

**ARGOLIGHT**  
A Precision Company



**Daybook-Analysis**  
v 1.7.2 Point like object

## Point Spread Function Report

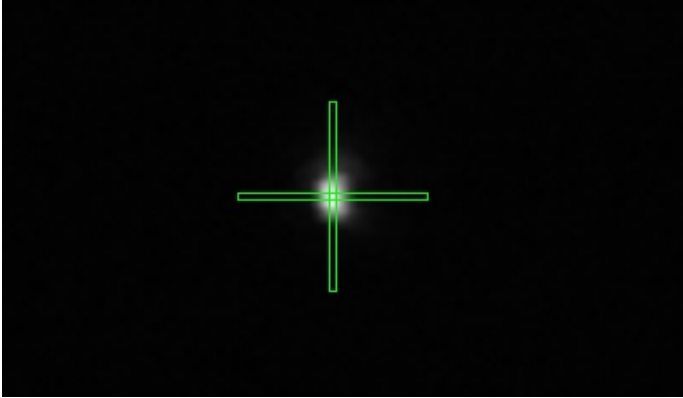
**Report edited:** 01 March 2021 at 03:41 PM

**Image acquired:** 01 March 2021 at 03:41 PM

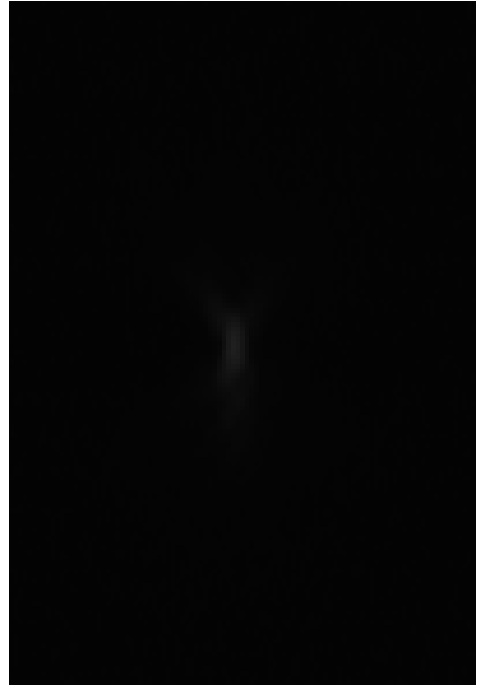
### Comments:

# 1. Result images

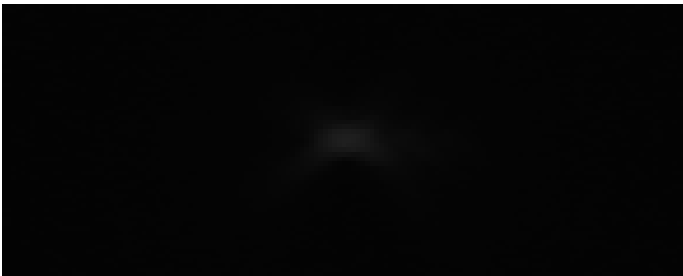
PSF analyzed regions of interest superimposed on raw image



