SAMCON
Prozessleittechnik GmbH

ExCam® IPM1137-LE
Illumination tests
Eleonore Adit in Asslar

Revision history

Rev.-Index	Date	Name	Comment
0	Dec. 14th, 2023	E. Schneider	Compilation of the document
1			

Table of Content

Table of Figures

1 Introduction

This document contains the results of the measurements regarding illumination distances of the ExCam IPM1137-LE 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 **ExCam IPM1137-LE T08-VA2.2.K1.BOR-L.N-005.N-P** 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 as well as infrared illumination.

The complete picture documentation is accessible at [ET20-AUSLEUCHTUNGSMESSUNGEN-Ausleuchtungstests Aßlar Eleonore Stollen (27.11.2023)](#).

The two lighting variants are compared here: external IR and WL LEDs.

The **liteServer Ex.micro.24.WL T20-VA0.1.K1.BOR-N.N-005.N-K** and the **liteServer Ex.micro.24.IR T20-VA0.1.K1.BOR-N.N-005.N-K** were used as the external light sources.
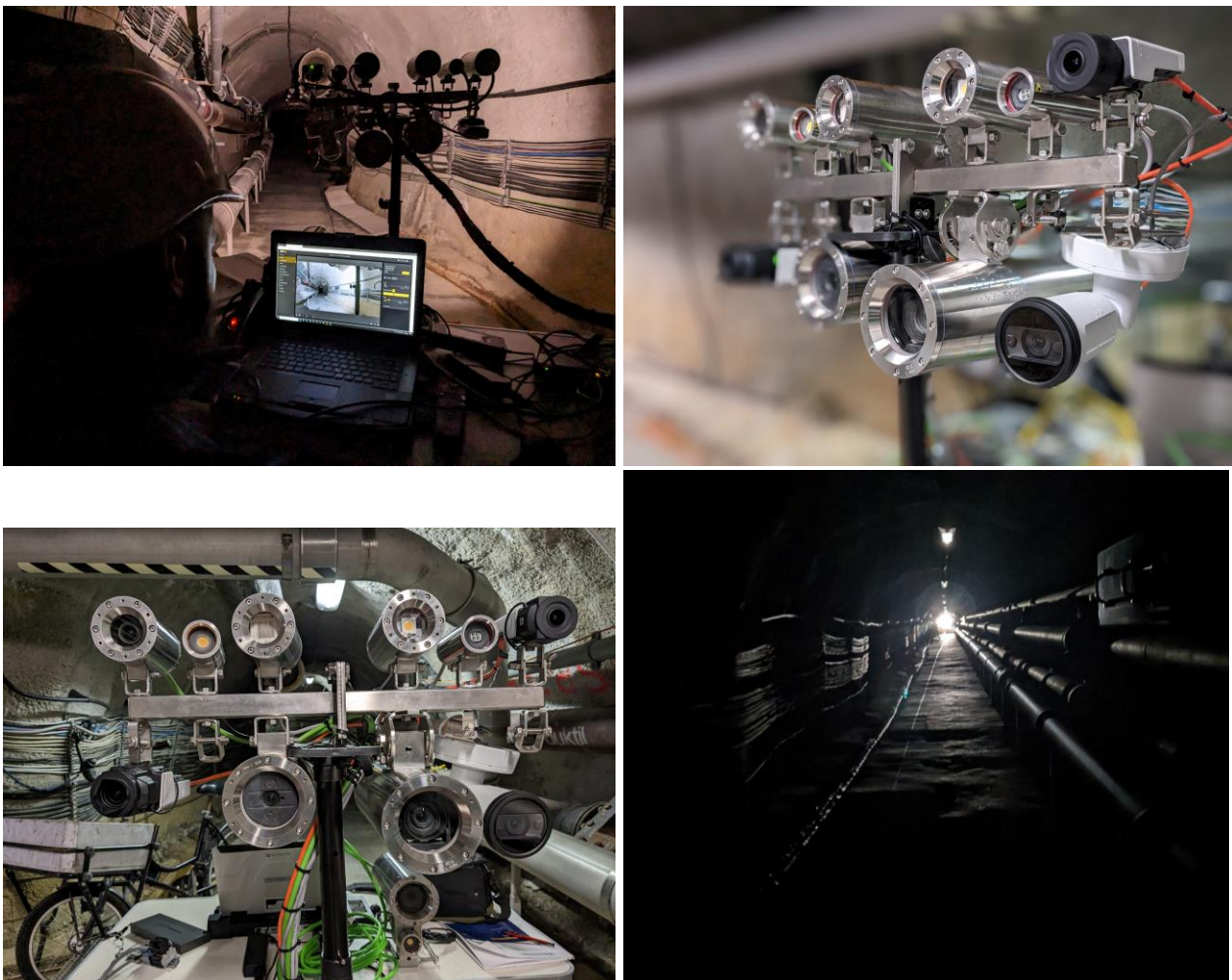

