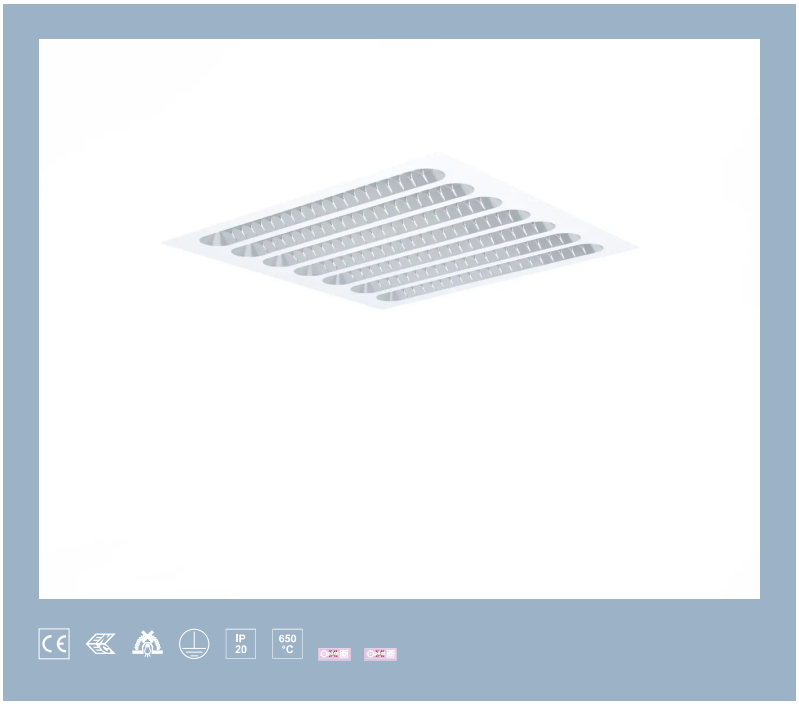
U3312/LEDW770D



recessed luminaire • square

Application : Education ? Classrooms

housing: lacquered sheet steel

light source : LED • 3000 K

optics : Shielded lens • polycarbonate (PC) with aluminium thin film • very wide-angle

UGR classification : <=19

luminous flux: 6950 lm

luminous efficacy : 151 lm/W

LLMF: 98% @ 50khrs (Tq=25°C)

Product information

Mechanical properties

dimensions : 596 mm x 596 mm x 58 mm

cut-out size : 596 mm x 596 mm x 70 mm

shape : module 600

colour: RAL9003 - white

type : individual luminaire

IP: IP20

Electrical properties

driver: DALI dimmable

power : 46 W

voltage : 220-240V

frequency : 50-60Hz AC

photobiological safety : EN 62471: RISK GROUP 1 UNLIMITED

Luminance

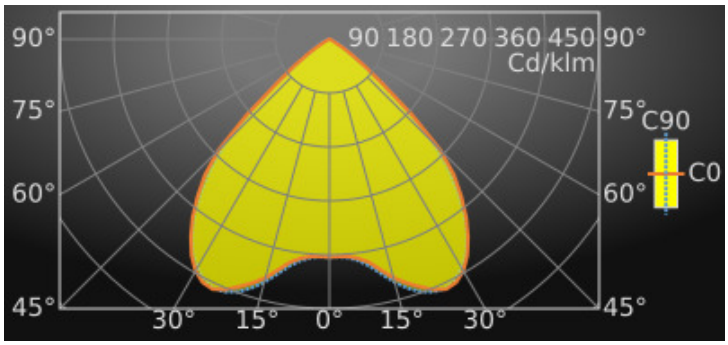
luminous flux : 6950 lm

luminous efficacy : 151 lm/W

luminance @ 65° = : 3000 cd/m²

UGR classification =: <=19

luminous area : 0.21 m²



Average Luminances (Cd/m²) for 6950lm

Gamma	C0	C30	C45	C60	C90
45°	12368	17749	19770	16716	11531
50°	5969	14334	17179	13015	5733
55°	2762	7266	12112	6053	2446
60°	841	3721	3864	3348	1554
65°	218	770	1424	1867	971
70°	3	56	312	650	535
75°	0	0	13	214	385
80°	0	0	0	8	291
85°	0	0	0	0	167

Classifications

CIE: 676 / 982 / 999 / 1000 / 1000

CIE FLUXCODE : 0.68 / 0.98 / 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 = 0.69

