

filename : NWT1100-LED-DG-840.LDT
 meas. number : 3196
 luminaire number : NWT1100/LED/DG/840
 date / operator : 25-11-2013

default lamp type(s)

no of lamps	lamp type	luminaire lumens	input wattage
1	LED MODULE	1125 lm	14.9 W

dimensions

luminaire	luminous area
diameter : 180 mm	diameter : 175 mm
height : 20 mm	height : 20 mm

coordinate system

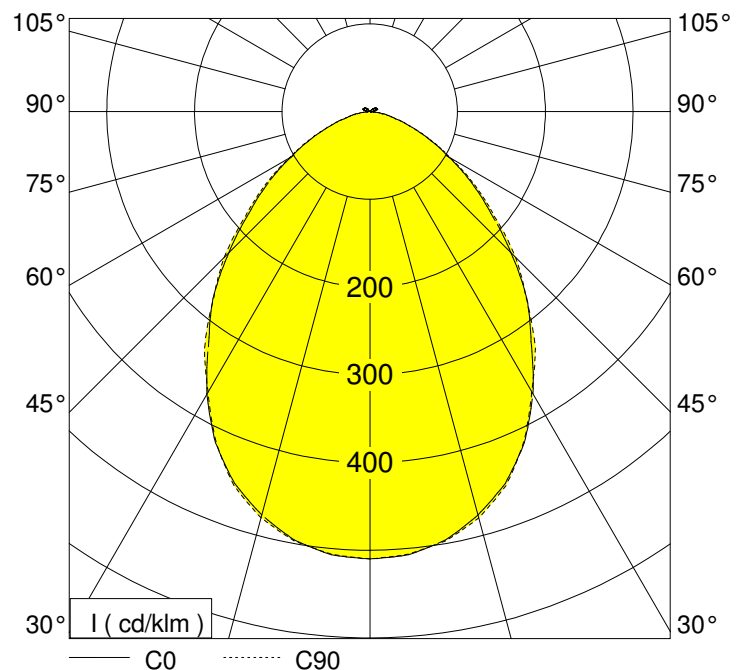
no of planes : 24	samples / plane : 37
first c-plane : 0.0 °	first gamma-angle : 0.0 °
step angle : 15.0 °	step angle : 5.0 °
last c-plane : 345.0 °	last gamma-angle : 180.0 °
symmetrics : symmetric	

performance

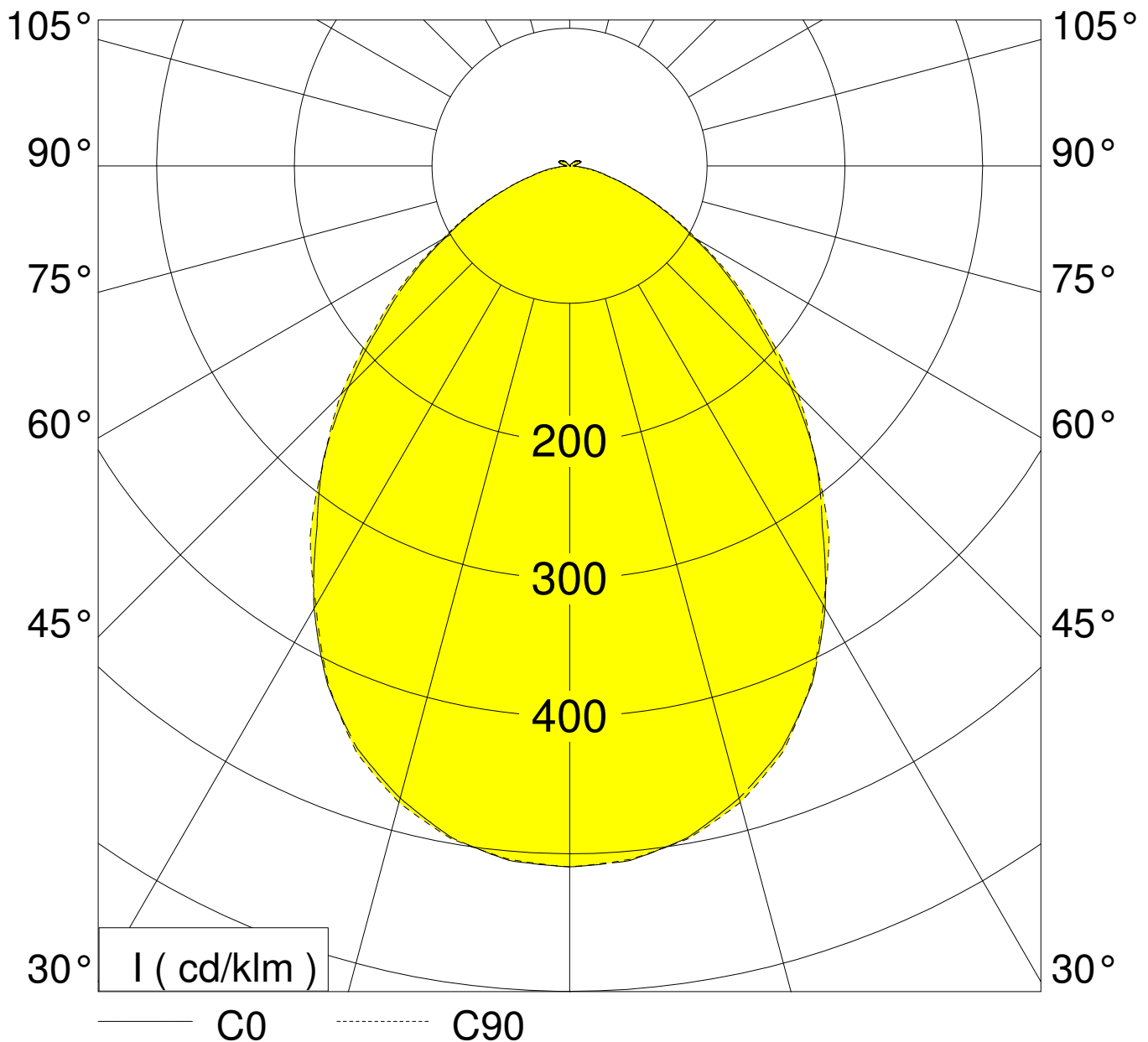
light output ratio : 100.0 %
 DFF : 97.4 %
 UFF : 2.6 %

classification

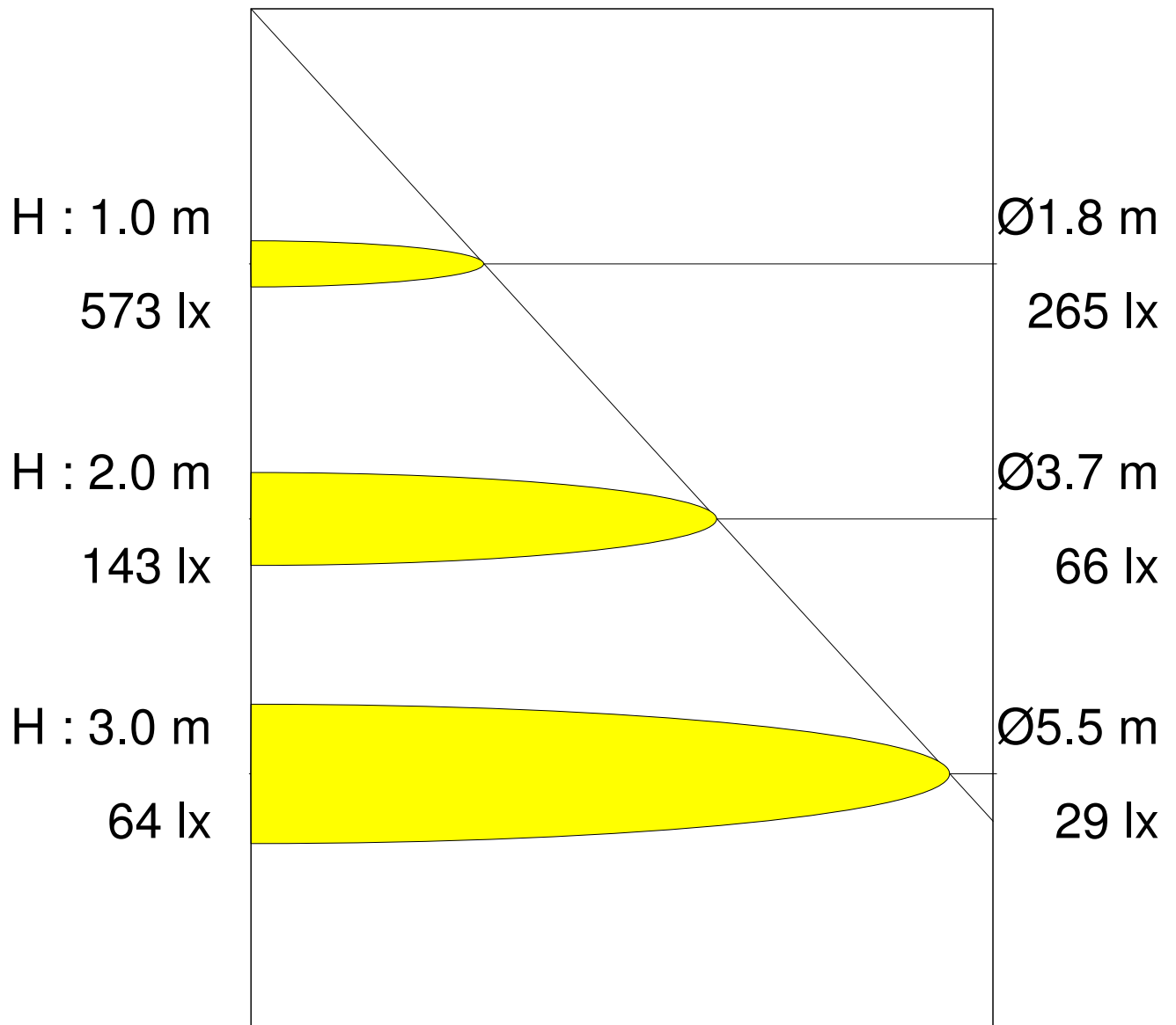
LiTG / DIN : A51
 UTE : 0.97C+0.03T
 CIE : 61 89 98 97 100
 BZ : 2 2 3 3 3 2 3 3 3
 Ambient Temperature : 25 degC
 Input Voltage : 240 V
 Circuit Watts : 14.9 W
 Amps (running) : 0.07 A
 V.A. : 16.74 VA
 Power Factor : 0.89
 CCT : 4460K(measured):4500K(nominal)



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 1125
 lumens measured.
 In reality the LED lumens would approximate to
 this value divided by the actual Light Output



Half peak divergence : 84.8°



	C 0.0	C 15.0	C 30.0	C 45.0	C 60.0	C 75.0	C 90.0	C 105.0
0.0°	509.30	509.30	509.30	509.30	509.30	509.30	509.30	509.30
5.0°	506.50	505.70	504.80	504.80	504.80	505.20	505.60	505.20
10.0°	495.30	494.80	494.40	493.90	493.40	494.80	496.20	494.80
15.0°	475.50	475.90	476.20	476.30	476.50	477.60	478.80	477.60
20.0°	450.50	449.20	448.00	447.60	447.30	450.10	453.00	450.10
25.0°	416.00	412.70	409.30	409.20	409.20	412.00	414.80	412.00
30.0°	371.20	368.90	366.60	365.80	365.00	366.70	368.40	366.70
35.0°	319.70	319.40	319.10	317.50	315.80	322.10	328.50	322.10
40.0°	278.20	275.30	272.50	270.10	267.70	272.20	276.70	272.20
45.0°	227.20	224.60	222.00	221.50	221.00	227.90	234.80	227.90
50.0°	179.60	178.50	177.30	176.70	176.00	180.50	185.00	180.50
55.0°	141.40	138.00	134.60	134.60	134.70	140.20	145.70	140.20
60.0°	104.10	102.00	100.00	99.60	99.30	102.80	106.40	102.80
65.0°	74.30	72.00	69.70	69.80	69.90	73.00	76.10	73.00
70.0°	48.70	46.60	44.40	44.60	44.70	47.00	49.20	47.00
75.0°	28.70	26.80	25.00	24.80	24.60	26.70	28.80	26.70
80.0°	17.30	15.10	13.00	12.40	11.90	12.90	13.90	12.90
85.0°	4.40	4.50	4.50	4.40	4.20	4.40	4.50	4.40
90.0°	2.80	2.90	3.10	2.90	2.80	2.70	2.50	2.70
95.0°	3.30	3.30	3.40	3.40	3.40	3.40	3.40	3.40
100.0°	4.70	4.60	4.50	4.60	4.80	4.60	4.50	4.60
105.0°	7.20	7.40	7.60	7.30	7.00	6.60	6.20	6.60
110.0°	8.60	8.50	8.40	8.10	7.90	7.60	7.30	7.60
115.0°	7.80	8.10	8.40	7.90	7.30	7.30	7.30	7.30
120.0°	7.80	7.80	7.80	7.30	6.80	6.50	6.20	6.50
125.0°	6.90	6.40	5.90	5.60	5.40	5.40	5.40	5.40
130.0°	5.50	4.90	4.20	4.20	4.20	4.40	4.50	4.40
135.0°	4.20	3.30	2.50	2.50	2.50	2.50	2.50	2.50
140.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0°	0.00	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	0.00
175.0°	0.00	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	0.00
	cd / klm							

