

# U23F1/LEDN35DT1

recessed luminaire • linear

*application* : office, healthcare, education, horeca, retail, leisure

*housing*: lacquered sheet steel

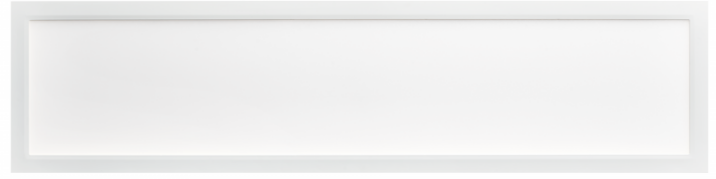
*light source* : LED LP • 4000 K

*optics* : Diffuser • opal acrylic • medium wide-angle

*UGR classification* : <=22

*luminous flux*: 3600 lm

*luminous efficacy* : 112 lm/W



## Mechanical properties

*dimensions* : 1196 mm x 296 mm x 14 mm

*ceiling modulation* : M300

*colour*: RAL9016-traffic white (textured)

*type* : individual luminaire

*IP*: IP20 • IP54 from below

## Luminance

*luminous flux* : 3600 lm

*luminous efficacy* : 112 lm/W

*UGR classification*: <=22

*luminous area* : 0.26 m<sup>2</sup>

## Electrical properties

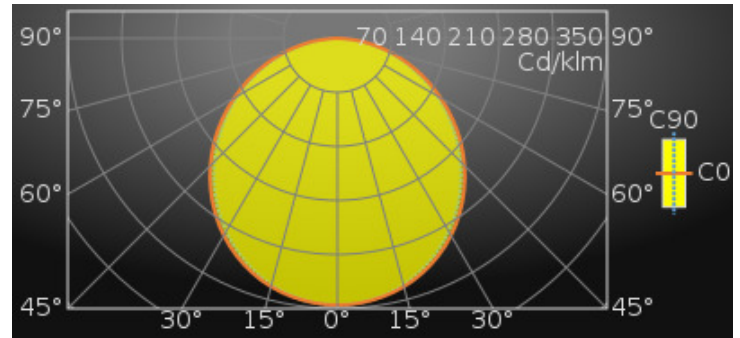
*driver*: DALI dimmable

*power* : 32 W

*voltage* : 220-240V

*frequency* : 50-60Hz AC

*photobiological safety* : IEC/TR 62778: RG 0



Average Luminances (Cd/m<sup>2</sup>) for 3600lm

Gamma	C0	C30	C45	C60	C90
45°	4572	4546	4521	4491	4428
50°	4500	4470	4440	4406	4332
55°	4405	4377	4346	4311	4237
60°	4291	4269	4237	4200	4125
65°	4165	4137	4104	4072	3982
70°	4016	3985	3952	3914	3796
75°	3872	3827	3786	3739	3592
80°	3636	3606	3565	3518	3324
85°	3250	3240	3164	3143	2844

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## Classifications

CIE: 465 / 778 / 950 / 1000 / 1000

CIE FLUXCODE : 0.46 / 0.78 / 0.95 / 1.00 / 1.00

BZ: BZ5/1.25/BZ4/1.5/BZ5

CAE: Symmetrical

DIN: A40 (Nach Arbeitsblatt 7)

DIN\_U: Phi u = 1.00

DIN\_SU: Phi su = 0.54

UTE: 1.00 E + 0.00 T

Intensity for 3600lm

Gamma	C0	C45	C90
0°	1243.3	1243.3	1243.3
5°	1238.8	1238.1	1237.0
10°	1223.3	1222.0	1219.1
15°	1199.1	1195.6	1190.5
20°	1163.1	1158.6	1150.3
25°	1117.6	1111.0	1100.1
30°	1062.4	1053.9	1040.1
35°	996.0	987.4	972.0
40°	921.5	911.9	896.1
45°	840.3	830.9	813.8
50°	751.8	741.7	723.7
55°	656.6	647.9	631.6
60°	557.6	550.6	536.0
65°	457.5	450.7	437.4
70°	357.0	351.3	337.5
75°	260.5	254.6	241.6
80°	164.1	160.9	150.0
85°	73.6	71.7	64.4
90°	0.7	1.0	0.0

