

filename : MT360-LED-5.LDT
 meas. number : 2892
 luminaire number : MT360-LED-5
 date / operator : 07-03-2019

**default lamp type(s)**

no of lamps	lamp type	luminaire lumens	input wattage
1	LED MODULE	500 lm	10.0 W

dimensions

luminaire		luminous area	
length	: 520 mm	length	: 500 mm
width	: 68 mm	width	: 68 mm
height	: 68 mm	height	: 68 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

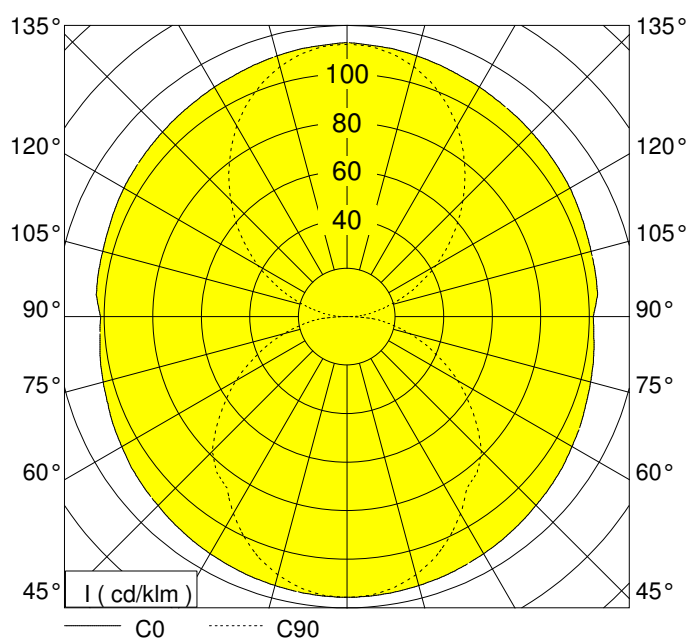
performance

light output ratio : 100.0 %
 DFF : 50.7 %
 UFF : 49.3 %

classification

LiTG / DIN : C22
 UTE : 0.51H+0.49T
 CIE : 32 59 81 51 100
 BZ : 1 6 6 6 6 6 6 6 6

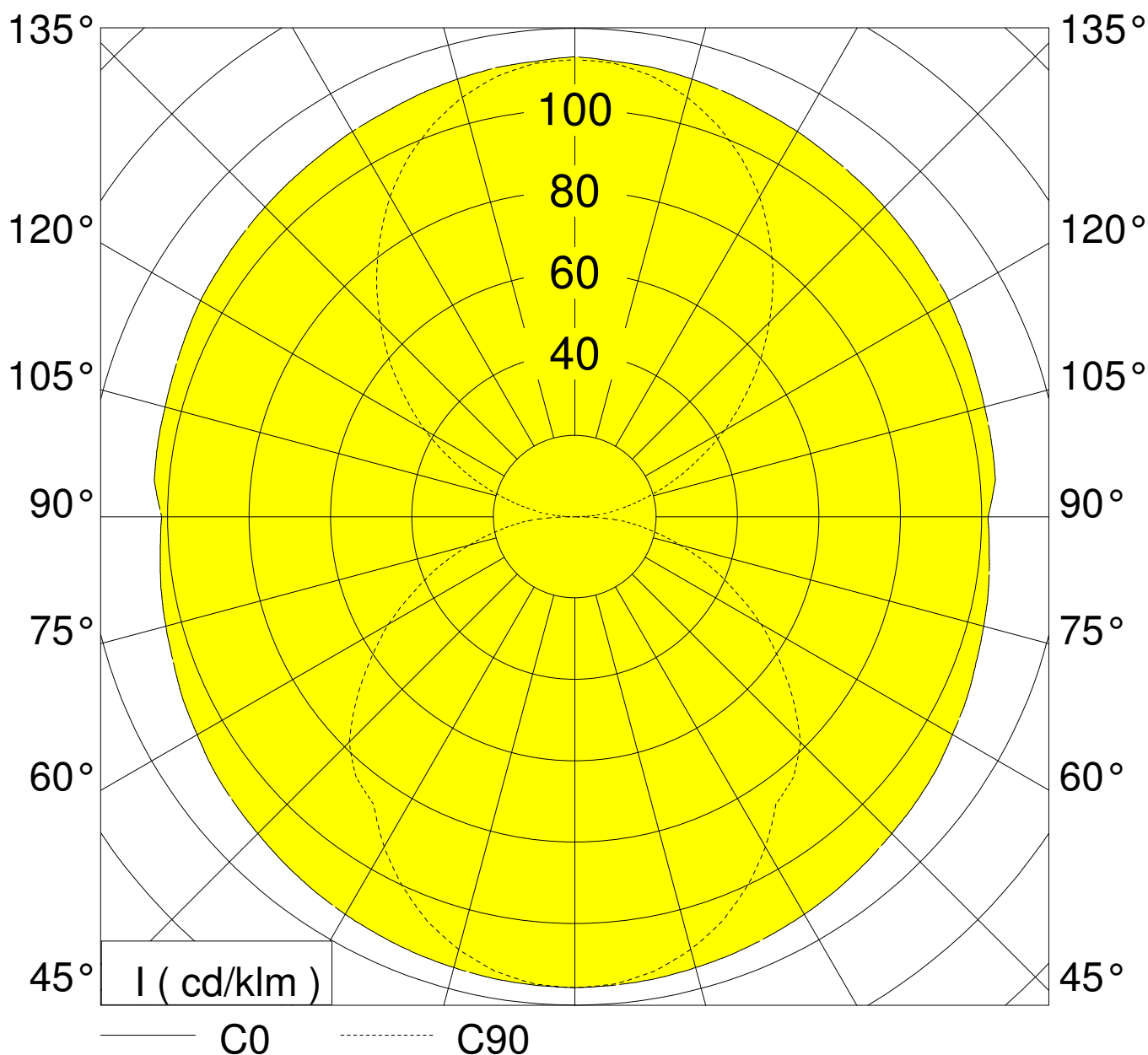
Ambient Temperature : 25 degC
 Input Voltage : 240 V
 Circuit Watts : 10.0W
 Amps (running) : 0.047A
 V.A. : 11.36VA
 Power Factor : 0.88
 CCT : 4266K (measured): 4270K (declared)
 CRI (Ra) : 92
 S/P Ratio : 1.9
 Luminaire Lumens : 500 LLm
 Output Current DC : 330mA
 Output Voltage DC : 23.6V
 Output Power : 7.79W
 Luminaire Lm/circ.Watt : 50 LLm/circ.Watt
 Driver Efficiency : 78%
 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°	115.60	115.60	115.60	115.60	115.60	115.60	115.60
5.0°	115.40	115.40	115.40	111.70	108.10	111.60	115.10
10.0°	115.10	115.00	114.90	114.50	114.10	113.70	113.20
15.0°	114.60	114.30	113.90	112.80	111.70	110.90	110.00
20.0°	114.10	113.30	112.40	110.40	108.30	107.00	105.70
25.0°	113.40	112.10	110.70	107.50	104.20	102.10	100.10
