

# Photometric Report

## MAC Encore Wash WRM – Medium

Martin Professional R&D Optical Laboratory, 01-Nov-17 10:42:56

### General Specifications:

Total Fixture Output: 9.3 klm

Light Engine Output: 31.5 klm

Efficacy: 16 Lumen/Watt

Lens Option: PC Lens

Zoomrange: 11-58°

CRI: 90+

CQS: 90+

TM-30 Rf: 90+

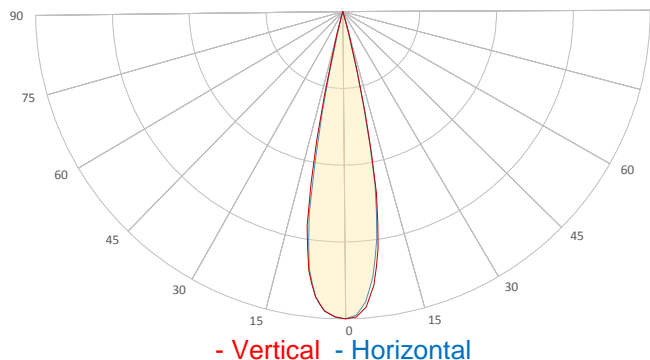
TM-30 Rg: 98+

TLCI: 90+

Color Temperature: 3000 K



## Measurement



Catalog Number: 90234030

Measured Output: 9101 lm

Measured Peak: 79612 cd

