

ZRW SOLAR STREET LIGHTING

Product Name

LED Street Light DC 30Watts 12-24VDC 220VAC

Revision 2

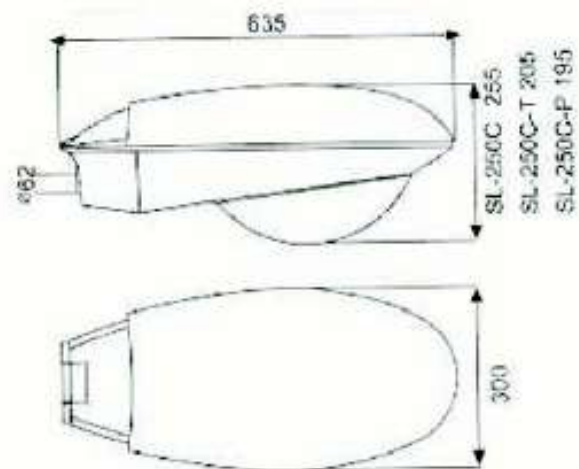
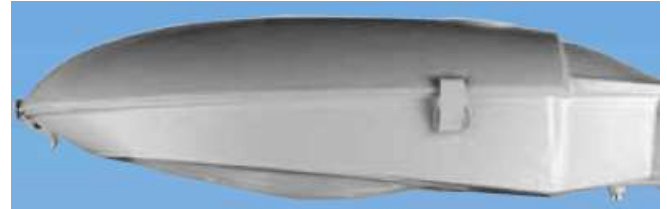
Date Last Revision 20/04/2013

Description

Light designed for DC Solar or AC applications and can be used for Highway & intersections, Car parks, Office parks Security and Perimeter lighting

Technical Specification

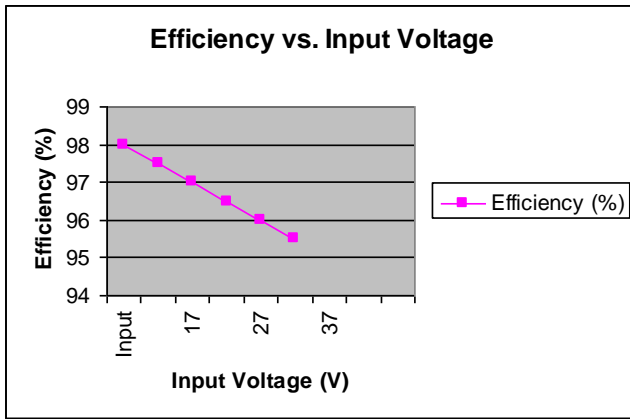
Electrical General DC Solar version 30W	
Minimum input Voltage	11 Vdc
Max input Voltage	39Vdc
Power	30Watts
Power Supply Efficiency	97%
Current at 12V	2.5 Amps
Current at 24V	1.25 Amps
Operating Temperature	-30 deg – 50 deg
Electrical Protection	Transients
Thermal Protection	Thermal shut down with Hysteresis
Dimming	Dimming control 0-5V input
Electrical General AC Solar version 30W	
Minimum input Voltage	90V AC
Max input Voltage	264V AC
Power Output	30Watts
Power Supply Efficiency	82%
Current at 220V Ac	170mA
Power Factor	0.92
Operating Temperature	-30 deg – 50 deg
Electrical Protection	Transients
Thermal Protection	Thermal shut down with Hysteresis
Safety Standards	UL1310 Class 2 TUV EN60950-1 EN61347-2-13
EMC Standards	EN55022 class B EN61000-3-2 3 EN61000-4-2 3 4 5 6 8 11
Withstand Voltage	3KVAC
Connection	18AWG



