



SAMCON

Prozessleittechnik GmbH



liteServer[®] Ex.mini

Illumination tests

Eleonore Adit in Asslar

Doc.-Id.	250701-ET20mini_Illumination at adit in Asslar_rev.00.docx
Author:	Eva Schneider
Date:	01.07.2025
Rev. Date	01.07.2025

Revision history

Rev.-Index	Date	Name	Comment
0	July. 1st, 2025	E. Schneider	Compilation of the document
1			

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1 Introduction

This document contains the results of the measurements regarding illumination distances of the liteServer Ex.mini. Images were taken with an IPM1137 at the Eleonore adit in Asslar/Hesse. The results are presented as pictures and can be used as reference.

2 Test set-up

For the test, the **liteserver Ex.mini** was used. The object distance was set at 1.0 m, 3.0 m, 5.0 m, 10.0 m, 30.0 m. The illumination was tested with white light illumination.

The complete picture documentation is accessible at [ET20-AUSLEUCHTUNGSMESSUNGEN-Ausleuchtungstests Aßlar Eleonore Stollen \(01.07.2025\)](#).

The **liteServer Ex.mini.24.WL T20-VA1.2.K1.BOR-LL.N-005.2-K** was used as the external light sources.

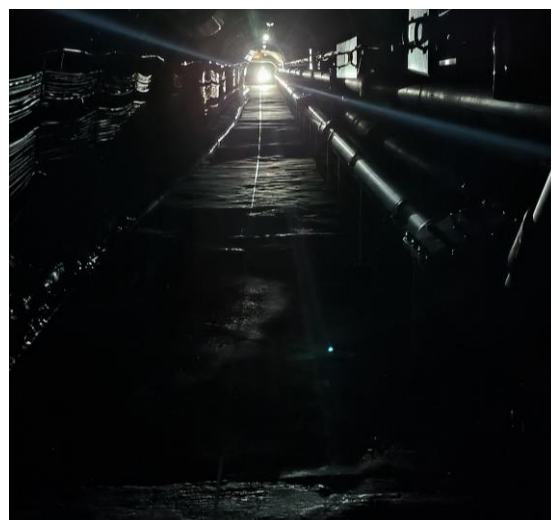


Figure 2-1: Test setup

3 Results

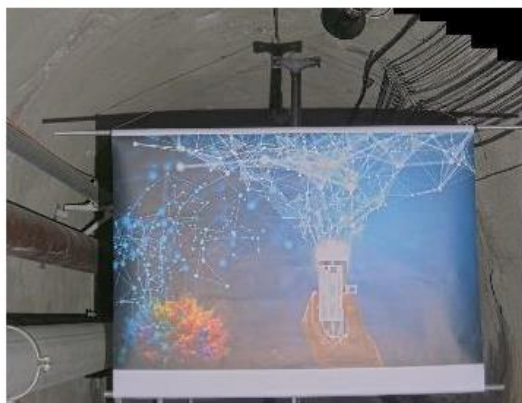
In the following table the measured lux values when illuminated with Ex.micro WL:

Distance [m]	1	3	5	10	20	30	40	50	70
Light intensity [lx]	480	70	27	7	1,7	0,72	0,4	0,25	0,12

Tab. 3-1: Results of the lux measurement

Below, a comparison of the individual pictures is shown:

TELE



1m

3m

5m

10m

WIDE





20m



30m



50m



Tab. 3-2: Results ExCam IPM1137 with liteServer Ex.mini coloured object

TELE



1m
480lx

WIDE



3m
70lx



5m
27lx



10m
7lx





30m
0,72lx



50m
0,25lx



Tab. 3-3: Results illumination WL

4 Conclusion

The external illumination in combination with the IPM1137 ensures a clear image up to an object distance of 30.0 m. Even at a distance of 60 m, the light intensity is sufficient to detect an object in the field of view. The liteServer Ex.mini has a greater light intensity at close range than the Ex.micro. However, from a distance of 30 m, the brightness of both the liteServer Ex.mini and Ex.micro is identical. The larger light, however, has a wider illumination angle.