	C 120.0	C 135.0	C 150.0	C 165.0	C 180.0	C 195.0	C 210.0	C 225.0
0.0°	509.30	509.30	509.30	509.30	509.30	509.30	509.30	509.30
5.0°	504.80	504.80	504.80	505.70	506.50	505.70	504.80	504.80
10.0°	493.40	493.90	494.40	494.80	495.30	494.80	494.40	493.90
15.0°	476.50	476.30	476.20	475.90	475.50	475.90	476.20	476.30
20.0°	447.30	447.60	448.00	449.20	450.50	449.20	448.00	447.60
25.0°	409.20	409.20	409.30	412.70	416.00	412.70	409.30	409.20
30.0°	365.00	365.80	366.60	368.90	371.20	368.90	366.60	365.80
35.0°	315.80	317.50	319.10	319.40	319.70	319.40	319.10	317.50
40.0°	267.70	270.10	272.50	275.30	278.20	275.30	272.50	270.10
45.0°	221.00	221.50	222.00	224.60	227.20	224.60	222.00	221.50
50.0°	176.00	176.70	177.30	178.50	179.60	178.50	177.30	176.70
55.0°	134.70	134.60	134.60	138.00	141.40	138.00	134.60	134.60
60.0°	99.30	99.60	100.00	102.00	104.10	102.00	100.00	99.60
65.0°	69.90	69.80	69.70	72.00	74.30	72.00	69.70	69.80
70.0°	44.70	44.60	44.40	46.60	48.70	46.60	44.40	44.60
75.0°	24.60	24.80	25.00	26.80	28.70	26.80	25.00	24.80
80.0°	11.90	12.40	13.00	15.10	17.30	15.10	13.00	12.40
85.0°	4.20	4.40	4.50	4.50	4.40	4.50	4.50	4.40
90.0°	2.80	2.90	3.10	2.90	2.80	2.90	3.10	2.90
95.0°	3.40	3.40	3.40	3.30	3.30	3.30	3.40	3.40
100.0°	4.80	4.60	4.50	4.60	4.70	4.60	4.50	4.60
105.0°	7.00	7.30	7.60	7.40	7.20	7.40	7.60	7.30
110.0°	7.90	8.10	8.40	8.50	8.60	8.50	8.40	8.10
115.0°	7.30	7.90	8.40	8.10	7.80	8.10	8.40	7.90
120.0°	6.80	7.30	7.80	7.80	7.80	7.80	7.80	7.30
125.0°	5.40	5.60	5.90	6.40	6.90	6.40	5.90	5.60
130.0°	4.20	4.20	4.20	4.90	5.50	4.90	4.20	4.20
135.0°	2.50	2.50	2.50	3.30	4.20	3.30	2.50	2.50
140.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0°	0.00	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	0.00
175.0°	0.00	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	0.00
	cd / klm							

	C 240.0	C 255.0	C 270.0	C 285.0	C 300.0	C 315.0	C 330.0	C 345.0
0.0°	509.30	509.30	509.30	509.30	509.30	509.30	509.30	509.30
5.0°	504.80	505.20	505.60	505.20	504.80	504.80	504.80	505.70
10.0°	493.40	494.80	496.20	494.80	493.40	493.90	494.40	494.80
15.0°	476.50	477.60	478.80	477.60	476.50	476.30	476.20	475.90
20.0°	447.30	450.10	453.00	450.10	447.30	447.60	448.00	449.20
25.0°	409.20	412.00	414.80	412.00	409.20	409.20	409.30	412.70
30.0°	365.00	366.70	368.40	366.70	365.00	365.80	366.60	368.90
35.0°	315.80	322.10	328.50	322.10	315.80	317.50	319.10	319.40
40.0°	267.70	272.20	276.70	272.20	267.70	270.10	272.50	275.30
45.0°	221.00	227.90	234.80	227.90	221.00	221.50	222.00	224.60
50.0°	176.00	180.50	185.00	180.50	176.00	176.70	177.30	178.50
55.0°	134.70	140.20	145.70	140.20	134.70	134.60	134.60	138.00
60.0°	99.30	102.80	106.40	102.80	99.30	99.60	100.00	102.00
65.0°	69.90	73.00	76.10	73.00	69.90	69.80	69.70	72.00
70.0°	44.70	47.00	49.20	47.00	44.70	44.60	44.40	46.60
75.0°	24.60	26.70	28.80	26.70	24.60	24.80	25.00	26.80
80.0°	11.90	12.90	13.90	12.90	11.90	12.40	13.00	15.10
85.0°	4.20	4.40	4.50	4.40	4.20	4.40	4.50	4.50
90.0°	2.80	2.70	2.50	2.70	2.80	2.90	3.10	2.90
95.0°	3.40	3.40	3.40	3.40	3.40	3.40	3.40	3.30
100.0°	4.80	4.60	4.50	4.60	4.80	4.60	4.50	4.60
105.0°	7.00	6.60	6.20	6.60	7.00	7.30	7.60	7.40
110.0°	7.90	7.60	7.30	7.60	7.90	8.10	8.40	8.50
115.0°	7.30	7.30	7.30	7.30	7.30	7.90	8.40	8.10
120.0°	6.80	6.50	6.20	6.50	6.80	7.30	7.80	7.80
125.0°	5.40	5.40	5.40	5.40	5.40	5.60	5.90	6.40
130.0°	4.20	4.40	4.50	4.40	4.20	4.20	4.20	4.90
135.0°	2.50	2.50	2.50	2.50	2.50	2.50	2.50	3.30
140.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0°	0.00	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	0.00
175.0°	0.00	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	0.00
	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	19.9	21.2	20.2	21.4	21.7	20.0	21.3	20.2	21.5	21.7
	3H	20.0	20.9	20.2	21.1	21.3	20.0	21.0	20.3	21.2	21.4
	4H	20.2	21.1	20.5	21.4	21.6	20.3	21.2	20.6	21.4	21.7
	6H	20.3	21.2	20.7	21.5	21.8	20.4	21.3	20.7	21.5	21.8
	8H	20.4	21.3	20.7	21.6	21.9	20.4	21.3	20.8	21.6	21.9
	12H	20.5	21.3	20.8	21.6	21.9	20.5	21.3	20.8	21.6	21.9
4H	2H	19.7	20.6	20.0	20.9	21.1	19.7	20.7	20.0	20.9	21.2
	3H	20.6	21.5	21.0	21.8	22.1	20.7	21.6	21.0	21.9	22.2
	4H	21.0	21.9	21.4	22.2	22.5	21.0	21.9	21.4	22.2	22.6
	6H	21.0	21.7	21.4	22.1	22.4	21.0	21.7	21.4	22.1	22.4
	8H	21.1	21.7	21.5	22.1	22.5	21.1	21.7	21.5	22.1	22.5
	12H	21.3	21.9	21.7	22.3	22.8	21.2	21.9	21.7	22.3	22.8
8H	4H	20.9	21.6	21.4	22.0	22.4	21.0	21.6	21.4	22.0	22.4
	6H	21.4	22.0	21.9	22.5	23.0	21.4	22.0	21.9	22.5	23.0
	8H	21.6	22.2	22.1	22.7	23.2	21.5	22.1	22.1	22.6	23.2
	12H	21.5	22.0	22.1	22.5	23.1	21.5	22.0	22.0	22.5	23.1
12H	4H	21.1	21.7	21.6	22.2	22.7	21.1	21.8	21.6	22.2	22.7
	6H	21.5	22.1	22.0	22.6	23.2	21.5	22.1	22.0	22.6	23.2
	8H	21.5	22.0	22.1	22.5	23.1	21.5	22.0	22.0	22.5	23.1
variation of observer position											
S =	1.0H	+0.3/ -0.5				+0.3/ -0.5					
	1.5H	+0.6/ -1.2				+0.6/ -1.2					
	2.0H	+1.5/ -2.0				+1.5/ -2.1					
standard-table		BK02					BK02				
correction for luminaire		3.3					3.3				
correct glare indices for a total flux of 1125lm											

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

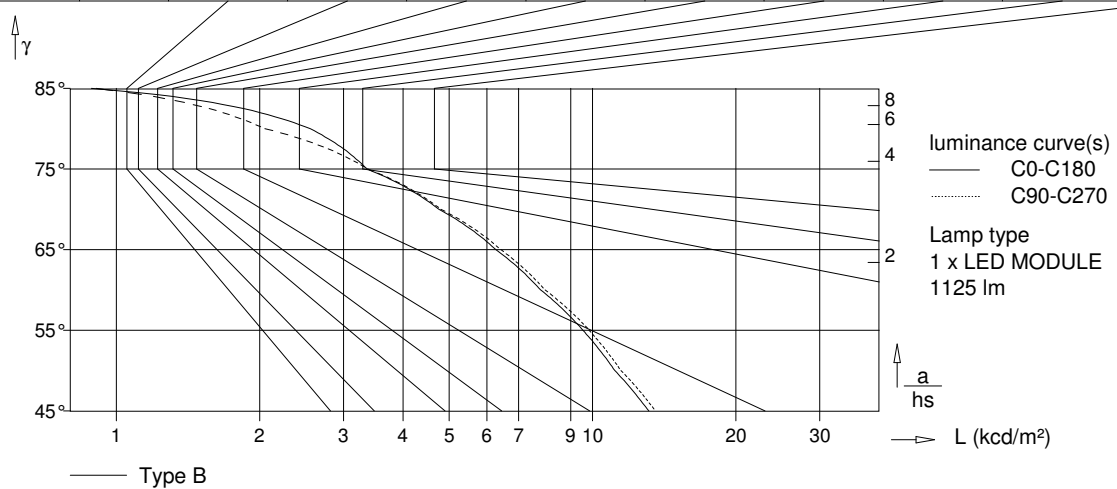
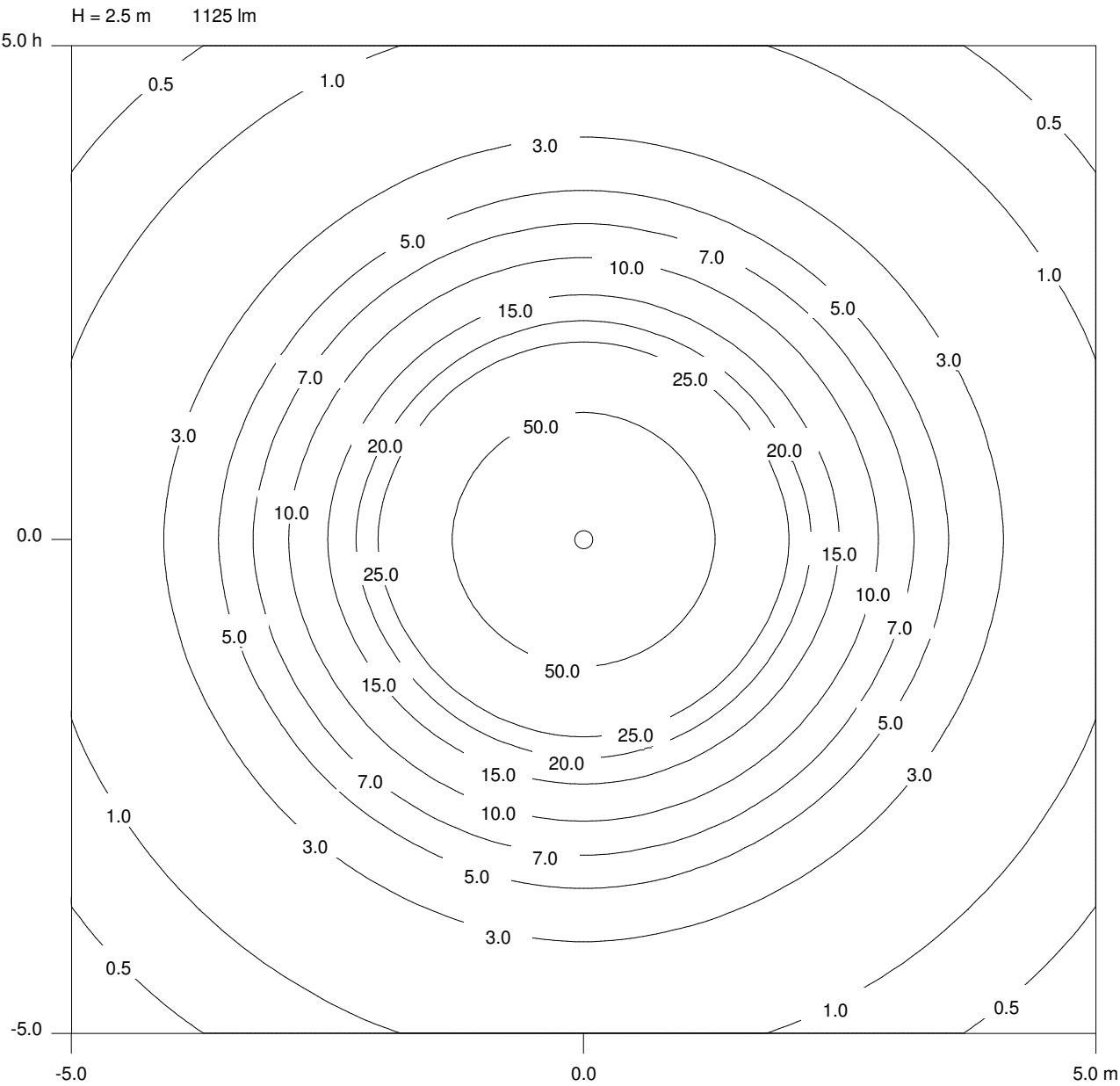