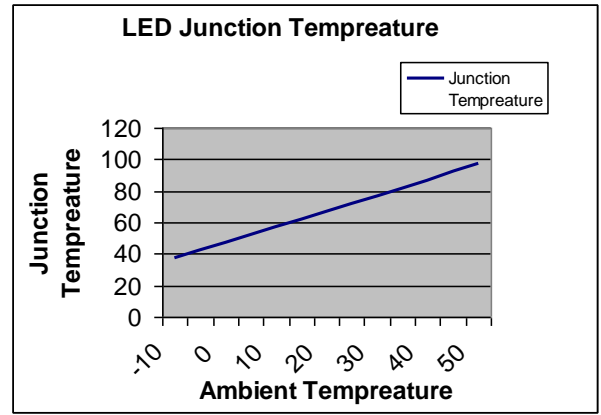
General Light Performance	
Lumens@25deg	3300 lumens
CRI index	70
Colour Temperature	6000K
Light Source	Osram Leds
Dimensions	
Length	635mm
Height	300mm
Mass	4.6Kg
Spigot	62mm
Construction	
Body	Aluminum
Cover	4mm Glass
IP rating	IP65 SANS 60598- 2-3:2001 (IEC60598-2-3:2001) SANS 60598-1 :1999 and SANS 475:2006
Construction	2 Piece High Pressure Die Cast Body
Installation	Standard side or bottom installation.



Power Supply Efficiency vs. Input Voltage



Junction Temperature vs. Ambient Temperature



Relative Light Output vs. hours at Junction 85deg

# LEDs	IF = 500 TJ = 85			
	L80B50	L80B10	L70B50	L70B10
1	>100,000	83600	>100,000	>100,000
8	>100,000	>100,000	>100,000	>100,000
16	>100,000	>100,000	>100,000	>100,000
24	>100,000	>100,000	>100,000	>100,000
36	>100,000	>100,000	>100,000	>100,000
54	>100,000	>100,000	>100,000	>100,000

Fault Protection

These are faults which cause the voltage of the power supply to go outside normal limits for a period of time. Many transients are capable of causing immediate equipment failures

Light is protected to 1.5Ke rating. i.e For 350ms at 52V at 55Amps

Recommended Solar Panel and Battery Size

Solar Hours	3.5 Hours	4 Hours	5 Hours	5.5 Hours
Solar Panel Size	170W	150Watts	130Watts	130Watts
Battery Size	200Ah 12V	200Ah 12V	200Ah 12V	200Ah 12V

