R3118/LEDN430DX1

surface-mounted luminaire • square

application : Office, Healthcare, Education, Horeca, Retail, Leisure
housing: lacquered sheet steel
light source : LED LP • 4000 K
optics : Shielded lens • medium wide-angle
UGR classification : <=19
luminous flux: 2950 lm
luminous efficacy : 148 lm/W
LLMF: 98% @ 50khrs (Tq=25°C)

Mechanical properties

dimensions : 630 mm x 630 mm x 35 mm
ceiling modulation : non modular
colour: RAL9003-white (textured)
type : individual luminaire
IP: IP20

Electrical properties

driver: DALI dimmable
power : 20 W
voltage : 220-240V
frequency : 50-60Hz AC
photobiological safety : EN 62471: RISK GROUP 1 UNLIMITED

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Luminance

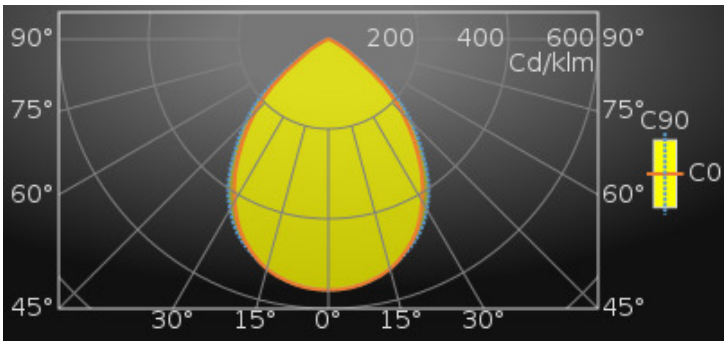
luminous flux : 2950 lm

luminous efficacy : 148 lm/W

luminance @ 65° : 3000 cd/m²

UGR classification: <=19

luminous area : 0.12 m²



Average Luminances (Cd/m²) for 2950lm

Gamma	C0	C30	C45	C60	C90
45°	8149	9288	9792	9463	9153
50°	6287	7838	8445	8181	7456
55°	3549	5641	6998	6611	4607
60°	2216	3454	4837	3660	2193
65°	675	1366	2186	1738	1515
70°	390	495	727	1079	985
75°	282	324	398	615	810
80°	78	165	230	333	645
85°	1	0	11	66	456

Classifications

CIE: 681 / 963 / 997 / 1000 / 1000

CIE FLUXCODE : 0.68 / 0.96 / 1.00 / 1.00 / 1.00

BZ: BZ2

CAE: Symmetrical

DIN: A50 (Nach Arbeitsblatt 7)

DIN_U: Phi u = 1.00

DIN_SU: Phi su = 0.70

UTE: 1.00 C + 0.00 T

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Luminous intensities in cd

Lifetime Data (Tq=25.0°C)

Time(khrs)	LLMF(%)	Cx(%)
10	100	1
20	99	2
30	99	3
40	99	4
50	99	5
60	98	6

Intensity for 2950lm

Gamma	C0	C45	C90
0°	1647.8	1647.8	1647.8
5°	1639.1	1634.8	1633.5
10°	1609.8	1607.9	1608.2
15°	1562.1	1559.7	1557.4
20°	1481.6	1490.8	1492.1
25°	1377.4	1405.1	1411.4
30°	1230.6	1284.6	1293.1
35°	1064.8	1151.4	1143.8
40°	875.3	985.8	953.4
45°	684.5	822.5	768.9
50°	480.1	644.9	569.4
55°	241.8	476.9	313.9
60°	131.6	287.3	130.3
65°	33.9	109.7	76.0
70°	15.8	29.5	40.0
75°	8.7	12.2	24.9
80°	1.6	4.7	13.3
85°	0.0	0.1	4.7
90°	0.0	0.0	0.0

UGR classification

Corrected Glare Ratings for a Total Lamp Flux of 2950lm (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	17.2	18.8	17.5	19.1	19.3	17.7	19.3	18.0	19.5	19.8
Y = 3H	17.1	18.5	17.4	18.8	19.1	17.6	19.0	17.9	19.3	19.6
Y = 4H	17.0	18.3	17.3	18.6	18.9	17.5	18.9	17.9	19.2	19.5
Y = 6H	16.9	18.1	17.3	18.4	18.8	17.5	18.7	17.9	19.0	19.4
Y = 8H	16.9	18.0	17.2	18.4	18.7	17.5	18.6	17.8	19.0	19.3
Y = 12H	16.8	18.0	17.2	18.3	18.6	17.4	18.6	17.8	18.9	19.2
X = 4H Y = 2H	17.4	18.7	17.7	19.0	19.3	17.7	19.1	18.1	19.4	19.7
Y = 3H	17.2	18.4	17.6	18.7	19.0	17.7	18.9	18.1	19.2	19.5
Y = 4H	17.2	18.2	17.6	18.5	18.9	17.7	18.7	18.1	19.0	19.4
Y = 6H	17.1	18.0	17.5	18.4	18.8	17.7	18.5	18.1	18.9	19.3
Y = 8H	17.1	17.9	17.5	18.3	18.7	17.7	18.4	18.1	18.8	19.3
Y = 12H	17.0	17.8	17.5	18.2	18.6	17.6	18.3	18.1	18.8	19.2
X = 8H Y = 4H	17.1	17.9	17.5	18.3	18.7	17.6	18.4	18.0	18.8	19.2
Y = 6H	17.0	17.7	17.5	18.1	18.6	17.6	18.2	18.1	18.7	19.1
Y = 8H	17.0	17.6	17.5	18.0	18.5	17.6	18.1	18.1	18.6	19.1
Y = 12H	17.0	17.5	17.5	17.9	18.5	17.6	18.0	18.0	18.5	19.0
X = 12H Y = 4H	17.1	17.8	17.5	18.2	18.6	17.6	18.3	18.0	18.7	19.2
Y = 6H	17.0	17.6	17.5	18.0	18.5	17.6	18.1	18.0	18.6	19.1
Y = 8H	17.0	17.5	17.5	17.9	18.5	17.5	18.0	18.0	18.5	19.0
	UGR Variations with Observer Position for Luminaire Spacings S									
S = 1.0H	+1.0		-2.3			+0.7		-1.4		
S = 1.5H	+2.2		-7.4			+2.1		-6.4		
S = 2.0H	+3.6		-14.2			+3.3		-8.1		

Colour properties

Correlated Colour Temperature : 4000

Ra: 80

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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	108	106	104	102	100	99	98	97	96	90
2	97	93	90	92	89	87	89	86	84	80
3	88	83	79	83	79	76	81	77	75	71
4	80	74	69	76	71	67	74	70	66	63
5	72	66	61	69	64	60	67	63	59	56
6	66	59	54	64	58	54	62	57	53	50
7	61	54	49	59	53	48	57	52	48	46
8	56	49	44	54	48	44	53	47	43	41
9	52	45	40	50	44	40	49	44	40	38
10	48	41	37	47	41	37	46	40	36	35

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	59	51	56	50	57	50	55	49	49	43
0.80	71	63	67	60	68	61	65	60	59	54
1.00	80	72	74	68	76	69	72	67	66	61
1.25	90	82	82	77	85	79	80	76	75	70
1.50	95	88	87	82	90	84	84	80	79	75
2.00	103	96	92	88	96	91	89	86	85	80
2.50	108	102	96	92	100	96	93	90	89	85
3.00	112	108	98	96	104	101	96	94	92	88
4.00	116	112	100	98	107	104	97	96	94	90
5.00	119	115	102	100	109	106	99	98	96	93

Dimensional drawing