30.0°	112.70	110.60	108.50	103.90	99.30	96.40	93.60
35.0°	111.90	109.00	106.10	99.90	93.70	89.90	86.10
40.0°	111.00	107.30	103.70	95.50	87.40	80.40	83.50
45.0°	110.00	105.40	100.70	91.00	81.30	79.80	78.30
50.0°	109.20	103.60	98.10	86.40	74.80	72.30	70.00
55.0°	108.30	101.80	95.40	81.90	68.50	64.90	61.20
60.0°	107.00	99.90	92.70	77.50	62.50	57.60	52.80
65.0°	106.10	98.00	90.00	73.30	56.60	50.10	43.60
70.0°	104.80	96.10	87.30	69.50	51.50	43.30	35.10
75.0°	103.90	94.50	85.20	65.70	46.20	36.40	26.60
80.0°	103.10	93.30	83.40	62.80	42.10	30.30	18.60
85.0°	102.10	91.60	81.00	59.90	38.60	25.10	11.60
90.0°	101.40	91.10	80.80	59.10	37.40	20.50	0.00
95.0°	103.60	93.40	83.20	61.30	39.40	22.70	6.10
100.0°	103.90	94.00	84.20	63.30	42.30	26.80	11.40
105.0°	104.10	94.70	85.40	65.80	46.20	32.00	17.90
110.0°	104.60	96.00	87.30	69.10	50.80	38.20	25.70
115.0°	105.30	97.40	89.50	72.50	55.70	44.70	33.60
120.0°	106.10	98.90	91.70	76.30	61.00	51.70	42.40
125.0°	106.50	100.20	93.90	80.30	66.80	58.70	50.60
130.0°	107.00	101.60	96.10	84.30	72.60	66.00	59.30
135.0°	107.50	102.90	98.30	88.50	78.70	73.00	67.50
140.0°	108.00	104.40	100.70	92.00	83.30	79.50	75.70
145.0°	108.50	105.70	102.90	96.70	90.60	87.00	83.40
150.0°	109.20	107.20	105.10	100.60	96.20	93.40	90.70
155.0°	109.70	108.40	107.10	103.90	100.80	98.90	97.00
160.0°	110.50	109.70	109.00	107.10	105.10	103.70	102.30
165.0°	111.20	110.80	110.50	109.40	108.30	107.50	106.60
170.0°	111.90	111.70	111.50	111.10	110.70	110.30	109.80
