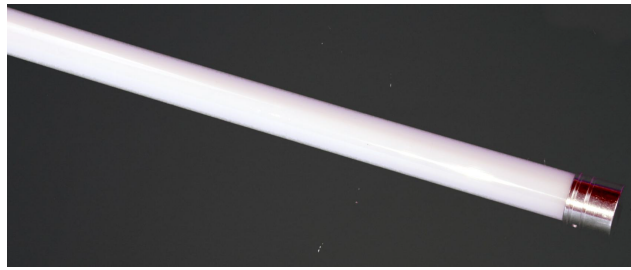


filename : RDTS-1000mm-24V.LDT
 meas. number : 2896
 luminaire number : RDTS 1000mm 24V
 date / operator : 08-03-2019

**default lamp type(s)**

no of lamps	lamp type	luminaire lumens	input wattage
1	LED TUBE	1380 lm	18.9 W

dimensions

luminaire		luminous area	
length	: 1020 mm	length	: 960 mm
width	: 30 mm	width	: 28 mm
height	: 30 mm	height	: 28 mm

coordinate system

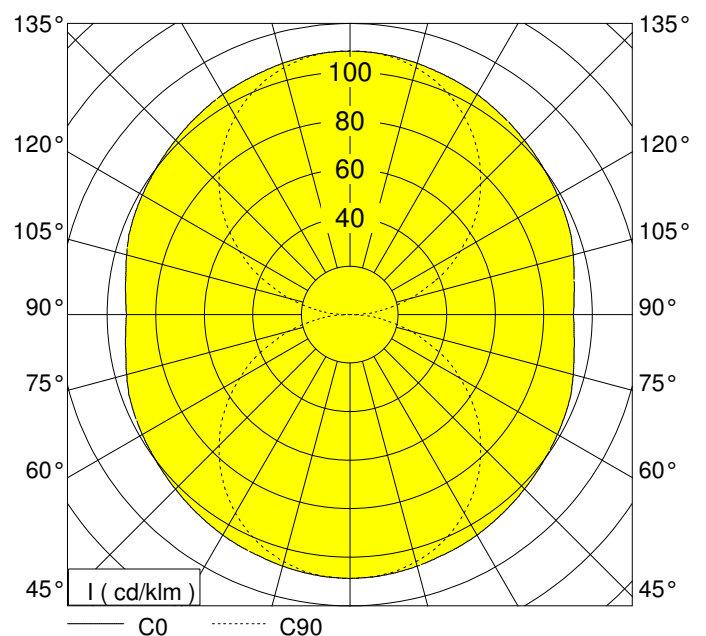
no of planes	: 7	samples / plane	: 37
first c-plane	: 0.0 °	first gamma-angle	: 0.0 °
step angle	: 15.0 °	step angle	: 5.0 °
last c-plane	: 90.0 °	last gamma-angle	: 180.0 °
symmetrics : symmetry to C0 / C90			