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

Luminous intensities in cd

Intensity for 6950lm

Gamma	C0	C45	C90
0°	2528.3	2528.3	2528.3
5°	2533.1	2537.2	2546.0
10°	2628.1	2613.6	2671.0
15°	2866.9	2800.9	2921.2
20°	3054.8	3095.9	3118.7
25°	3202.3	3309.1	3189.2
30°	3105.1	3425.3	3064.8
35°	2803.5	3437.2	2782.1
40°	2378.2	3275.6	2313.9
45°	1818.2	2906.3	1695.2
50°	797.7	2295.8	766.1
55°	329.3	1444.4	291.7
60°	87.4	401.6	161.5
65°	19.1	125.1	85.3
70°	0.2	22.1	38.0
75°	0.0	0.7	20.7
80°	0.0	0.0	10.5
85°	0.0	0.0	3.0
90°	0.0	0.0	0.0

UGR classification =

Corrected Glare Ratings for a Total Lamp Flux of 6950lm (S = 0.25H)

	Room Reflection Factors (%)									
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	19.2	20.8	19.5	21.1	21.3	18.8	20.5	19.1	20.7	21.0
Y = 3H	19.0	20.5	19.3	20.7	21.0	18.7	20.1	19.0	20.4	20.7
Y = 4H	18.9	20.3	19.2	20.6	20.9	18.6	20.0	18.9	20.3	20.6
Y = 6H	18.8	20.1	19.2	20.4	20.7	18.5	19.8	18.9	20.1	20.4
Y = 8H	18.8	20.0	19.2	20.3	20.6	18.5	19.7	18.9	20.0	20.3
Y = 12H	18.7	19.9	19.1	20.2	20.6	18.4	19.6	18.8	19.9	20.3
X = 4H Y = 2H	19.1	20.5	19.4	20.8	21.1	18.8	20.2	19.2	20.5	20.8
Y = 3H	18.9	20.1	19.3	20.4	20.8	18.7	19.8	19.1	20.2	20.5
Y = 4H	18.9	19.9	19.3	20.2	20.6	18.6	19.6	19.0	20.0	20.4
Y = 6H	18.8	19.7	19.2	20.1	20.5	18.6	19.4	19.0	19.8	20.2
Y = 8H	18.8	19.6	19.2	20.0	20.4	18.5	19.3	19.0	19.7	20.2
Y = 12H	18.7	19.5	19.2	19.9	20.3	18.5	19.2	18.9	19.6	20.1
X = 8H Y = 4H	18.8	19.6	19.2	20.0	20.4	18.5	19.3	19.0	19.7	20.2
Y = 6H	18.7	19.4	19.2	19.8	20.3	18.5	19.1	18.9	19.6	20.0
Y = 8H	18.7	19.3	19.2	19.7	20.2	18.4	19.0	18.9	19.5	20.0
Y = 12H	18.7	19.2	19.1	19.6	20.2	18.4	18.9	18.9	19.4	19.9
X = 12H Y = 4H	18.7	19.5	19.2	19.9	20.3	18.5	19.2	18.9	19.6	20.1
Y = 6H	18.7	19.3	19.2	19.7	20.2	18.4	19.0	18.9	19.5	20.0
Y = 8H	18.7	19.2	19.1	19.6	20.2	18.4	18.9	18.9	19.4	19.9

	UGR Variations with Observer Position for Luminaire Spacings S			
S = 1.0H	+2.4	-5.4	+2.2	-6.3
S = 1.5H	+4.2	-18.0	+4.2	-10.9
S = 2.0H	+4.9	-30.3	+4.6	-14.3

Colour properties

Correlated Colour Temperature : 3000

Ra: CRI (Ra) 80

Efficiency

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	82	78	83	79	76	81	77	74	71
4	79	73	68	75	70	67	73	69	66	62
5	72	65	60	69	63	59	67	62	58	55
6	65	58	53	63	57	52	61	56	52	49
7	59	52	47	57	51	47	56	50	46	44
8	54	47	42	53	46	42	51	46	42	39
9	50	43	38	48	42	38	47	42	38	36
10	46	39	34	45	39	34	44	38	34	32

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	56	48	53	46	54	47	52	46	45	40
0.80	70	61	65	59	67	60	64	58	57	52
1.00	79	70	73	67	75	68	71	66	65	60
1.25	89	81	81	76	84	78	79	75	74	69
1.50	95	88	86	81	89	84	84	80	79	74
2.00	102	96	91	87	95	91	89	85	84	80
2.50	108	102	95	92	100	96	93	90	89	84
3.00	112	107	98	96	104	100	96	93	92	88
4.00	116	112	100	98	106	103	97	96	94	90
5.00	119	115	102	100	109	106	99	98	96	92

Dimensional drawing