Tabelle der berechneten Leuchtdichten

gamma	C 0	C 90	C 180	C 270
45°	13119.3	13558.1	13119.3	13558.1
50°	11137.1	11472.0	11137.1	11472.0
55°	9546.5	9836.8	9546.5	9836.8
60°	7777.7	7949.5	7777.7	7949.5
65°	6267.2	6419.1	6267.2	6419.1
70°	4757.7	4806.6	4757.7	4806.6
75°	3361.2	3372.9	3361.2	3372.9
80°	2552.9	2051.2	2552.9	2051.2
85°	886.6	906.8	886.6	906.8

alle Werte in cd/m²



filename : NWT1500-LED-830.LDT
 meas. number : 3200
 luminaire number : NWT1500/LED/830
 date / operator : 25-11-2013

default lamp type(s)

no of lamps	lamp type	luminaire lumens	input wattage
1	LED MODULE	1540 lm	19.2 W

dimensions

luminaire	luminous area
diameter : 180 mm	diameter : 120 mm
height : 5 mm	height : 0 mm

coordinate system

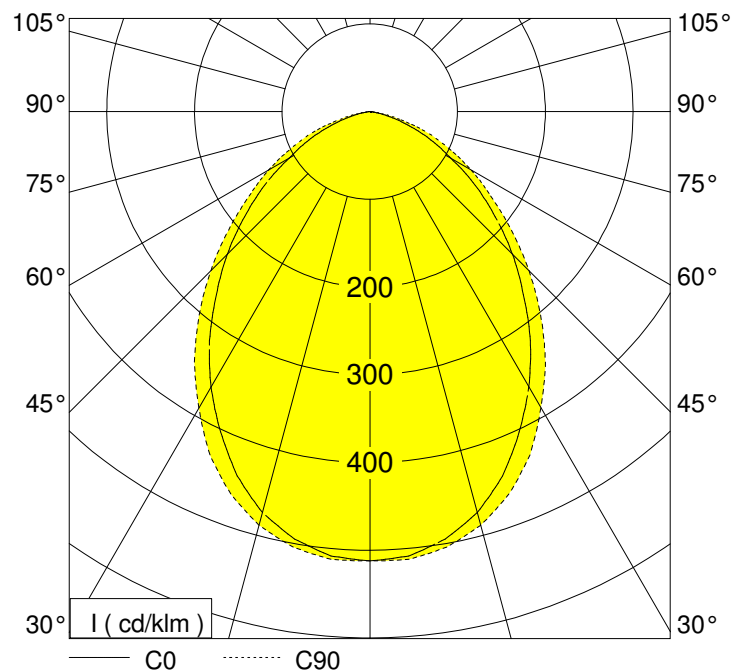
no of planes : 24	samples / plane : 37
first c-plane : 0.0 °	first gamma-angle : 0.0 °
step angle : 15.0 °	step angle : 5.0 °
last c-plane : 345.0 °	last gamma-angle : 180.0 °
symmetrics : symmetric	

performance

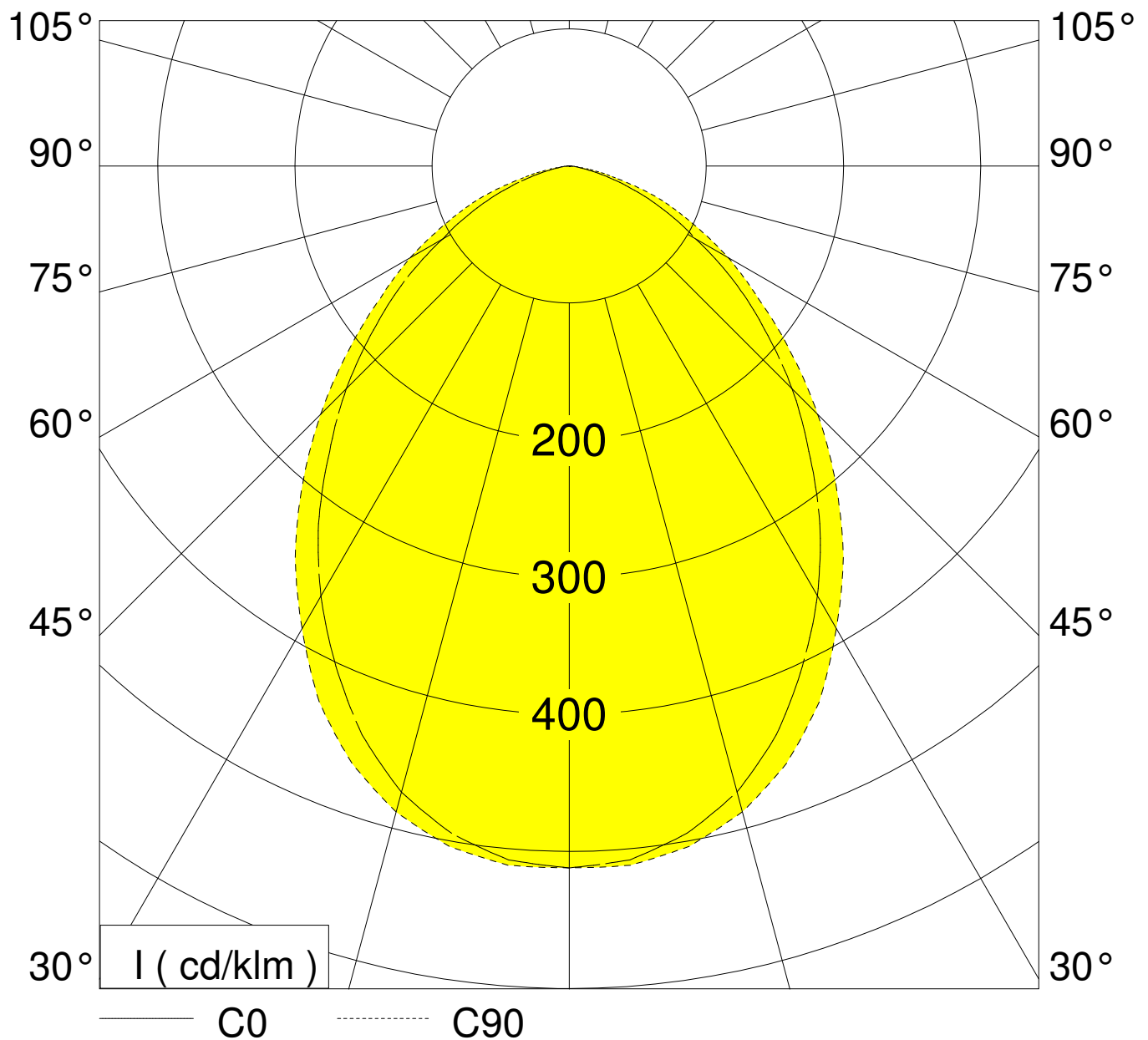
light output ratio : 100.0 %
 DFF : 100.0 %
 UFF : 0.0 %

classification

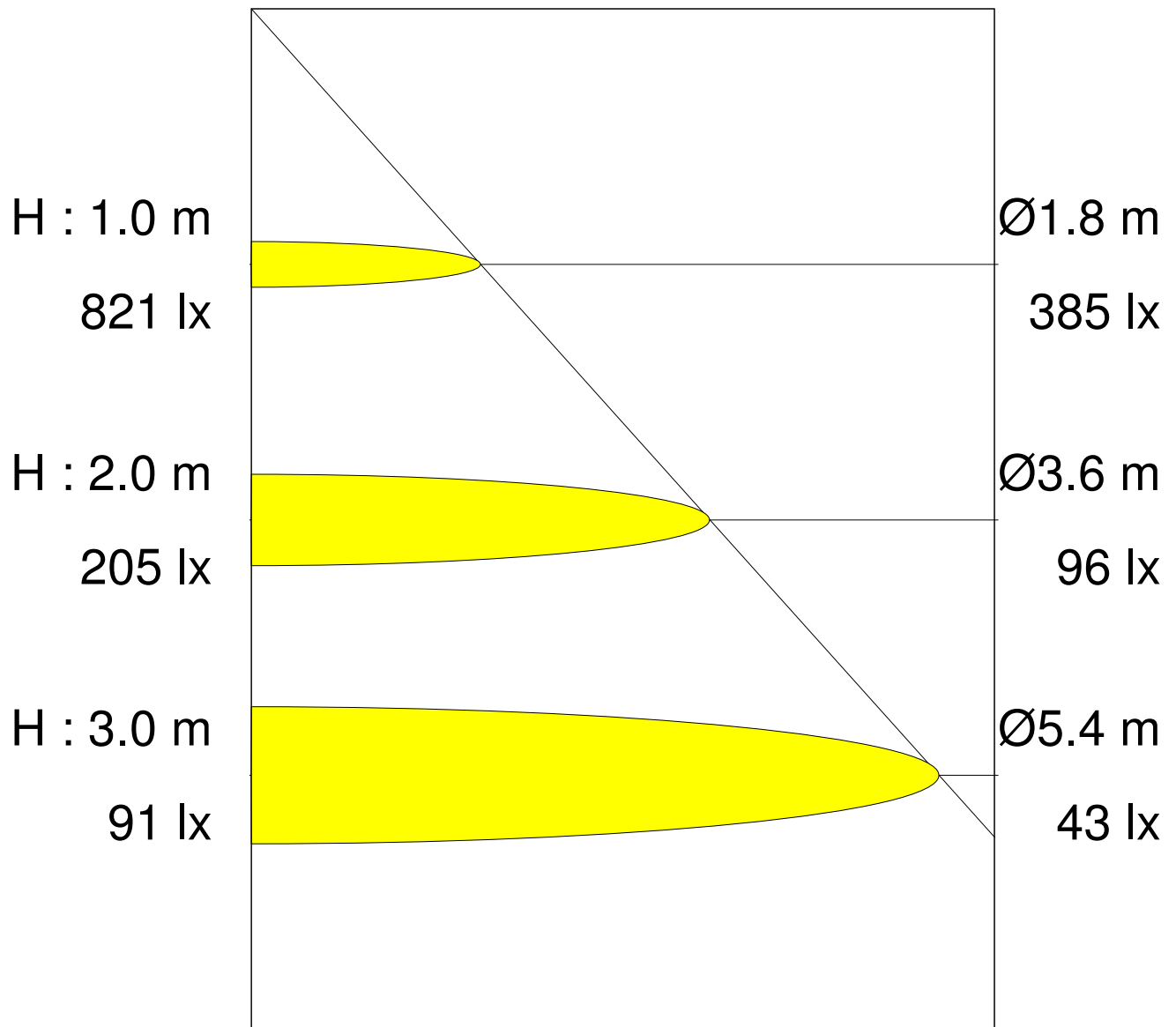
LiTG / DIN : A50
 UTE : 1.00C1.00D
 CIE : 60 88 99 100 100
 BZ : 3 3 3 3 3 3 3 3 3
 Ambient Temperature : 25 degC
 Input Voltage : 240 V
 Circuit Watts : 19.2 W
 Amps (running) : 0.087 A
 V.A. : 20.87 VA
 Power Factor : 0.92
 CCT : 3000K(nominal)



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 1540 lumens measured.
 In reality the LED lumens would approximate to this value divided by the actual Light Output



Half peak divergence : 83.8°



	C 0.0	C 15.0	C 30.0	C 45.0	C 60.0	C 75.0	C 90.0	C 105.0
0.0°	511.60	511.60	511.60	511.60	511.60	511.60	511.60	511.60
5.0°	507.70	507.70	507.70	506.70	505.70	508.60	511.60	508.60
10.0°	494.00	492.90	491.90	492.70	493.60	498.60	503.50	498.60
15.0°	472.50	473.40	474.30	474.00	473.70	480.50	487.50	480.50
20.0°	441.40	442.10	442.80	442.20	441.70	452.50	463.30	452.50
25.0°	402.30	403.80	405.30	406.50	407.70	419.30	431.10	419.30
30.0°	361.80	360.70	359.50	360.60	361.70	375.50	389.40	375.50
35.0°	318.50	317.10	315.70	316.30	317.00	332.60	348.30	332.60
40.0°	271.70	270.40	269.20	268.00	266.80	284.60	302.30	284.60
45.0°	229.70	229.90	230.10	230.40	230.70	243.40	256.20	243.40
50.0°	186.10	184.70	183.40	185.80	188.30	199.30	210.30	199.30
55.0°	146.70	148.00	149.30	149.40	149.50	158.70	168.00	158.70
60.0°	106.40	109.60	112.80	110.90	109.10	121.30	133.60	121.30
65.0°	76.70	78.70	80.70	80.00	79.10	88.90	98.70	88.90
70.0°	48.10	48.40	48.60	48.40	48.20	59.00	69.70	59.00
75.0°	24.60	24.50	24.40	24.40	24.40	30.60	36.80	30.60
80.0°	8.40	8.80	9.30	9.70	10.20	12.80	15.50	12.80
85.0°	1.50	1.70	1.80	1.90	2.00	2.10	2.20	2.10
90.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0°	0.00	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	0.00
175.0°	0.00	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	0.00
	cd / klm							