performance

light output ratio : 100.0 %
 DFF : 50.0 %
 UFF : 50.0 %

classification

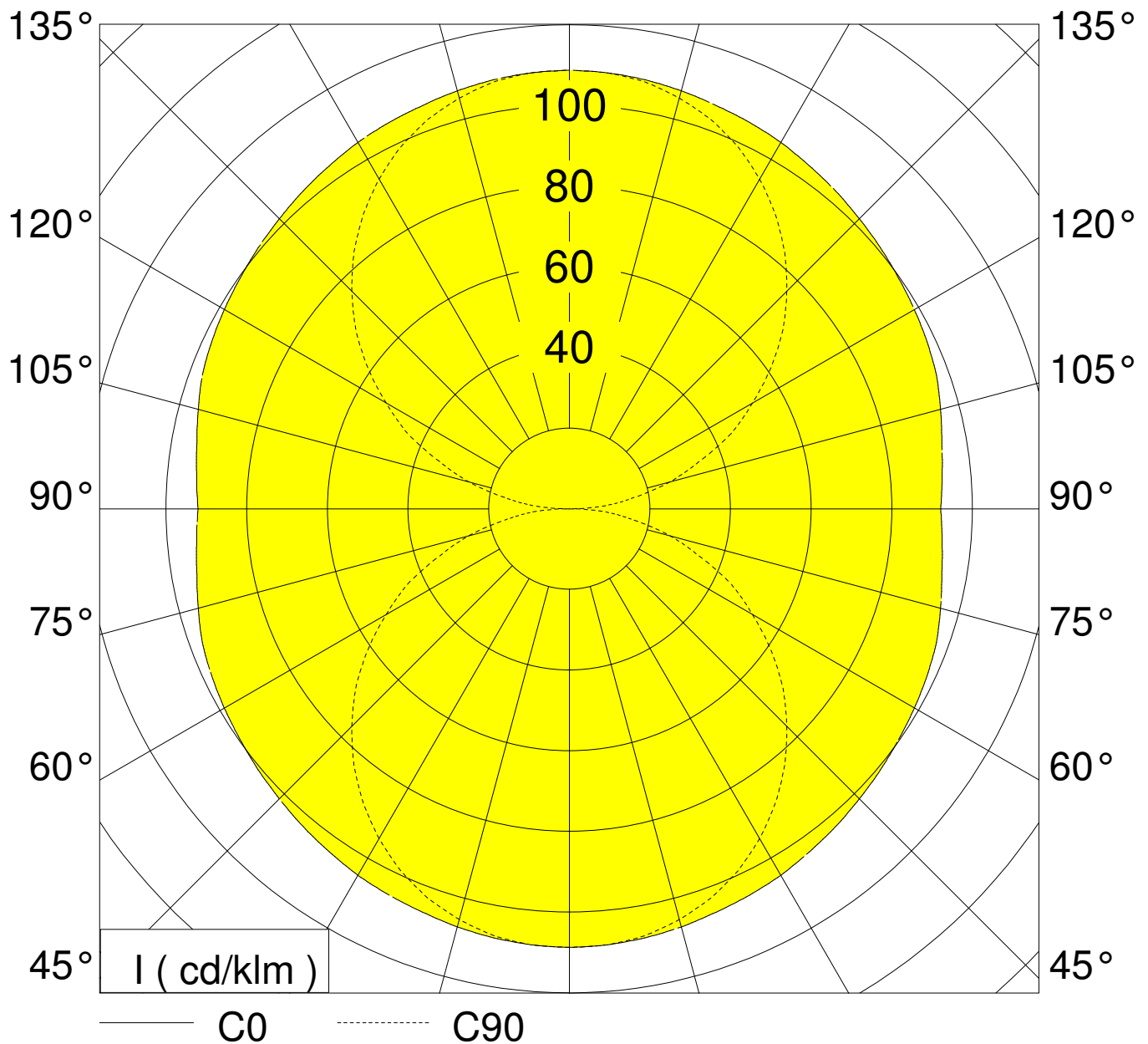
LiTG / DIN : C22
 UTE : 0.50H+0.50T
 CIE : 32 58 81 50 100
 BZ : 1 6 6 6 6 6 6 6 6
 Ambient Temperature : 25 degC
 Input Voltage : 240 V
 Circuit Watts : 18.9 W
 Amps (running) : 0.083A
 V.A. : 19.89VA
 Power Factor : 0.95
 CCT : 4181K (measured): 4000K (declared)
 CRI (Ra) : 92
 S/P Ratio : 1.8
 Luminaire Lumens : 1380LLm
 Output Current DC : 660mA
 Output Voltage DC : 23.5V
 Output Power : 15.51W
 Luminaire Lm/circ.Watt : 73 LLm/circ.Watt
 Driver Efficiency : 82%
 Driver Details : HELVAR LL1X30-E-CV240



Measurements made are in absolute units. The luminaire is treated as if it was a lamp as it is not possible to measure each LED separately - hence an LOR of 100%

The Light output ratio in real terms would be less than 100%. If it was possible to compare real LED lumens with the total output from the luminaire we could obtain an actual LOR

This also means that the total lumens emitted from the LED's would be greater than the Luminaire Lumens measured. In reality the LED lumens would approximate to this value divided by the actual Light Output.



