

# U3111/LEDW440S



**luminária de encastrar • linear**

aplicação : Espaços de trabalho, Salas de aulas

base: aço lacada

fonte de luz : LED • 3000 K

óptica : Shielded lens • polycarbonate (PC) with aluminium thin film • extensiva média

classificação UGR : <=19

fluxo luminoso: 4200 lm

fluxo luminoso específico : 136 lm/W

LLMF: 98% @ 50khrs (Tq=25°C)

## Product information

### Medidas

dimensões : 1196 mm x 296 mm x 58 mm

medida encastrável : 1196 mm x 296 mm x 70 mm

módulo do tecto : M300

cor: RAL9003 - branco (texturado)

tipo : luminária individual

IP: IP20

### Equipamento eléctrico

driver: não regulável

potência : 31 W

tensão : 220-240V

frequência : 50-60Hz AC

segurança fotobiológica : EN 62471: RISK GROUP 1 UNLIMITED

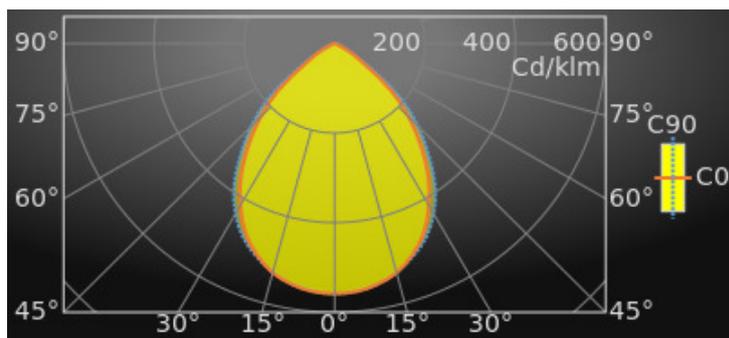
## Luminance

fluxo luminoso : 4200 lm

fluxo luminoso específico : 136 lm/W

classificação UGR =: <=19

área luminosa : 0.12 m<sup>2</sup>



Average Luminances (Cd/m<sup>2</sup>) for 4200lm

Gamma	C0	C30	C45	C60	C90
45°	11602	13223	13941	13473	13031
50°	8951	11160	12024	11647	10616
55°	5053	8031	9964	9412	6559
60°	3155	4917	6887	5211	3123
65°	960	1944	3112	2474	2156
70°	555	705	1035	1536	1402
75°	402	462	567	876	1154
80°	111	235	328	474	919
85°	1	0	16	94	650

## Classificações

CIE: 681 / 963 / 997 / 1000 / 1000

CIE FLUXCODE : 0.68 / 0.96 / 1.00 / 1.00 / 1.00

BZ: BZ2

CAE: Symmetrical

DIN: A50 (Nach Arbeitsblatt 7)

DIN\_U: Phi u = 1.00

DIN\_SU: Phi su = 0.70

UTE: 1.00 C + 0.00 T

Lifetime Data (Tq=25.0°C)

Time(khrs)	LLMF(%)	Cx(%)
10	100	2
20	99	4
30	99	6
40	99	8
50	98	10
60	98	12

**classificação UGR =**

Corrected Glare Ratings for a Total Lamp Flux of 4200lm (S = 0.25H)