	C 120.0	C 135.0	C 150.0	C 165.0	C 180.0	C 195.0	C 210.0	C 225.0
0.0°	511.60	511.60	511.60	511.60	511.60	511.60	511.60	511.60
5.0°	505.70	506.70	507.70	507.70	507.70	507.70	507.70	506.70
10.0°	493.60	492.70	491.90	492.90	494.00	492.90	491.90	492.70
15.0°	473.70	474.00	474.30	473.40	472.50	473.40	474.30	474.00
20.0°	441.70	442.20	442.80	442.10	441.40	442.10	442.80	442.20
25.0°	407.70	406.50	405.30	403.80	402.30	403.80	405.30	406.50
30.0°	361.70	360.60	359.50	360.70	361.80	360.70	359.50	360.60
35.0°	317.00	316.30	315.70	317.10	318.50	317.10	315.70	316.30
40.0°	266.80	268.00	269.20	270.40	271.70	270.40	269.20	268.00
45.0°	230.70	230.40	230.10	229.90	229.70	229.90	230.10	230.40
50.0°	188.30	185.80	183.40	184.70	186.10	184.70	183.40	185.80
55.0°	149.50	149.40	149.30	148.00	146.70	148.00	149.30	149.40
60.0°	109.10	110.90	112.80	109.60	106.40	109.60	112.80	110.90
65.0°	79.10	80.00	80.70	78.70	76.70	78.70	80.70	80.00
70.0°	48.20	48.40	48.60	48.40	48.10	48.40	48.60	48.40
75.0°	24.40	24.40	24.40	24.50	24.60	24.50	24.40	24.40
80.0°	10.20	9.70	9.30	8.80	8.40	8.80	9.30	9.70
85.0°	2.00	1.90	1.80	1.70	1.50	1.70	1.80	1.90
90.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0°	0.00	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	0.00
175.0°	0.00	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	0.00
	cd / klm							

	C 240.0	C 255.0	C 270.0	C 285.0	C 300.0	C 315.0	C 330.0	C 345.0
0.0°	511.60	511.60	511.60	511.60	511.60	511.60	511.60	511.60
5.0°	505.70	508.60	511.60	508.60	505.70	506.70	507.70	507.70
10.0°	493.60	498.60	503.50	498.60	493.60	492.70	491.90	492.90
15.0°	473.70	480.50	487.50	480.50	473.70	474.00	474.30	473.40
20.0°	441.70	452.50	463.30	452.50	441.70	442.20	442.80	442.10
25.0°	407.70	419.30	431.10	419.30	407.70	406.50	405.30	403.80
30.0°	361.70	375.50	389.40	375.50	361.70	360.60	359.50	360.70
35.0°	317.00	332.60	348.30	332.60	317.00	316.30	315.70	317.10
40.0°	266.80	284.60	302.30	284.60	266.80	268.00	269.20	270.40
45.0°	230.70	243.40	256.20	243.40	230.70	230.40	230.10	229.90
50.0°	188.30	199.30	210.30	199.30	188.30	185.80	183.40	184.70
55.0°	149.50	158.70	168.00	158.70	149.50	149.40	149.30	148.00
60.0°	109.10	121.30	133.60	121.30	109.10	110.90	112.80	109.60
65.0°	79.10	88.90	98.70	88.90	79.10	80.00	80.70	78.70
70.0°	48.20	59.00	69.70	59.00	48.20	48.40	48.60	48.40
75.0°	24.40	30.60	36.80	30.60	24.40	24.40	24.40	24.50
80.0°	10.20	12.80	15.50	12.80	10.20	9.70	9.30	8.80
85.0°	2.00	2.10	2.20	2.10	2.00	1.90	1.80	1.70
90.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0°	0.00	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	0.00
175.0°	0.00	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	0.00
	cd / klm							

glare rating according to UGR											
p -ceiling		70	70	50	50	30	70	70	50	50	30
p -walls		50	30	50	30	30	50	30	50	30	30
p -workplane		20	20	20	20	20	20	20	20	20	20
room dimensions X Y		viewed crosswise					viewed endwise				
2H	2H	24.8	26.1	25.0	26.3	26.5	25.2	26.6	25.5	26.8	26.9
	3H	24.8	25.8	25.1	26.0	26.2	25.5	26.5	25.8	26.7	26.9
	4H	25.1	26.0	25.3	26.2	26.4	25.9	26.8	26.2	27.0	27.2
	6H	25.2	26.1	25.4	26.3	26.5	26.0	27.0	26.3	27.2	27.4
	8H	25.2	26.1	25.5	26.3	26.6	26.1	27.0	26.4	27.2	27.5
	12H	25.2	26.1	25.5	26.4	26.6	26.1	27.0	26.5	27.3	27.5
4H	2H	24.6	25.6	24.9	25.8	26.0	25.0	25.9	25.2	26.1	26.3
	3H	25.6	26.5	26.0	26.8	27.0	26.2	27.1	26.5	27.4	27.6
	4H	26.0	26.9	26.3	27.1	27.4	26.7	27.6	27.0	27.8	28.1
	6H	25.9	26.6	26.3	26.9	27.2	26.7	27.4	27.0	27.7	28.0
	8H	26.0	26.6	26.3	27.0	27.3	26.8	27.4	27.1	27.8	28.1
	12H	26.1	26.8	26.5	27.2	27.6	26.9	27.6	27.4	28.0	28.4
8H	4H	26.0	26.6	26.3	27.0	27.3	26.6	27.3	27.0	27.6	28.0
	6H	26.3	27.0	26.8	27.4	27.8	27.1	27.7	27.5	28.1	28.5
	8H	26.5	27.1	26.9	27.5	28.0	27.2	27.8	27.7	28.3	28.7
	12H	26.4	26.9	26.9	27.3	27.8	27.2	27.7	27.7	28.1	28.6
12H	4H	26.1	26.8	26.5	27.2	27.6	26.8	27.4	27.2	27.8	28.2
	6H	26.4	27.0	26.9	27.5	28.0	27.2	27.8	27.6	28.2	28.7
	8H	26.4	26.9	26.9	27.3	27.9	27.2	27.6	27.6	28.1	28.6
variation of observer position											
S =	1.0H	+0.3/ -0.4				+0.2/ -0.3					
	1.5H	+0.5/ -1.2				+0.5/ -0.8					
	2.0H	+1.1/ -2.0				+1.3/ -1.7					
standard-table		BK02					BK03				
correction for luminaire		8.1					9.4				
correct glare indices for a total flux of 1540 lm											

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

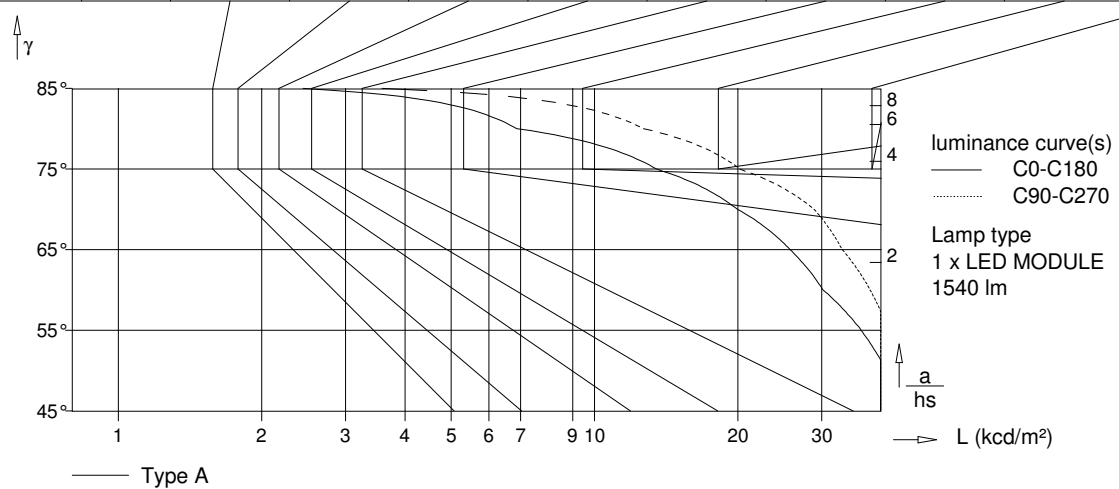
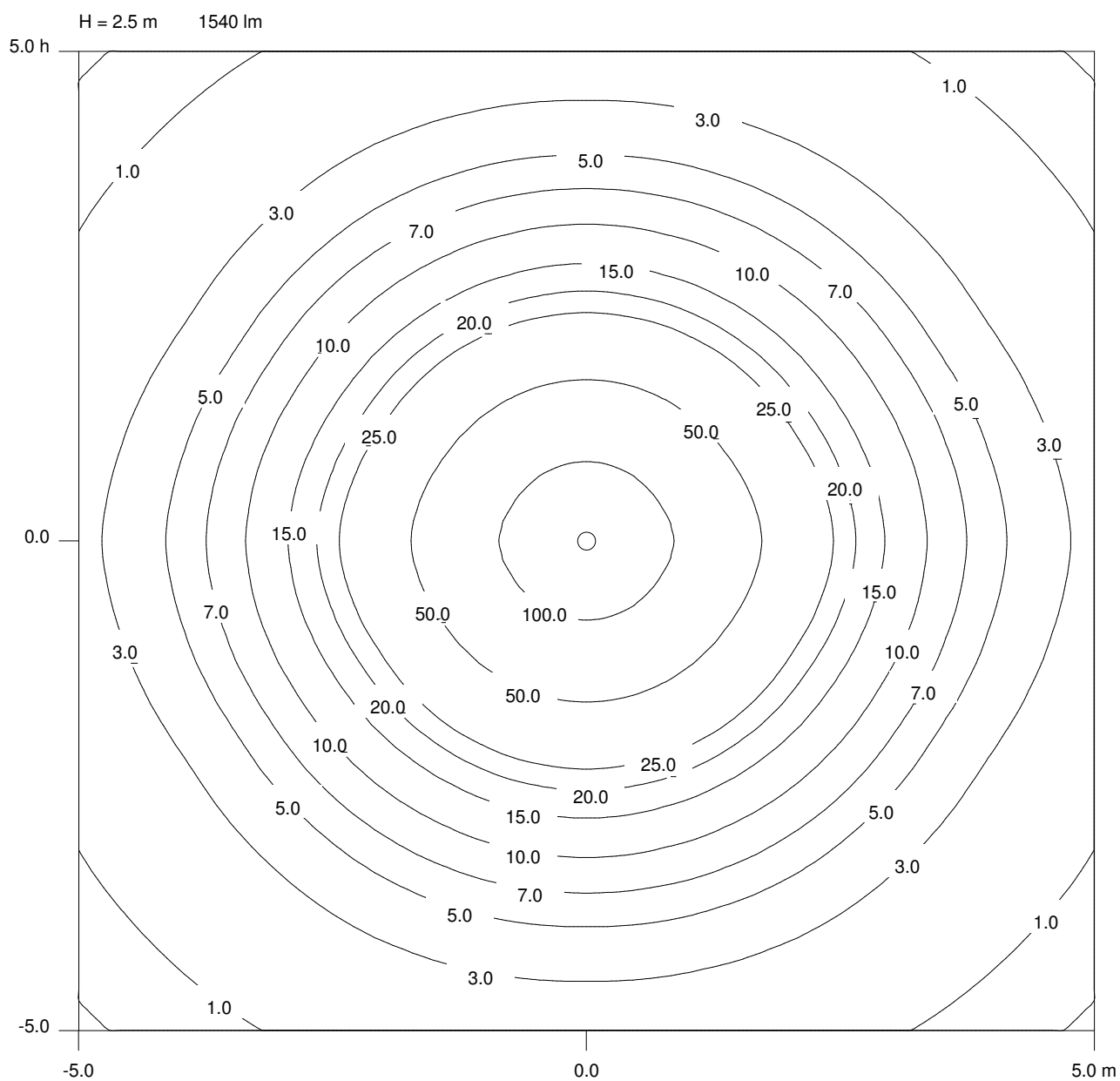