	C 0.0	C 15.0	C 30.0	C 45.0	C 60.0	C 75.0	C 90.0
0.0°	108.60	108.60	108.60	108.60	108.60	108.60	108.60
5.0°	108.40	108.40	108.40	108.50	108.60	108.50	108.40
10.0°	107.90	107.90	107.90	107.80	107.70	107.60	107.40
15.0°	107.20	107.20	107.20	106.80	106.30	105.80	105.30
20.0°	106.30	106.20	106.00	105.10	104.30	103.40	102.60
25.0°	105.60	105.20	104.80	103.00	101.30	100.10	98.90
30.0°	104.80	103.90	103.00	100.40	97.80	96.10	94.30
35.0°	103.70	102.40	101.10	97.60	94.00	91.60	89.00
40.0°	102.70	100.90	99.00	94.30	89.60	86.30	83.00
45.0°	101.60	99.30	97.00	90.80	84.60	80.40	76.20
50.0°	100.60	97.70	94.70	87.10	79.40	74.20	69.10
55.0°	99.60	96.10	92.70	83.40	74.00	67.50	61.00
60.0°	98.70	94.50	90.50	79.40	68.40	60.40	52.40
65.0°	97.80	93.10	88.50	75.70	63.00	53.60	44.30
70.0°	96.80	91.80	86.60	72.30	58.00	46.10	34.20
75.0°	95.20	89.90	84.60	69.10	53.50	39.60	25.80
80.0°	93.70	87.80	81.80	65.70	49.60	32.90	16.30
85.0°	92.70	86.50	80.20	62.80	45.40	27.30	9.10
90.0°	92.00	85.70	79.30	61.10	42.80	21.40	0.00
95.0°	92.70	86.50	80.20	62.80	45.40	27.30	9.10
100.0°	93.70	87.80	81.80	65.70	49.60	32.90	16.30
105.0°	95.20	89.90	84.60	69.10	53.50	39.60	25.80
110.0°	96.80	91.80	86.60	72.30	58.00	46.10	34.20
115.0°	97.80	93.10	88.50	75.70	63.00	53.60	44.30
120.0°	98.70	94.50	90.50	79.40	68.40	60.40	52.40
125.0°	99.60	96.10	92.70	83.40	74.00	67.50	61.00
130.0°	100.60	97.70	94.70	87.10	79.40	74.20	69.10
135.0°	101.60	99.30	97.00	90.80	84.60	80.40	76.20
140.0°	102.70	100.90	99.00	94.30	89.60	86.30	83.00
145.0°	103.70	102.40	101.10	97.60	94.00	91.60	89.00
150.0°	104.80	103.90	103.00	100.40	97.80	96.10	94.30
155.0°	105.60	105.20	104.80	103.00	101.30	100.10	98.90
160.0°	106.30	106.20	106.00	105.10	104.30	103.40	102.60
165.0°	107.20	107.20	107.20	106.80	106.30	105.80	105.30
170.0°	107.90	107.90	107.90	107.80	107.70	107.60	107.40
175.0°	108.40	108.40	108.40	108.50	108.60	108.50	108.40
180.0°	108.60	108.60	108.60	108.60	108.60	108.60	108.60
	cd / klm						

glare rating according to UGR											
ρ-ceiling		70	70	50	50	30	70	70	50	50	30
ρ-walls		50	30	50	30	30	50	30	50	30	30
ρ-workplane		20	20	20	20	20	20	20	20	20	20
room dimensions X Y		viewed crosswise					viewed endwise				
2H	2H	14.5	15.5	15.4	16.4	17.5	13.8	14.8	14.6	15.7	16.8
	3H	17.5	18.7	18.6	19.9	21.7	16.1	17.3	17.2	18.5	20.3
	4H	18.9	20.0	20.0	21.3	23.2	16.9	18.0	18.1	19.3	21.2
	6H	20.1	21.2	21.4	22.5	24.6	17.5	18.6	18.7	19.9	22.0
	8H	20.8	21.9	22.1	23.3	25.4	17.8	18.8	19.1	20.2	22.4
	12H	21.5	22.6	22.8	24.0	26.2	18.0	19.1	19.3	20.5	22.7
4H	2H	15.8	16.9	16.9	18.2	20.1	15.2	16.3	16.3	17.6	19.5
	3H	18.6	19.6	19.8	21.0	23.2	17.3	18.3	18.5	19.7	22.0
	4H	20.1	21.1	21.5	22.6	25.1	18.3	19.3	19.7	20.8	23.3
	6H	21.4	22.3	22.8	23.7	26.1	19.0	19.8	20.3	21.3	23.7
	8H	22.2	23.0	23.6	24.5	27.0	19.3	20.1	20.7	21.6	24.2
	12H	23.0	23.8	24.5	25.4	28.4	19.7	20.5	21.2	22.1	25.1
8H	4H	20.3	21.1	21.7	22.7	25.2	18.9	19.6	20.3	21.2	23.7
	6H	22.3	23.0	23.8	24.7	27.9	20.2	20.9	21.7	22.6	25.8
	8H	23.3	24.0	24.9	25.8	29.3	20.8	21.5	22.4	23.3	26.8
	12H	24.1	24.7	25.8	26.5	29.9	21.1	21.7	22.8	23.5	26.9
12H	4H	20.5	21.2	22.0	22.9	25.9	19.2	19.9	20.7	21.6	24.5
	6H	22.5	23.2	24.1	25.0	28.5	20.6	21.3	22.2	23.1	26.6
	8H	23.4	24.0	25.0	25.8	29.2	21.1	21.7	22.8	23.5	26.9
variation of observer position											
S =	1.0H	+0.1/ -0.1				+0.1/ -0.1					
	1.5H	+0.2/ -0.2				+0.1/ -0.2					
	2.0H	+0.2/ -0.3				+0.2/ -0.3					
standard-table		BK11					BK08				
correction for luminaire		7.4					3.9				
correct glare indices for a total flux of 1380lm											

