

EE measures and Implementation - Training Program for Construction Companies and Supervisors

Electrical engineering

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Content

- › Lighting
- › Appliances
- › Electrical devices for HVAC

Lighting

- › Existing lighting:
 - › Incandescent bulbs
 - › T8 fluorescent bulbs
- › Recommended replacements:
 - › T5 fluorescent bulbs
 - › LED (considered only for outdoor lighting)



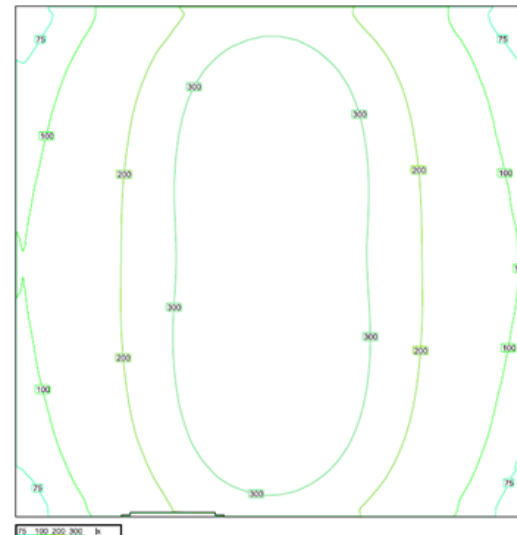
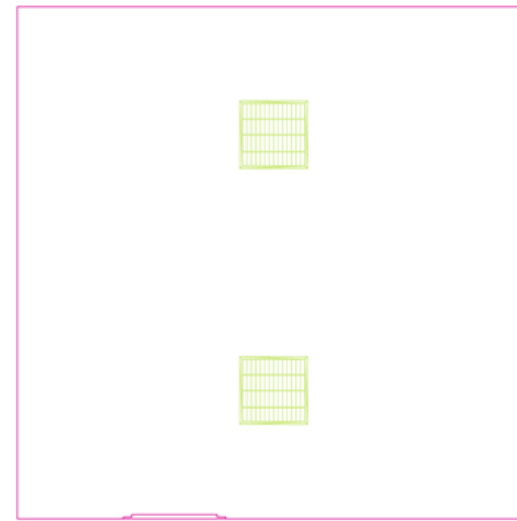
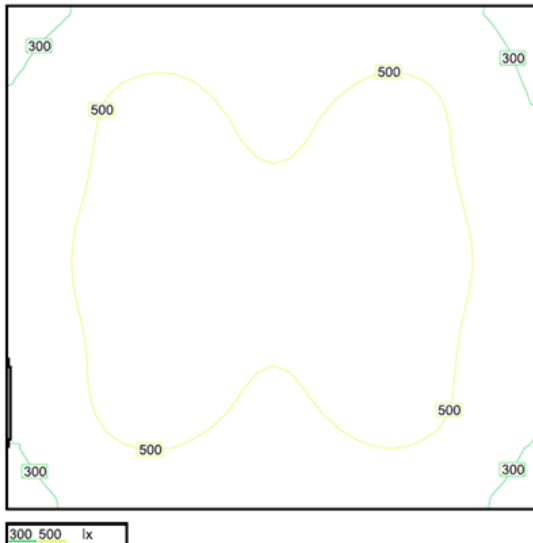
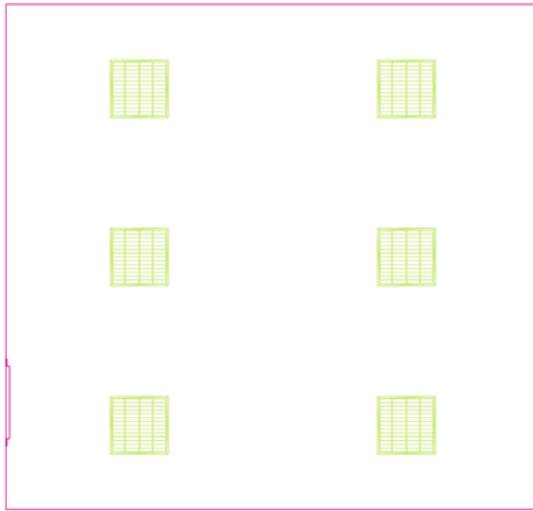
Lighting – comparisons

	Incandescent	T8	T5	LED
LUM/W	10	80	100-	>100
Lifespan [h]	1200	10000	20000	>30000

Lighting – typical problems in Kosovo

- › No project documentation available for specific cases
- › Very often not meeting EU norms (EN12464-1)
- › Broken or missing bulbs
- › Renovation of the suspended ceiling and the entire lighting/electrical system – significant increase in investment costs!
- › Recommendation to carry out the lighting simulation test with a specialized software

Examples of the lighting simulation test



Some examples...



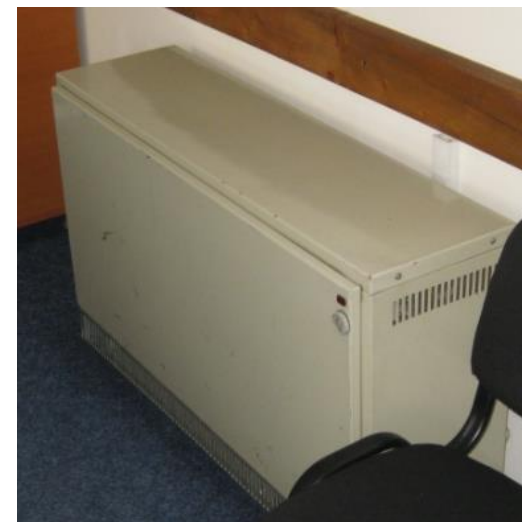
Appliances

- › TVs, washing machines, fridges, computers, printers, photocopies...
- › Replacements recommended only in a few cases – where major savings can be achieved (i.e. when existing technology can be replaced with a more efficient new appliance at a fair price)

Electrical devices for HVAC

- › Electric heaters, pumps, automation systems, air conditioning (AC), ventilation systems
- › Tendency to remove electric heaters
- › Other recommendations in only a few cases

Some examples...



Profile



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Zlatko BAČELIĆ MEDIC

- › Experience in team management and project coordination in energy efficiency, renewable energy and new technologies implementation
- › Team leader in preparation of investment grade energy audits in public, private and industrial sectors
- › Experience in capacity building in developing countries
- › Extensive experience in technical modeling and preparation of financial analyses for energy efficiency and renewable energy projects
- › Expertise in optimization and cost-optimality in energy efficiency projects
- › Expertise in analysis and assessment of energy sectors, including energy planning
- › Project experience across SEE

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