Consumed Power: 582 W

Efficacy: 15.6 Lumen/Watt

Beam Angle (50%): 21.9°

Field Angle (10%): 27.9°

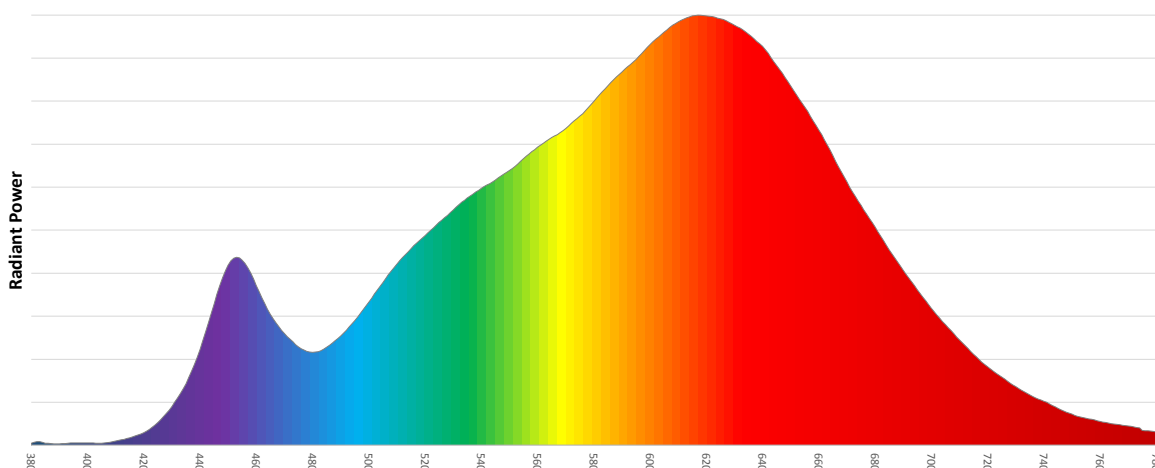
Cutoff Angle (3%): 31.3°

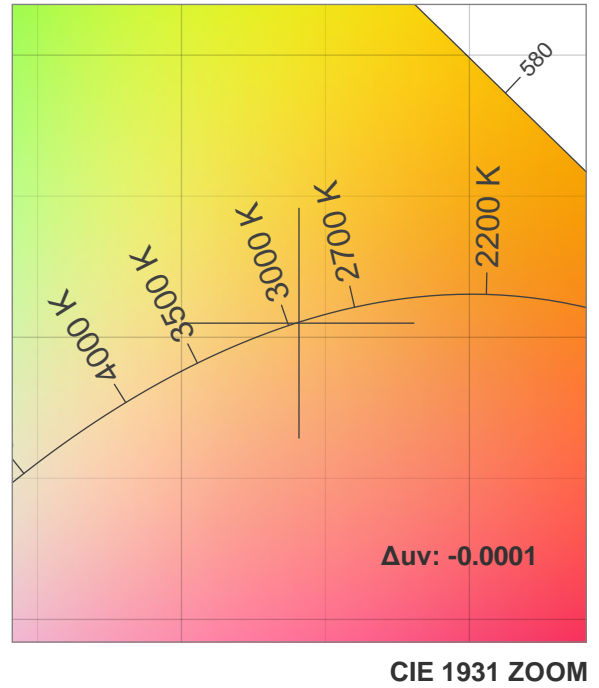
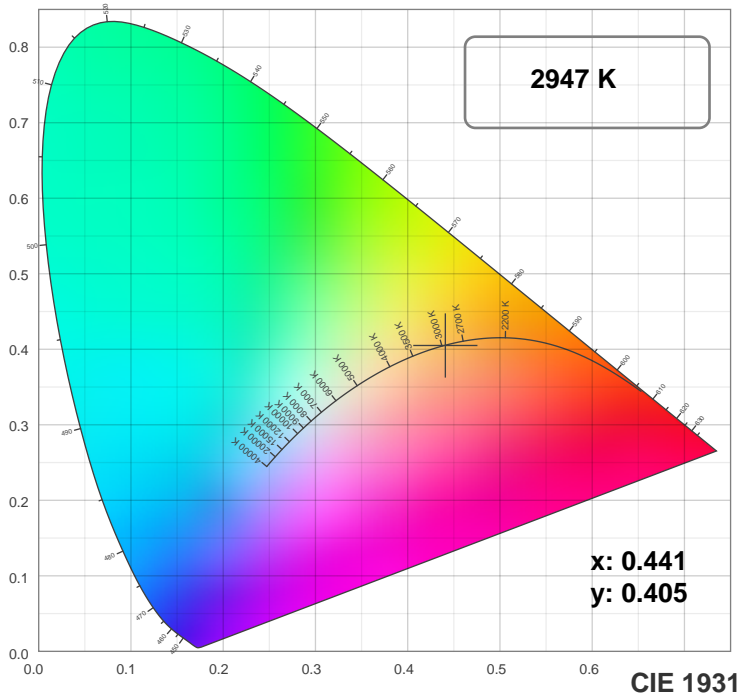
Measurement Condition:

Ambient Temperature: 25 +/- 5C

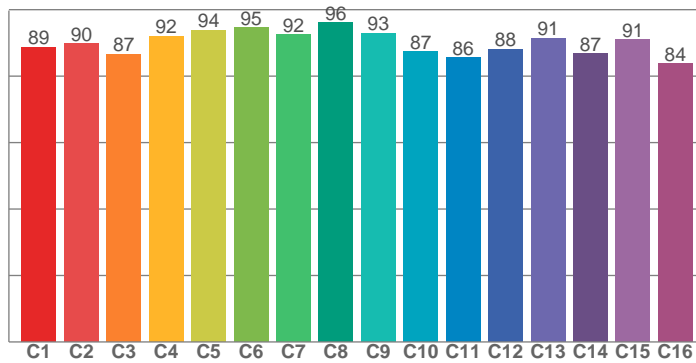
AC Supply: 230V/50Hz

Spectral distribution

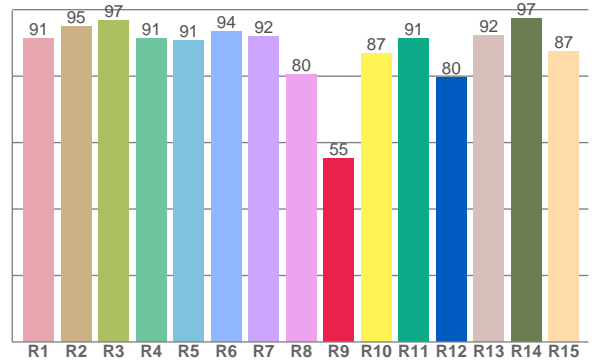




TM30: 89.9



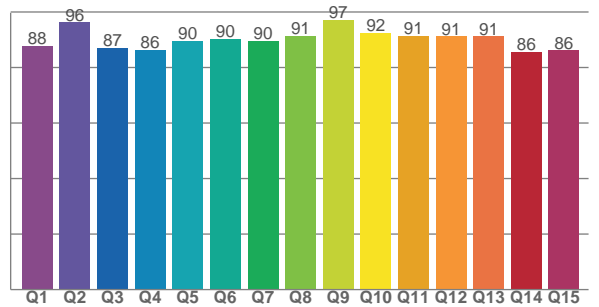
CRI: 91.4 (R1-R8)



