

DIAMOND SKYLIGHT CHANDELIER

FLAGSHIP STORE, , TIFFANY & CO

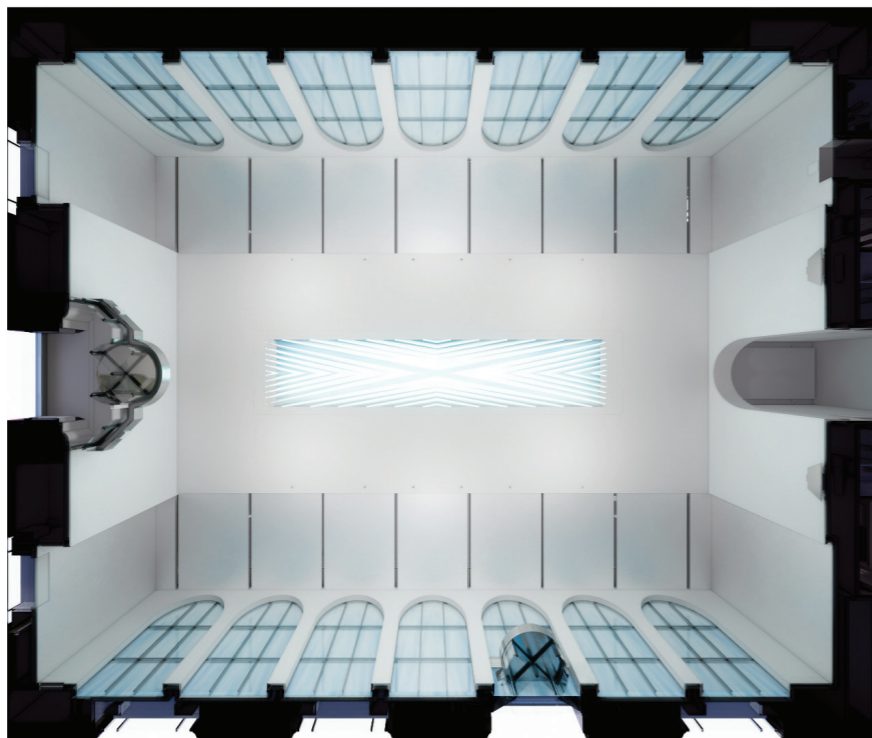


5TH AVENUE, NEW YORK CITY

HDA
HUGH DUTTON ASSOCIATES

First concept image

Diamond Skylight chandelier



A chandelier to bring a sensation of sky in the lobby. Celebrating light, the same light that the joyous sparkle that diamonds bring to our lives.

A Geometrical focus on the center of the space, spatially connecting the four surrounding walls.

A discreet colorless luminous skylight chandelier reflecting the colors and activity of the space below and in the video's windows and mirrors.

High quality glass blades suspended from a luminous ceiling that culminates in suspended cast and engraved crystal shards at their tips toward the center.

The shards are cut and polished in geometrical patterns to optimize reflectivity inspired by the idea of falling diamonds.

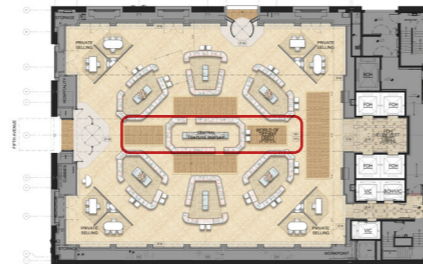
The blades are inclined in response to the angle in which the installation is viewed from the entrance and by people circulating around the floor

The chandelier is a kinetic glass sculpture that sparkles and glitters, revealing hints of intricate reflections as the viewer moves beneath it, expressing the rich spectral complexity of light.

