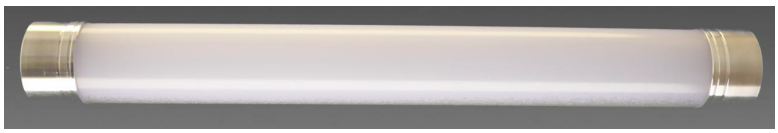
filename	: AC 70 RD 2.LDT
meas. number	: 2015
luminaire number	: AC 70 RD 2
date / operator	: 18-08-2016



default lamp type(s))

no of lamps	lamp type	luminaire lumens	input wattage
1	ILED MODULE	1605 lm	15.5 W

dimensions

luminaire			luminous area		
length	:	630 mm	length	:	540 mm
width	:	75 mm	width	:	70 mm
height	:	75 mm	height	:	70 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			

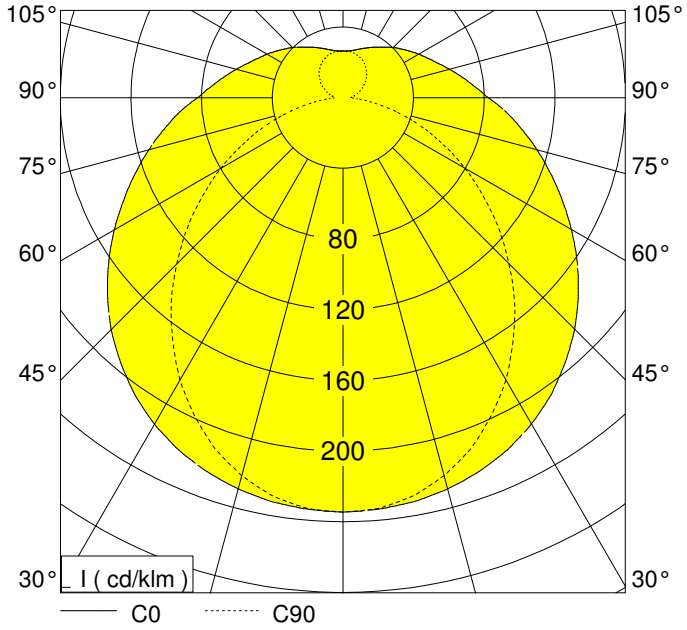
performance

light output ratio	:	100.0 %
DFF	:	78.3 %