175.0°	112.20	112.30	112.40	112.30	112.20	112.00	111.70
180.0°	112.90	112.80	112.70	112.70	112.70	112.40	112.20
	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	10.4	11.5	11.3	12.4	13.5	8.8	9.9	9.7	10.7	11.8
	3H	13.5	14.7	14.6	15.9	17.6	11.0	12.2	12.1	13.4	15.1
	4H	14.9	16.0	16.0	17.2	19.1	11.8	12.9	12.9	14.2	16.0
	6H	16.2	17.3	17.4	18.6	20.6	12.4	13.4	13.6	14.7	16.8
	8H	16.9	18.0	18.2	19.3	21.5	12.6	13.7	13.9	15.0	17.2
	12H	17.7	18.7	18.9	20.1	22.3	12.9	13.9	14.1	15.3	17.5
4H	2H	11.5	12.6	12.7	13.9	15.8	10.3	11.4	11.4	12.7	14.5
	3H	14.4	15.4	15.6	16.8	19.0	12.2	13.2	13.4	14.6	16.8
	4H	16.0	17.0	17.3	18.5	20.9	13.1	14.1	14.5	15.6	18.0
	6H	17.4	18.2	18.7	19.7	22.0	13.7	14.6	15.1	16.0	18.4
	8H	18.2	19.0	19.6	20.5	23.0	14.1	14.9	15.5	16.4	18.9
	12H	19.1	19.8	20.6	21.5	24.4	14.4	15.2	15.9	16.8	19.7
8H	4H	16.1	16.9	17.5	18.4	20.9	13.7	14.5	15.1	16.0	18.5
	6H	18.1	18.9	19.7	20.6	23.7	14.9	15.7	16.5	17.4	20.5
	8H	19.2	19.9	20.8	21.6	25.1	15.5	16.2	17.1	17.9	21.4
	12H	20.1	20.7	21.7	22.4	25.7	15.8	16.4	17.4	18.1	21.5
12H	4H	16.2	17.0	17.7	18.6	21.5	14.1	14.8	15.6	16.5	19.4
	6H	18.3	19.0	19.9	20.8	24.2	15.4	16.1	17.0	17.9	21.3
	8H	19.3	19.8	20.9	21.6	24.9	15.9	16.4	17.5	18.2	21.5
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/ -0.2				+0.2/ -0.3					
standard-table		BK12					BK08				
correction for luminaire		3.7					-1.3				
correct glare indices for a total flux of 500lm											

