

US01I8/LEDW40D

recessed luminaire • square



application : Office, Healthcare, Education, Horeca, Retail, Leisure

housing: lacquered sheet steel with closed lamp shielding

light source : LED LP • 3000 K

optics : Softlight • wide-angle

UGR classification : <=19

luminous flux: 3900 lm

luminous efficacy : 135 lm/W

LLMF: 95% @ 50khrs (Tq=25°C)



Mechanical properties

dimensions : 620 mm x 620 mm x 120 mm

cut-out size : 605 mm x 605 mm

ceiling modulation : M625 square

colour: RAL9210-white

type : individual luminaire

IP: IP20

Luminance

luminous flux : 3900 lm

luminous efficacy : 135 lm/W

luminance @ 65° : 3000 cd/m²

UGR classification: <=19

luminous area : 0.33 m²

Electrical properties

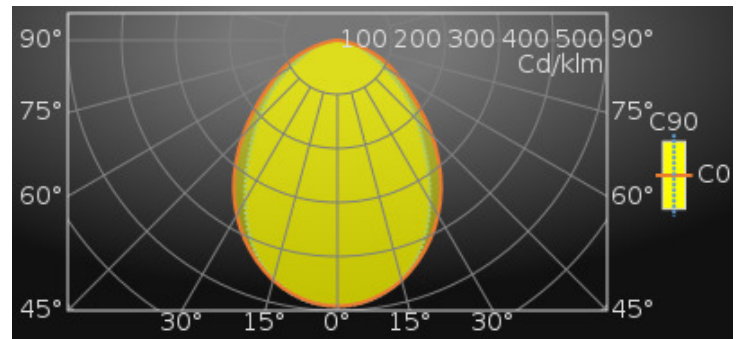
driver: DALI dimmable

power : 29 W

voltage : 220-240V

frequency : 50-60Hz AC

photobiological safety : EN 62471: RISK GROUP 0 UNLIMITED



Average Luminances (Cd/m²) for 3900lm

Gamma	C0	C30	C45	C60	C90
45°	4123	3988	3770	3596	3465
50°	3699	3529	3247	3093	3124
55°	3334	3078	2722	2661	2770
60°	3039	2689	2394	2433	2333
65°	2818	2436	2281	2228	1976
70°	2433	2234	2215	1982	1817
75°	1949	1898	1996	1868	1764
80°	1250	1538	1608	1683	1550
85°	593	678	754	1037	965

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Classifications

CIE: 583 / 860 / 975 / 1000 / 1000

CIE FLUXCODE : 0.58 / 0.86 / 0.97 / 1.00 / 1.00

BZ: BZ3

CAE: Symmetrical

DIN: A50 (Nach Arbeitsblatt 7)

DIN_U: Phi u = 1.00

DIN_SU: Phi su = 0.62

UTE: 1.00 D + 0.00 T

Luminous intensities in cd

Lifetime Data (Tq=25.0°C)

Time(khrs)	LLMF(%)	Cx(%)
10	99	2
20	98	4
30	97	6
40	96	8
50	96	10
60	95	12

Intensity for 3900lm

Gamma	C0	C45	C90
0°	1918.2	1918.2	1918.2
5°	1903.6	1904.1	1905.0
10°	1860.1	1866.3	1861.7
15°	1793.3	1792.8	1784.9
20°	1698.3	1688.0	1675.1
25°	1585.9	1560.3	1521.5
30°	1456.0	1408.1	1336.8
35°	1308.4	1239.2	1144.0
40°	1138.5	1067.0	965.1
45°	963.9	881.3	810.1
50°	786.1	690.0	663.9
55°	632.3	516.3	525.4
60°	502.4	395.7	385.6
65°	393.8	318.7	276.1
70°	275.1	250.5	205.5
75°	166.7	170.8	151.0
80°	71.8	92.3	89.0
85°	17.1	21.7	27.8
90°	0.2	0.2	0.2

UGR classification

Corrected Glare Ratings for a Total Lamp Flux of 3900lm (S = 0.25H)

