

US01I8/LEDN40D

recessed luminaire • square

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

housing: lacquered sheet steel with closed lamp shielding

light source : LED LP • 4000 K

optics : Softlight • wide-angle

UGR classification : <=19

luminous flux: 4050 lm

luminous efficacy : 140 lm/W

LLMF: 96% @ 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 : 4050 lm

luminous efficacy : 140 lm/W

UGR classification: <=19

luminous area : 0.33 m²

Electrical properties

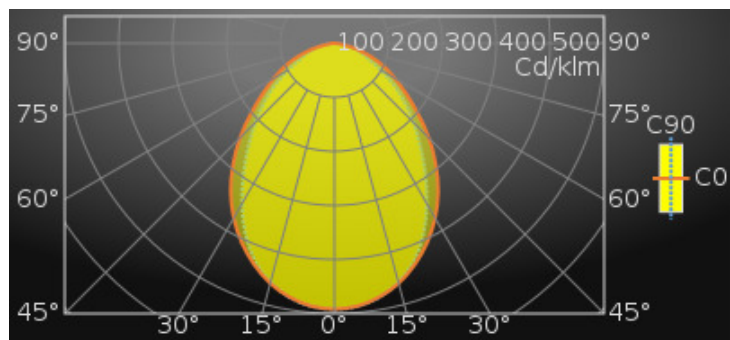
driver: DALI dimmable

power : 29 W

voltage : 220-240V

frequency : 50-60Hz AC

photobiological safety : EN 62471: RISK GROUP 0 UNLIMITED



Average Luminances (Cd/m²) for 4050lm

Gamma	C0	C30	C45	C60	C90
45°	4281	4141	3915	3734	3598
50°	3841	3665	3371	3212	3244
55°	3462	3197	2827	2763	2877
60°	3156	2792	2486	2526	2423
65°	2927	2530	2368	2313	2052
70°	2527	2320	2300	2059	1887
75°	2024	1971	2073	1939	1832
80°	1298	1597	1670	1748	1610
85°	616	704	783	1077	1002

US01I8/LEDN40D

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	98	6
40	97	8
50	96	10
60	95	12

Intensity for 4050lm

Gamma	C0	C45	C90
0°	1992.0	1992.0	1992.0
5°	1976.8	1977.3	1978.3
10°	1931.6	1938.1	1933.3
15°	1862.3	1861.8	1853.6
20°	1763.7	1753.0	1739.6
25°	1646.9	1620.3	1580.1
30°	1512.0	1462.3	1388.3
35°	1358.7	1286.9	1188.0
40°	1182.3	1108.0	1002.2
45°	1001.0	915.2	841.2
50°	816.4	716.5	689.4
55°	656.6	536.1	545.6
60°	521.7	410.9	400.5
65°	408.9	330.9	286.7
70°	285.7	260.1	213.4
75°	173.2	177.4	156.8
80°	74.5	95.9	92.4
85°	17.8	22.6	28.9
90°	0.2	0.2	0.2

UGR classification

Corrected Glare Ratings for a Total Lamp Flux of 4050lm (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	16.5	18.2	16.8	18.5	18.7	15.2	16.9	15.5	17.2	17.4
Y = 3H	17.7	19.2	18.1	19.5	19.8	16.1	17.7	16.5	18.0	18.2
Y = 4H	18.1	19.5	18.4	19.8	20.1	16.5	18.0	16.9	18.3	18.6
Y = 6H	18.2	19.6	18.6	19.9	20.2	16.9	18.2	17.2	18.5	18.9
Y = 8H	18.2	19.5	18.6	19.9	20.2	16.9	18.2	17.3	18.6	18.9
Y = 12H	18.2	19.5	18.6	19.8	20.1	17.0	18.2	17.4	18.5	18.9
X = 4H Y = 2H	16.8	18.2	17.1	18.5	18.8	15.7	17.2	16.1	17.5	17.8
Y = 3H	18.2	19.4	18.6	19.8	20.1	16.9	18.1	17.3	18.5	18.8
Y = 4H	18.7	19.8	19.1	20.2	20.5	17.4	18.5	17.8	18.9	19.3
Y = 6H	19.0	19.9	19.4	20.3	20.7	17.9	18.9	18.3	19.2	19.6
Y = 8H	19.0	19.9	19.4	20.3	20.7	18.0	18.9	18.4	19.3	19.7
Y = 12H	19.0	19.8	19.4	20.2	20.7	18.1	18.9	18.5	19.3	19.7
X = 8H Y = 4H	18.9	19.8	19.3	20.2	20.6	17.7	18.6	18.2	19.0	19.4
Y = 6H	19.2	20.0	19.7	20.4	20.9	18.3	19.1	18.8	19.5	20.0
Y = 8H	19.3	19.9	19.8	20.4	20.9	18.5	19.1	19.0	19.6	20.1
Y = 12H	19.3	19.9	19.8	20.3	20.9	18.6	19.1	19.1	19.6	20.1
X = 12H Y = 4H	18.9	19.7	19.3	20.1	20.5	17.7	18.5	18.2	19.0	19.4
Y = 6H	19.2	19.9	19.7	20.4	20.8	18.3	19.0	18.8	19.4	19.9
Y = 8H	19.3	19.9	19.8	20.4	20.9	18.5	19.1	19.0	19.6	20.1
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			

US01I8/LEDN40D

Colour properties

Correlated Colour Temperature : 4000

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

