

France: national average 86 kWh/pe/yr

Germany: national average 43 kWh/pe/yr

<https://publications.jrc.ec.europa.eu/repository/handle/JRC115406>, page 30

	Consommation annuelle éclairage public [1] (kWh/an)	Nombre de luminaires [1]	Consommation annuelle par luminaire [1] (kWh/an)	Puissance moyenne des luminaires [1] (W)
France	5,2.10 ⁹	8 570 000	610	150
Allemagne	3,6.10 ⁹	9 120 000	390	100

[1] P. Van Tichelen, T. Geerken, B. Jansen, M. Vanden Bosch (Laborelec), V. Van Hoof, L. Vanhooydonck (Kreios), A. Vercalsteren. *Preparatory Studies for Eco-design Requirements of EuPs - Final Report - Lot 9: Public street lighting*. Study for the European Commission DG TREN unit D3, January 2007. <http://wikinight.free.fr/wp-content/uploads/Europe/VITOEuPStreetLightingFinal.pdf>.

Table 16: Market data on installed base of street lighting luminaires in EU-25 (Source : data from literature and expert inquiry completed with CELMA market data estimations for missing Member States)

2005	Literature and expert inquiry (CELMA for missing MS)														Source
	Luminaires TOTAL	%EU25	Capita ('000)	Luminaires /capita	HPM	HPS	LPS	MH	FL	%HPM	%HPS	%LPS	%MH	%FL	
Austria	1.000.000	1,8%	8.207	0,12	300.000					30%	67%	0%	3%	0%	CELMA
Belgium	2.005.000	3,6%	10.446	0,19	105.000	1.015.000	632.000	59.000	148.000	5%	51%	32%	3%	7%	Filled out inquiry with lamp data from SYNERGRID (2005)
Czech republic	300.000	0,5%	10.221	0,03	120.000	168.000	0	6.000	6.000	40%	56%	0%	2%	2%	CELMA
Denmark	780.000	1,4%	5.411	0,14	312.000	273.000	19.500	19.500	156.000	40%	35%	3%	3%	20%	Mr. Thomas Christoffersen, based on data for city of Copenhagen
Finland	400.000	0,7%	5.237	0,08	160.000	220.000	10.000	10.000	0	40%	54%	3%	3%	0%	CELMA
France	8.570.000	15,3%	60.561	0,14	2.805.000	5.313.400	0	428.500	0	33%	62%	0%	5%	0%	ADEME and %HHP adapted based on feedback Mr. Fourneau (email, 3/10/2006)
Germany	9.120.000	16,3%	82.501	0,11	4.110.000	3.100.000	0	270.000	1.640.000	45%	34%	0%	3%	18%	Philips AEG Licht GmbH/WestLB AG/ WestEC GmbH (2003)
Greece	900.000	1,6%	11.076	0,08	450.000	378.000	0	27.000	45.000	50%	42%	0%	3%	5%	CELMA and email Mr. Panagiotis (15/06/2006): most commonly used lamp types: 400W NaHP for cat. F roads, HgHP 125, 80W for cat. M roads, HgHP 125W and (but minority)

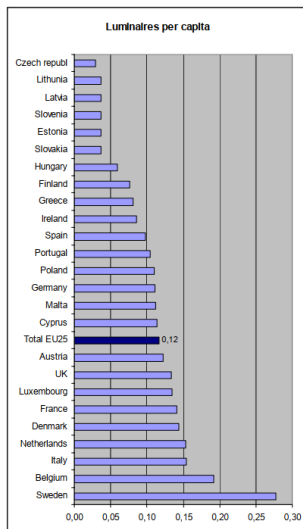


Figure 71: Number of installed luminaires per capita (Source : data from literature and expert inquiry completed with CELMA market data estimations for missing Member States)

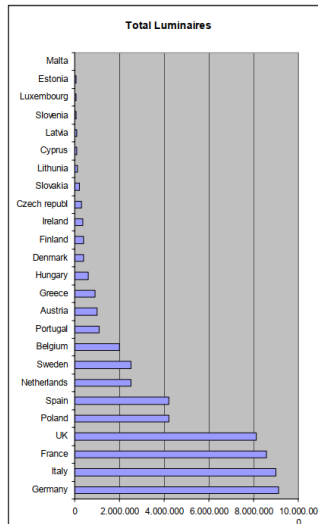


Figure 72: Total number of installed luminaires in EU-25 per Member State (Source: Calculation based on a combination of data from literature and expert inquiry and CELMA market estimations)

<http://wikinight.free.fr/wp-content/uploads/Europe/VITOEuPStreetLightingFinal.pdf>

Cite as: Sánchez de Miguel, A. (2015).
Variación espacial, temporal y espectral
de la contaminación lumínica y sus fuentes:
Metodología y resultados
(Doctoral dissertation, PhD thesis,
Universidad Complutense de Madrid).
DOI: 10.13140/RG.2.1.2233.7127

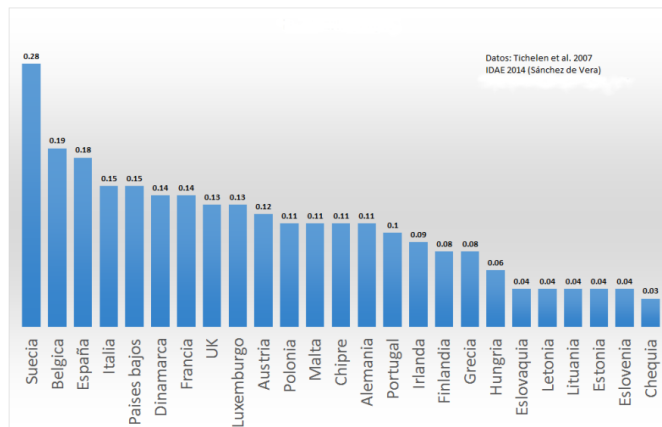


Figure 2.19: Light points rate per capita. These data on the amount of lighting comes from Van Tichelen et al. (2007), except for those pertaining to Spain, which come from the IDAE from de Vera Quintero (2014) because the data for Van Tichelen et al. (2007) are incorrect according to de Vera Quintero (2014).

