

default lamp type(s)

no of lamps	lamp type	flux / lamp	wattage
1	50 LED CLUSTER EM OP	160 lm	14 W
1	50 LED NON EM Operatiion	291 lm	14 W

dimensions

luminaire

length : 340 mm
width : 105 mm
height : 90 mm

luminous area

length : 330 mm
width : 90 mm
height : 35 mm

coordinate system

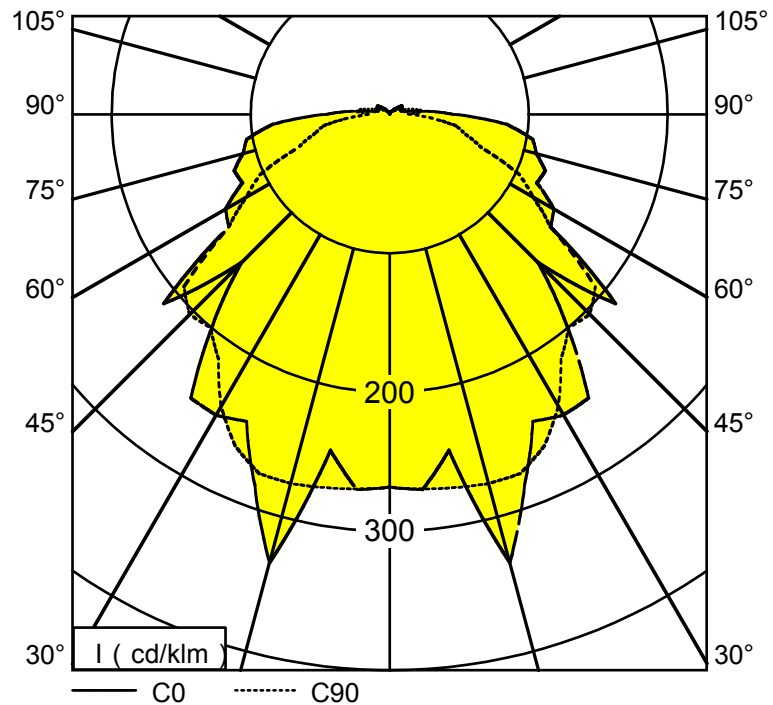
no of planes	: 7	samples / plane	: 37
first c-plane	: 0.0 °	first gamma-angle	: 0.0 °
step angle	: 15.0 °	step angle	: 5.0 °
last c-plane	: 90.0 °	last gamma-angle	: 180.0 °
symmetrics	: symmetry to C0 / C90		

