

# US3140/LEDN20D



**recessed luminaire • linear**

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

**housing:** lacquered sheet steel

**light source :** LED LP • 4000 K

**optics :** Softlight • closed lamp shielding • wide-angle

**UGR classification :** <=22

**luminous flux:** 2350 lm

**luminous efficacy :** 118 lm/W

**LLMF:** 98% @ 50khrs (Tq=25°C)

## Product information

### Mechanical properties

**dimensions :** 1195 mm x 295 mm x 95 mm

**cut-out size :** 1180 mm x 280 mm

**ceiling modulation :** M300

**colour:** specular white

**type :** individual luminaire

**IP:** IP20

**IK:** IK03

### Electrical properties

**driver:** DALI dimmable

**power :** 20 W

**voltage :** 220-240V

**frequency :** 50-60Hz AC

**photobiological safety :** EN 62471: RISK GROUP 0  
UNLIMITED

## Luminance

luminous flux : 2350 lm

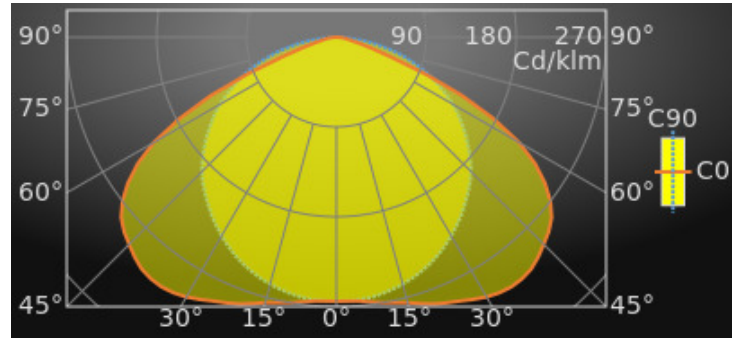
luminous efficacy : 118 lm/W

UGR classification  $\leq 22$

luminous area : 0.32 m<sup>2</sup>

Average Luminances (Cd/m<sup>2</sup>) for 2350lm

Gamma	C0	C30	C45	C60	C90
45°	3018	2885	2697	2387	1960
50°	3181	3015	2837	2541	1954
55°	3233	3148	2975	2694	1956
60°	3070	3156	3073	2816	1958
65°	2397	2810	3014	2908	1933
70°	1229	1804	2515	2865	1905
75°	661	833	1274	2315	1836
80°	458	504	613	971	1696
85°	408	411	424	446	1300



## Classifications

CIE: 416 / 781 / 969 / 1000 / 1000

CIE FLUXCODE : 0.42 / 0.78 / 0.97 / 1.00 / 1.00

BZ: BZ10/1.25/BZ4/1.5/BZ10/2.5/BZ5

CAE: CAE 1/75°/CAE 2

DIN: A40 (Nach Arbeitsblatt 7)

DIN\_U: Phi u = 1.00

DIN\_SU: Phi su = 0.52

UTE: 1.00 E + 0.00 T



## Luminous intensities in cd

Lifetime Data (Tq=25.0°C)

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

Intensity for 2350lm

Gamma	C0	C45	C90
0°	621.7	621.7	621.7
5°	623.9	623.1	620.8
10°	634.7	624.3	613.9
15°	647.1	624.6	602.0
20°	668.7	624.5	586.1
25°	685.9	631.6	565.6
30°	706.3	631.6	540.2
35°	717.8	631.0	511.5
40°	712.6	627.8	480.7
45°	689.5	616.3	447.8
50°	660.7	589.2	405.8
55°	599.2	551.4	362.5
60°	496.0	496.5	316.3
65°	327.4	411.6	263.9
70°	135.8	277.9	210.5
75°	55.3	106.5	153.5
80°	25.7	34.4	95.1
85°	11.5	11.9	36.6
90°	0.0	0.0	0.0