UFF	:	21.7 %

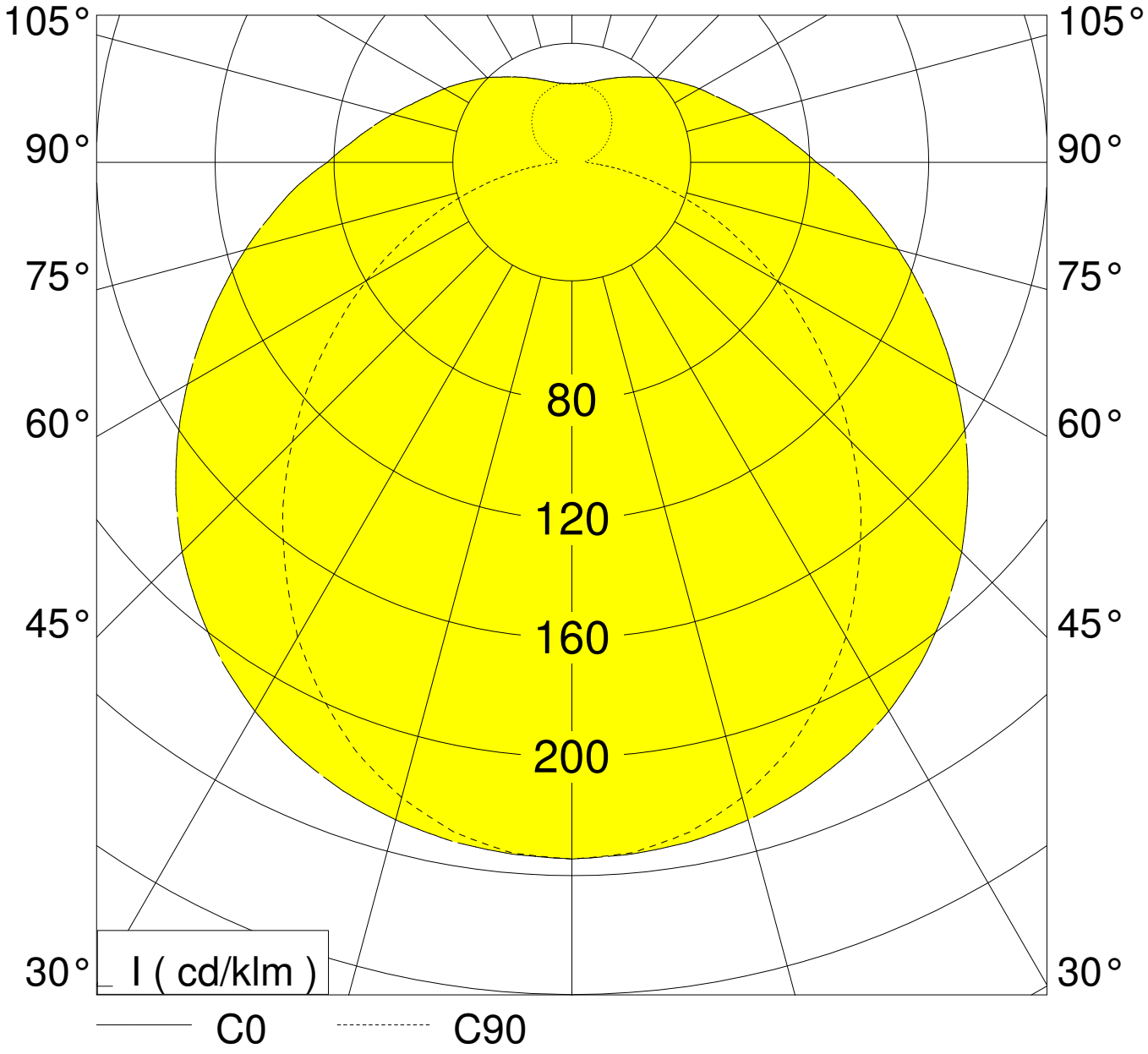
classification

LiTG / DIN	: B31
UTE	: 0.78G+0.22T
CIE	: 40 69 88 78 100
BZ	: 5 5 5 5 6 6 6 6 6

Ambient Temperature	: 25 degC
Input Voltage	: 240 V
Circuit Watts	: 15.5W
Amps (running)	: 0.070A
V.A.	: 16.85 VA
Power Factor	: 0.92
CCT	: 3696K (measured): 3700K (declared)
CRI (Ra)	: 85
Luminaire Lumens	: 1605 LLm
Output Current DC	: 690mA
Output Voltage DC	: 17.8V
Output Power	: 12.28W
Luminaire Lm/circ.Watt	: 104 Lm/circ.Watt
Driver Efficiency	: 79%
Driver Details	: HARVARD CL700 240C



