D11R1/LEDN10DX43

recessed luminaire • round

Application : General office area’s, Auditoria, General education area’s

housing: injection-moulded aluminium

light source : LED • 4000 K

optics : reflector • aluminium, satin anodised • wide-angle

UGR classification : <=22

luminous flux: 1050 lm

luminous efficacy : 105 lm/W

LLMF: 99% @ 50khrs (Tq=25°C)

Product information

Mechanical properties

dimensions : 220 mm x 120 mm

cut-out size : 205 mm x 120 mm

colour: RAL9006 - white aluminium

trim: flat trim

type : individual luminaire

IP: IP20

Electrical properties

driver: DALI dimmable

power : 10 W

voltage : 230-240V

frequency : 50Hz AC

photobiological safety : EN 62471: RISK GROUP 1 UNLIMITED

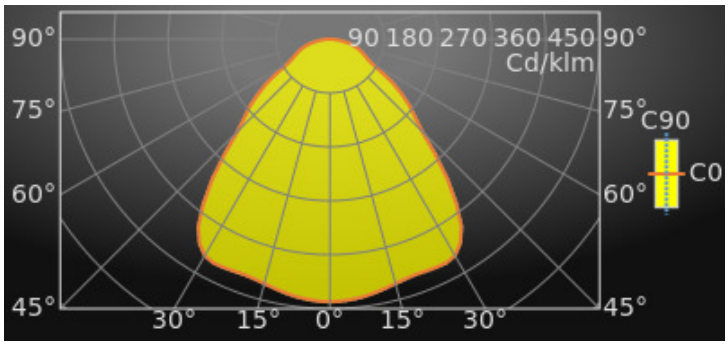
Luminance

luminous flux : 1050 lm

luminous efficacy : 105 lm/W

UGR classification =: <=22

luminous area : 0.02 m²



Average Luminances (Cd/m²) for 1050lm

Gamma	C0	C30	C45	C60	C90
45°	13755	13755	13755	13755	13755
50°	12123	12123	12123	12123	12123
55°	10069	10069	10069	10069	10069
60°	7216	7216	7216	7216	7216
65°	6835	6835	6835	6835	6835
70°	6872	6872	6872	6872	6872
75°	6841	6841	6841	6841	6841
80°	6492	6492	6492	6492	6492
85°	6358	6358	6358	6358	6358

Classifications

CIE: 616 / 878 / 970 / 1000 / 1000

CIE FLUXCODE : 0.62 / 0.88 / 0.97 / 1.00 / 1.00

BZ: BZ3/1.25/BZ2/1.5/BZ3

CAE: Symmetrical

DIN: A50 (Nach Arbeitsblatt 7)

DIN_U: Phi u = 1.00

DIN_SU: Phi su = 0.63

UTE: 1.00 C + 0.00 T

Lifetime Data (Tq=25.0°C)

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

Luminous intensities in cd

Intensity for 1050lm

Gamma	C0	C45	C90
0°	460.6	460.6	460.6
5°	457.9	457.9	457.9
10°	451.8	451.8	451.8
15°	443.5	443.5	443.5
20°	439.0	439.0	439.0
25°	441.4	441.4	441.4
30°	438.1	438.1	438.1
35°	401.7	401.7	401.7
40°	320.4	320.4	320.4
45°	228.6	228.6	228.6
50°	183.2	183.2	183.2
55°	135.8	135.8	135.8
60°	84.8	84.8	84.8
65°	67.9	67.9	67.9
70°	55.2	55.2	55.2
75°	41.6	41.6	41.6
80°	26.5	26.5	26.5
85°	13.0	13.0	13.0
90°	5.4	5.4	5.4

UGR classification =

Corrected Glare Ratings for a Total Lamp Flux of 1050lm (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	19.7	21.4	20.0	21.6	21.9	19.7	21.4	20.0	21.6	21.9
Y = 3H	20.5	22.0	20.8	22.3	22.6	20.5	22.0	20.8	22.3	22.6
Y = 4H	20.9	22.4	21.3	22.7	23.0	20.9	22.4	21.3	22.7	23.0
Y = 6H	21.3	22.7	21.7	23.0	23.3	21.3	22.7	21.7	23.0	23.3
Y = 8H	21.5	22.7	21.8	23.1	23.4	21.5	22.7	21.8	23.1	23.4
Y = 12H	21.6	22.8	22.0	23.1	23.5	21.6	22.8	22.0	23.1	23.5
X = 4H Y = 2H	19.9	21.4	20.3	21.7	22.0	19.9	21.4	20.3	21.7	22.0
Y = 3H	21.0	22.3	21.4	22.6	22.9	21.0	22.3	21.4	22.6	22.9
Y = 4H	21.7	22.7	22.1	23.1	23.5	21.7	22.7	22.1	23.1	23.5
Y = 6H	22.2	23.2	22.6	23.5	24.0	22.2	23.2	22.6	23.5	24.0
Y = 8H	22.4	23.3	22.8	23.7	24.1	22.4	23.3	22.8	23.7	24.1
Y = 12H	22.5	23.4	23.0	23.8	24.2	22.5	23.4	23.0	23.8	24.2
X = 8H Y = 4H	21.9	22.8	22.3	23.2	23.6	21.9	22.8	22.3	23.2	23.6
Y = 6H	22.6	23.4	23.1	23.8	24.3	22.6	23.4	23.1	23.8	24.3
Y = 8H	22.9	23.6	23.4	24.0	24.5	22.9	23.6	23.4	24.0	24.5
Y = 12H	23.1	23.7	23.6	24.2	24.7	23.1	23.7	23.6	24.2	24.7
X = 12H Y = 4H	21.9	22.8	22.4	23.2	23.6	21.9	22.8	22.4	23.2	23.6
Y = 6H	22.7	23.3	23.1	23.8	24.3	22.7	23.3	23.1	23.8	24.3
Y = 8H	23.0	23.6	23.5	24.1	24.6	23.0	23.6	23.5	24.1	24.6
	UGR Variations with Observer Position for Luminaire Spacings S									
S = 1.0H	+0.2		-0.3			+0.2		-0.3		
S = 1.5H	+0.5		-0.9			+0.5		-0.9		
S = 2.0H	+1.2		-1.1			+1.2		-1.1		

Colour properties

Correlated Colour Temperature : 4000

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	105	103	101	99	97	95	95	93	92	87
2	93	89	85	88	84	82	85	82	80	75
3	83	77	73	79	74	71	76	72	69	65
4	75	68	63	71	66	62	69	64	61	57
5	68	61	55	65	59	54	63	57	54	51
6	62	54	49	59	53	48	57	52	48	45
7	57	49	44	54	48	43	53	47	43	40
8	52	44	39	50	43	39	49	43	39	36
9	48	41	36	46	40	35	45	39	35	33
10	44	37	32	43	37	32	42	36	32	30

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	54	46	51	44	52	45	50	44	43	37
0.80	66	57	62	55	63	56	60	54	53	47
1.00	74	65	69	62	70	63	67	61	60	54
1.25	84	76	77	71	79	73	75	70	69	63
1.50	90	82	82	76	85	78	79	75	74	68
2.00	98	91	88	83	91	86	85	81	80	74
2.50	104	97	92	88	96	91	89	86	84	79
3.00	109	103	95	92	100	96	92	89	88	84
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

205