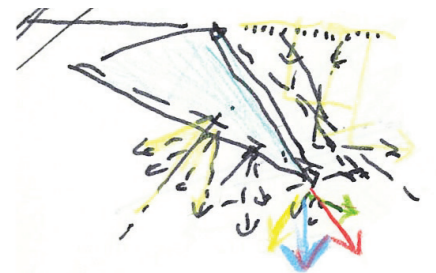
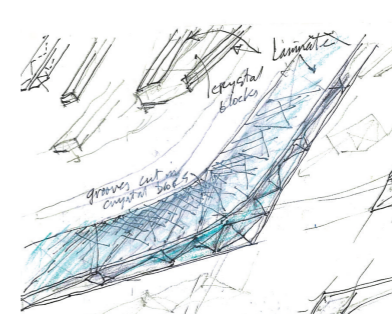
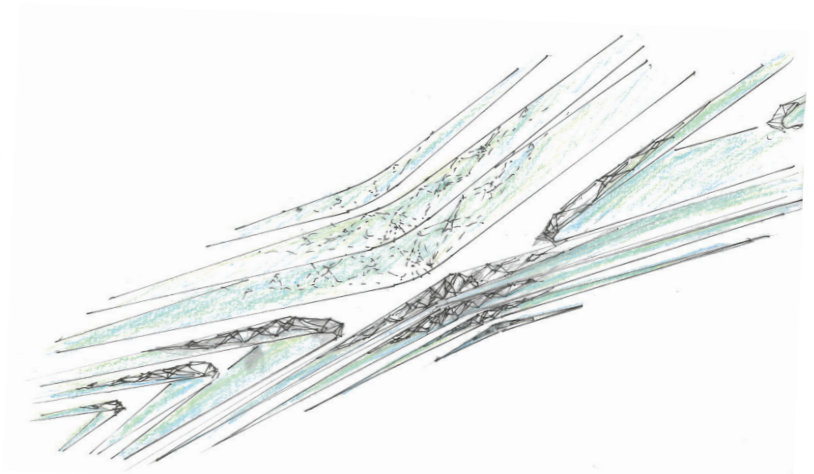
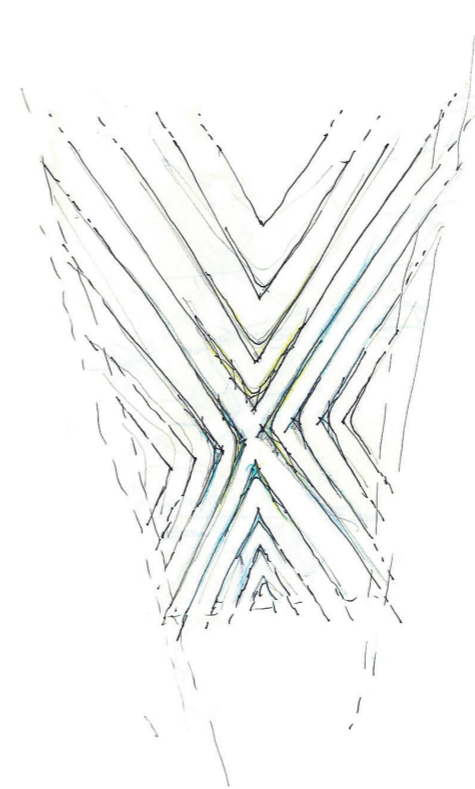


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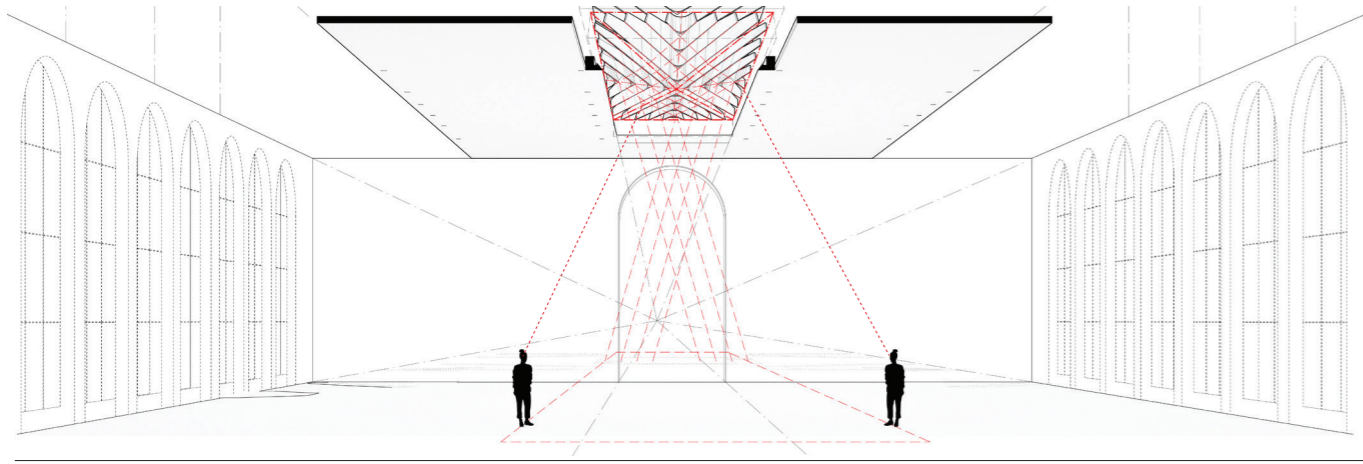


Hall known worldwide by Blake Edwards' film, Breakfast at Tiffany's, with Audrey Hepburn.
Rendering and Plan from Peter Marino Architect showing Ceiling Feature integration on 1st floor