### Color Parameters

Color Temperature	Color Rendering Index	Red Component	Color Fidelity	Color Gamut
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg
2947 K	91.4	55.3	89.9	99.2

CQS: 89.6



Television Lighting Consistency Index	Color Quality Scale	Color Coordinate CIE 1931	Color Coordinate CIE 1931	Color Coordinate CIE 1964	Color Coordinate CIE 1964	Color Diviation from Black Body
TLCI	CQS	x	y	u	v	$\Delta uv$
90+	89.6	0.441	0.405	0.253	0.348	-0.0001

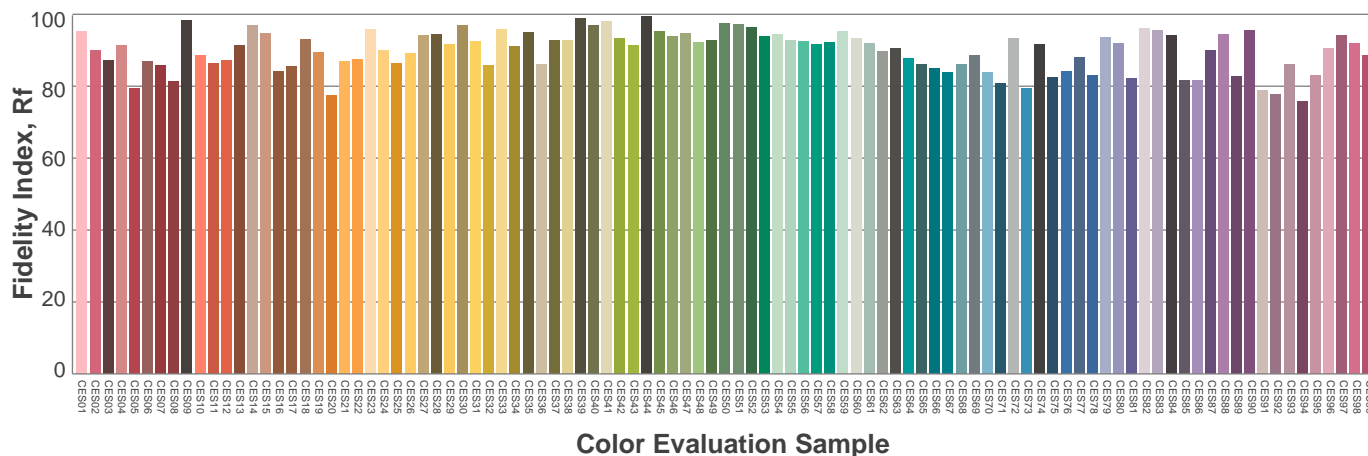
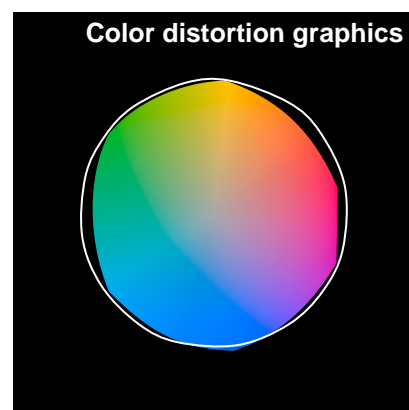
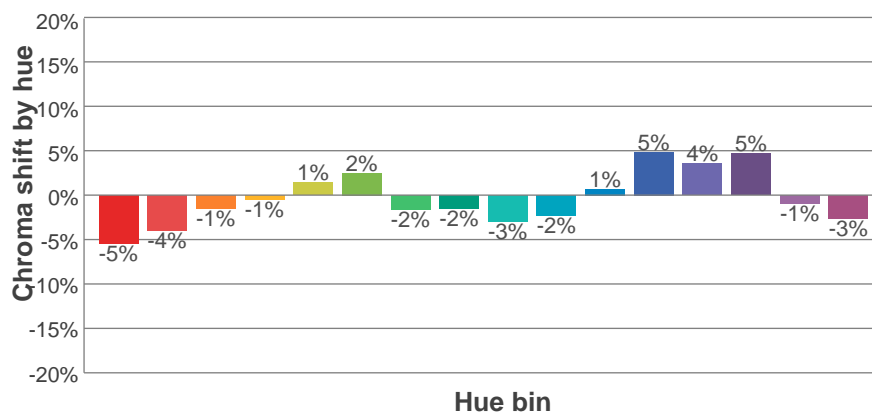
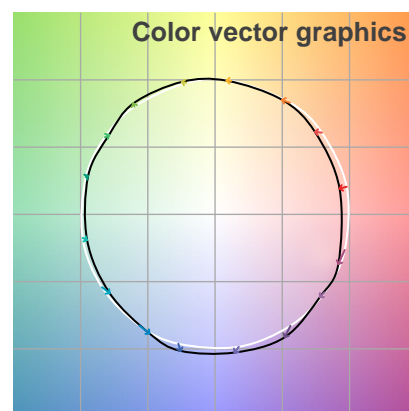
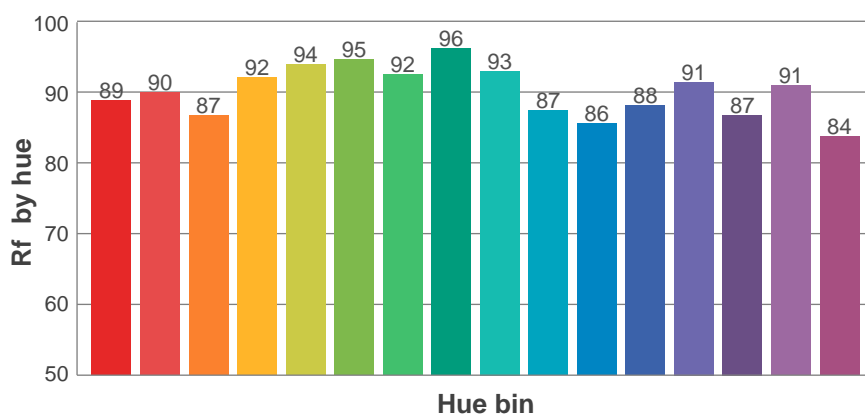
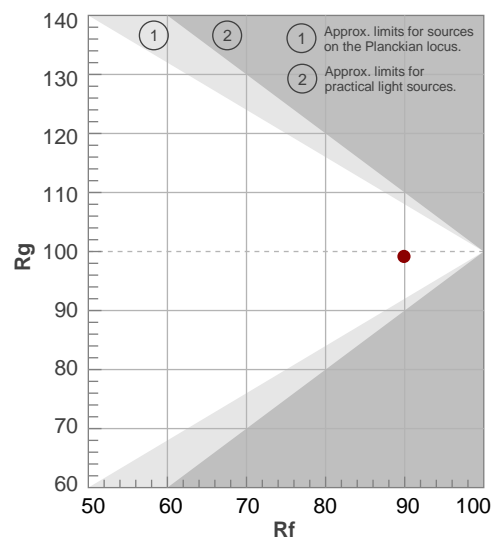
**Rf 89.9**