performance

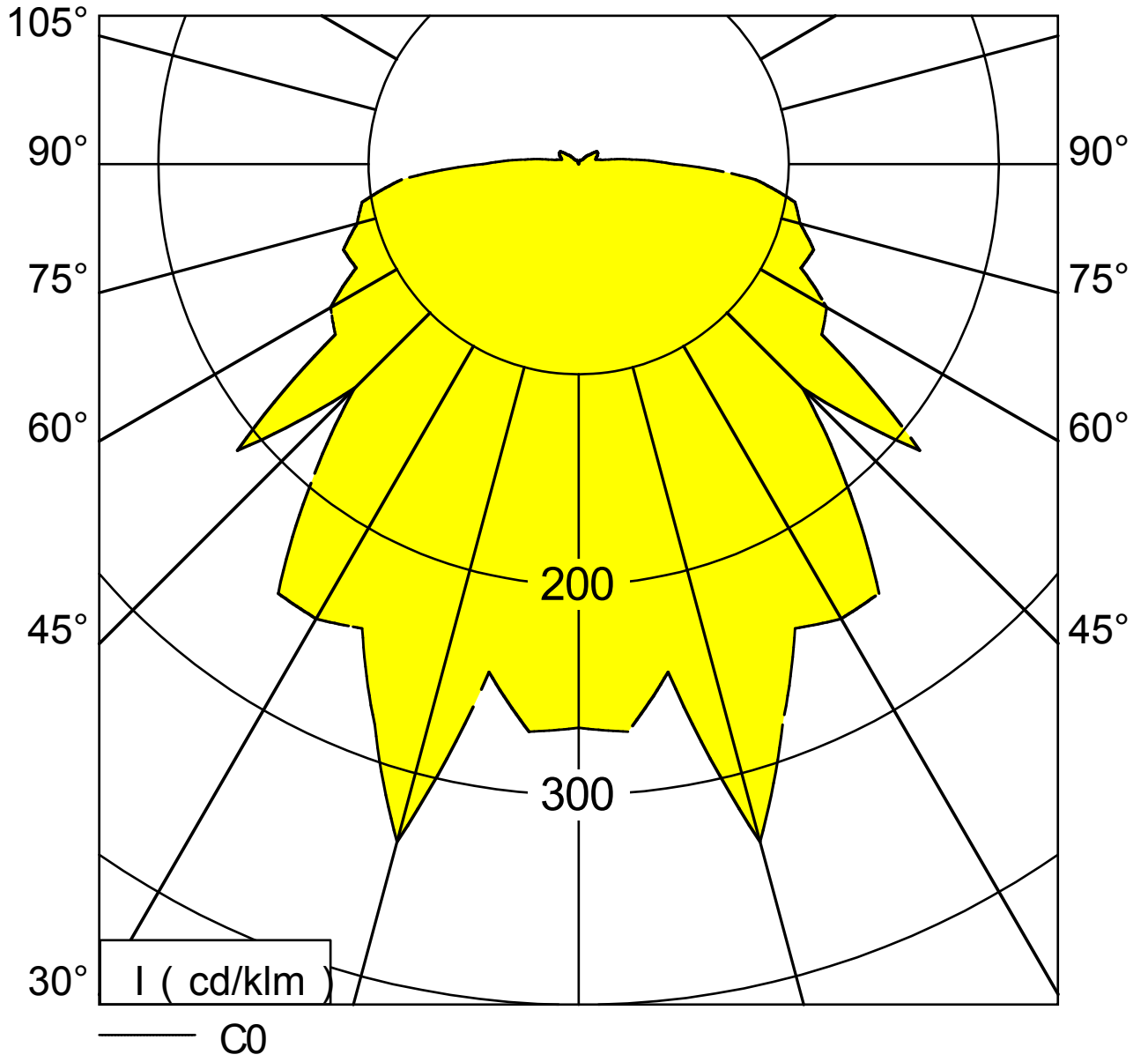
light output ratio	: 100.0 %
DFF	: 93.6 %
UFF	: 6.4 %

classification

LiTG / DIN	: A31
UTE	: 0.94G+0.06T
CIE	: 43 69 87 94 100
BZ	: 6 5 6 6 6 6 6 6 6



105°



	C 0.0	C 15.0	C 30.0	C 45.0	C 60.0	C 75.0	C 90.0
0.0°	268.20	268.20	268.20	268.20	268.20	268.20	268.20
5.0°	271.00	264.60	258.20	259.00	259.80	265.10	270.40
10.0°	245.40	238.30	231.20	247.80	264.30	268.50	272.60
15.0°	333.80	353.30	372.80	292.10	211.40	243.10	274.90
20.0°	283.80	267.30	250.90	260.90	271.00	272.90	274.90
25.0°	243.70	252.90	262.10	287.40	312.70	287.90	263.20
30.0°	249.80	240.10	230.30	248.70	267.10	254.80	242.60
35.0°	249.30	258.20	267.10	262.30	257.60	236.20	214.80
40.0°	198.10	199.70	201.40	217.30	233.10	216.70	200.30
45.0°	150.80	166.10	181.40	182.80	184.20	193.90	203.60
50.0°	212.00	168.60	125.20	128.80	132.40	162.70	193.10
55.0°	141.30	138.80	136.30	137.10	138.00	139.70	141.30
60.0°	136.30	140.80	145.20	127.40	109.60	114.30	119.10
65.0°	116.80	124.60	132.40	120.20	107.90	105.40	102.90
70.0°	119.10	116.30	113.50	97.40	81.20	75.70	70.10
75.0°	109.10	109.60	110.20	102.40	94.60	75.70	56.80
80.0°	104.60	106.50	108.50	99.60	90.70	69.50	48.40
85.0°	84.60	87.60	90.70	88.70	86.80	57.90	28.90
90.0°	45.60	51.70	57.90	53.70	49.50	30.90	12.20
95.0°	25.60	24.20	22.80	22.00	21.10	22.30	23.40
100.0°	11.70	10.80	10.00	10.80	11.70	16.10	20.60
105.0°	8.30	9.50	10.60	10.60	10.60	12.80	15.00
110.0°	8.90	8.60	8.30	9.20	10.00	10.00	10.00
115.0°	10.00	9.70	9.50	11.40	13.40	10.80	8.30
120.0°	10.60	10.60	10.60	11.70	12.80	9.50	6.10
125.0°	10.60	8.90	7.20	9.20	11.10	7.80	4.50
130.0°	7.20	6.40	5.60	5.80	6.10	5.30	4.50
135.0°	5.60	4.50	3.30	3.90	4.50	4.20	3.90
140.0°	2.80	2.50	2.20	2.80	3.30	3.10	2.80
145.0°	2.20	2.20	2.20	2.50	2.80	2.50	2.20
150.0°	2.20	2.20	2.20	2.20	2.20	2.20	2.20
155.0°	2.20	2.20	2.20	2.20	2.20	2.20	2.20
160.0°	2.20	2.20	2.20	2.20	2.20	2.20	2.20
165.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00
170.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00
175.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	cd / klm						