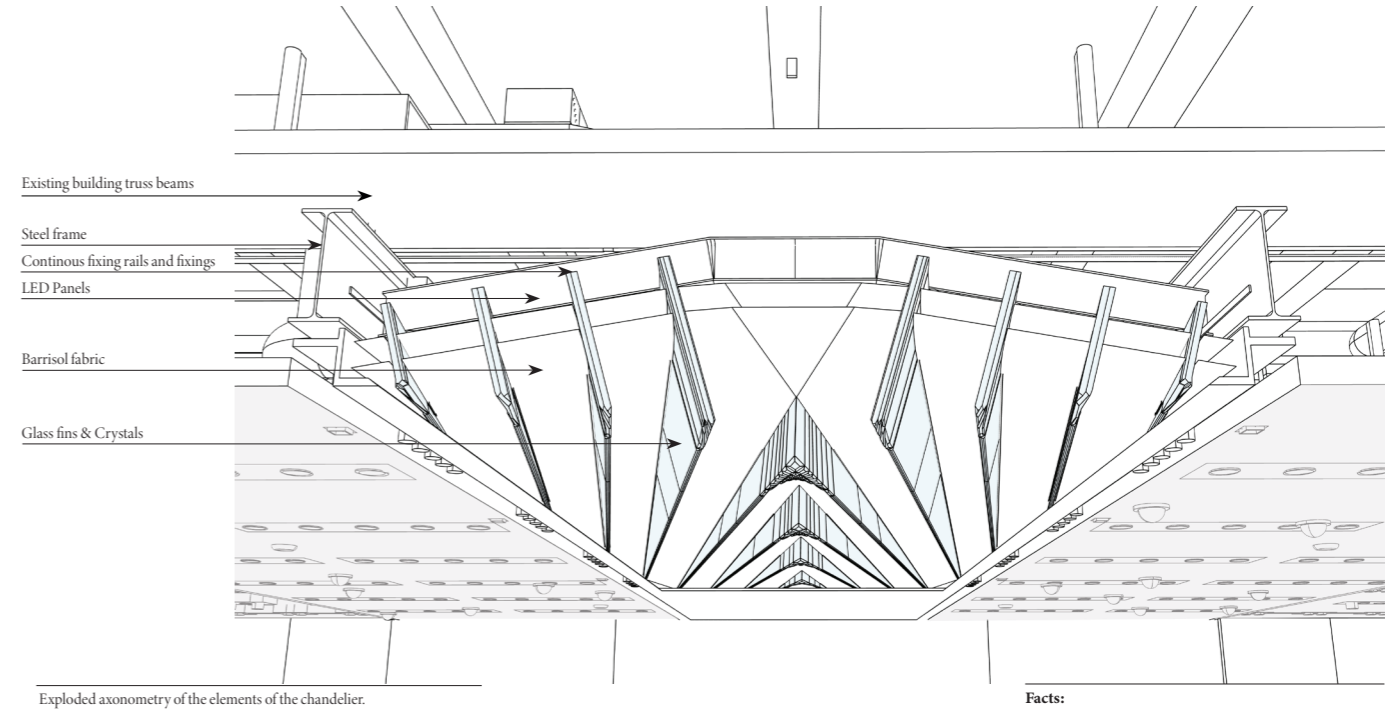
Hugh Dutton Research Sketches from 2021 October to 2022 May

COMPOSITION OF THE CHANDELIER



Reflective view analysis

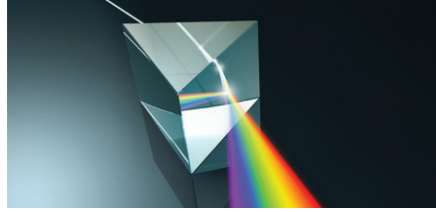
The Chandelier is composed as a focus of the architecture of the main lobby. The radiating blades are angled to provide a kinetic response to the viewers as they move around the space below.



Exploded axonometry of the elements of the chandelier.

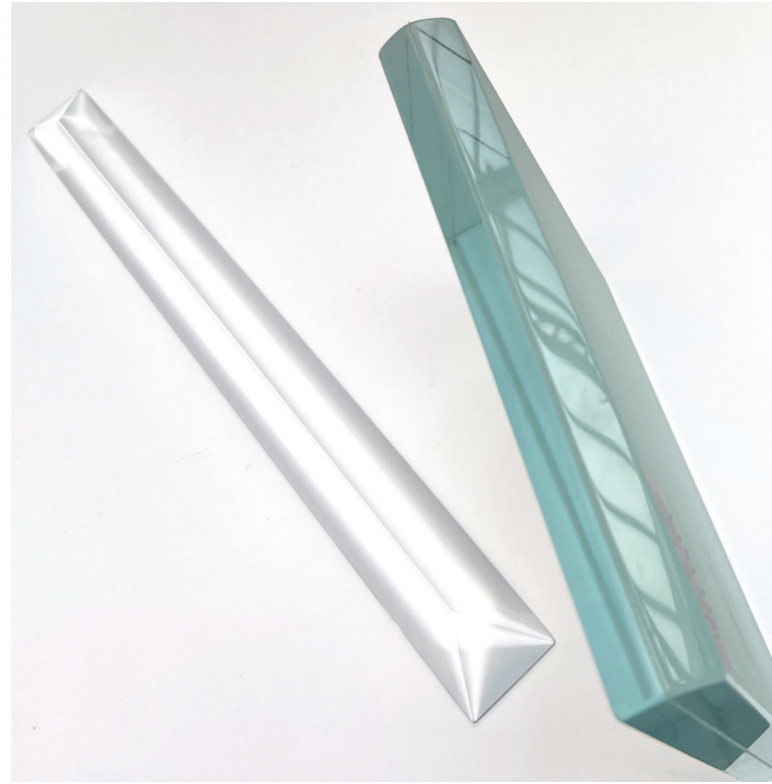
Facts:
Overall dimensions: 60' x 12'
Total Length of blades : 377'
Glass weight: 7648 lb
Glass support frame weight: 13228 lb
Lighting: 516 square feet of LED light sheets providing a potential of 200 000 lumens with Barrisol stretched translucent diffusing membrane