Fidelity index Rf

**Rg 99.2**

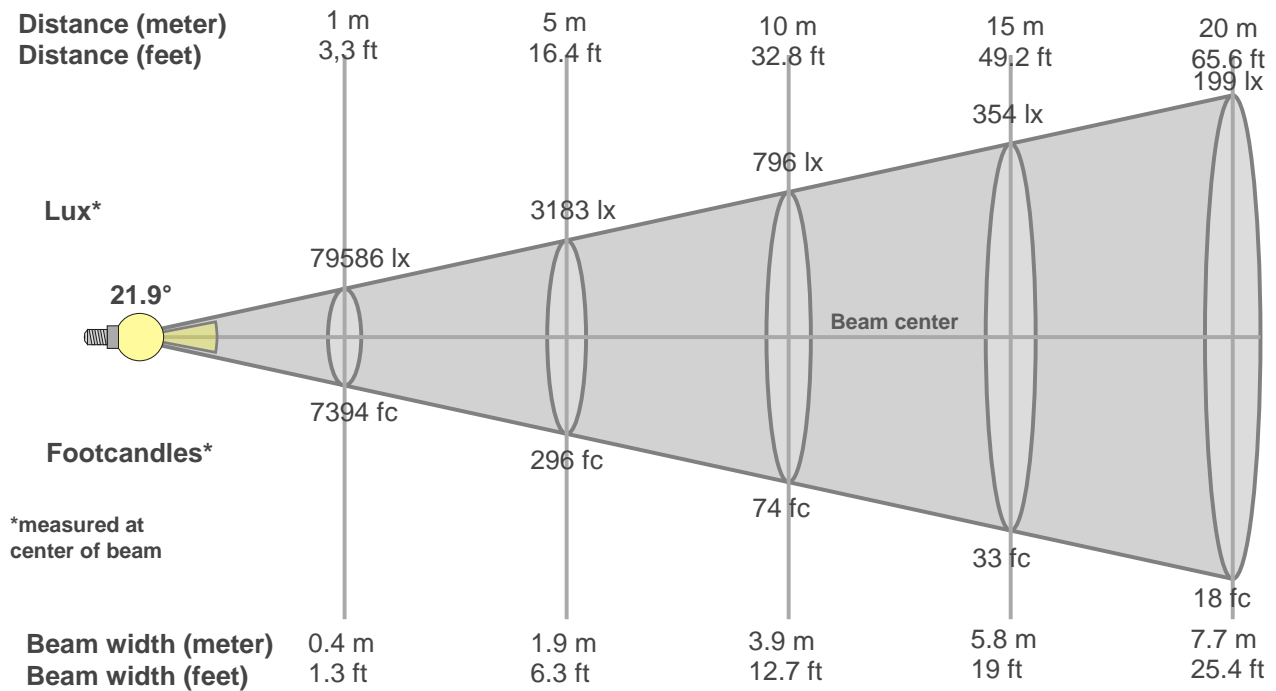
Gamut index Rg

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	89	-5%	0%
2	90	-4%	3%
3	87	-1%	6%
4	92	-1%	3%
5	94	1%	3%
6	95	2%	-1%
7	92	-2%	-3%
8	96	-2%	-1%
9	93	-3%	2%
10	87	-2%	7%
11	86	1%	10%
12	88	5%	3%
13	91	4%	-4%
14	87	5%	-8%
15	91	-1%	-5%
16	84	-3%	-11%



# Beam Details

## MAC Encore Wash WRM – Medium



Beam width:

Beam luminous intensity formula:

