:

- Curve 1 αs 300C
  Ø 2.0 mm perforated panels, provided with 0.2 mm thick, black non-woven acoustic tissue glued over the whole perforated area. Plenum depth is 400 mm.

- Curve 2 αs 300C
  Ø 1.5 mm perforated panels, provided with 0.2 mm thick, black non-woven acoustic tissue glued over the whole perforated area. Plenum depth is 400 mm.

- Curve 3 αs 300C
  Ø 1.5 mm perforated panels, provided with 0.2 mm thick, black non-woven acoustic tissue glued over the whole perforated area plus 25 mm thick mineral wool pad with a density of 16 kg/m³. Plenum depth is 400 mm.

- Curve 4 αs 300C
  Ø 2.0 mm perforated 300C panels, provided 25 mm thick mineral wool pad with a density of 22 kg/m³ wrapped in polyethene foil. Plenum depth is 400 mm.

SOUND ABSORPTION DATA 300C (straight 300C panel)

<table>
<thead>
<tr>
<th>Freq. Hz</th>
<th>125</th>
<th>250</th>
<th>500</th>
<th>1000</th>
<th>2000</th>
<th>4000</th>
<th>αs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curve 1</td>
<td>0.61</td>
<td>0.85</td>
<td>0.59</td>
<td>0.75</td>
<td>0.78</td>
<td>0.76</td>
<td>0.75(L)</td>
</tr>
<tr>
<td>Curve 2</td>
<td>0.62</td>
<td>0.82</td>
<td>0.60</td>
<td>0.70</td>
<td>0.78</td>
<td>0.77</td>
<td>0.75(L)</td>
</tr>
<tr>
<td>Curve 3</td>
<td>0.76</td>
<td>0.99</td>
<td>0.75</td>
<td>0.97</td>
<td>1.05</td>
<td>0.95</td>
<td>-</td>
</tr>
<tr>
<td>Curve 4</td>
<td>0.42</td>
<td>0.85</td>
<td>0.93</td>
<td>0.83</td>
<td>0.84</td>
<td>0.69</td>
<td>-</td>
</tr>
</tbody>
</table>

The 300C Wide Panel ceilings were tested by TNO Delft (The Netherlands), an independent official testing institute. Report no.: TPD-HAG-RPT-94-0037
300L panel due to shape similar performance as 300C panel.
84R Curved

**PANELS**
The 84R ceiling system consists of round-edged panels (1) which can be easily clipped on a carrier (2). The panels can be joined with the panel splice or by clipping the panels over each other. Curved 84R ceilings can be created by using a flexible carrier or curving the panels (1).

**SUSPENSION**
The panel carrier (2) is provided with prongs to accommodate the panels in a standard module of 100 mm. All carriers have a standard length of 5000 mm, and are connected by the carrier splice (5). A nonius hanger (3) and fixing pieces (4) are provided for suspension.

**MAXIMUM SPANS**
* Minus 200 mm in case of acoustic pads.

<table>
<thead>
<tr>
<th>Panel</th>
<th>Carrier span (mm)</th>
<th>Panel span (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>84R</td>
<td>300 1700</td>
<td>1500 150</td>
</tr>
</tbody>
</table>

**DIMENSIONS & WEIGHTS**
* Based on panels installed on 3 or more carriers.
The panels are made to measure in any length from 800 mm up to 6000 mm. Panels > 6000 mm available on request.

<table>
<thead>
<tr>
<th>Panel</th>
<th>Width (mm)</th>
<th>Module (mm)</th>
<th>Min. length (mm)</th>
<th>Max. length (mm)</th>
<th>Weight panels &amp; carriers/m²*</th>
</tr>
</thead>
<tbody>
<tr>
<td>84R</td>
<td>84 100</td>
<td>800 6000</td>
<td>1.8 kg</td>
<td>2.3 kg</td>
<td>1.7 kg 2.2 kg</td>
</tr>
</tbody>
</table>

**MATERIAL REQUIREMENT PER M²**
The required number of components depend on individual project requirements. Figures are based on maximum spans.

<table>
<thead>
<tr>
<th></th>
<th>Unit</th>
<th>Linear 84R system</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panels</td>
<td>lm</td>
<td>10</td>
</tr>
<tr>
<td>Join profiles</td>
<td>lm</td>
<td>10</td>
</tr>
<tr>
<td>Carriers</td>
<td>lm</td>
<td>0.59</td>
</tr>
<tr>
<td>Carrier splice</td>
<td>pc</td>
<td>0.12</td>
</tr>
<tr>
<td>Suspension</td>
<td>pc</td>
<td>0.35</td>
</tr>
</tbody>
</table>

**FIXED AND VARIABLE**
Curved panels help create concave, convex or undulating ceilings with a fixed radius of 325 mm, or a variable minimum radius of 1250 mm, achieving dramatic visual effects while also accommodating varying heights. Panel angles can vary between 0 degrees (flat panel) and 90 degrees.

