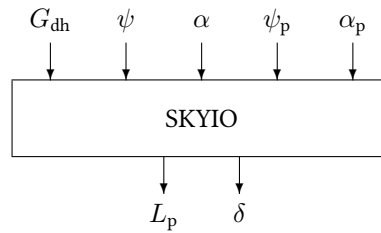


Block SKYIO

The SKYIO block simulates an intermediate overcast sky.



Name	SKYIO
Function	em0027
Inputs	5
Outputs	2
Parameters	0
Strings	0
Group	S

Inputs

- 1 Total horizontal diffuse radiation $G_{dh} / \text{W m}^{-2}$
- 2 Solar azimuth $\psi / ^\circ$
- 3 Solar elevation $\alpha / ^\circ$
- 4 Point azimuth $\psi_p / ^\circ$
- 5 Point elevation $\alpha_p / ^\circ$

Outputs

- 1 Point luminance $L_p / \text{cd m}^{-2}$
- 2 Angle between point and Sun $\delta / ^\circ$

Parameters

None

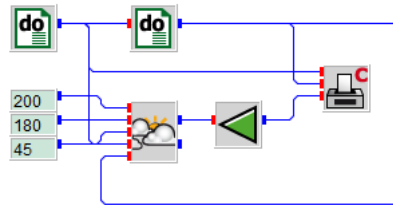
Strings

None

Remarks

The equations and coefficients are taken from the source “Daylighting in Architecture – A European Reference Book” pages 3.6 and 3.7 published for the Commission of the European Communities by James and James (Science Publishers) Ltd. 1993 Brussels and Luxembourg

skyio.vseit



Two nested **DO** blocks vary elevation between zero and ninety degrees in steps of one (inner **DO** block) and azimuth between zero and 360 degrees in steps of 1 (outer **DO** block).

The diffuse radiation is assumed constant with 200 W/m^2 . The position of the Sun is assumed at south (azimuth 180 degrees) at an altitude of 45 degrees. The luminance output of the **SKYIO** block is attenuated by a factor 1000.

Hence, the **PLOTPMC** block displays the clear sky luminance distribution over the sky dome in kcd / m^2 .