GLASS MATERIALITY



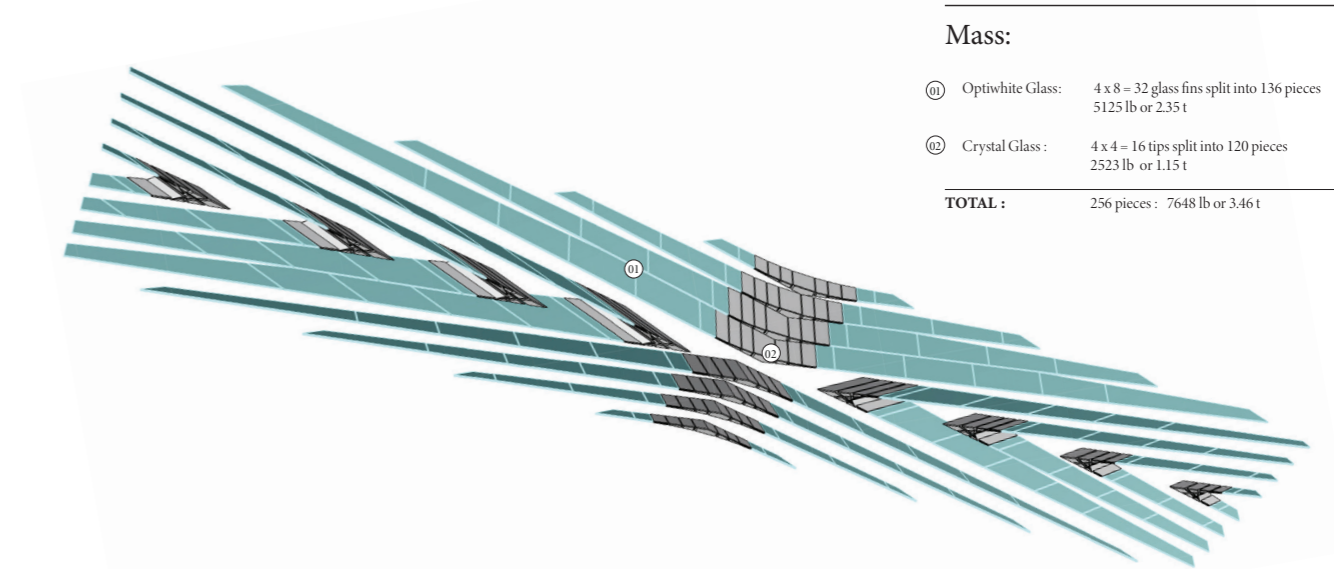
The Diamond Skylight is a composition of high quality architectural glass blades and Bohemian crystal shards.

The blades are industrially produced architectural 'float' glass of which the purist, extra clear version called «low iron» has a slight bluish tint which reminds us of Tiffany Blue. It is fabricated in the traditional method of a continuous moving 'river' of molten glass on a bed of liquid metal for perfect flatness.