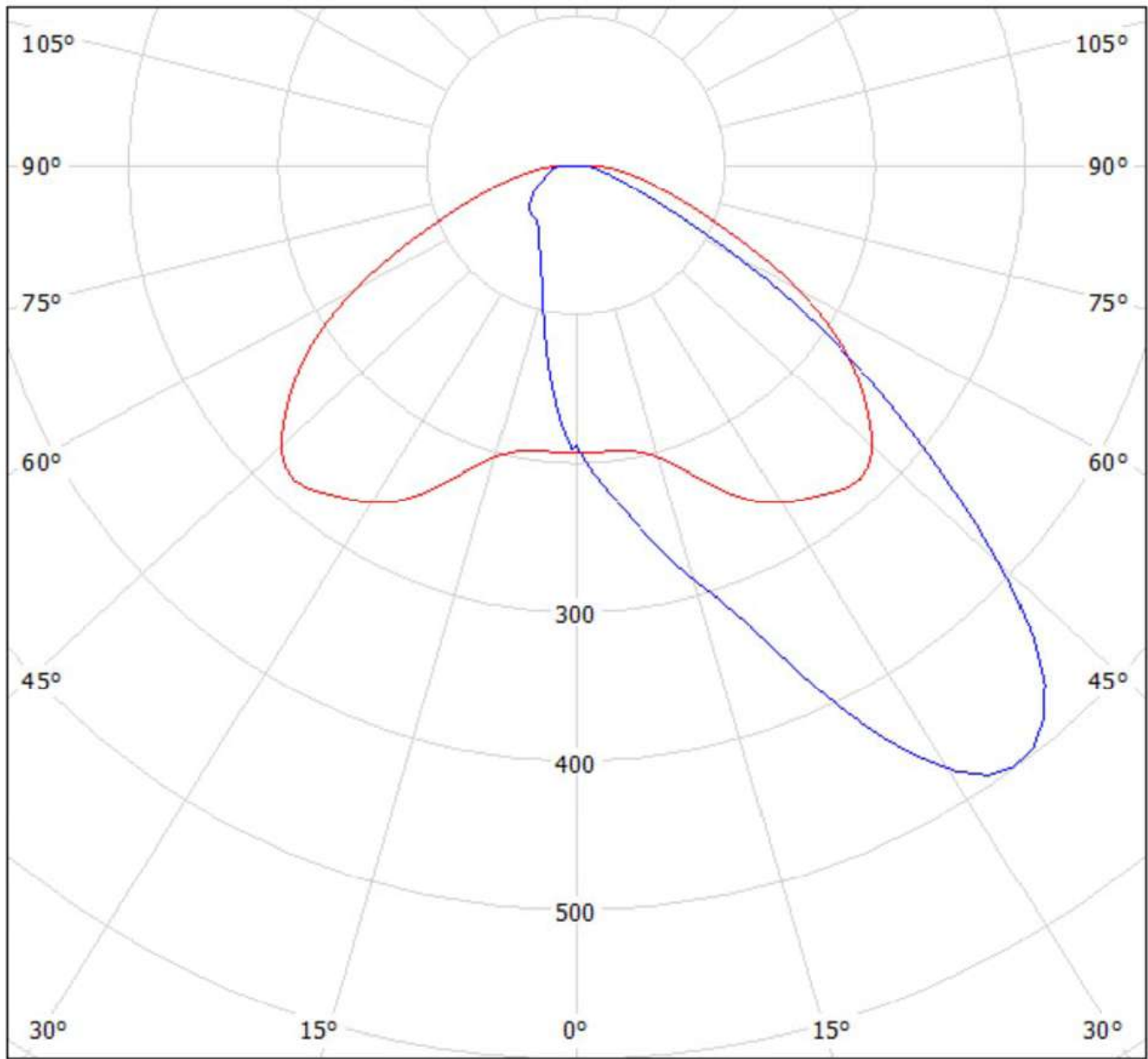
NOTE

Solar panel and Battery sizing should always be checked by a solar expert. The Table above is just a guide