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°	234.20	234.20	234.20	234.20	234.20	234.20	234.20
5.0°	233.40	233.10	232.80	232.70	232.60	232.80	233.00
10.0°	231.80	230.90	230.10	229.40	228.60	228.60	228.60
15.0°	228.90	227.20	225.60	223.90	222.30	221.70	221.10
20.0°	224.90	222.40	220.10	216.80	213.50	212.30	211.20
25.0°	219.70	216.20	212.80	207.90	203.00	200.70	198.40
30.0°	213.10	208.70	204.30	197.20	190.20	187.20	184.30
35.0°	205.00	199.70	194.30	185.60	176.80	172.20	167.70
40.0°	195.50	189.50	183.60	172.60	161.70	156.30	151.10
45.0°	185.30	178.40	171.50	158.90	146.40	139.60	132.80
50.0°	173.70	166.50	159.20	144.90	130.50	122.70	115.10
55.0°	161.70	153.80	146.10	130.70	115.50	106.20	96.80
60.0°	149.20	141.40	133.50	116.90	100.20	90.00	79.80
65.0°	136.80	128.50	120.20	103.20	86.10	74.40	62.60
70.0°	124.90	117.00	108.90	91.10	73.30	60.10	46.90
75.0°	113.60	105.60	97.60	79.60	61.60	46.90	32.10
80.0°	102.70	94.90	87.20	69.40	51.40	35.50	19.40
85.0°	92.70	85.20	77.90	60.60	43.40	26.40	9.50
90.0°	82.20	75.00	67.80	51.20	34.70	19.20	3.90
95.0°	74.60	68.40	62.30	47.20	32.00	18.40	5.00
100.0°	68.20	62.50	56.90	43.40	29.80	18.00	6.40
105.0°	62.40	57.30	52.20	40.30	28.20	17.90	7.80
110.0°	57.20	52.80	48.50	37.80	27.10	18.30	9.70
115.0°	52.90	49.10	45.20	35.60	25.90	18.70	11.60
120.0°	49.50	45.90	42.30	33.80	25.30	19.40	13.60
125.0°	46.10	42.90	39.70	32.40	25.00	20.20	15.50
130.0°	43.00	40.20	37.40	31.10	24.80	21.00	17.20
135.0°	40.30	37.60	35.00	30.00	25.00	22.10	19.10
140.0°	37.40	35.30	33.20	29.30	25.30	23.00	20.70
145.0°	35.00	33.30	31.60	28.60	25.60	23.90	22.10
150.0°	33.00	31.70	30.30	28.10	25.80	24.60	23.50
155.0°	31.10	30.10	29.10	27.60	26.10	25.30	24.60
160.0°	29.50	28.80	28.10	27.20	26.30	25.80	25.40
165.0°	28.10	27.70	27.30	26.90	26.60	26.30	26.00
170.0°	27.10	27.00	26.80	26.80	26.70	26.60	26.50
175.0°	26.60	26.60	26.70	26.80	26.90	26.80	26.60
180.0°	26.40	26.60	26.70	26.90	27.10	26.80	26.60
							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	17.3	18.7	17.9	19.2	19.8	16.4	17.7	16.9	18.2	18.8
	3H	19.2	20.4	19.8	21.0	21.7	17.6	18.8	18.2	19.4	20.1
	4H	20.2	21.4	20.8	22.0	22.7	18.2	19.3	18.8	20.0	20.7
	6H	21.1	22.2	21.8	22.9	23.7	18.5	19.6	19.2	20.3	21.1
	8H	21.6	22.7	22.3	23.4	24.2	18.7	19.8	19.4	20.5	21.3
	12H	22.1	23.2	22.8	23.9	24.8	18.8	19.9	19.5	20.6	21.5
4H	2H	17.8	19.0	18.5	19.6	20.4	17.1	18.2	17.7	18.9	19.6
	3H	20.1	21.2	20.8	21.9	22.7	18.7	19.8	19.4	20.5	21.3
	4H	21.3	22.4	22.1	23.2	24.1	19.5	20.5	20.2	21.3	22.2
	6H	22.3	23.1	23.0	23.9	24.8	19.8	20.7	20.6	21.4	22.4
	8H	22.8	23.7	23.6	24.5	25.5	20.0	20.8	20.8	21.6	22.7
	12H	23.5	24.3	24.4	25.2	26.3	20.3	21.1	21.1	22.0	23.1
8H	4H	21.4	22.3	22.2	23.1	24.1	19.8	20.7	20.6	21.5	22.5
	6H	23.0	23.8	23.9	24.7	25.9	20.8	21.6	21.7	22.5	23.7
	8H	23.8	24.6	24.8	25.6	26.9	21.2	22.0	22.2	23.0	24.3
	12H	24.4	25.1	25.4	26.1	27.4	21.4	22.0	22.4	23.0	24.3
12H	4H	21.6	22.4	22.5	23.3	24.4	20.1	20.9	21.0	21.8	22.9
	6H	23.2	23.9	24.1	24.9	26.2	21.1	21.9	22.1	22.9	24.2
	8H	23.9	24.5	24.8	25.5	26.8	21.5	22.1	22.4	23.1	24.4