Figure 2-1: Test setup

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
Lichtstärke [lx]	330	55	22	6	1.5	0.7	0.4	0.25	0.12

Tab. 3-1: Results of the lux measurement

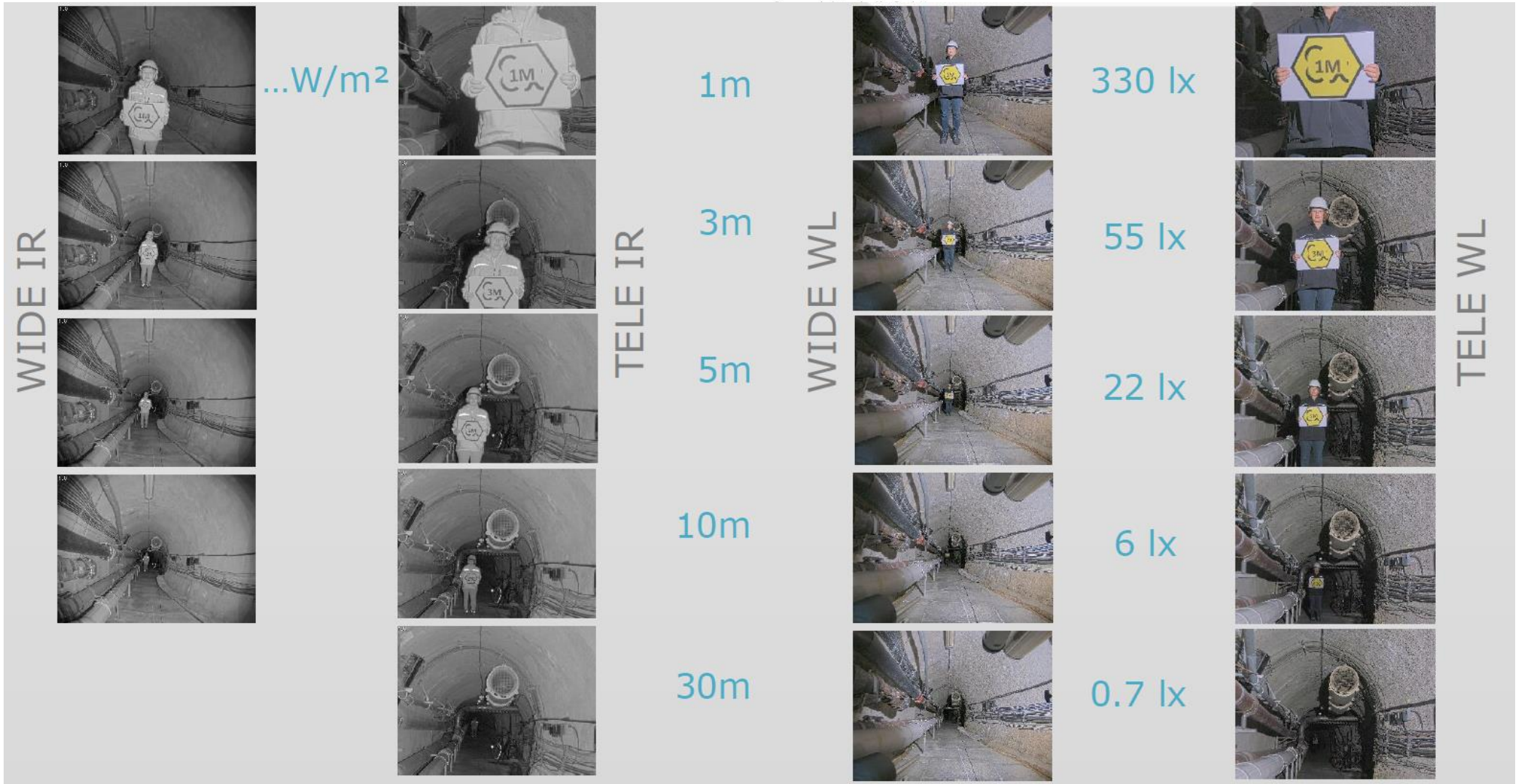Below, a comparison of the individual pictures is shown:

Tab. 3-2: Results ExCam IPM1137-LE-WL coloured object

WIDE IR		TELE IR			WIDE WL		TELE WL
			...W/m²	1m		330 lx	
				3m		55 lx	
				5m		22 lx	
				10m		6 lx	
				30m		0.7 lx	

Tab. 3-3: Results illumination IR and WL

4   Conclusion

The external illumination in combination with the ExCam IPM1137 ensures that a good image is obtained up to an object distance of 30.0 m. Even at a distance of 60m, the light intensity is sufficient to be able to recognize an object in the field of vision.