Ceiling Walls Floor	Room Reflection Factors (%)									
	70	70	50	50	30	70	70	50	50	30
	50	30	50	30	30	50	30	50	30	30
	20	20	20	20	20	20	20	20	20	20
Room Dimensions	Viewed Crosswise					Viewed Endwise				
X = 2H Y = 2H	16.4	18.1	16.7	18.3	18.6	15.1	16.8	15.4	17.0	17.3
Y = 3H	17.6	19.1	17.9	19.4	19.7	16.0	17.5	16.3	17.8	18.1
Y = 4H	18.0	19.4	18.3	19.7	20.0	16.4	17.9	16.8	18.2	18.5
Y = 6H	18.1	19.4	18.5	19.8	20.1	16.7	18.1	17.1	18.4	18.7
Y = 8H	18.1	19.4	18.5	19.7	20.1	16.8	18.1	17.2	18.4	18.8
Y = 12H	18.1	19.3	18.5	19.7	20.0	16.8	18.1	17.2	18.4	18.8
X = 4H Y = 2H	16.7	18.1	17.0	18.4	18.7	15.6	17.1	16.0	17.4	17.7
Y = 3H	18.1	19.3	18.5	19.6	20.0	16.8	18.0	17.1	18.3	18.7
Y = 4H	18.6	19.7	19.0	20.0	20.4	17.3	18.4	17.7	18.8	19.1
Y = 6H	18.8	19.8	19.3	20.2	20.6	17.7	18.7	18.2	19.1	19.5
Y = 8H	18.9	19.8	19.3	20.2	20.6	17.9	18.8	18.3	19.2	19.6
Y = 12H	18.9	19.7	19.3	20.1	20.5	17.9	18.7	18.4	19.2	19.6
X = 8H Y = 4H	18.7	19.6	19.2	20.0	20.5	17.6	18.5	18.0	18.9	19.3
Y = 6H	19.1	19.8	19.5	20.3	20.7	18.2	18.9	18.6	19.4	19.8
Y = 8H	19.2	19.8	19.6	20.3	20.8	18.4	19.0	18.8	19.5	20.0
Y = 12H	19.2	19.7	19.7	20.2	20.7	18.4	19.0	18.9	19.5	20.0
X = 12H Y = 4H	18.7	19.5	19.2	20.0	20.4	17.6	18.4	18.0	18.8	19.3
Y = 6H	19.1	19.8	19.6	20.2	20.7	18.2	18.9	18.7	19.3	19.8
Y = 8H	19.2	19.8	19.7	20.2	20.8	18.4	19.0	18.9	19.5	20.0
UGR Variations with Observer Position for Luminaire Spacings S										
S = 1.0H	+0.3		-0.3		+0.2		-0.3			
S = 1.5H	+0.3		-0.7		+0.3		-0.6			
S = 2.0H	+0.8		-1.0		+0.8		-1.1			

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Colour properties

Correlated Colour Temperature : 3000

Ra: 80

Efficiency

Utilisation Factors according to IES (%)

	Room Reflection Factors (%)									
	80	80	80	50	50	50	30	30	30	0
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	105	103	101	99	97	95	95	93	92	87
2	93	88	85	88	84	81	84	81	79	74
3	83	77	72	78	73	70	76	71	68	64
4	74	67	62	70	65	61	68	63	60	56
5	67	60	54	64	58	53	62	57	53	50
6	61	54	48	58	52	47	57	51	47	44
7	56	48	43	54	47	42	52	46	42	40
8	52	44	39	49	43	38	48	42	38	36
9	48	40	35	46	39	35	45	39	35	33
10	44	37	32	43	36	32	42	36	32	30

Utilisation Factors according to LiTG (%)

	Room Reflection Factors (%)									
	80	80	80	50	50	50	50	50	30	0
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	54	46	51	44	52	45	50	44	43	37
0.80	65	56	61	54	62	55	59	53	53	46
1.00	74	65	68	62	70	63	66	60	60	54
1.25	83	75	76	70	78	72	74	69	68	62
1.50	90	81	81	76	84	78	79	74	73	67
2.00	98	90	87	82	91	85	84	80	79	74
2.50	104	97	92	87	96	91	89	85	84	79
3.00	108	103	95	91	100	96	92	89	88	83
4.00	113	108	98	95	103	100	95	92	91	86
5.00	117	112	100	98	106	103	97	95	93	89

Dimensional drawing