Tabelle der berechneten Leuchtdichten

gamma	C 0	C 90	C 180	C 270
45°	46099.8	51418.2	46099.8	51418.2
50°	41086.7	46429.6	41086.7	46429.6
55°	36296.2	41566.2	36296.2	41566.2
60°	30199.1	37919.2	30199.1	37919.2
65°	25755.5	33143.0	25755.5	33143.0
70°	19958.0	28920.4	19958.0	28920.4
75°	13488.4	20177.8	13488.4	20177.8
80°	6864.9	12667.3	6864.9	12667.3
	2442.4	3582.2	2442.4	3582.2

alle Werte in cd/m²



filename : NWT1500-LED-840.LDT
 meas. number : 3200
 luminaire number : NWT1500/LED/840
 date / operator : 25-11-2013

default lamp type(s)

no of lamps	lamp type	luminaire lumens	input wattage
1	LED MODULE	1605 lm	19.2 W

dimensions

luminaire		luminous area	
diameter	: 180 mm	diameter	: 120 mm
height	: 5 mm	height	: 0 mm

coordinate system

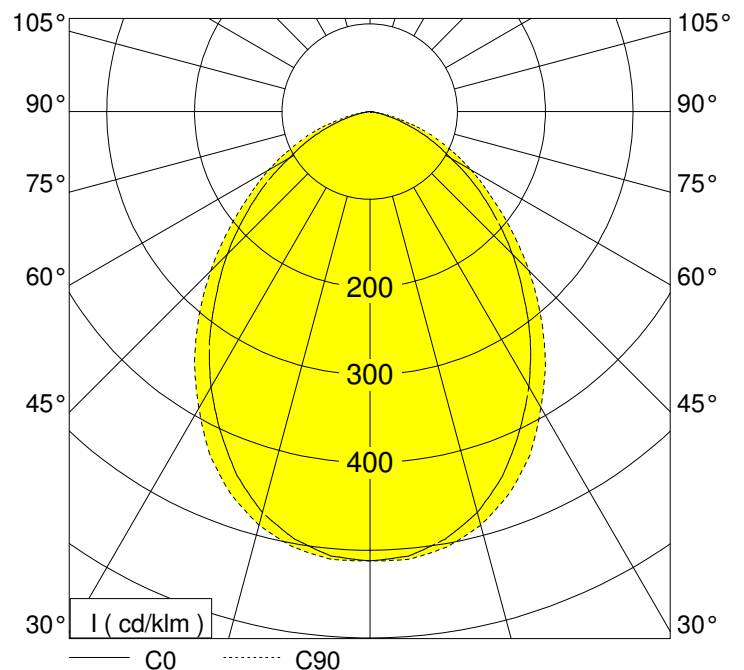
no of planes	: 24	samples / plane	: 37
first c-plane	: 0.0 °	first gamma-angle	: 0.0 °
step angle	: 15.0 °	step angle	: 5.0 °
last c-plane	: 345.0 °	last gamma-angle	: 180.0 °
symmetrics	: symmetric		

performance

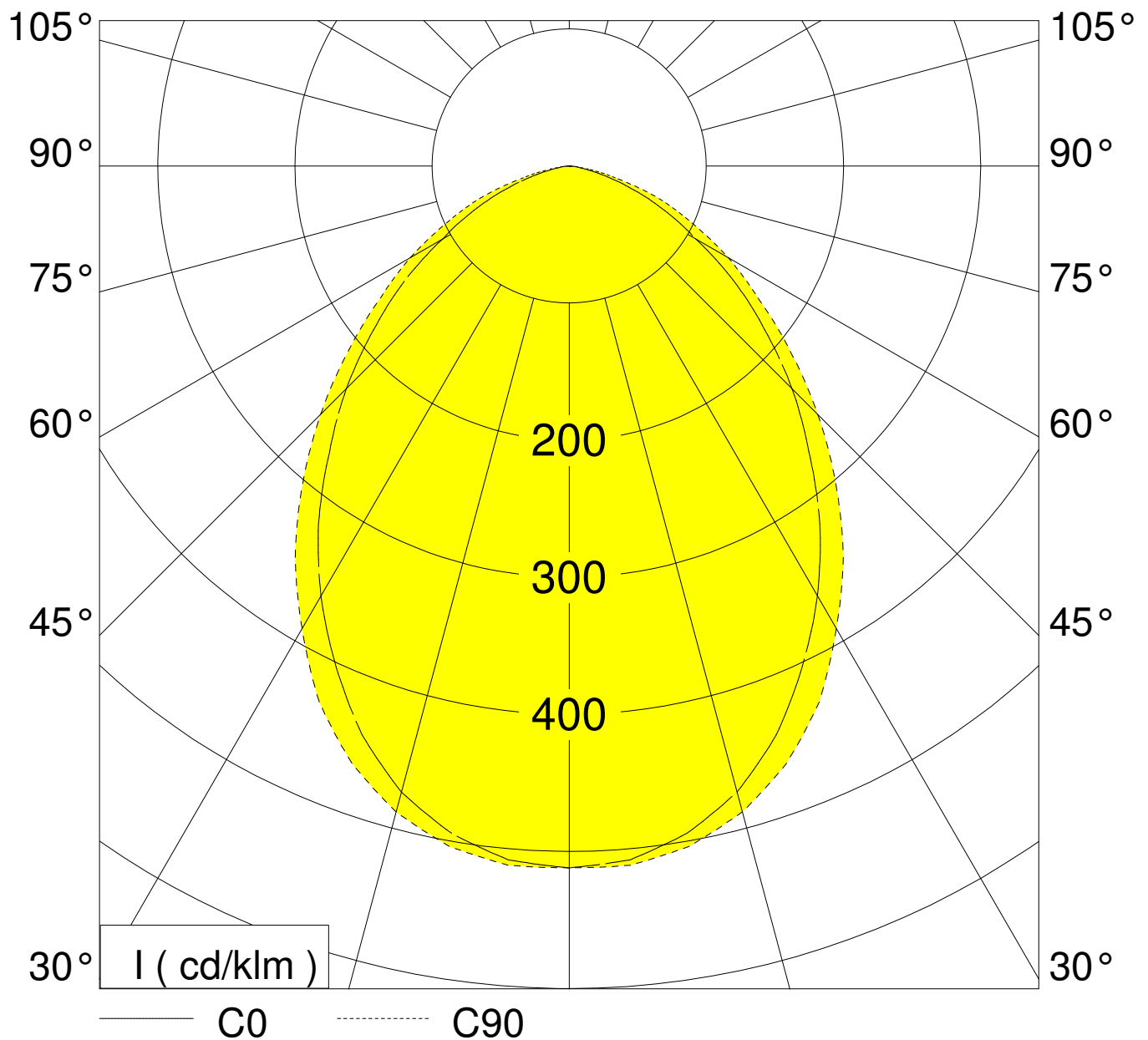
light output ratio	: 100.0 %
DFF	: 100.0 %
UFF	: 0.0 %

classification

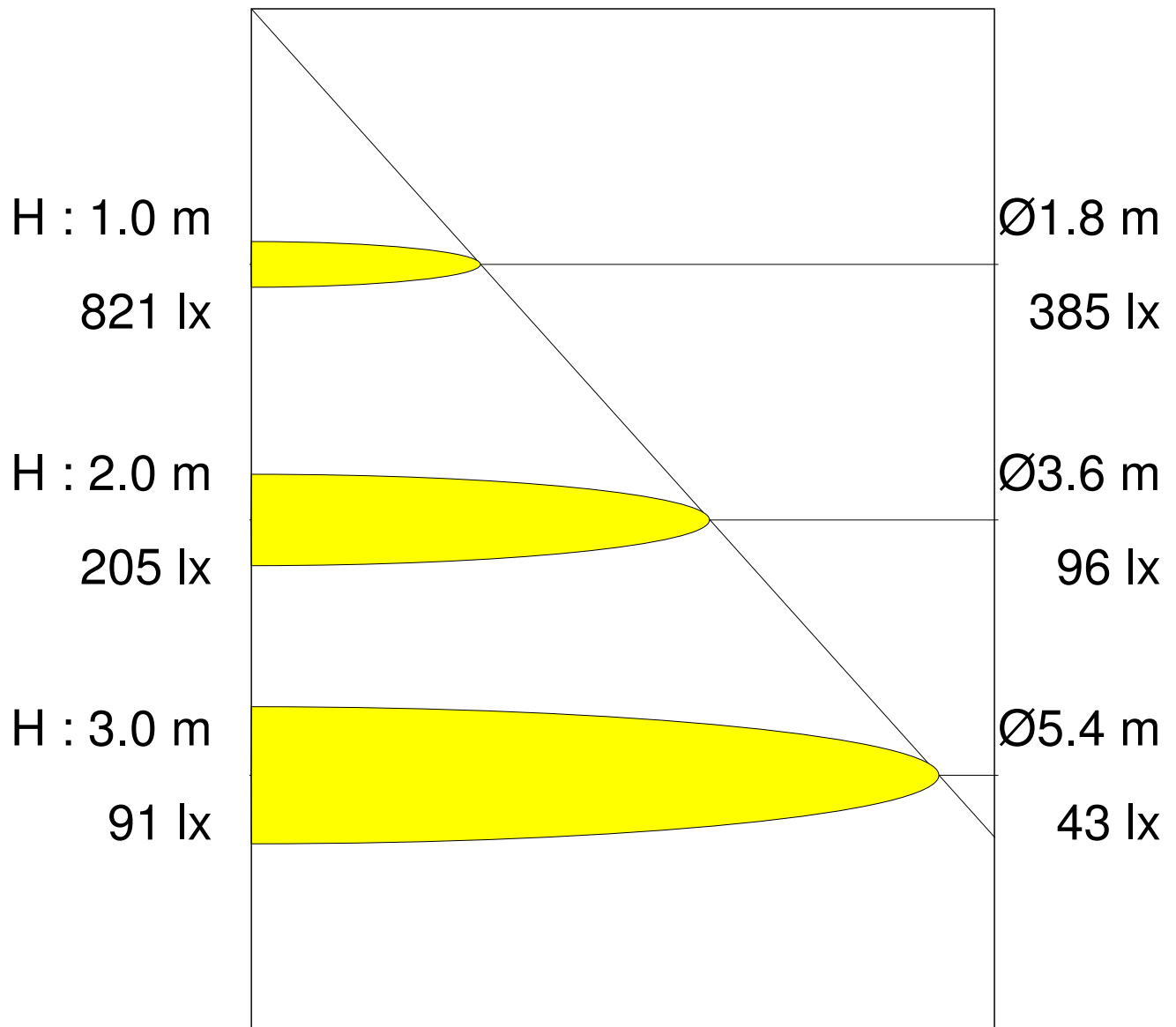
LiTG / DIN	: A50
UTE	: 1.00C1.00D
CIE	: 60 88 99 100 100
BZ	: 3 3 3 3 3 3 3 3 3
Ambient Temperature	: 25 degC
Input Voltage	: 240 V
Circuit Watts	: 19.2 W
Amps (running)	: 0.087 A
V.A.	: 20.87 VA
Power Factor	: 0.92
CCT	: 4501K(measured):4500K(nominal)



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 1605 lumens measured.
 In reality the LED lumens would approximate to this value divided by the actual Light Output



Half peak divergence : 83.8°



	C 0.0	C 15.0	C 30.0	C 45.0	C 60.0	C 75.0	C 90.0	C 105.0
0.0°	511.60	511.60	511.60	511.60	511.60	511.60	511.60	511.60
5.0°	507.70	507.70	507.70	506.70	505.70	508.60	511.60	508.60
10.0°	494.00	492.90	491.90	492.70	493.60	498.60	503.50	498.60
15.0°	472.50	473.40	474.30	474.00	473.70	480.50	487.50	480.50
20.0°	441.40	442.10	442.80	442.20	441.70	452.50	463.30	452.50
25.0°	402.30	403.80	405.30	406.50	407.70	419.30	431.10	419.30
30.0°	361.80	360.70	359.50	360.60	361.70	375.50	389.40	375.50
35.0°	318.50	317.10	315.70	316.30	317.00	332.60	348.30	332.60
40.0°	271.70	270.40	269.20	268.00	266.80	284.60	302.30	284.60
45.0°	229.70	229.90	230.10	230.40	230.70	243.40	256.20	243.40
50.0°	186.10	184.70	183.40	185.80	188.30	199.30	210.30	199.30
55.0°	146.70	148.00	149.30	149.40	149.50	158.70	168.00	158.70
60.0°	106.40	109.60	112.80	110.90	109.10	121.30	133.60	121.30
65.0°	76.70	78.70	80.70	80.00	79.10	88.90	98.70	88.90
70.0°	48.10	48.40	48.60	48.40	48.20	59.00	69.70	59.00
75.0°	24.60	24.50	24.40	24.40	24.40	30.60	36.80	30.60
80.0°	8.40	8.80	9.30	9.70	10.20	12.80	15.50	12.80
85.0°	1.50	1.70	1.80	1.90	2.00	2.10	2.20	2.10
90.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0°	0.00	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	0.00
175.0°	0.00	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	0.00
	cd / klm							

	C 120.0	C 135.0	C 150.0	C 165.0	C 180.0	C 195.0	C 210.0	C 225.0
0.0°	511.60	511.60	511.60	511.60	511.60	511.60	511.60	511.60
5.0°	505.70	506.70	507.70	507.70	507.70	507.70	507.70	506.70
10.0°	493.60	492.70	491.90	492.90	494.00	492.90	491.90	492.70
15.0°	473.70	474.00	474.30	473.40	472.50	473.40	474.30	474.00
20.0°	441.70	442.20	442.80	442.10	441.40	442.10	442.80	442.20
25.0°	407.70	406.50	405.30	403.80	402.30	403.80	405.30	406.50
30.0°	361.70	360.60	359.50	360.70	361.80	360.70	359.50	360.60
35.0°	317.00	316.30	315.70	317.10	318.50	317.10	315.70	316.30
40.0°	266.80	268.00	269.20	270.40	271.70	270.40	269.20	268.00
45.0°	230.70	230.40	230.10	229.90	229.70	229.90	230.10	230.40
50.0°	188.30	185.80	183.40	184.70	186.10	184.70	183.40	185.80
55.0°	149.50	149.40	149.30	148.00	146.70	148.00	149.30	149.40
60.0°	109.10	110.90	112.80	109.60	106.40	109.60	112.80	110.90
65.0°	79.10	80.00	80.70	78.70	76.70	78.70	80.70	80.00
70.0°	48.20	48.40	48.60	48.40	48.10	48.40	48.60	48.40
75.0°	24.40	24.40	24.40	24.50	24.60	24.50	24.40	24.40
80.0°	10.20	9.70	9.30	8.80	8.40	8.80	9.30	9.70
85.0°	2.00	1.90	1.80	1.70	1.50	1.70	1.80	1.90
90.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0°	0.00	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	0.00
175.0°	0.00	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	0.00
	cd / klm							