Bohemian Crystal and lowiron glass for blades

GLASS FINS



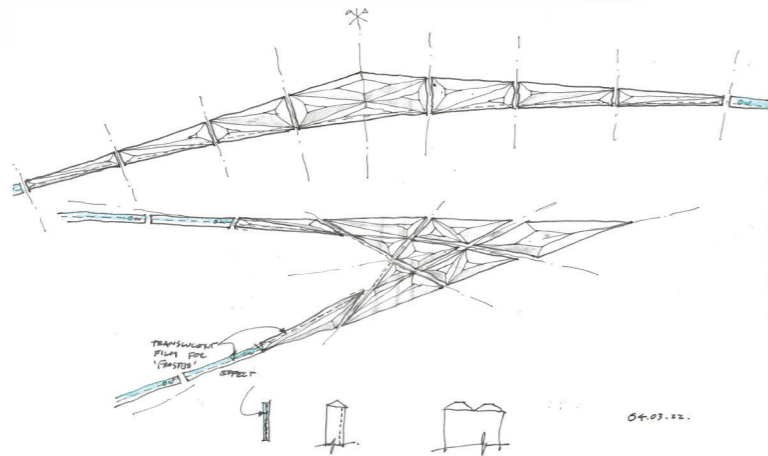
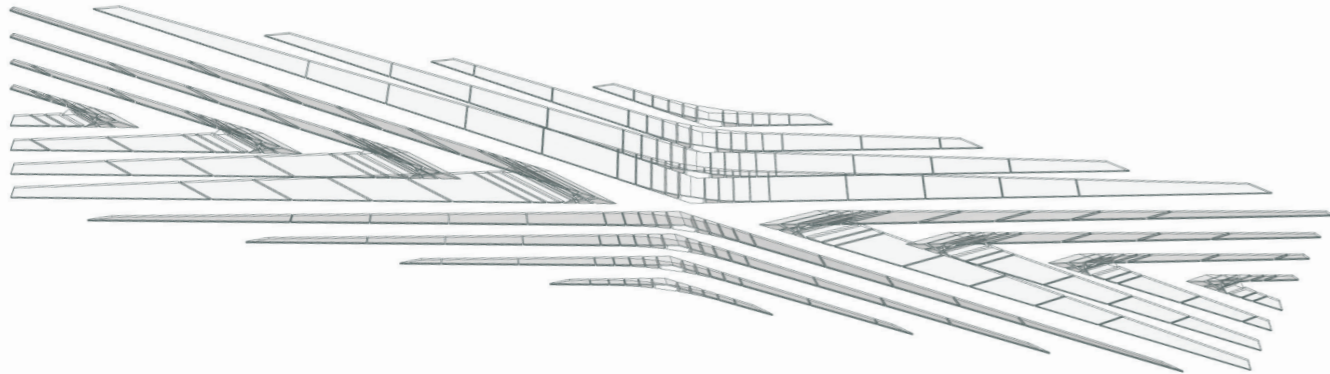
Mass:

01	Optiwhite Glass:	4 x 8 = 32 glass fins split into 136 pieces 5125 lb or 2.35 t
02	Crystal Glass:	4 x 4 = 16 tips split into 120 pieces 2523 lb or 1.15 t
TOTAL :		256 pieces : 7648 lb or 3.46 t

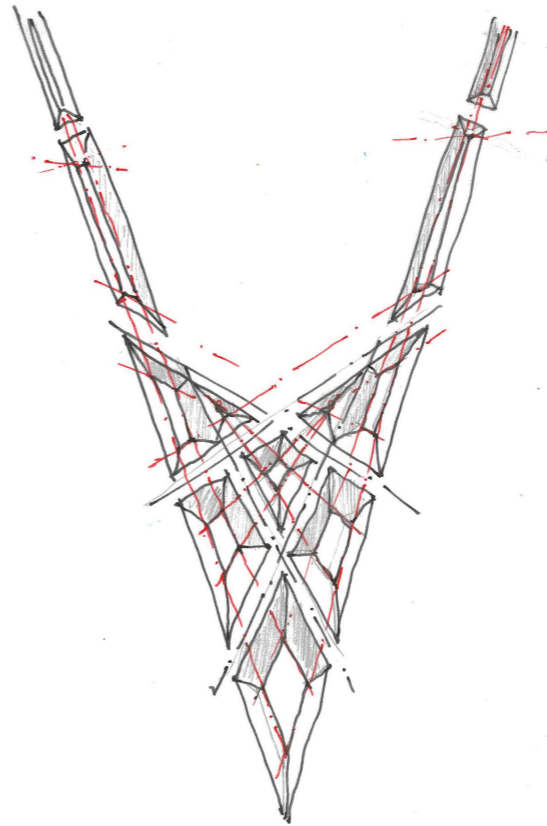
The crystal shards are cast using closely guarded techniques, hundreds of years old from Bohemia. It is a high optical quality glass of exceptional clarity close to diamonds, with a light transmission close to 90% and a refraction index of minimum 1.5 and closer to diamonds at 2.4 than for ordinary glass.

The higher the refractive index, the more brilliant the glass and the more it will produce rainbow coloured spectral dispersion sparkles. It is engraved and cut with sharp angles to create these coloured reflections.