France : $60.561.000 \times 86 = 5,21.10^9$ kWh/yr

Germany : $82.501.000 \times 43 = 3,55.10^9$ kWh/yr

France :

- $60.561.000 \times 86 / 8.570.000 = 608$ kWh/yr/luminaire
- 152W/luminaire

Germany :

- $82.501.000 \times 43 / 9.120.000 = 389$ kWh/yr/luminaire
- 97W/luminaire

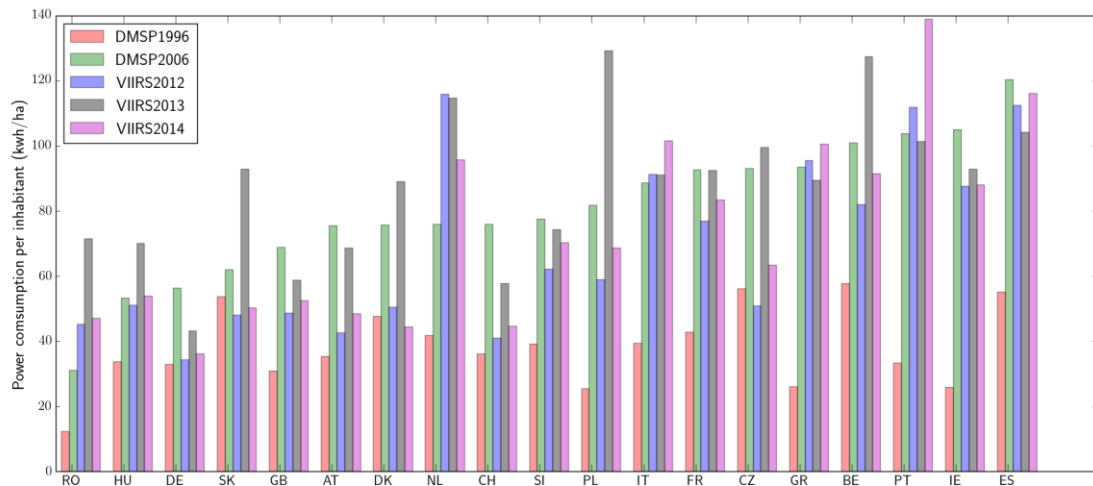
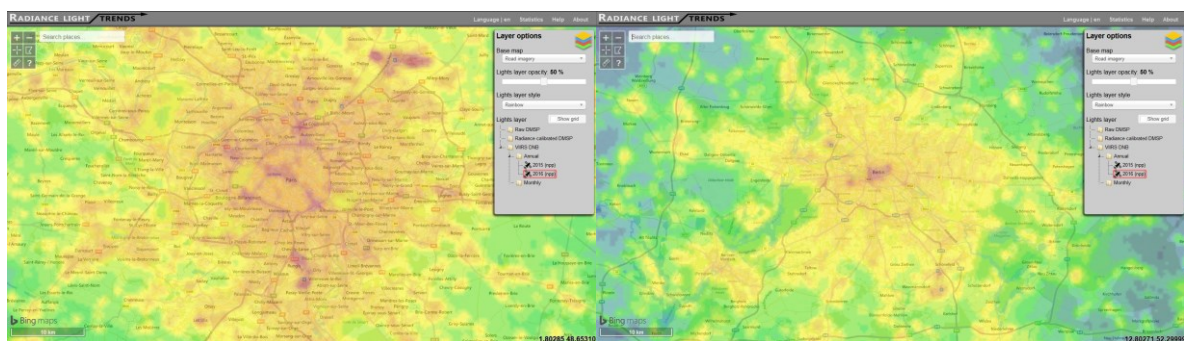
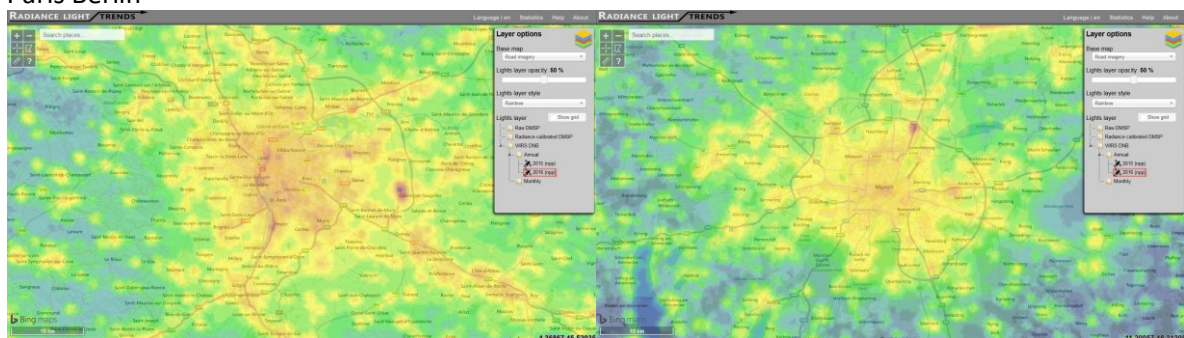


Figure 2.20: Rate of consumption per resident estimated using data from Sánchez de Miguel et al. (2014c) and DMS/OLS and VIIRS/DNB images. Additional details in the text.

Spatial, Temporal and Spectral Variation of Light Pollution and its Sources: Methodology and Results.
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to get the degree of
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