## UGR classification

Corrected Glare Ratings for a Total Lamp Flux of 2350lm (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	17.3	19.2	17.7	19.5	19.8	15.7	17.5	16.0	17.8	18.1
Y = 3H	18.0	19.7	18.3	20.0	20.3	17.5	19.2	17.8	19.5	19.8
Y = 4H	18.0	19.6	18.3	19.9	20.2	18.2	19.8	18.5	20.1	20.4
Y = 6H	17.9	19.4	18.3	19.8	20.1	18.6	20.1	19.0	20.5	20.8
Y = 8H	17.9	19.4	18.3	19.7	20.0	18.7	20.2	19.1	20.5	20.9
Y = 12H	17.9	19.3	18.3	19.6	20.0	18.8	20.2	19.2	20.5	20.9
X = 4H Y = 2H	18.0	19.6	18.4	19.9	20.2	16.8	18.5	17.2	18.8	19.1
Y = 3H	18.7	20.1	19.1	20.5	20.9	18.8	20.2	19.2	20.6	20.9
Y = 4H	18.8	20.0	19.2	20.4	20.8	19.6	20.9	20.1	21.3	21.6
Y = 6H	18.8	19.9	19.2	20.3	20.7	20.2	21.3	20.7	21.7	22.1
Y = 8H	18.7	19.8	19.2	20.2	20.6	20.4	21.4	20.8	21.8	22.2
Y = 12H	18.7	19.7	19.2	20.1	20.5	20.4	21.4	20.9	21.8	22.3
X = 8H Y = 4H	18.9	20.0	19.4	20.4	20.8	19.7	20.8	20.2	21.2	21.6
Y = 6H	19.0	19.8	19.4	20.3	20.7	20.4	21.2	20.9	21.7	22.1
Y = 8H	19.0	19.7	19.5	20.2	20.7	20.6	21.3	21.1	21.8	22.3
Y = 12H	19.0	19.6	19.5	20.1	20.6	20.7	21.3	21.2	21.8	22.3
X = 12H Y = 4H	18.9	19.9	19.4	20.3	20.7	19.7	20.6	20.2	21.1	21.5
Y = 6H	19.0	19.7	19.5	20.2	20.7	20.4	21.1	20.9	21.6	22.1
Y = 8H	19.0	19.6	19.5	20.1	20.6	20.6	21.2	21.1	21.7	22.2
<b>UGR Variations with Observer Position for Luminaire Spacings S</b>										
S = 1.0H	+0.1		-0.1		+0.1		-0.1			
S = 1.5H	+0.6		-0.7		+0.4		-0.5			
S = 2.0H	+1.5		-2.4		+1.0		-1.4			



## 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	103	100	97	96	94	92	92	90	89	84
2	88	83	78	83	78	75	80	76	73	69
3	76	69	64	72	66	62	69	64	61	57
4	67	59	53	63	57	52	61	55	51	48
5	59	51	45	56	49	44	54	48	43	40
6	53	45	39	50	43	38	49	42	37	35
7	48	39	33	45	38	33	44	37	33	30
8	44	35	29	41	34	29	40	34	29	27
9	40	32	26	38	31	26	37	30	26	24
10	37	29	23	35	28	23	34	28	23	21

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	44	35	42	34	42	34	40	33	32	26
0.80	56	46	52	44	52	44	50	43	42	35
1.00	65	55	60	52	61	53	58	51	50	43
1.25	75	65	69	61	70	62	66	60	59	52
1.50	82	73	75	68	76	69	72	66	65	58
2.00	92	83	82	76	85	78	79	74	72	66
2.50	99	91	87	82	91	85	84	80	78	73
3.00	104	98	91	87	96	91	88	85	83	78
4.00	110	104	95	91	100	96	92	89	87	82
5.00	114	109	98	95	104	100	94	92	90	86

## Available accessories

US01H010/1200 *Mountingframe for plaster-board, wooden,... ceiling*



## Dimensional drawing