GEOMETRY

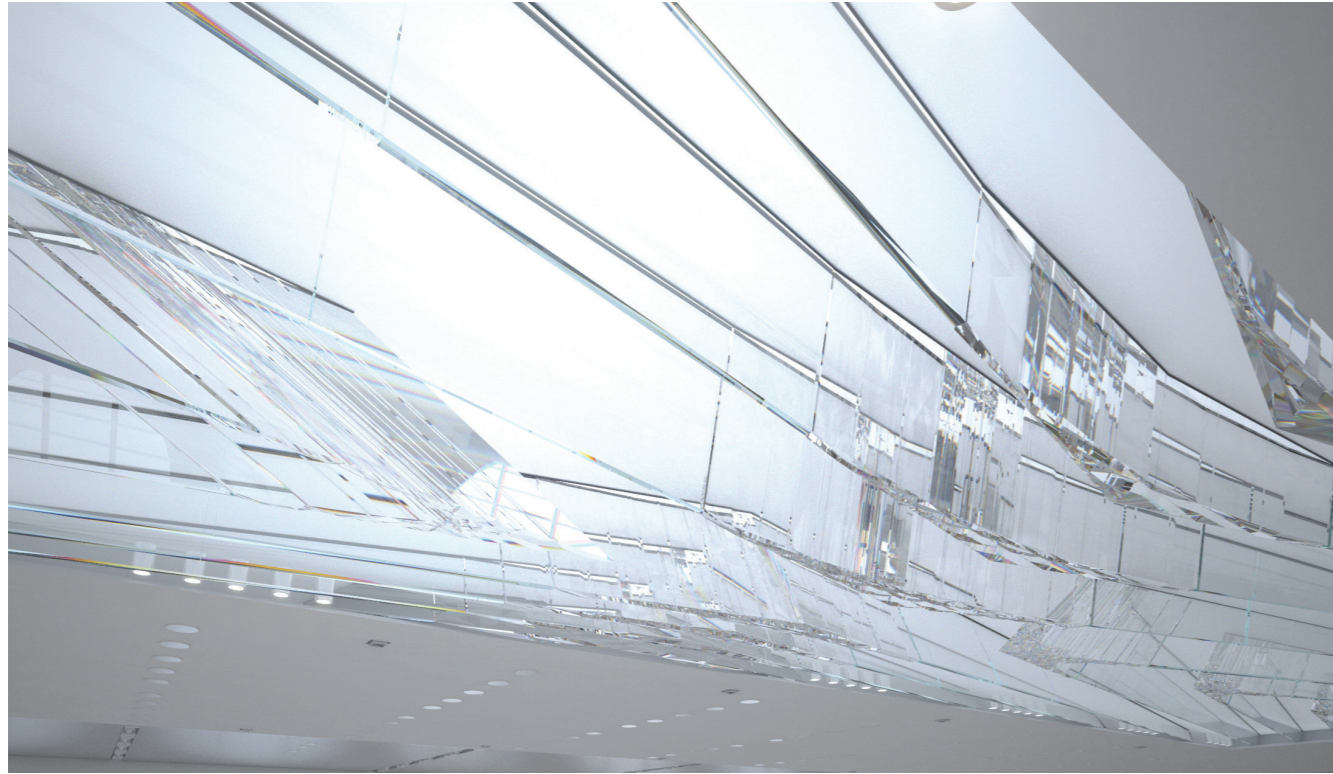


The glass blades radiate from a central focus where they terminate in crystalline shards that are cut and bevelled to an intricate pattern recalling faceted diamonds.

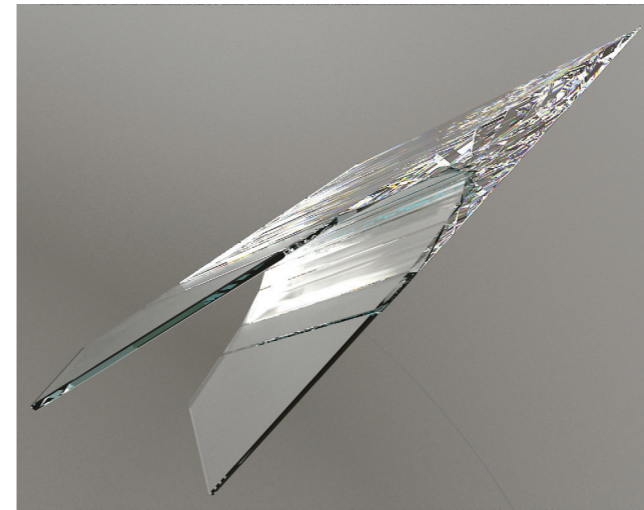


Geometry sketch and Prototype photo

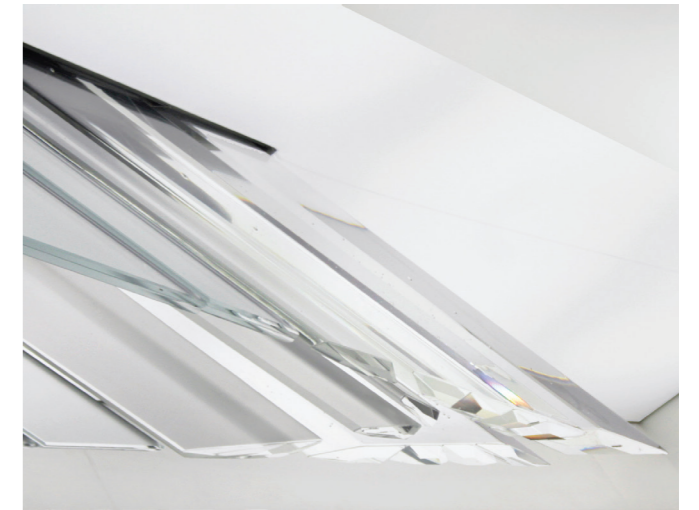
VISUAL STUDY & MOCKUP



Rendering Light test



Digital modelling of crystal shards and blades that simulates and tests light reflection and refraction for rainbow spectral dispersion sparkles