	Room Reflection Factors (%)									
	70	70	50	50	30	70	70	50	50	30
Ceiling	70	70	50	50	30	70	70	50	50	30
Walls	50	30	50	30	30	50	30	50	30	30
Floor	20	20	20	20	20	20	20	20	20	20
Room Dimensions	Viewed Crosswise					Viewed Endwise				
X = 2H Y = 2H	18.4	20.0	18.7	20.3	20.6	18.9	20.5	19.2	20.7	21.0
Y = 3H	18.3	19.7	18.6	20.0	20.3	18.8	20.3	19.2	20.5	20.8
Y = 4H	18.2	19.5	18.6	19.8	20.1	18.8	20.1	19.1	20.4	20.7
Y = 6H	18.1	19.4	18.5	19.7	20.0	18.7	19.9	19.1	20.3	20.6
Y = 8H	18.1	19.3	18.5	19.6	19.9	18.7	19.9	19.1	20.2	20.5
Y = 12H	18.1	19.2	18.4	19.5	19.9	18.7	19.8	19.0	20.1	20.5
X = 4H Y = 2H	18.6	19.9	18.9	20.2	20.5	19.0	20.3	19.3	20.6	20.9
Y = 3H	18.5	19.6	18.8	19.9	20.3	19.0	20.1	19.3	20.4	20.8
Y = 4H	18.4	19.4	18.8	19.7	20.1	18.9	19.9	19.3	20.3	20.6
Y = 6H	18.3	19.2	18.8	19.6	20.0	18.9	19.8	19.3	20.1	20.5
Y = 8H	18.3	19.1	18.7	19.5	19.9	18.9	19.7	19.3	20.1	20.5
Y = 12H	18.3	19.0	18.7	19.4	19.9	18.9	19.6	19.3	20.0	20.4
X = 8H Y = 4H	18.3	19.1	18.7	19.5	19.9	18.8	19.6	19.3	20.0	20.5
Y = 6H	18.3	18.9	18.7	19.3	19.8	18.8	19.5	19.3	19.9	20.4
Y = 8H	18.2	18.8	18.7	19.2	19.7	18.8	19.4	19.3	19.8	20.3
Y = 12H	18.2	18.7	18.7	19.2	19.7	18.8	19.3	19.3	19.7	20.3
X = 12H Y = 4H	18.3	19.0	18.7	19.4	19.9	18.8	19.5	19.3	19.9	20.4
Y = 6H	18.2	18.8	18.7	19.2	19.7	18.8	19.4	19.3	19.8	20.3
Y = 8H	18.2	18.7	18.7	19.2	19.7	18.8	19.3	19.3	19.7	20.3
UGR Variations with Observer Position for Luminaire Spacings S										
S = 1.0H	+1.0		-2.3			+0.7		-1.4		
S = 1.5H	+2.2		-7.4			+2.1		-6.4		
S = 2.0H	+3.6		-14.2			+3.3		-8.1		

**Intensidades luminosas em cd**

Intensity for 4200lm

Gamma	C0	C45	C90
0°	2346.0	2346.0	2346.0
5°	2333.7	2327.6	2325.7
10°	2291.9	2289.2	2289.6
15°	2224.0	2220.6	2217.4
20°	2109.5	2122.5	2124.3
25°	1961.1	2000.4	2009.4
30°	1752.0	1828.9	1841.0
35°	1516.0	1639.3	1628.5
40°	1246.2	1403.5	1357.4
45°	974.6	1171.1	1094.7
50°	683.6	918.2	810.7
55°	344.3	678.9	446.9
60°	187.4	409.1	185.5
65°	48.2	156.2	108.3
70°	22.5	42.0	57.0
75°	12.4	17.4	35.5
80°	2.3	6.8	19.0
85°	0.0	0.2	6.7
90°	0.0	0.0	0.0

**Colour properties**

Correlated Colour Temperature : 3000

Ra: CRI (Ra) 80



## Eficiência

Utilisation Factors according to IES (%)

	Room Reflection Factors (%)									
Ceiling	80	80	80	50	50	50	30	30	30	0
Walls	50	30	10	50	30	10	50	30	10	0
Floor	20	20	20	20	20	20	20	20	20	0
RCR = 1	108	106	104	102	100	99	98	97	96	90
2	97	93	90	92	89	87	89	86	84	80
3	88	83	79	83	79	76	81	77	75	71
4	80	74	69	76	71	67	74	70	66	63
5	72	66	61	69	64	60	67	63	59	56
6	66	59	54	64	58	54	62	57	53	50
7	61	54	49	59	53	48	57	52	48	46
8	56	49	44	54	48	44	53	47	43	41
9	52	45	40	50	44	40	49	44	40	38
10	48	41	37	47	41	37	46	40	36	35

Utilisation Factors according to LiTG (%)

	Room Reflection Factors (%)									
Ceiling	80	80	80	50	50	50	50	50	30	0
Walls	50	30	50	30	50	30	50	30	30	0
Floor	30	30	10	10	30	30	10	10	10	0
k = 0.60	59	51	56	50	57	50	55	49	49	43
0.80	71	63	67	60	68	61	65	60	59	54
1.00	80	72	74	68	76	69	72	67	66	61
1.25	90	82	82	77	85	79	80	76	75	70
1.50	95	88	87	82	90	84	84	80	79	75
2.00	103	96	92	88	96	91	89	86	85	80
2.50	108	102	96	92	100	96	93	90	89	85
3.00	112	108	98	96	104	101	96	94	92	88
4.00	116	112	100	98	107	104	97	96	94	90
5.00	119	115	102	100	109	106	99	98	96	93

## Esboço