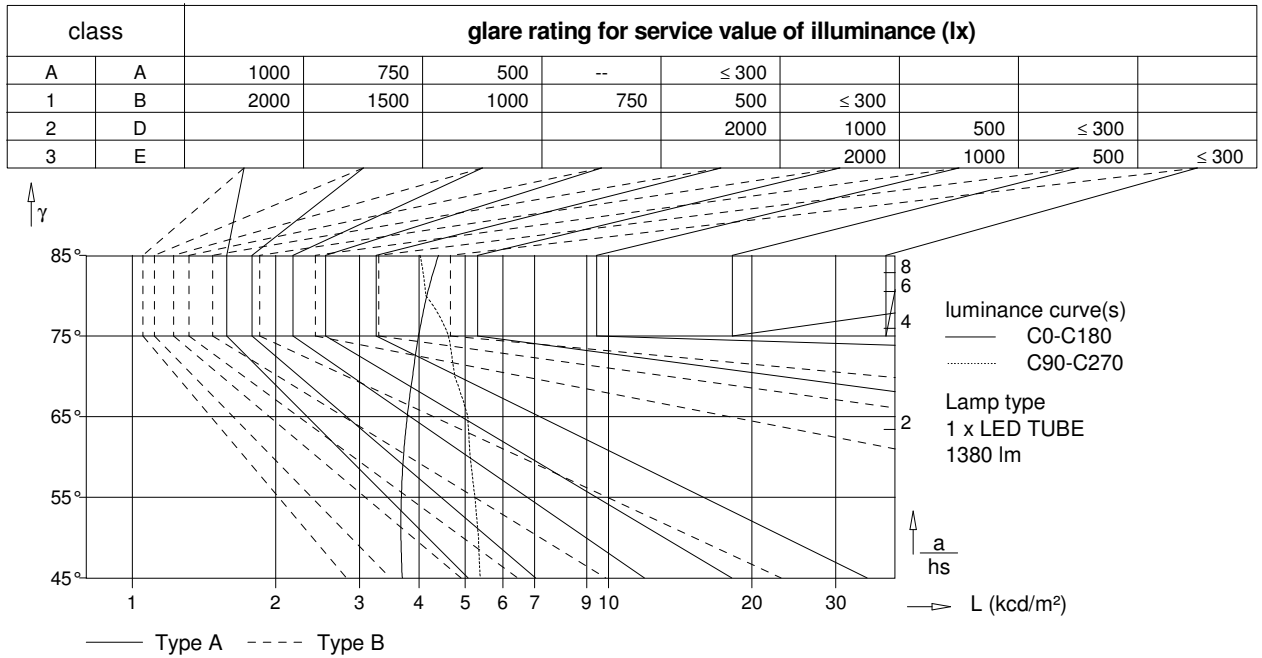


Table of intensities

gamma	C 0	C 90	C 180	C 270
45°	3688.3	5375.7	3688.3	5375.7
50°	3666.0	5333.6	3666.0	5333.6
55°	3671.5	5241.6	3671.5	5241.6
60°	3709.4	5121.6	3709.4	5121.6
65°	3778.2	5064.7	3778.2	5064.7
70°	3877.3	4752.8	3877.3	4752.8
75°	3990.6	4615.3	3990.6	4615.3
80°	4152.5	4135.1	4152.5	4135.1
85°	4393.0	4020.2	4393.0	4020.2

all values in cd/m²

utilization factors / TM5											
reflection			room index								
C	W	F	0.75	1.0	1.25	1.5	2.0	2.5	3.0	4.0	5.0
70	50	20	N/A	50	56	61	67	72	75	80	83
70	30	20	N/A	42	49	53	61	66	70	75	79
70	10	20	N/A	37	43	48	55	61	65	71	75
50	50	20	N/A	42	47	51	57	60	63	67	69
50	30	20	N/A	36	41	46	52	56	59	63	66
50	10	20	N/A	32	37	41	47	52	55	60	63
30	50	20	N/A	35	39	42	47	50	52	55	57
30	30	20	N/A	31	35	38	43	46	49	52	55
30	10	20	N/A	27	31	35	40	43	46	50	53
0	0	0	N/A	19	22	24	28	30	32	35	37
BZ-class			1	6	6	6	6	6	6	6	6
SHRnom : 1.75						SHRmax : 1.846					