**Out and Inside corner (fixed radius)**

Outside corner (fixed radius):

\[ L = C + D + (\alpha \times 5.62) \]

Inside corner (fixed radius):

\[ L = C + D + (\alpha \times 5.72) \]
AVAILABLE CURVED PANEL TYPES

Standard minimum radius for all curves approx. 1250 mm (exterior 1000 mm).

<table>
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<tr>
<th>Type of Curve</th>
<th>Concave</th>
<th>Convex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous curve</td>
<td><img src="image1.png" alt="Diagram" /></td>
<td><img src="image2.png" alt="Diagram" /></td>
</tr>
<tr>
<td>Curve + straight end(s) C + D</td>
<td><img src="image3.png" alt="Diagram" /></td>
<td><img src="image4.png" alt="Diagram" /></td>
</tr>
</tbody>
</table>

APPEARANCE

- A linear, open ceiling surface using a concealed carrier suspension system allows the chosen panel curve to determine the appearance of the ceiling.
- The easy panel-on-carrier suspension system, the same as in the standard 84R ceilings, allows for easy transition to straight ceilings using the same panel.
- Long and narrow panel ceilings, length made to measure up to 6000 mm, allow swift installation (especially in larger areas) and reduce the needs for joints to a minimum.

VALUES

* Curved panels feature straight ends of min. 130 mm.

Legend

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
<th>Min/Max Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>Length of straight panel</td>
<td>Lmin = 1 mtr (std) Lmax = 6 mtr (std)</td>
</tr>
<tr>
<td>C/D</td>
<td>Length of straight ends</td>
<td>C/Dmin = 200 mm</td>
</tr>
<tr>
<td>R</td>
<td>Radius</td>
<td>Rmin = 1250 mm (interior) Rmin = 1000 mm (exterior)</td>
</tr>
<tr>
<td>α</td>
<td>Angle (alpha degrees)</td>
<td>αmax = 90°</td>
</tr>
</tbody>
</table>
ACOUSTIC PERFORMANCE
In order to improve interior sound control, Luxalon® 84R Ceiling panels can be perforated with a Ø of 1.0 or 2.0 mm (open area of 15% and 23%). A sound-absorbing non-woven tissue comes standard with perforated panels for enhanced acoustical performance. To further increase acoustic absorption, consider the ceiling radius: an increase in material surface quantity can result in up to 55% enhancement of absorption surface.

PERFORATION OPTIONS
84R panels are available in 2 standard perforation patterns:

Ø 1 mm
23% open area
Ø 2 mm
15% open area

Note: Panels have a plain border along their length to insure that the panel is flat and to enhance its strength.

SOUND ABSORPTION DATA 84R (straight panel)

Freq. Hz 125 250 500 1000 2000 4000 αs NRC
Curve 1 0.43 0.74 0.79 0.70 0.70 0.68 0.75(L) 0.75

αs = sound absorption degree: an absorption of 1.0 indicates a 100% absorption of sound.

- Curve 1 αs 84R
84R panels with Ø2 mm holes, module 100 mm, closed joints. The reverse side of the panels is provided with black non-woven tissue glued over the whole perforated area. Plenum depth is 200 mm.

Tested by Peutz; test report no: A1709

Project: Bathydang, Keleti station, Astorid
Location: Budapest, Hungary
Product: Curved Ceiling 300C
PRINCIPLE
Consider a different and dramatic design - a curved ceiling with straight panels. This ceiling is possible when you use the Multi Panel system and the panel systems 84B, 84R, 70U and 300C.

BENEFITS
• A standard product and production process creates an extremely cost effective curved metal ceiling solution.
• Curved carriers support concave, convex or undulating ceilings, creating dramatic visual effects while accommodating varying heights.
• Long and narrow or Wide panel ceilings are made to measure up to 6000 mm, which allows for swift installation (especially in larger areas) and reduces the need for joints to a minimum.
• The same easy panel-on-carrier suspension system as used on standard ceilings, allowing easy transition to straight ceilings using the same panel.

1. PRINCIPLE SEGMENTED CARRIERS
Luxalon® Wide Panel ceiling 300C

2. PRINCIPLE FLEXIBLE CARRIERS
Luxalon® Linear ceiling system 84B, 84R, 70U and Multi panel

<table>
<thead>
<tr>
<th>Min. radius concave (m)</th>
<th>Min. radius convex (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Segmented carrier</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of ceiling</th>
<th>Minimum radius profiles</th>
<th>Flat recessed join profile</th>
<th>V-20 join profile</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Min. radius (mm)</td>
<td>Min. radius (mm)</td>
<td>Min. radius (mm)</td>
</tr>
<tr>
<td>Convex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80B</td>
<td>300</td>
<td>450</td>
<td>300</td>
</tr>
<tr>
<td>130B</td>
<td>1,200</td>
<td>1,200</td>
<td>1,200</td>
</tr>
<tr>
<td>180B</td>
<td>600</td>
<td>600</td>
<td>600</td>
</tr>
<tr>
<td>84B</td>
<td>600</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>70U</td>
<td>600</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Concave</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80B</td>
<td>400</td>
<td>600</td>
<td>600</td>
</tr>
<tr>
<td>130B</td>
<td>600</td>
<td>2,000</td>
<td>600</td>
</tr>
<tr>
<td>180B</td>
<td>1,200</td>
<td>5,000</td>
<td>1,200</td>
</tr>
<tr>
<td>84B</td>
<td>400</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>70U</td>
<td>200</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
- **Proven Fire Protection**
  Luxalon® metal suspended ceilings are classified incombustible and will therefore not contribute to possible fires. When ceilings need to protect the structural integrity of the building, Luxalon® ceilings offer a range of practical and tested solutions with regards to fire resistance and fire stability.