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Light LDC Polar Diagram



cd/km

— C0 - C180

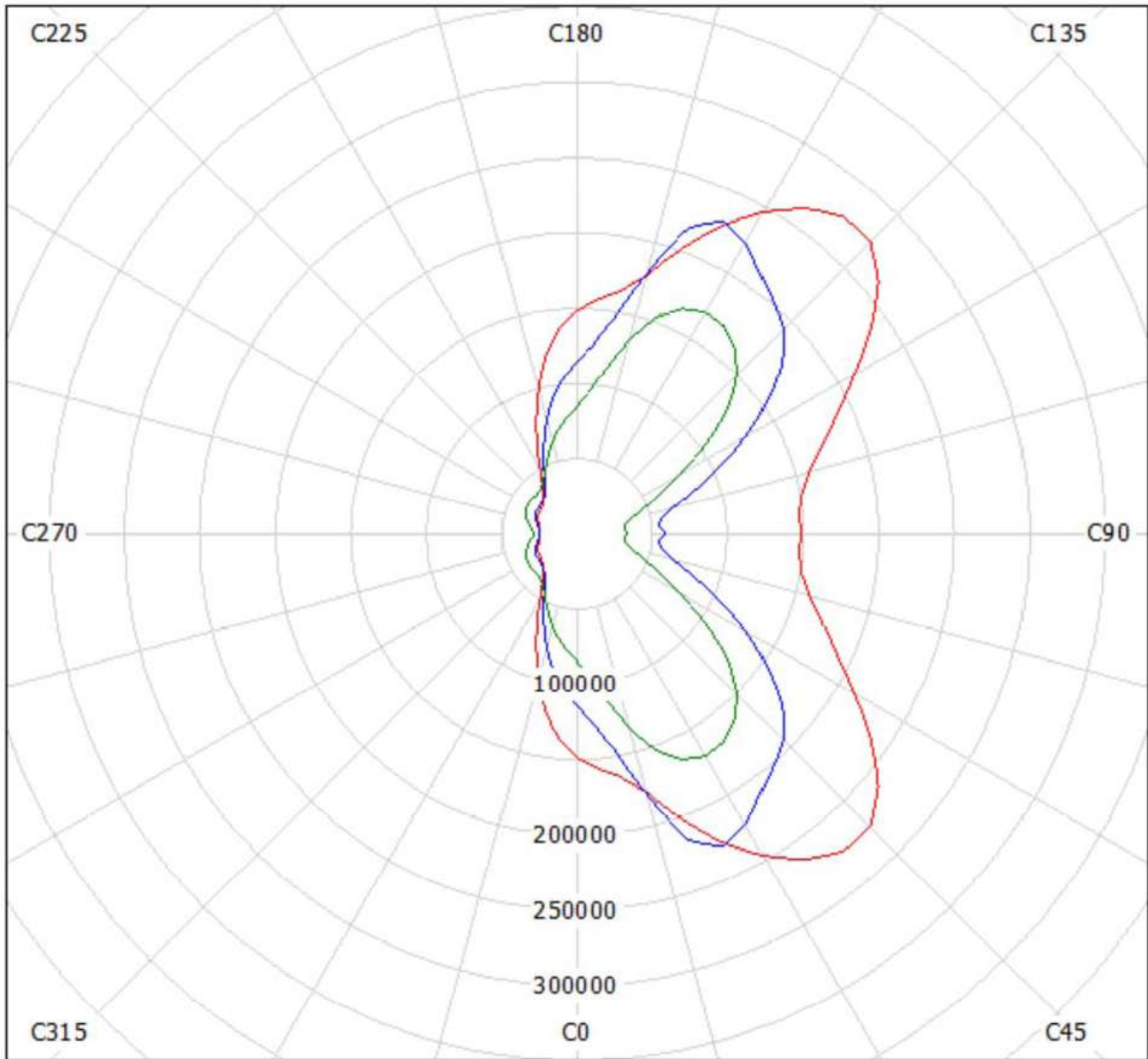
— C90 - C270

$\eta = 90\%$

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Luminance Diagram



cd/m^2

— $g = 55.0^\circ$

— $g = 65.0^\circ$

— $g = 75.0^\circ$

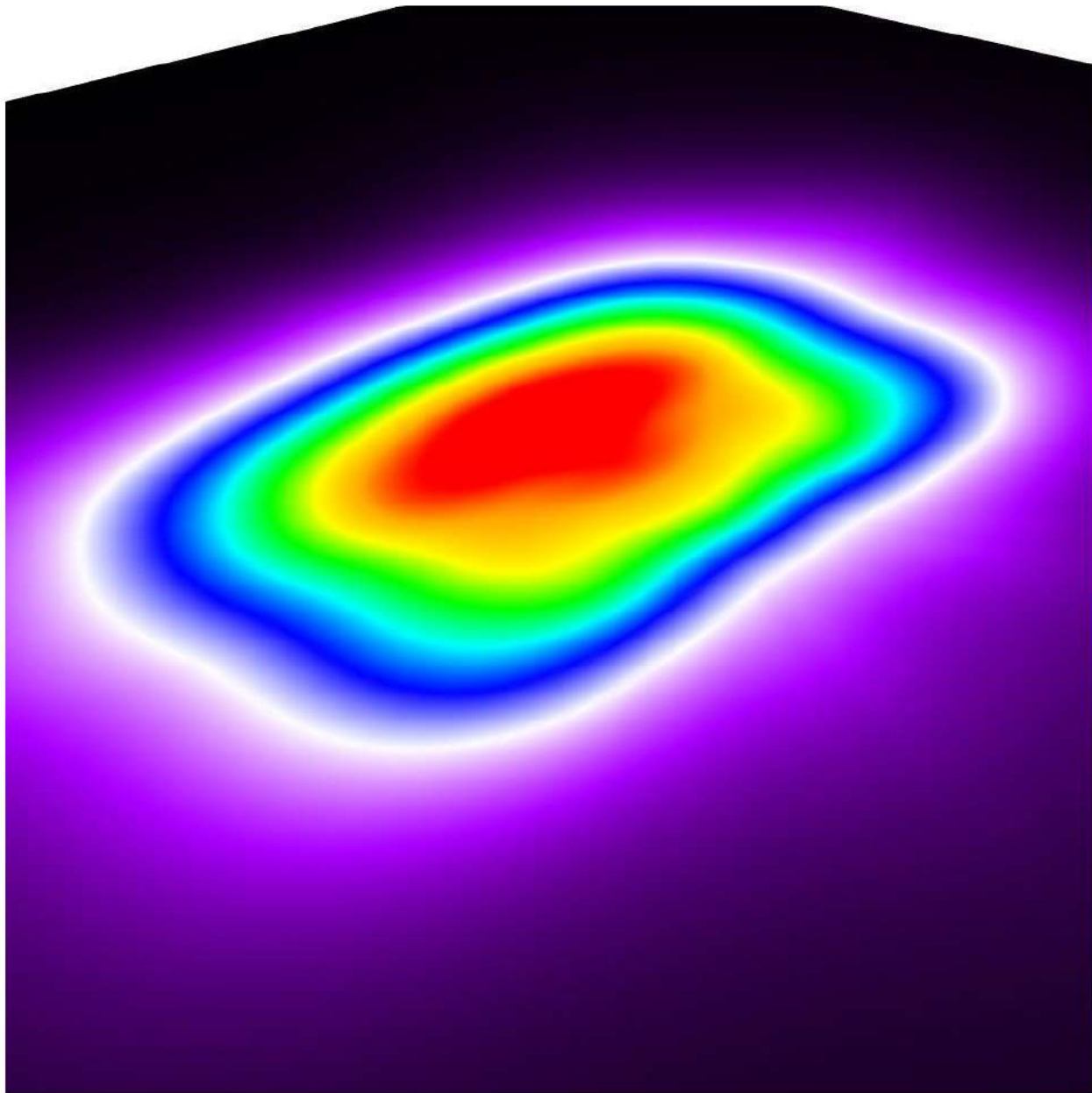
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False colour rendering at 6M height