	C 240.0	C 255.0	C 270.0	C 285.0	C 300.0	C 315.0	C 330.0	C 345.0
0.0°	511.60	511.60	511.60	511.60	511.60	511.60	511.60	511.60
5.0°	505.70	508.60	511.60	508.60	505.70	506.70	507.70	507.70
10.0°	493.60	498.60	503.50	498.60	493.60	492.70	491.90	492.90
15.0°	473.70	480.50	487.50	480.50	473.70	474.00	474.30	473.40
20.0°	441.70	452.50	463.30	452.50	441.70	442.20	442.80	442.10
25.0°	407.70	419.30	431.10	419.30	407.70	406.50	405.30	403.80
30.0°	361.70	375.50	389.40	375.50	361.70	360.60	359.50	360.70
35.0°	317.00	332.60	348.30	332.60	317.00	316.30	315.70	317.10
40.0°	266.80	284.60	302.30	284.60	266.80	268.00	269.20	270.40
45.0°	230.70	243.40	256.20	243.40	230.70	230.40	230.10	229.90
50.0°	188.30	199.30	210.30	199.30	188.30	185.80	183.40	184.70
55.0°	149.50	158.70	168.00	158.70	149.50	149.40	149.30	148.00
60.0°	109.10	121.30	133.60	121.30	109.10	110.90	112.80	109.60
65.0°	79.10	88.90	98.70	88.90	79.10	80.00	80.70	78.70
70.0°	48.20	59.00	69.70	59.00	48.20	48.40	48.60	48.40
75.0°	24.40	30.60	36.80	30.60	24.40	24.40	24.40	24.50
80.0°	10.20	12.80	15.50	12.80	10.20	9.70	9.30	8.80
85.0°	2.00	2.10	2.20	2.10	2.00	1.90	1.80	1.70
90.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0°	0.00	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	0.00
175.0°	0.00	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	0.00
	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	24.8	26.1	25.0	26.3	26.5	25.2	26.6	25.5	26.8	26.9
	3H	24.8	25.8	25.1	26.0	26.2	25.5	26.5	25.8	26.7	26.9
	4H	25.1	26.0	25.3	26.2	26.4	25.9	26.8	26.2	27.0	27.2
	6H	25.2	26.1	25.4	26.3	26.5	26.0	27.0	26.3	27.2	27.4
	8H	25.2	26.1	25.5	26.3	26.6	26.1	27.0	26.4	27.2	27.5
	12H	25.2	26.1	25.5	26.4	26.6	26.1	27.0	26.5	27.3	27.5
4H	2H	24.6	25.6	24.9	25.8	26.0	25.0	25.9	25.2	26.1	26.3
	3H	25.6	26.5	26.0	26.8	27.0	26.2	27.1	26.5	27.4	27.6
	4H	26.0	26.9	26.3	27.1	27.4	26.7	27.6	27.0	27.8	28.1
	6H	25.9	26.6	26.3	26.9	27.2	26.7	27.4	27.0	27.7	28.0
	8H	26.0	26.6	26.3	27.0	27.3	26.8	27.4	27.1	27.8	28.1
	12H	26.1	26.8	26.5	27.2	27.6	26.9	27.6	27.4	28.0	28.4
8H	4H	26.0	26.6	26.3	27.0	27.3	26.6	27.3	27.0	27.6	28.0
	6H	26.3	27.0	26.8	27.4	27.8	27.1	27.7	27.5	28.1	28.5
	8H	26.5	27.1	26.9	27.5	28.0	27.2	27.8	27.7	28.3	28.7
	12H	26.4	26.9	26.9	27.3	27.8	27.2	27.7	27.7	28.1	28.6
12H	4H	26.1	26.8	26.5	27.2	27.6	26.8	27.4	27.2	27.8	28.2
	6H	26.4	27.0	26.9	27.5	28.0	27.2	27.8	27.6	28.2	28.7
	8H	26.4	26.9	26.9	27.3	27.9	27.2	27.6	27.6	28.1	28.6
variation of observer position											
S =	1.0H	+0.3/ -0.4				+0.2/ -0.3					
	1.5H	+0.5/ -1.2				+0.5/ -0.8					
	2.0H	+1.1/ -2.0				+1.3/ -1.7					
standard-table		BK02					BK03				
correction for luminaire		8.1					9.4				
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

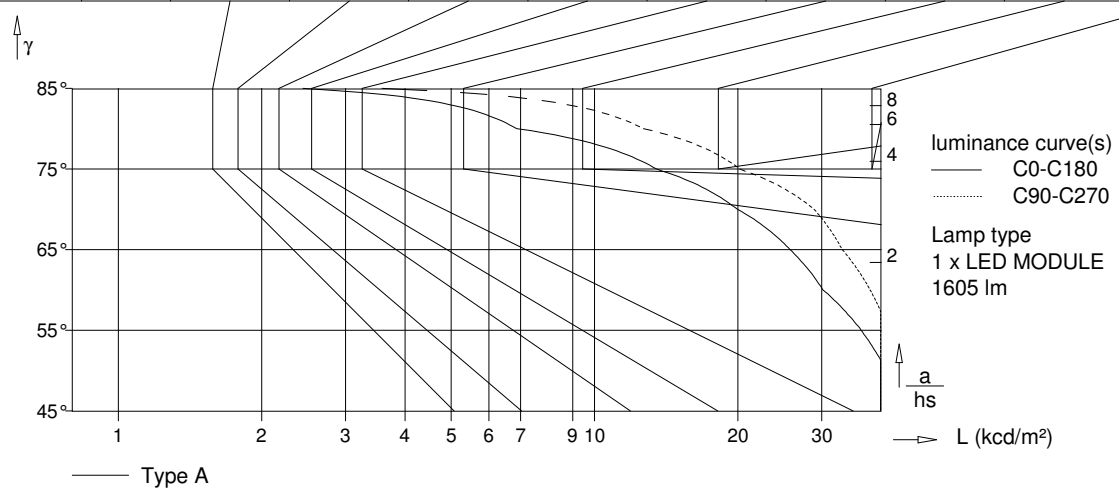
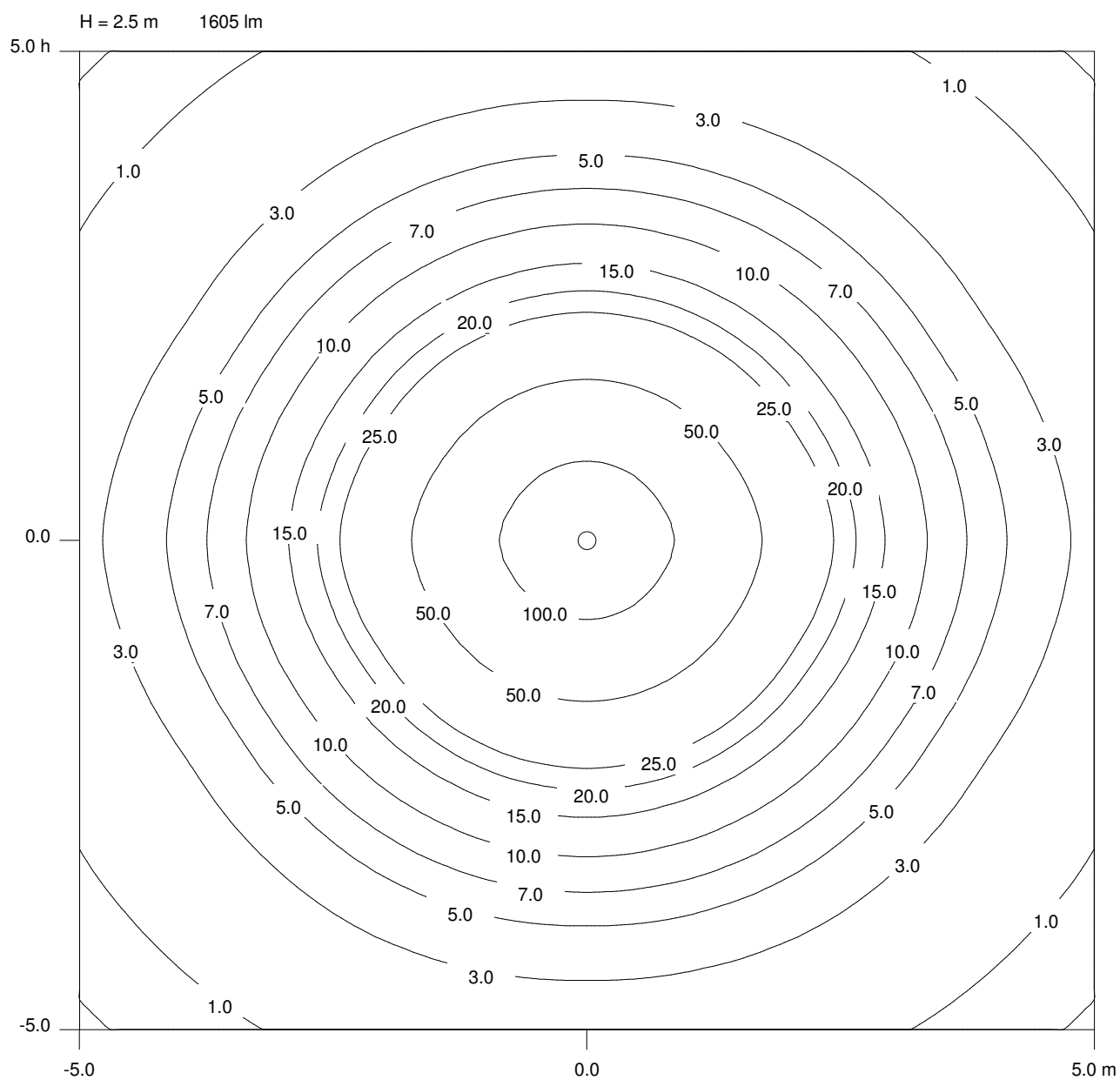


Tabelle der berechneten Leuchtdichten

gamma	C 0	C 90	C 180	C 270
45°	46099.8	51418.2	46099.8	51418.2
50°	41086.7	46429.6	41086.7	46429.6
55°	36296.2	41566.2	36296.2	41566.2
60°	30199.1	37919.2	30199.1	37919.2
65°	25755.5	33143.0	25755.5	33143.0
70°	19958.0	28920.4	19958.0	28920.4
75°	13488.4	20177.8	13488.4	20177.8
80°	6864.9	12667.3	6864.9	12667.3
85°	2442.4	3582.2	2442.4	3582.2

alle Werte in cd/m²



filename : NWT1500-LED-DG-840.LDT
 meas. number : 3197
 luminaire number : NWT1500/LED/DG/840
 date / operator : 25-11-2013

default lamp type(s)

no of lamps	lamp type	luminaire lumens	input wattage
1	LED MODULE	1430 lm	19.0 W

dimensions

luminaire	luminous area
diameter : 180 mm	diameter : 175 mm
height : 20 mm	height : 20 mm

coordinate system

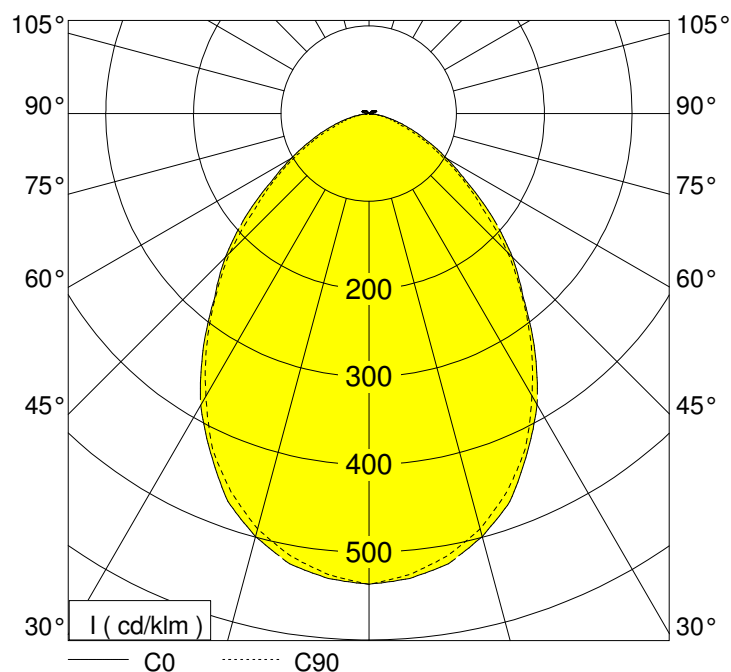
no of planes : 24	samples / plane : 37
first c-plane : 0.0 °	first gamma-angle : 0.0 °
step angle : 15.0 °	step angle : 5.0 °
last c-plane : 345.0 °	last gamma-angle : 180.0 °
symmetrics : symmetric	

performance

light output ratio : 100.0 %
 DFF : 97.6 %
 UFF : 2.4 %

classification

LiTG / DIN : A51
 UTE : 0.98C+0.02T
 CIE : 62 90 98 98 100
 BZ : 2 2 2 2 2 2 2 3 3
 Ambient Temperature : 25 degC
 Input Voltage : 240 V
 Circuit Watts : 19.0 W
 Amps (running) : 0.086 A
 V.A. : 20.65 VA
 Power Factor : 0.92
 CCT : 4650K(measured):4500K(nominal)