glare rating according to UGR											
□-ceiling		70	70	50	50	30	70	70	50	50	30
□-walls		50	30	50	30	30	50	30	50	30	30
□-workplane		20	20	20	20	20	20	20	20	20	20
room dimensions X Y		viewed crosswise					viewed endwise				
2H	2H	11.9	13.4	12.2	13.7	14.0	11.9	13.5	12.3	13.8	14.1
	3H	13.6	14.8	13.9	15.1	15.4	13.1	14.4	13.5	14.7	15.0
	4H	14.7	16.0	15.1	16.3	16.6	13.9	15.1	14.3	15.5	15.8
	6H	15.9	17.1	16.4	17.5	17.9	14.7	15.9	15.2	16.3	16.7
	8H	16.6	17.7	17.0	18.1	18.5	15.2	16.3	15.6	16.7	17.1
	12H	17.1	18.2	17.5	18.6	19.1	15.5	16.6	15.9	17.0	17.4
4H	2H	12.3	13.5	12.7	13.8	14.2	12.3	13.5	12.7	13.8	14.2
	3H	14.7	15.9	15.1	16.2	16.7	14.2	15.3	14.6	15.7	16.1
	4H	16.1	17.3	16.6	17.7	18.2	15.3	16.4	15.8	16.9	17.3
	6H	17.4	18.3	17.8	18.7	19.2	16.2	17.2	16.7	17.6	18.1
	8H	18.0	18.9	18.5	19.4	19.9	16.7	17.6	17.2	18.1	18.6
	12H	18.8	19.6	19.3	20.2	20.8	17.3	18.2	17.8	18.7	19.3
8H	4H	16.5	17.4	17.0	17.9	18.4	15.8	16.7	16.3	17.2	17.7
	6H	18.4	19.3	19.0	19.8	20.5	17.5	18.4	18.1	18.9	19.6
	8H	19.4	20.2	20.0	20.8	21.5	18.3	19.1	18.9	19.7	20.4
	12H	20.0	20.7	20.6	21.3	22.0	18.8	19.5	19.5	20.1	20.8
12H	4H	16.8	17.6	17.3	18.2	18.7	16.1	17.0	16.7	17.5	18.1
	6H	18.7	19.6	19.4	20.2	20.8	17.9	18.7	18.5	19.3	20.0
	8H	19.5	20.2	20.2	20.8	21.5	18.6	19.3	19.3	19.9	20.6
variation of observer position											
S =	1.0H	+0.1/		-0.1		+0.1/		-0.1			
	1.5H	+0.1/		-0.2		+0.1/		-0.2			
	2.0H	+0.2/		-0.3		+0.2/		-0.4			
standard-table	BK10					BK09					
correction for luminaire	2.8					1.7					
correct glare indices for a total flux of 160lm											

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	52	61	68	73	80	85	88	93	97
70	30	20	43	53	60	65	73	78	82	88	92
70	10	20	38	46	53	59	67	72	77	83	88
50	50	20	49	58	64	69	75	80	83	88	91
50	30	20	42	51	57	62	69	75	78	84	87
50	10	20	37	45	52	57	64	70	74	80	84
30	50	20	47	55	61	65	72	76	79	83	86
30	30	20	41	49	55	60	66	71	75	80	83
30	10	20	36	44	50	55	62	67	71	76	80
0	0	0	33	41	47	51	58	62	66	71	74
BZ-class			6	5	6	6	6	6	6	6	6
SHRnom : 1.25						SHRmax : 1.378					