Exterior Scene 1 / False Colour Rendering



0 2.50 5 7.50 10 12.50 15 17.50 20

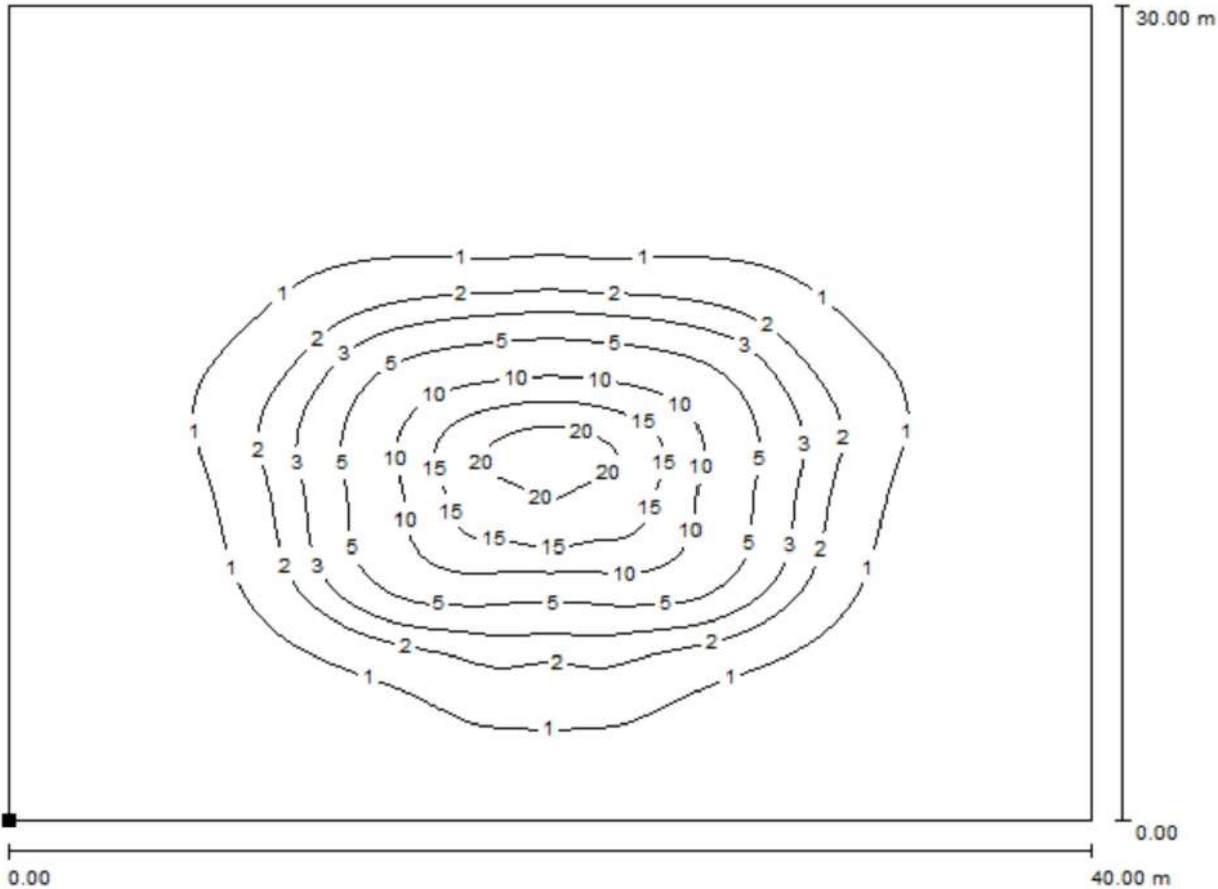
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Perpendicular Isolines 6M height installation