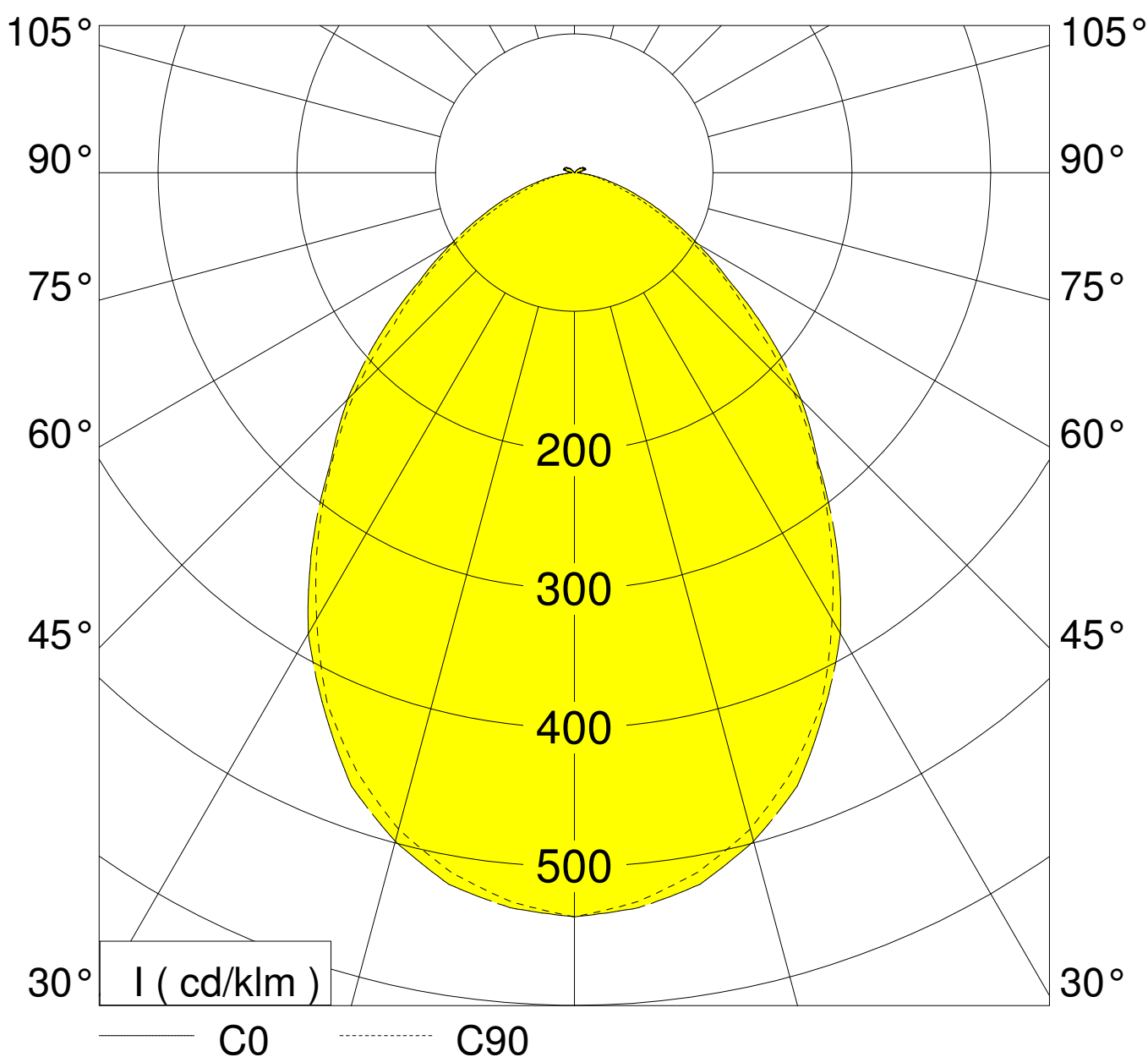


Measurements made are in absolute units
 The luminaire is treated as if it was a lamp as it
 is not possible to measure each LED separately
 - hence an LOR of 100%

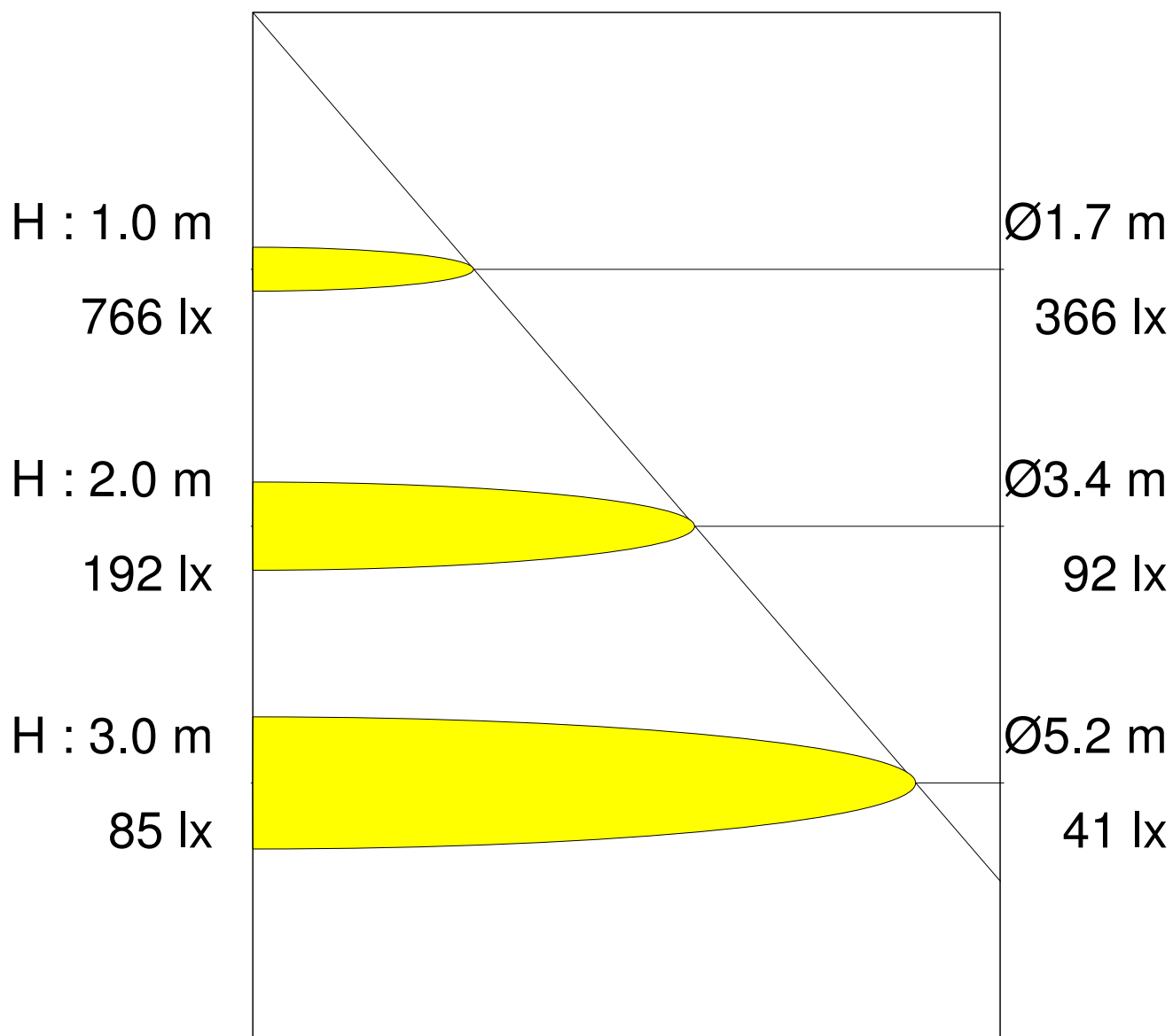
The Light output ratio in real terms would be
 less than 100%. If it was possible to compare
 real LED lumens with the total output from the
 luminaire we could obtain an actual LOR

This also means that the total lumens emitted
 from the LED's would be greater than the 1430
 lumens measured.

In reality the LED lumens would approximate to
 this value divided by the actual Light Output



Half peak divergence : 81.4°



	C 0.0	C 15.0	C 30.0	C 45.0	C 60.0	C 75.0	C 90.0	C 105.0
0.0°	535.80	535.80	535.80	535.80	535.80	535.80	535.80	535.80
5.0°	531.30	530.20	529.10	528.00	526.90	526.90	526.90	526.90
10.0°	520.40	517.10	513.70	512.60	511.50	511.50	511.50	511.50
15.0°	498.50	496.10	493.80	492.70	491.60	490.50	489.40	490.50
20.0°	469.90	465.40	460.70	459.60	458.50	458.50	458.50	458.50
25.0°	426.40	424.30	422.20	421.70	421.30	421.30	421.30	421.30
30.0°	383.30	378.00	372.60	371.90	371.00	371.10	371.20	371.10
35.0°	329.50	325.50	321.50	319.70	318.00	320.00	322.10	320.00
40.0°	273.40	273.30	273.20	273.40	273.60	272.50	271.40	272.50
45.0°	231.00	228.80	226.70	225.30	224.00	223.70	223.50	223.70
50.0°	183.80	179.50	175.30	173.60	171.70	170.60	169.50	170.60
55.0°	136.60	134.70	132.90	131.40	129.80	130.40	130.90	130.40
60.0°	102.10	99.90	97.60	96.40	95.20	94.80	94.30	94.80
65.0°	73.10	70.60	68.10	66.30	64.40	64.30	64.20	64.30
70.0°	49.00	45.80	42.50	41.60	40.80	40.00	39.20	40.00
75.0°	29.70	27.90	26.00	24.80	23.60	23.60	23.60	23.60
80.0°	15.20	14.10	13.00	12.00	11.10	11.30	11.50	11.30
85.0°	4.10	4.20	4.20	4.10	3.90	3.80	3.70	3.80
90.0°	2.20	2.20	2.20	2.40	2.60	2.60	2.60	2.60
95.0°	3.10	3.20	3.30	3.60	3.90	3.80	3.70	3.80
100.0°	4.40	4.40	4.40	4.50	4.60	4.50	4.40	4.50
105.0°	8.30	7.90	7.50	7.10	6.80	6.90	7.00	6.90
110.0°	7.90	7.50	7.20	7.00	6.80	6.90	7.00	6.90
115.0°	7.90	7.40	7.00	6.70	6.40	6.50	6.60	6.50
120.0°	7.20	6.80	6.40	6.00	5.70	5.90	6.10	5.90
125.0°	6.10	5.50	4.80	4.60	4.40	4.90	5.50	4.90
130.0°	4.80	4.00	3.30	3.50	3.70	4.10	4.40	4.10
135.0°	2.60	2.40	2.20	2.90	3.50	3.70	3.90	3.70
140.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0°	0.00	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	0.00
175.0°	0.00	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	0.00
	cd / klm							