variation of observer position			
S =	1.0H	+0.1/ -0.1	+0.1/ -0.1
	1.5H	+0.2/ -0.2	+0.2/ -0.3
	2.0H	+0.2/ -0.3	+0.3/ -0.6
standard-table		BK09	BK06
correction for luminaire		7.4	3.9

correct glare indices for a total flux of 1605lm

class		glare rating for service value of illuminance (lx)								
A	A	1000	750	500	--	≤ 300				
1	B	2000	1500	1000	750	500	≤ 300			
2	D					2000	1000	500	≤ 300	
3	E						2000	1000	500	≤ 300

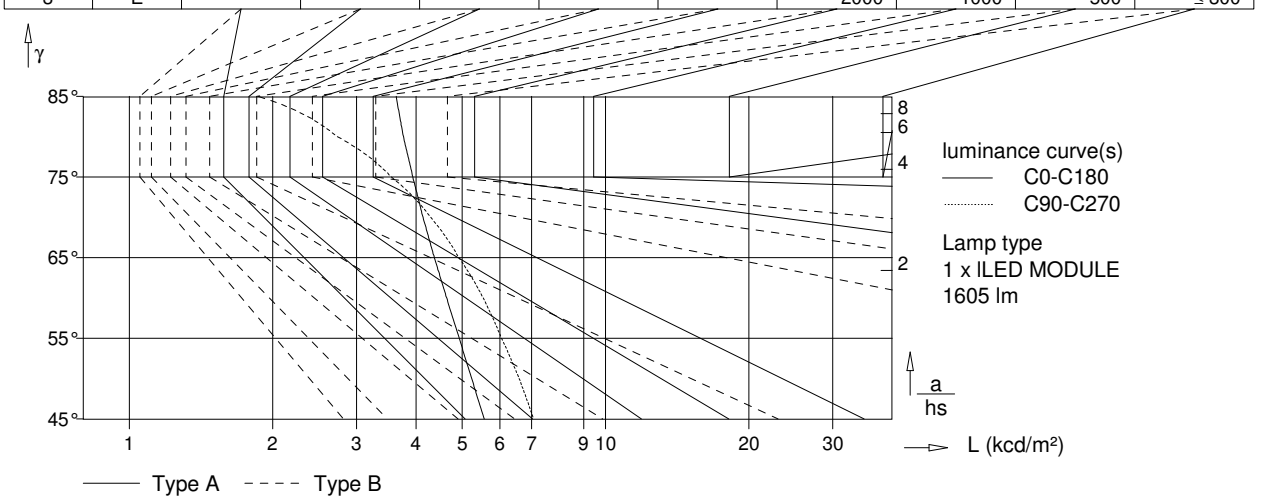


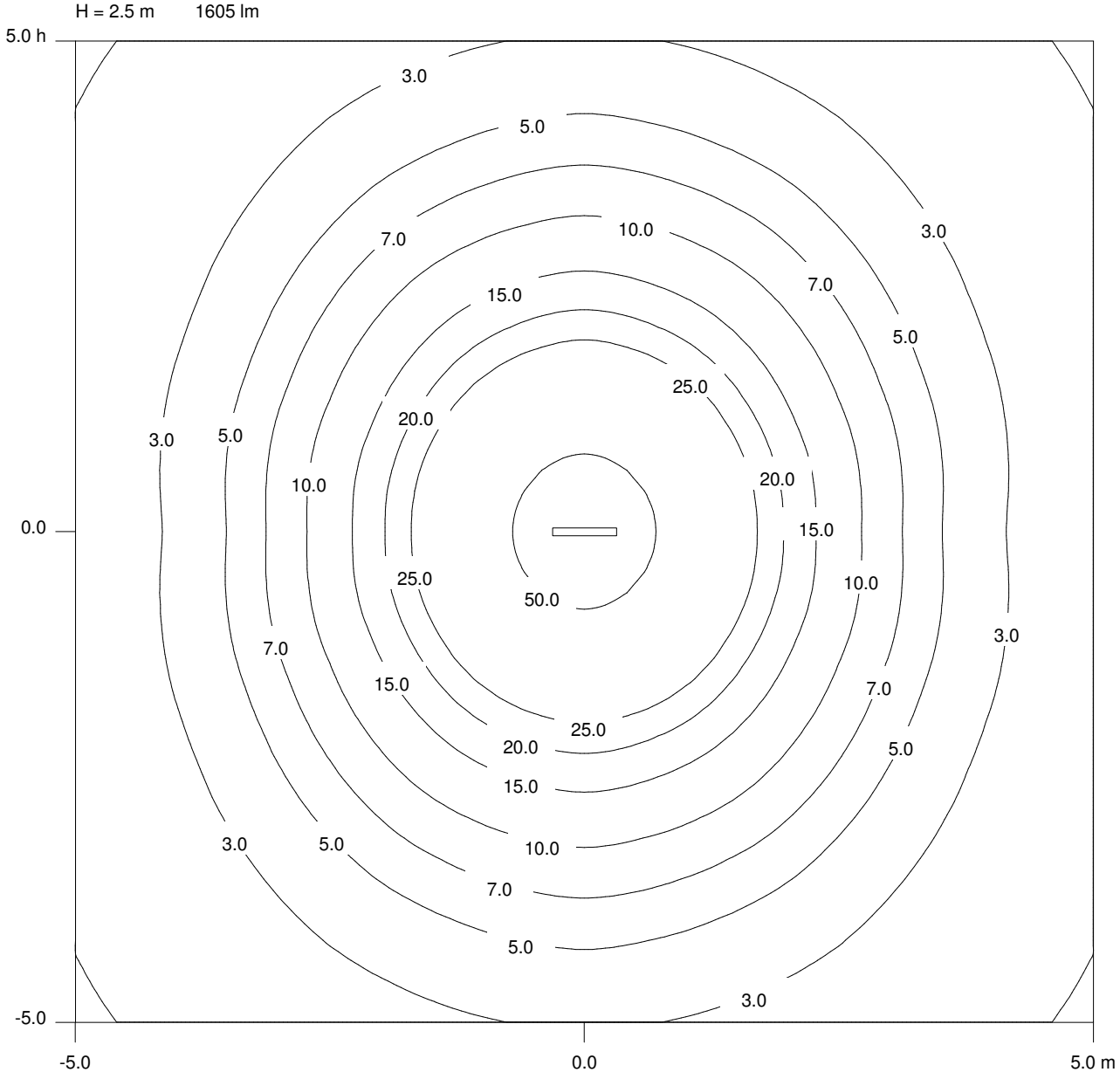
Tabelle der berechneten Leuchtdichten

gamma	C 0	C 90	C 180	C 270
45°	5563.4	7059.3	5563.4	7059.3
50°	5235.1	6585.7	5235.1	6585.7
55°	4929.8	6046.5	4929.8	6046.5
60°	4637.6	5534.1	4637.6	5534.1
65°	4370.9	4921.3	4370.9	4921.3
70°	4137.7	4293.3	4137.7	4293.3
75°	3938.4	3549.1	3938.4	3549.1
80°	3764.2	2733.8	3764.2	2733.8
85°	3633.2	1864.9	3633.2	1864.9

alle Werte 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	50	58	65	70	77	82	85	90	93
70	30	20	43	50	57	62	70	75	79	85	88
70	10	20	37	44	51	57	64	70	74	80	85
50	50	20	47	54	60	64	70	74	78	82	84
50	30	20	40	47	53	58	65	69	73	78	81
50	10	20	35	42	48	53	60	65	69	74	78
30	50	20	43	49	55	59	64	68	71	74	77
30	30	20	38	44	50	54	60	64	67	71	74
30	10	20	34	40	45	50	56	61	64	69	72
0	0	0	30	35	40	44	49	53	56	60	62
BZ-class			5	5	5	5	6	6	6	6	6
SHRnom : 1.50 SHRmax : 1.681											


H = 2.5 m
1605 lm
5.0 h
0.0
-5.0
-5.0
0.0
5.0 m
3.0
5.0
7.0
10.0
15.0
20.0
25.0
50.0