## UGR classification

Corrected Glare Ratings for a Total Lamp Flux of 3600lm (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	50
Floor	20	20	20	20	20	20	20	20	20	20	20
Room Dimensions	Viewed Crosswise					Viewed Endwise					
X = 2H Y = 2H	17.7	19.5	18.0	19.7	20.0	17.5	19.3	17.8	19.6	19.9	
Y = 3H	19.3	20.9	19.6	21.2	21.5	19.1	20.7	19.4	21.0	21.3	
Y = 4H	19.9	21.5	20.3	21.8	22.1	19.7	21.3	20.1	21.6	21.9	
Y = 6H	20.4	21.9	20.8	22.3	22.6	20.2	21.6	20.6	22.0	22.3	
Y = 8H	20.6	22.0	21.0	22.4	22.7	20.3	21.8	20.7	22.1	22.4	
Y = 12H	20.7	22.1	21.1	22.4	22.8	20.4	21.8	20.8	22.1	22.5	
X = 4H Y = 2H	18.3	19.9	18.7	20.2	20.5	18.2	19.8	18.5	20.1	20.4	
Y = 3H	20.1	21.5	20.5	21.8	22.2	20.0	21.3	20.3	21.7	22.0	
Y = 4H	20.9	22.2	21.3	22.5	22.9	20.7	22.0	21.1	22.3	22.7	
Y = 6H	21.6	22.7	22.0	23.1	23.5	21.4	22.4	21.8	22.8	23.3	
Y = 8H	21.8	22.8	22.3	23.2	23.7	21.6	22.6	22.0	23.0	23.4	
Y = 12H	22.0	22.9	22.4	23.3	23.8	21.7	22.6	22.2	23.1	23.5	
X = 8H Y = 4H	21.2	22.3	21.7	22.7	23.1	21.1	22.1	21.5	22.5	22.9	
Y = 6H	22.1	22.9	22.5	23.4	23.8	21.9	22.7	22.3	23.2	23.6	
Y = 8H	22.4	23.2	22.9	23.6	24.1	22.2	22.9	22.7	23.4	23.9	
Y = 12H	22.6	23.3	23.1	23.8	24.3	22.4	23.1	22.9	23.5	24.1	
X = 12H Y = 4H	21.3	22.2	21.7	22.6	23.1	21.1	22.0	21.6	22.5	22.9	
Y = 6H	22.2	22.9	22.6	23.4	23.8	22.0	22.7	22.4	23.2	23.7	
Y = 8H	22.5	23.2	23.0	23.7	24.2	22.3	23.0	22.8	23.4	24.0	
UGR Variations with Observer Position for Luminaire Spacings S											
S = 1.0H	+0.1		-0.1		+0.1		-0.1				
S = 1.5H	+0.2		-0.3		+0.2		-0.3				
S = 2.0H	+0.3		-0.5		+0.3		-0.6				

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## 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	102	99	97	96	93	91	92	90	88	83
2	88	83	79	83	79	75	80	76	73	69
3	77	70	65	73	67	63	70	65	62	58
4	68	61	55	64	58	53	62	57	53	49
5	61	53	47	58	51	46	56	50	45	43
6	55	47	41	52	45	40	51	44	40	37
7	50	42	36	48	41	36	46	40	35	33
8	46	38	32	44	37	32	42	36	31	29
9	42	34	29	40	33	28	39	33	28	26
10	39	31	26	37	30	26	36	30	26	24

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	47	38	45	37	45	37	43	36	36	29
0.80	58	49	55	47	55	47	53	46	45	38
1.00	67	57	62	54	63	55	60	53	52	45
1.25	77	67	70	63	72	64	67	61	60	54
1.50	83	74	76	69	78	70	73	67	66	60
2.00	92	84	82	76	85	79	79	74	73	67
2.50	99	91	87	82	91	85	84	80	79	73
3.00	104	98	91	87	96	91	88	84	83	78
4.00	110	104	95	91	100	96	91	88	87	82
5.00	114	109	98	94	103	100	94	92	90	85

## Available accessories

U23H1 recessed mounting frame for plaster-board and wooden ceilings M300

U23H3 surface mounted rim M300

## Dimensional drawing