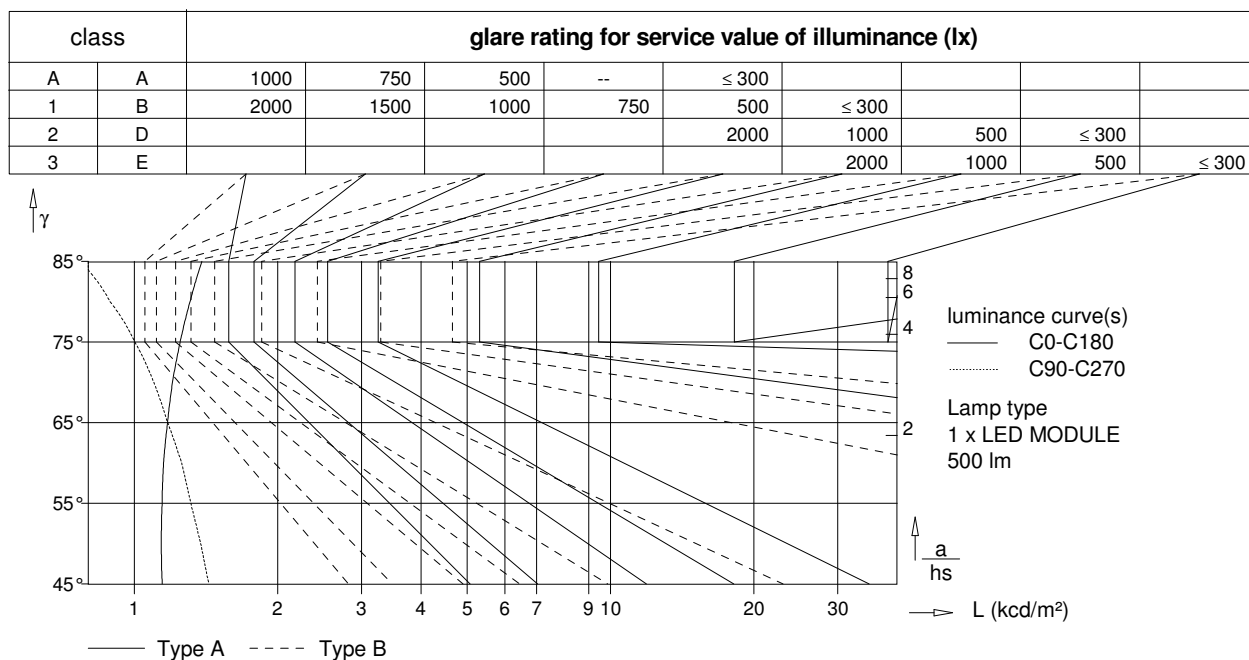


Table of intensities

gamma	C 0	C 90	C 180	C 270
45°	1143.8	1433.5	1143.8	1433.5
50°	1139.9	1378.1	1139.9	1378.1
55°	1143.5	1313.9	1143.5	1313.9
60°	1151.9	1256.9	1151.9	1256.9
65°	1174.1	1174.6	1174.1	1174.6
70°	1202.4	1098.7	1202.4	1098.7
75°	1247.6	1002.5	1247.6	1002.5
80°	1308.8	889.3	1308.8	889.3
85°	1386.0	766.2	1386.0	766.2

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	68	72	76	80	83
70	30	20	N/A	43	49	54	61	66	70	75	79
70	10	20	N/A	37	43	48	56	61	65	71	75
50	50	20	N/A	43	48	52	57	61	63	67	70
50	30	20	N/A	37	42	46	52	56	59	64	67
50	10	20	N/A	32	37	42	48	52	56	61	64
30	50	20	N/A	36	40	43	47	50	52	56	58
30	30	20	N/A	31	35	39	43	47	49	53	55
30	10	20	N/A	28	32	35	40	44	47	50	53
0	0	0	N/A	20	23	25	28	31	33	36	38
BZ-class			1	6	6	6	6	6	6	6	6
SHRnom : 1.75						SHRmax : 1.862					