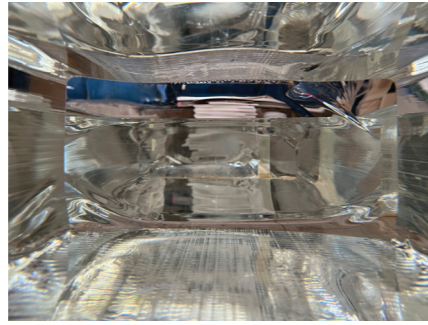


Desired chromatic dispersion effect on the first mockup

FABRICATION, *Glass segments construction*

The glass was cast, engraved, tested and assembled in the Czech Republic by the Lasvit group in the tradition of bohemian crystal at Novy Bor.-

3000 hours of glass mould making and melting plus 3200 hours of cutting, grinding and polishing.



Each glass fin is cast and polished by hand



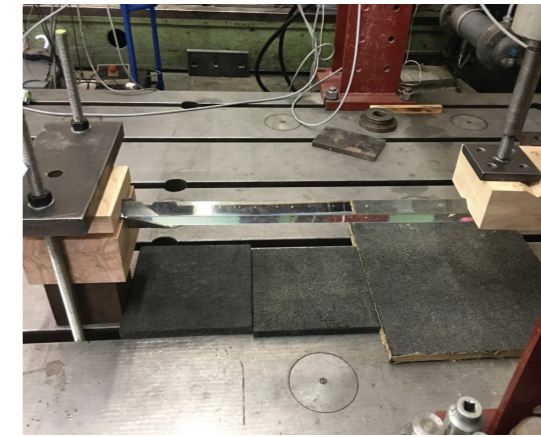
Measurement of optical quality



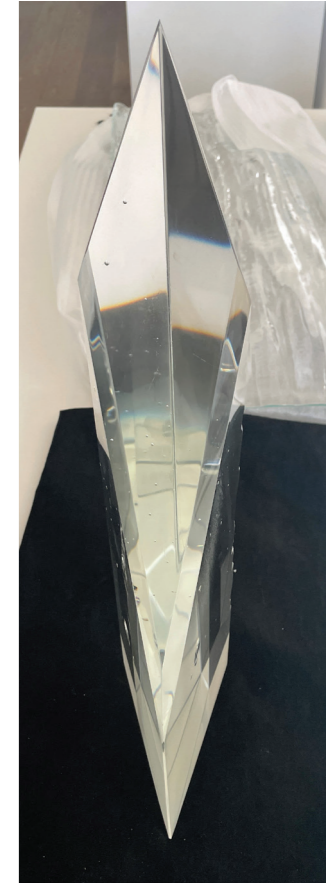
Crystal Support Brackets



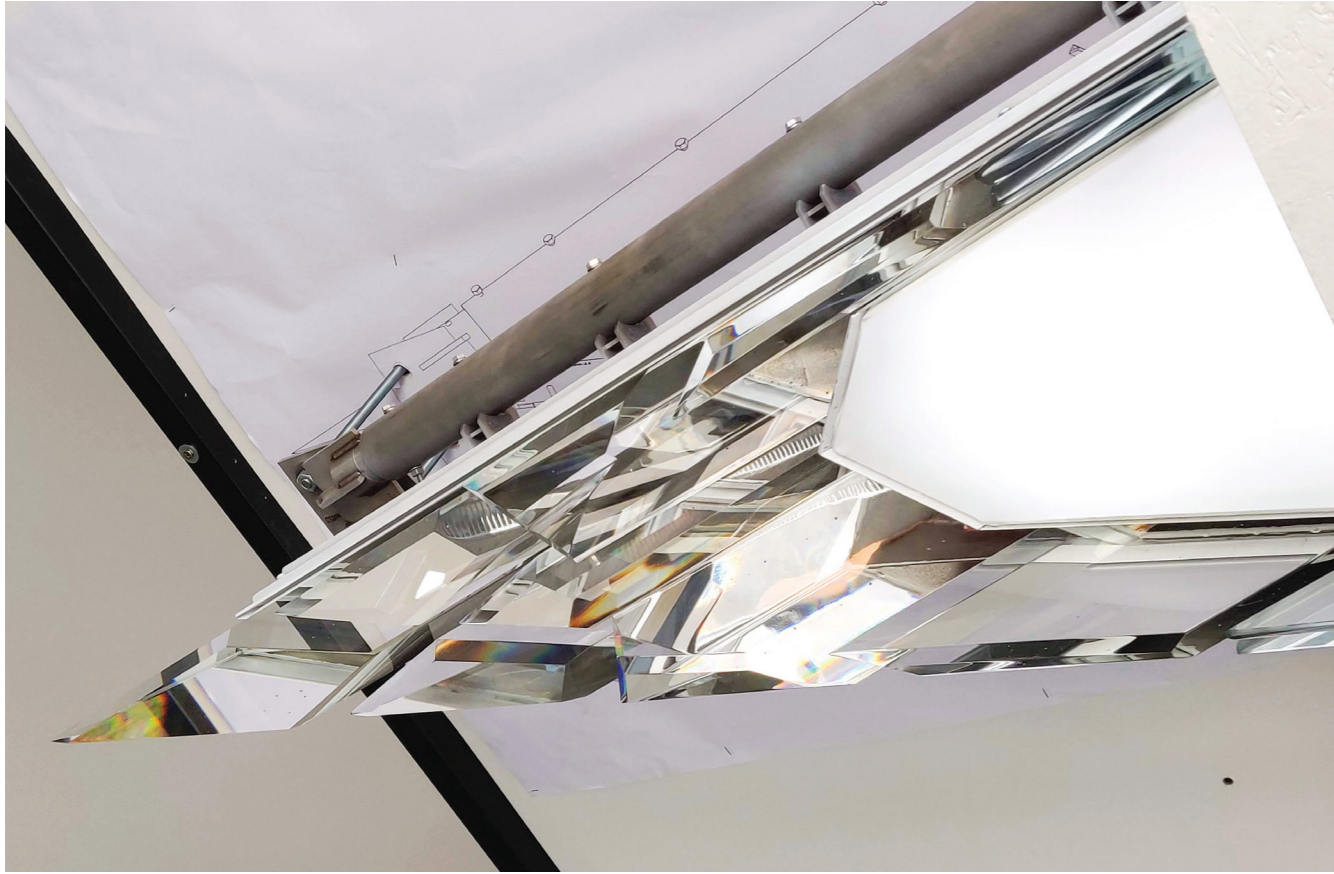
Flat hand polishing finish



Testing



Engraved Crystal



Mock up and lighting test



Photo during installation showing bluish tint of blades and crystal refraction



HUGH DUTTON - HDA



Hugh Dutton biography:

Glass designer since La Villette Paris with engineer Peter Rice. Co-inventor of pioneering glass bolt. Worked with IMPei and Rice on Louvre inverted Pyramid, and with Ricciotti/Bellini on