- **Colour range**
  The standard Hunter Douglas interior and exterior colour range for Luxalon® Ceiling systems includes a wide variety of colours and finishes. See the Luxalon® colour chart for all available options. All RAL and NCS colours are also available on request.

- **Tolerances**
  As a member of the Technical Association of Industrial Metal Ceiling Manufacturers (TAIM), Hunter Douglas complies with tolerance criteria as specified in chapter 4 of the TAIM Quality standards for metal.

- **CURVED CEILING POSSIBILITIES**
  Curved panels: 84R, 300C
  Segmented carriers: 300C
  Flexible carriers: Multipanel, 84B, 84R, 7OU

- **LUXALON® EXTERIOR CEILINGS**

- **ENVIRONMENT**
  Hunter Douglas is dedicated to manufacturing sustainable products. Our paint and aluminium melting processes are considered industry standards in terms of clean production processes. All of our aluminium products are 100% recyclable at the end of their lifecycle.

- **EXTERIOR USE**
  Luxalon® Curved ceilings are ideal for outdoor applications. Our proprietary coil-coating process ensures a strong finish - the Luxacote® system. Luxacote® contains a solid UV filter that guarantees colour-fastness and gloss stability as well as optimal resistance against corrosion, abrasions and scratches.

  Luxalon® Exterior ceilings are developed to withstand all weather influences including intensive sunshine, dramatic temperature changes, moisture, pollution, and strong wind loads. Their durability comes from our special aluminium alloy, and the patented Luxacote® system. Luxalon® Exterior ceilings are ideal for use in canopies, shopping centres and railway/underground stations.

  - Special alloy of corrosion-resistant aluminium
  - Luxacote® coating system resistant to UV, scratches and vandalism and is rain-, dirt- and snow-proof
  - Certified for wind loads

- Right : Railway station Berchem
  Location : Antwerpen, Belgium
  Product : Curved ceiling 84R Exterior
Impressions

CURVED PANELS
Right : Nanji airport
Location : Nanji, Japan
Product : Curved ceiling 300C

Below : Metro Valencia Estacion Santa Rosa
Location : Valencia, Venezuela
Product : Curved ceiling 300C

CURVED CARRIERS
Right : O.L.V. van Lourdes College
Location : Edegem, Belgium
Product : Linear ceilings 70U

Below : Underground Station
Location : Rotterdam, the Netherlands
Product : Wide Panel ceiling 300C
In the last 50 years, we’ve been fortunate enough to help turn countless innovative sketches into innovative buildings.

Architects, designers, investors and contractors from around the world have taken advantage of Hunter Douglas’ unmatched product development, service and support. Chances are, you’ve seen more of Hunter Douglas than you think.

With major operation centres in Europe, North America, Latin America, Asia and Australia, we’ve contributed to thousands of high-profile projects, from retail and commercial facilities to major transit centres and government buildings.

Not only are the world’s architects and designers our partners, they’re our inspiration. They continue to raise the bar for excellence. We create products that help bring their visions to life: Window Coverings, Ceilings, Sun Control Systems and Façades.
ARCHITECTURAL SERVICES

We support our business partners with a wide range of technical consulting and support services for architects, developers and installers. We assist architects and developers with recommendations regarding materials, shapes and dimensions and colours and finishes. We also help creating design proposals, visualisations and mounting drawings. Our services to installers range from providing detailed installation drawings and instructions to training installers and advising on the building site.

HUNTER DOUGLAS is a publicly traded company with activities in more than 100 countries with over 150 companies.

The origin of our company goes back to 1919, in Düsseldorf, Germany. Throughout our history, we have introduced innovations that have shaped the industry, from the invention of the continuous aluminium caster, to the creation of the first aluminium Venetian Blinds, to the development of the latest high-quality building products.

Today we employ more than 16,500 people in our companies with major operation centres in Europe, North America, Latin America, Asia and Australia.
Belgium  
Bulgaria  
Croatia / Slovenia  
Czechia  
Denmark  
France  
Germany  
Greece  
Hungary  
Italy  
The Netherlands  
Norway  
Poland  
Portugal  
Romania  
Russia  
Serbia  
Slovakia  
Spain  
Sweden  
Switzerland  
Turkey  
United Kingdom  
Africa  
Middle East

Asia  
Australia  
Latin America  
North America

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