

Interior Temperature reduced by 10°C



■ **FACTS**

Building

A Retirement Home

Location

Rishon Le’Zion, Israel

Film

RHE-20

Goal

Reduce temperature loads

■ **INITIAL SITUATION**

The owners and occupants of this retirement home newly built near the Tel Aviv Sea Shore, complained about excess heat in the hallways of the building. Despite the fact that the existing 300m² facade was constructed from high specification Low-e dual pane glazing, in the height of the summer the heat in the hallways was often intolerable.

A second problem was that the building’s glass elevators would get so hot, that the Israeli Standards institute refused to approve their use until the owner found a solution to help reduce internal temperatures.

■ **SOLUTION**

The installation of LLumar Helios RHE-20 Exterior film.

■ **RESULT**

- Temperature reduced in hallways and elevators by 10°C.
- Following the installation of RHE20, the owners of the building were able to set the air conditioning temperature to a comfortable 26°C. Prior to installation, it had been set to 18°C in an attempt to combat the heat.
- Following a further inspection, the Israeli standard institute approved the use of the elevators
- The aesthetics of the building facade improved, with a new consistent, reflective appearance.

“The electricity savings from the Helios RHE20 installation will be approx. \$8750.00 per year giving the customer a return on investment in under 2 years,” says Kfir Goldhamer, V.P Marketing at Sunshield Ltd.

■ **LLUMAR RHE-20**

Product Properties:

- The optimal solution for buildings which have to deal with high solar heat gain and therefore high cooling costs
- Reflective solar control and privacy exterior grade film
- Special technology polymeric scratch resistant coating provides increased durability and easier cleaning – patent applied for
- Significant improvement of working conditions – high reduction in solar heat gain
- Reduction in air-conditioning costs and hence a reduction in energy costs with potential payback of less than 3 years
- Potential to reduce CO₂ emissions by tens of tones per year
- Daylight privacy - “one way” mirror effect can be achieved under the correct lightening conditions
- Excellent glare reduction for reduced eyestrain and easier working with computer screens
- Excellent UV filtering integral to the polyester – helps to reduce fading of textiles, furniture, and works of art
- Extremely well adapted to single, double and double low-E insulating glazing systems
- Exterior installation

Table of Data (4mm single, clear):

Solar Energy Transmission:	10 %
Solar Energy Reflection – Exterior:	62 %
Solar Energy Absorption:	28 %
Visible Light Transmission:	14 %
Visible Light Reflection – Exterior:	65 %
Visible Light Reflection – Interior:	61 %
UV Transmission:	<1 %
Emissivity:	0,87
U-Value:	5,7