Islamic arts in the Louvre. Designer of Climate Ribbon Sculptural skylight at Brickell City Centre Miami. For Tiffany, designer of the Diamond Vitrine, Bon Marché, now developed in other Tiffany key stores. In progress designs include a pioneering all glass staircase and skylight in Via Montenapoleano Milan.

Design Team:

Gaëtan Kohler - Architect - Artist.
Laurie Rowenczyn - Architect - Engineer.
Yingjie Yu - Architect.

Design & Engineered : Hugh Dutton Associés, Paris

Client : Tiffany & Co.

Architectural Design: Peter Marino Architects, N.Y.

Fabrication: Lasvit of the Czech Republic to a steel frame by StructureTone.



Hôtel de la marine, Glass roof of the Intendant's courtyard, Paris
Designer: HDA
Photo: Nicolas Trouillaud



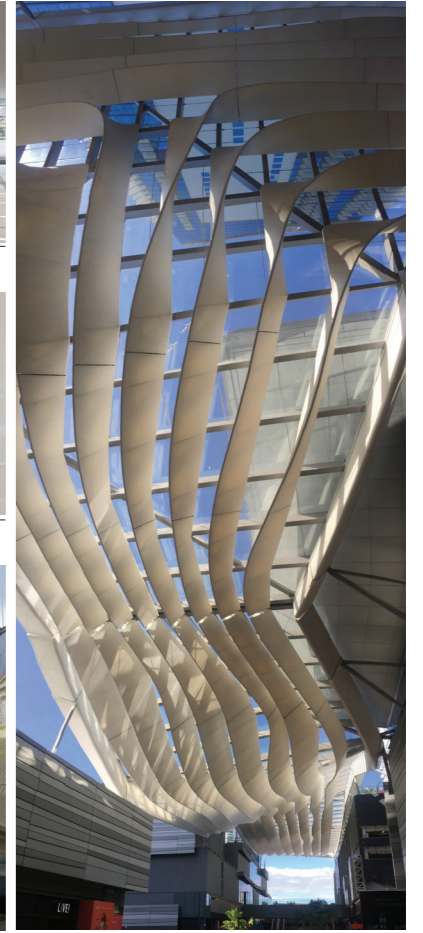
Musée de l'Acropole
Arch : Btua



Le Bon Marché, Diamond Showcase
Designer: HDA



Département des Arts de l'Islam, Louvre
Arch : Ricciotti / Bellini



Climate ribbon, Miami
Designer : HDA

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