RV401
10k
LIGHT SEN N
+9V

U401A
LM358

A_SETPOINT_LDR_N

C_LIGHT_N_O

A_LIGHT_SEN_N_I
A_LIGHT_SEN_E_I
A_LIGHT_SEN_S_I
A_LIGHT_SEN_W_I

A_FEEDBACK_U403A

R405
1k

U403A
LM358

C_ECLIPSE_O

R401
2k

GND

U403B
LM358

GND

C_LIGHT_E_O

R402
2k

RV402
10k
LIGHT SEN E
+9V

GND

U401B
LM358

A_SETPOINT_LDR_E

C_LIGHT_S_O

R403
2k

RV403
10k
LIGHT SEN S
+9V

GND

U402A
LM358

A_SETPOINT_LDR_S

C_LIGHT_W_O

R404
2k

+9VA

C401
0.1u

D401
~
ECLIPSE
220
R406

C_ECLIPSE_O

D402
~
LIGHT_N
220
R407

C_LIGHT_N_O

U401C
LM358
8 V+   V− 4

D403
~
LIGHT_E
220
R408

C_LIGHT_E_O

C402
0.1u

8 V+   V− 4
LM358
U402C

D404
~
LIGHT_S
220
R409

C_LIGHT_S_O

RV404
10k
LIGHT SEN W
+9V

GND

U402B
LM358

A_SETPOINT_LDR_W

C403
0.1u

U403C
LM358
8 V+   V− 4

GNDA

D405
~
LIGHT_W
220
R410

C_LIGHT_W_O

GND

Description

INPUTS:
− A_LIGHT_SEN_[N, E, S, W]_I: Possitioned LDR signal
− A_SETPOINT_LDR_[N, E, S, W]: LIGHT SENSORS Threshold set values

OUTPUTS:
− C_LIGHT_[N, E, S, W]_O: binary signal for light detected
− ECLIPSE_O: Eclipse detection (all sensors of) signal

Solar direction and eclipse detection logic
LKP Systemes
Sheet: /solar eclipse/
File: solar_eclipse.kicad_sch
Title: Solar — Eclipse
Size: A4   Date: 2026−01−28   **Rev: 1**
KiCad E.D.A. 9.0.7   Id: 3/7