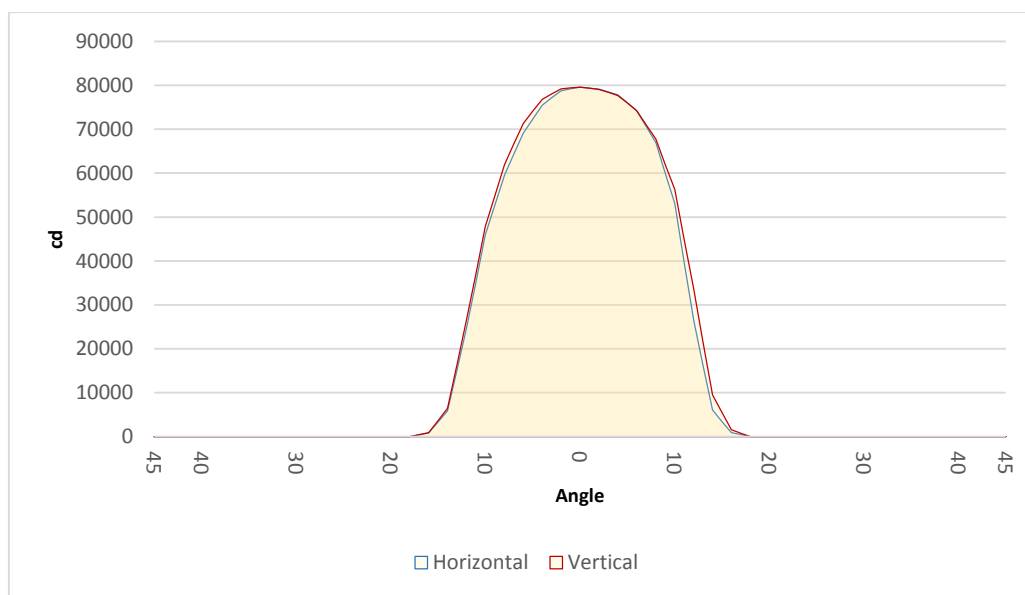
$$w = 0.4 * \text{distance}$$

$$\text{lux} = 79586 / (\text{distance}^2) \text{ (where distance is in meters)}$$

$$\text{fc} = 79586 / (\text{distance}^2) \text{ (where distance is in feet)}$$

### Beam illuminance from 1-20m

1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
79586lx	19897lx	8843lx	4974lx	3183lx	2211lx	1624lx	1244lx	983lx	796lx	658lx	553lx	471lx	406lx	354lx	311lx	275lx	246lx	220lx	199lx
7393.8fc	1848.5fc	821.5fc	462.1fc	295.8fc	205.4fc	150.9fc	115.5fc	91.3fc	73.9fc	61.1fc	51.3fc	43.8fc	37.7fc	32.9fc	28.9fc	25.6fc	22.8fc	20.5fc	18.5fc

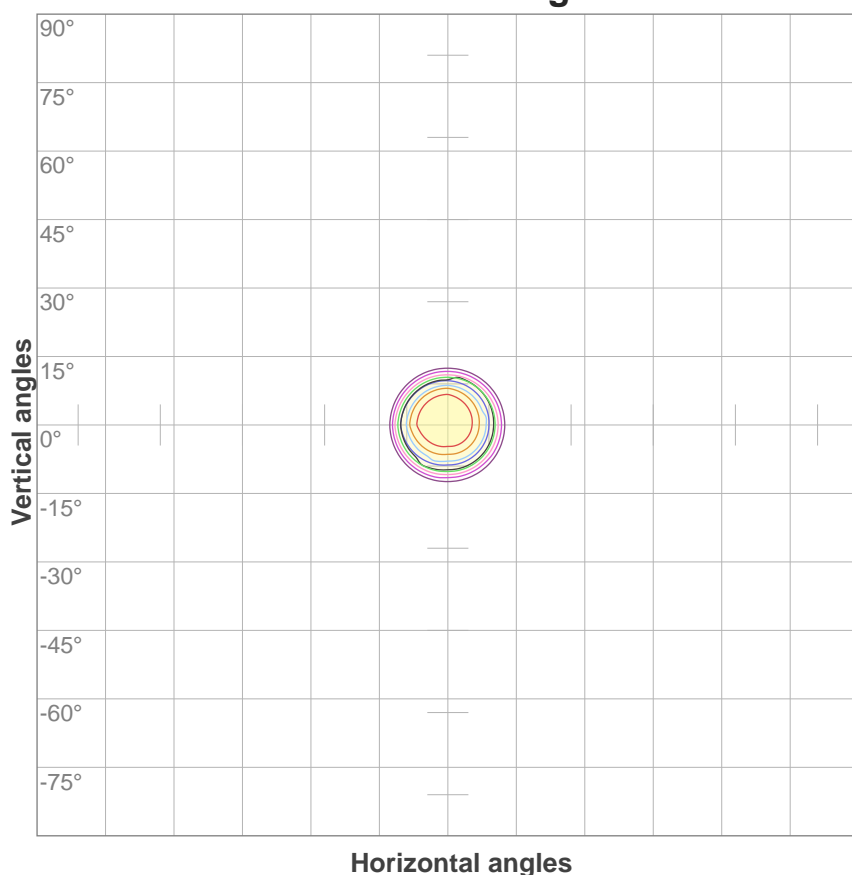


Beam angle 50%	Field angle 10%	Cutoff angle 3%
21.9°	27.9°	31.3°

# ISO Diagrams

## MAC Encore Wash WRM – Medium

**ISO candela diagram**



**ISO lux diagram**

