



EAGOSH RECOMMENDATION No: 12

Artificial Lighting of work places- outdoor work places on aprons

Scope / Introduction

The requirements for air traffic, e.g. runways and taxiways, are set by ICAO. For different European regulations it is necessary to define an acceptable value of lighting and illumination on the apron of airports for safe aircraft servicing.

Applied Regulations / References

According to:

ICAO Annex 14, Volume 1	Aerodromes, chapter 5.3.23
EN 12464 – 2	Light and lighting, Lighting of workplaces, Outdoor workplaces
EN 13 201	Road lighting
ASR 3.4	German Workplace Regulation

the European Aviation Group for Occupational Safety and Health recommends to all organizations at airports depending on their risk assessments and the national laws the following table as minimum requirement.



EUROPEAN AVIATION GROUP FOR OCCUPATIONAL SAFETY AND HEALTH

European Standard

For newly planned and currently built airports according to EN 12464-2

Table 5.2 — Airports

Ref. no.	Type of area, task or activity	\bar{E}_m lx	U_0 –	GR_L –	R_a –	Remarks
						1. Direct light in the direction of the control tower and landing aircraft shall be avoided. 2. Direct light emitted above horizontal from floodlights should be restricted to the minimum.
5.2.1	Hangar apron	20	0,10	55	20	
5.2.2	Terminal apron	30	0,20	50	40	
5.2.3	Loading areas	50	0,20	50	40	
5.2.4	Fuel depot	50	0,20	50	40	
5.2.5	Aircraft maintenance stands	200	0,50	45	60	

Definitions: E_m (Maintained illuminance): Value below which the average illuminance on the specified surface is not allowed to fall.

U_0 (Illuminance Uniformity): ratio of minimum illuminance (luminance) to average illuminance (luminance) on (of) surface

GR_L (Glare Rating) upper limit of glare by the CIE Glare Rating System

R_a (Colour Rendering Index) Authenticated R_a data shall be provided for the lamps in the scheme by the manufacturer of the lamps. The lamps shall conform to the requirements. The lamps shall be as specified in the design.

Note:

This European standard does not specify lighting requirements with respect to safety and health of workers at work and has not been prepared in the field of application of Article 137 of the EC treaty, although the lighting requirements as specified in this standard usually fulfil safety needs.



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For existent and established airports

EAGOSH recommends, on the basis of the experience of its members such as airlines, airports, handling partners and several European statutory insurances for occupational safety and health, the following minimum illumination levels:

Area	E_m
Disembarkation	20 lx
Dispatching	30 lx

Essential measures include installing of additional light poles where possible, regular service and maintenance of existing lighting facilities and avoidance of shadowing.

Where existing lighting systems cannot be upgraded or maintained with reasonable effort for meeting the above minimum illumination levels, the following interim measures are recommended:

- Additional lighting on GSE
- Mobile light poles
- Head torch equipped staff

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