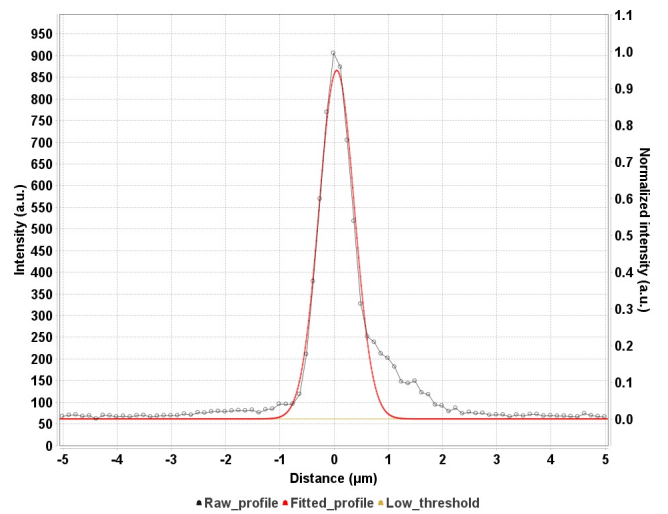
XZ orthogonal view



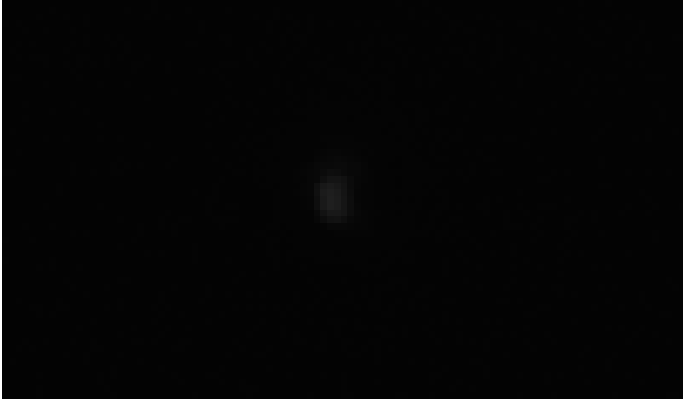
YZ orthogonal view



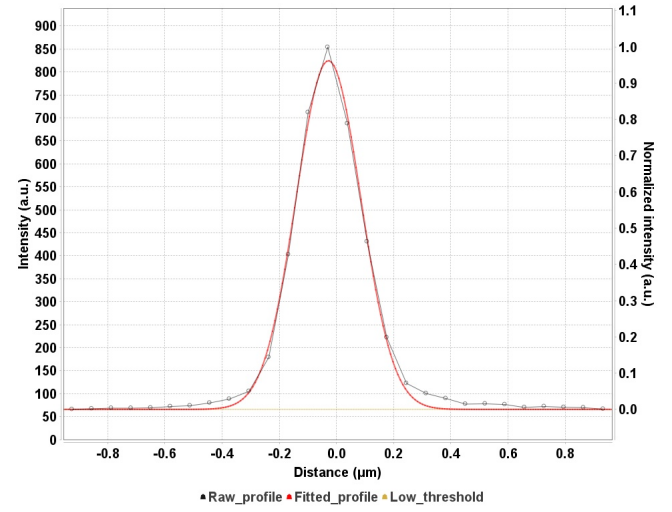
PSF axial line profile



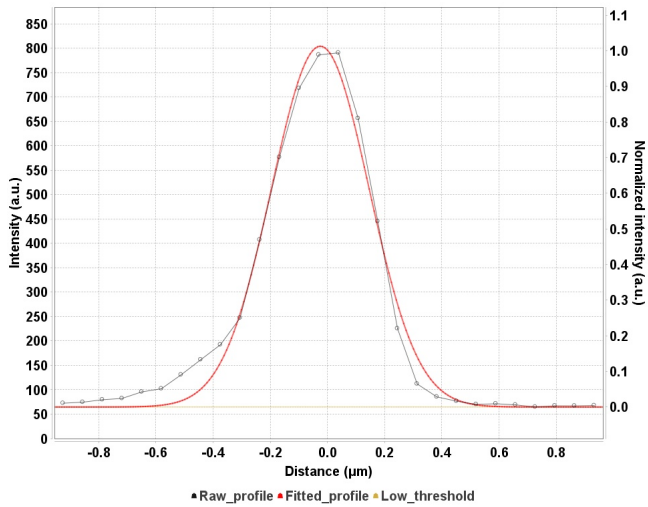
## XY orthogonal view



## PSF horizontal line profile



## PSF vertical line profile



## 2. Result values

### 2.1 Primary metrics for horizontal profile

Magnitude of the curve peak in the profile along X (a.u.)	824
Offset value in the profile along X (a.u.)	66
RMSE for the fitting function in the profile along X (%)	0.02
FWHM of the fitting function along X ( $\mu\text{m}$ )	0.2737
SBR in the profile along X	12.6

### 2.2. Primary metrics for vertical profile

Magnitude of the curve peak in the profile along Y (a.u.)	804
Offset value in the profile along X (a.u.)	65
RMSE for the fitting function in the profile along Y (%)	0.04
FWHM of the fitting function along Y ( $\mu\text{m}$ )	0.3977
SBR in the profile along Y	12.4

### 2.3. Primary metrics for axial profile

Magnitude of the curve peak in the profile along Z (a.u.)	866
Offset value in the profile along Z (a.u.)	62
RMSE for the fitting function in the profile along Z (%)	0.04
FWHM of the fitting function along Z ( $\mu\text{m}$ )	0.7948
SBR in the profile along Z	14.1

### 2.4. Algorithm metadata

Software version	1.7.2
Product type	Point-like-object
Background correction	Point-like object
Hot pixels removal	false
Best focus selection	true
Index of the selected image in the stack	40
Angle value used for the orientation correction	0.00
Fitting model type	Single Gaussian
Interpolation factor	8
Smoothing factor	1
Low threshold (a.u.)	0.00
X coordinate of the ROI (px)	49
Y coordinate of the ROI (px)	29
PSF ROI length (px)	28
PSF ROI width (px)	1
ROI width (px)	101
ROI height (px)	59

### 2.5. Image metadata

Specified lateral pixel size ( $\mu\text{m}$ )	0.0688
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<b>Specified axial pixel size (<math>\mu\text{m}</math>)</b>	0.12
<b>Image dynamic range (bit)</b>	16
<b>Detector bit depth (bit)</b>	12
<b>Image width (px)</b>	256
<b>Image height (px)</b>	256

### 3. Source file metadata

Index	43
background correction	false
channel color	16711935
channel count	1
channel emission wavelength	525.0
channel name	eGFP
detector ID	Detector:0:0
detector bit depth	12
detector type	Other
exposure time	1.8549105404615402
file type	image
fit model	mono_gaussian
format	Nikon ND2
height	256
image count	81
instrument ID	Instrument:0
metadata file	uploads/metadata//metadata603cfa4f3d31430b04392abf.json
objective ID	Objective:0:0
objective correction	Other
objective immersion	OTHER
objective name	Objective:0:0
path	60xLoaner_154462_PSF_Gren_SIM_CC175_003_2021_03_01_1614...
physical pixel size x	0.0687782834663833
physical pixel size y	0.0687782834663833
physical pixel size z	0.125
physical pixel unit	µm
pixel type	uint16
plane name	eGFP_43
plane position x	498.20000000000005
plane position y	-1132.0
plane position z	1708.423706156816
series	60xLoaner_154462_PSF_Gren_SIM_CC175_003
series count	1
the c	0
the t	0
the z	43
upload file	60xLoaner_154462_PSF_Gren_SIM_CC175_003.nd2
upload id	603cfa4f3d31430b04392abf
upload time	Mon Mar 01 15:29:35 CET 2021

<b>width</b>	256
<b>z count</b>	81
<b>z stack</b>	true