Exterior Scene 1 / Calculation Surface 1 / Isolines (E, Perpendicular)

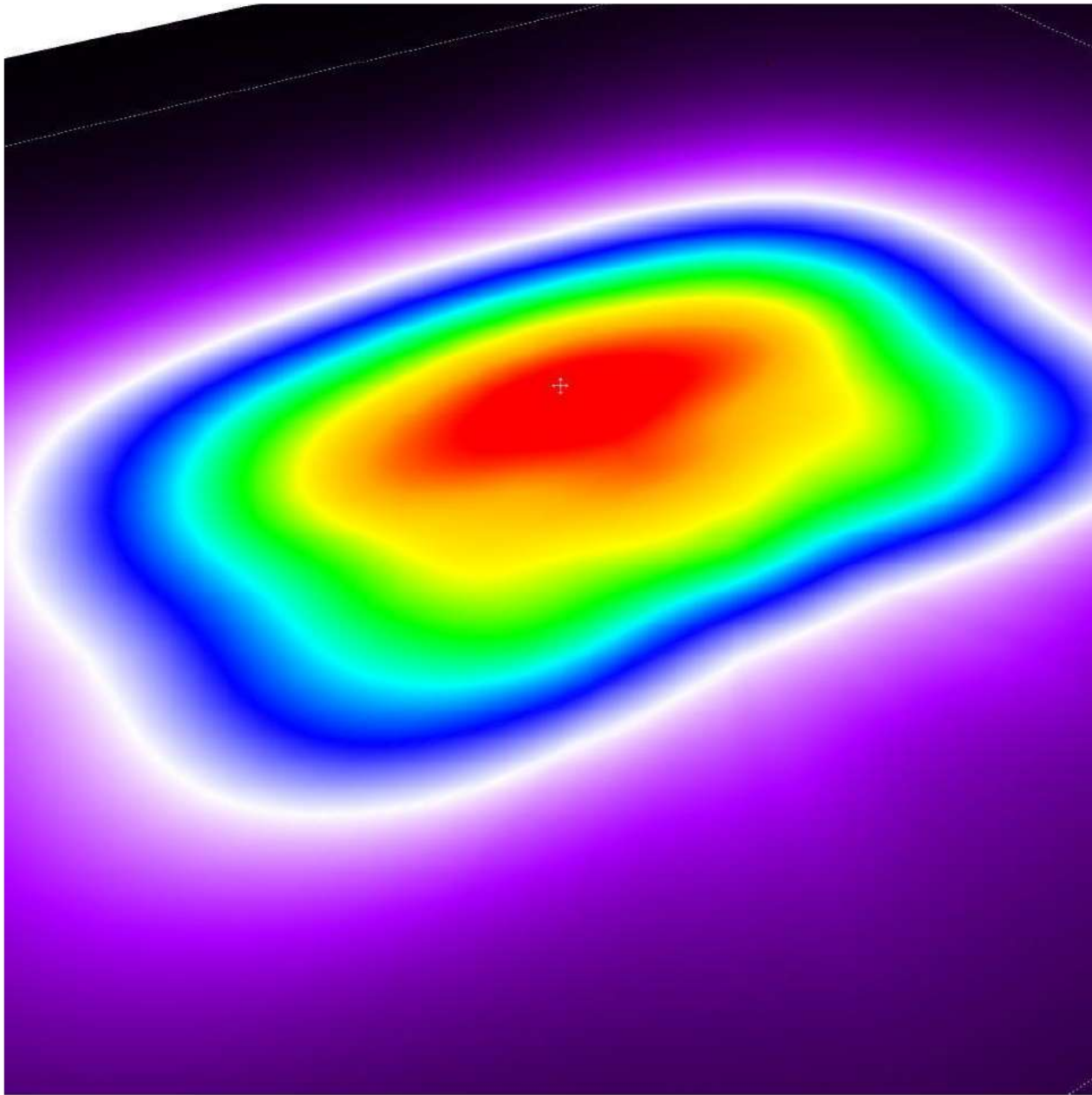


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False colour rendering at 8M height

Exterior Scene 1 / False Colour Rendering



0 1.50 3 4.50 6 7.50 9 10.50 12

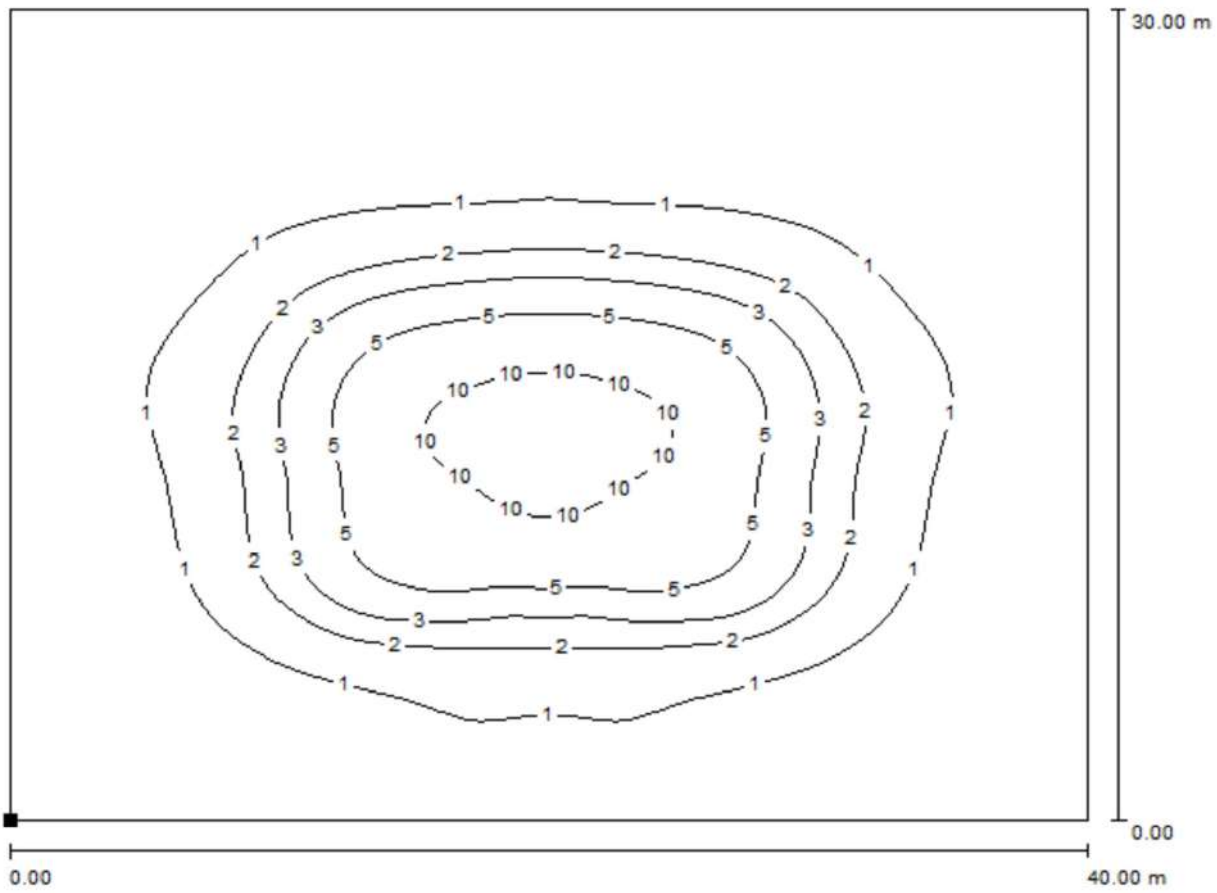
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