	C 120.0	C 135.0	C 150.0	C 165.0	C 180.0	C 195.0	C 210.0	C 225.0
0.0°	535.80	535.80	535.80	535.80	535.80	535.80	535.80	535.80
5.0°	526.90	528.00	529.10	530.20	531.30	530.20	529.10	528.00
10.0°	511.50	512.60	513.70	517.10	520.40	517.10	513.70	512.60
15.0°	491.60	492.70	493.80	496.10	498.50	496.10	493.80	492.70
20.0°	458.50	459.60	460.70	465.40	469.90	465.40	460.70	459.60
25.0°	421.30	421.70	422.20	424.30	426.40	424.30	422.20	421.70
30.0°	371.00	371.90	372.60	378.00	383.30	378.00	372.60	371.90
35.0°	318.00	319.70	321.50	325.50	329.50	325.50	321.50	319.70
40.0°	273.60	273.40	273.20	273.30	273.40	273.30	273.20	273.40
45.0°	224.00	225.30	226.70	228.80	231.00	228.80	226.70	225.30
50.0°	171.70	173.60	175.30	179.50	183.80	179.50	175.30	173.60
55.0°	129.80	131.40	132.90	134.70	136.60	134.70	132.90	131.40
60.0°	95.20	96.40	97.60	99.90	102.10	99.90	97.60	96.40
65.0°	64.40	66.30	68.10	70.60	73.10	70.60	68.10	66.30
70.0°	40.80	41.60	42.50	45.80	49.00	45.80	42.50	41.60
75.0°	23.60	24.80	26.00	27.90	29.70	27.90	26.00	24.80
80.0°	11.10	12.00	13.00	14.10	15.20	14.10	13.00	12.00
85.0°	3.90	4.10	4.20	4.20	4.10	4.20	4.20	4.10
90.0°	2.60	2.40	2.20	2.20	2.20	2.20	2.20	2.40
95.0°	3.90	3.60	3.30	3.20	3.10	3.20	3.30	3.60
100.0°	4.60	4.50	4.40	4.40	4.40	4.40	4.40	4.50
105.0°	6.80	7.10	7.50	7.90	8.30	7.90	7.50	7.10
110.0°	6.80	7.00	7.20	7.50	7.90	7.50	7.20	7.00
115.0°	6.40	6.70	7.00	7.40	7.90	7.40	7.00	6.70
120.0°	5.70	6.00	6.40	6.80	7.20	6.80	6.40	6.00
125.0°	4.40	4.60	4.80	5.50	6.10	5.50	4.80	4.60
130.0°	3.70	3.50	3.30	4.00	4.80	4.00	3.30	3.50
135.0°	3.50	2.90	2.20	2.40	2.60	2.40	2.20	2.90
140.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0°	0.00	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	0.00
175.0°	0.00	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	0.00
	cd / klm							

	C 240.0	C 255.0	C 270.0	C 285.0	C 300.0	C 315.0	C 330.0	C 345.0
0.0°	535.80	535.80	535.80	535.80	535.80	535.80	535.80	535.80
5.0°	526.90	526.90	526.90	526.90	526.90	528.00	529.10	530.20
10.0°	511.50	511.50	511.50	511.50	511.50	512.60	513.70	517.10
15.0°	491.60	490.50	489.40	490.50	491.60	492.70	493.80	496.10
20.0°	458.50	458.50	458.50	458.50	458.50	459.60	460.70	465.40
25.0°	421.30	421.30	421.30	421.30	421.30	421.70	422.20	424.30
30.0°	371.00	371.10	371.20	371.10	371.00	371.90	372.60	378.00
35.0°	318.00	320.00	322.10	320.00	318.00	319.70	321.50	325.50
40.0°	273.60	272.50	271.40	272.50	273.60	273.40	273.20	273.30
45.0°	224.00	223.70	223.50	223.70	224.00	225.30	226.70	228.80
50.0°	171.70	170.60	169.50	170.60	171.70	173.60	175.30	179.50
55.0°	129.80	130.40	130.90	130.40	129.80	131.40	132.90	134.70
60.0°	95.20	94.80	94.30	94.80	95.20	96.40	97.60	99.90
65.0°	64.40	64.30	64.20	64.30	64.40	66.30	68.10	70.60
70.0°	40.80	40.00	39.20	40.00	40.80	41.60	42.50	45.80
75.0°	23.60	23.60	23.60	23.60	23.60	24.80	26.00	27.90
80.0°	11.10	11.30	11.50	11.30	11.10	12.00	13.00	14.10
85.0°	3.90	3.80	3.70	3.80	3.90	4.10	4.20	4.20
90.0°	2.60	2.60	2.60	2.60	2.60	2.40	2.20	2.20
95.0°	3.90	3.80	3.70	3.80	3.90	3.60	3.30	3.20
100.0°	4.60	4.50	4.40	4.50	4.60	4.50	4.40	4.40
105.0°	6.80	6.90	7.00	6.90	6.80	7.10	7.50	7.90
110.0°	6.80	6.90	7.00	6.90	6.80	7.00	7.20	7.50
115.0°	6.40	6.50	6.60	6.50	6.40	6.70	7.00	7.40
120.0°	5.70	5.90	6.10	5.90	5.70	6.00	6.40	6.80
125.0°	4.40	4.90	5.50	4.90	4.40	4.60	4.80	5.50
130.0°	3.70	4.10	4.40	4.10	3.70	3.50	3.30	4.00
135.0°	3.50	3.70	3.90	3.70	3.50	2.90	2.20	2.40
140.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0°	0.00	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	0.00
175.0°	0.00	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	0.00
	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	20.7	22.0	21.0	22.2	22.4	20.5	21.8	20.8	22.0	22.2
	3H	20.7	21.7	21.0	21.9	22.1	20.4	21.3	20.6	21.5	21.7
	4H	21.0	21.9	21.3	22.2	22.4	20.6	21.5	20.9	21.7	22.0
	6H	21.1	22.0	21.5	22.3	22.6	20.7	21.5	21.0	21.8	22.1
	8H	21.2	22.1	21.5	22.4	22.6	20.7	21.6	21.0	21.9	22.2
	12H	21.2	22.1	21.6	22.4	22.7	20.7	21.6	21.1	21.9	22.2
4H	2H	20.5	21.4	20.7	21.6	21.9	20.3	21.2	20.5	21.4	21.7
	3H	21.4	22.3	21.7	22.6	22.8	21.1	21.9	21.4	22.2	22.5
	4H	21.8	22.6	22.2	23.0	23.3	21.4	22.2	21.8	22.6	22.9
	6H	21.8	22.5	22.2	22.8	23.2	21.3	22.0	21.7	22.4	22.7
	8H	21.8	22.5	22.3	22.9	23.3	21.4	22.0	21.8	22.4	22.8
	12H	22.0	22.6	22.5	23.1	23.6	21.5	22.2	22.0	22.6	23.1
8H	4H	21.7	22.4	22.1	22.8	23.2	21.3	22.0	21.8	22.4	22.8
	6H	22.2	22.8	22.7	23.3	23.8	21.7	22.3	22.2	22.8	23.3
	8H	22.3	22.9	22.9	23.4	24.0	21.9	22.5	22.4	23.0	23.5
	12H	22.3	22.8	22.8	23.3	23.9	21.8	22.3	22.4	22.8	23.4
12H	4H	21.9	22.5	22.3	22.9	23.4	21.5	22.1	22.0	22.6	23.0
	6H	22.3	22.9	22.8	23.4	23.9	21.8	22.4	22.4	22.9	23.5
	8H	22.3	22.7	22.8	23.3	23.9	21.8	22.3	22.4	22.8	23.4
variation of observer position											
S =	1.0H	+0.4/ -0.5				+0.4/ -0.6					
	1.5H	+0.7/ -1.2				+0.8/ -1.5					
	2.0H	+1.6/ -2.1				+1.7/ -2.4					
standard-table		BK02					BK02				
correction for luminaire		4.0					3.7				
correct glare indices for a total flux of 1430lm											

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

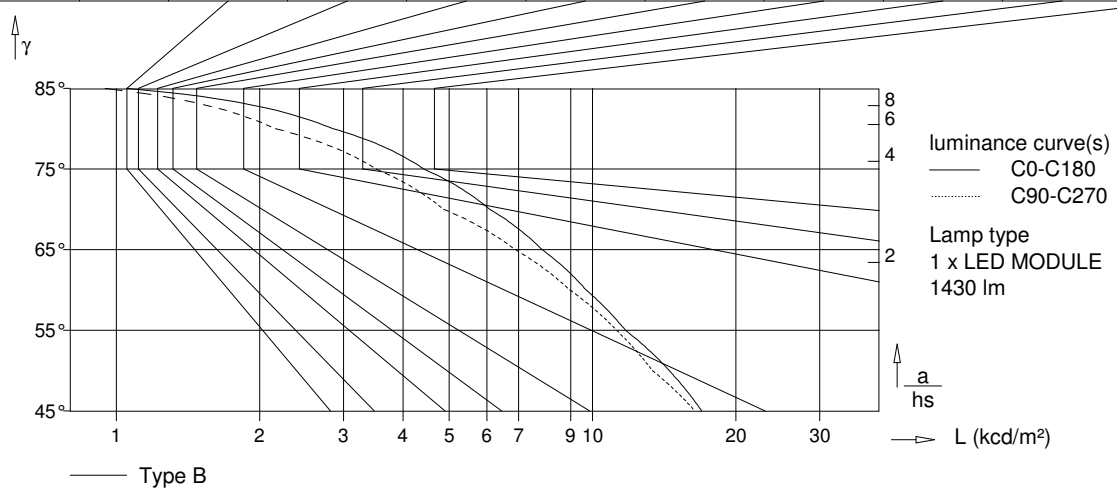
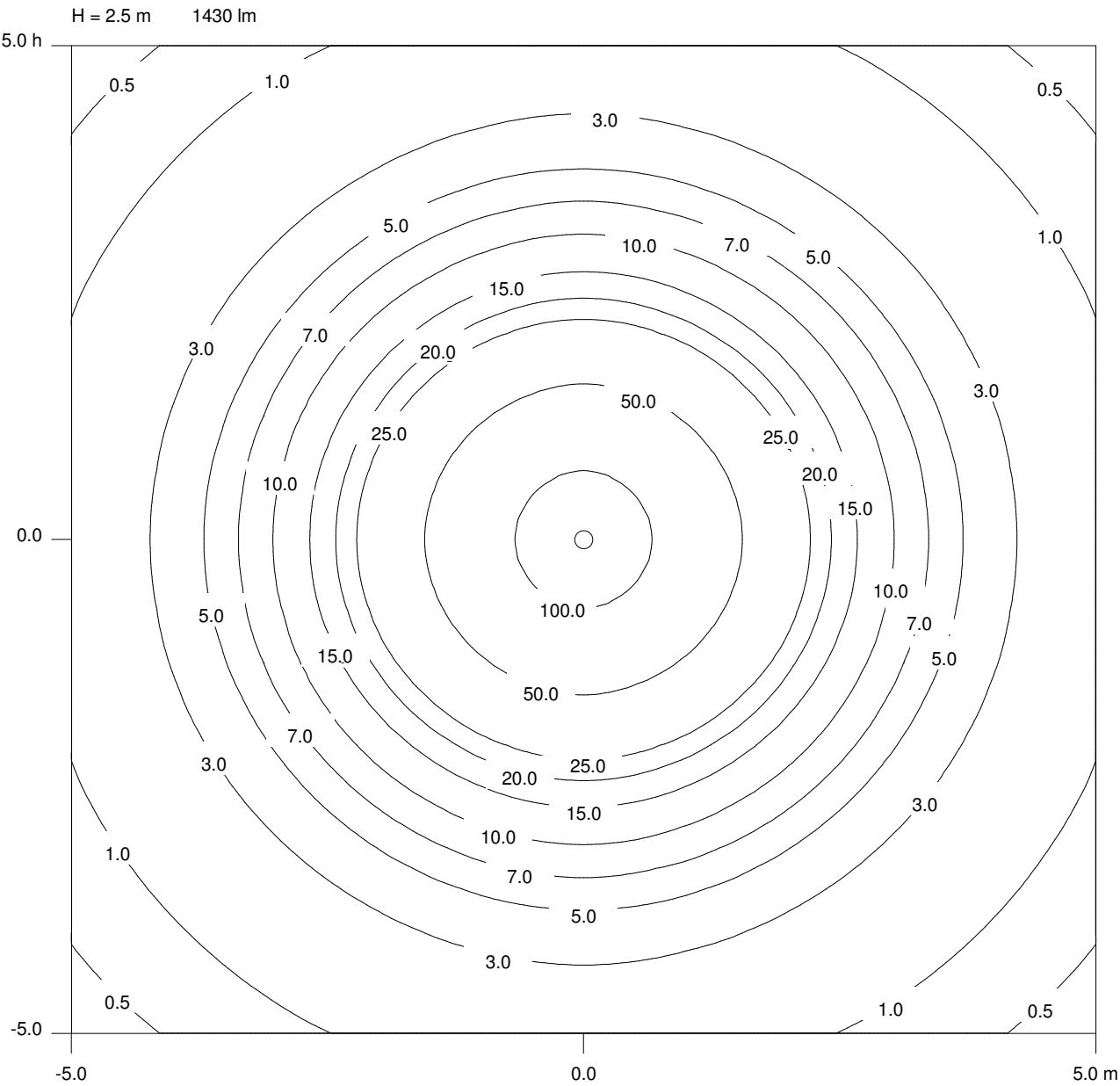


Tabelle der berechneten Leuchtdichten

gamma	C 0	C 90	C 180	C 270
45°	16955.0	16404.5	16955.0	16404.5
50°	14487.6	13360.4	14487.6	13360.4
55°	11722.7	11233.6	11722.7	11233.6
60°	9696.4	8955.6	9696.4	8955.6
65°	7837.7	6883.4	7837.7	6883.4
70°	6084.9	4867.9	6084.9	4867.9
75°	4421.3	3513.2	4421.3	3513.2
80°	2851.2	2157.1	2851.2	2157.1
85°	1050.1	947.7	1050.1	947.7

alle Werte in cd/m²



filename : NWT2300-LED-830.LDT
 meas. number : 3201
 luminaire number : NWT2300/LED/830
 date / operator : 25-11-2013

default lamp type(s)

no of lamps	lamp type	luminaire lumens	input wattage
1	LED MODULE	2260 lm	27.2 W

dimensions

luminaire		luminous area	
diameter	: 180 mm	diameter	: 120 mm
height	: 5 mm	height	: 0 mm

coordinate system

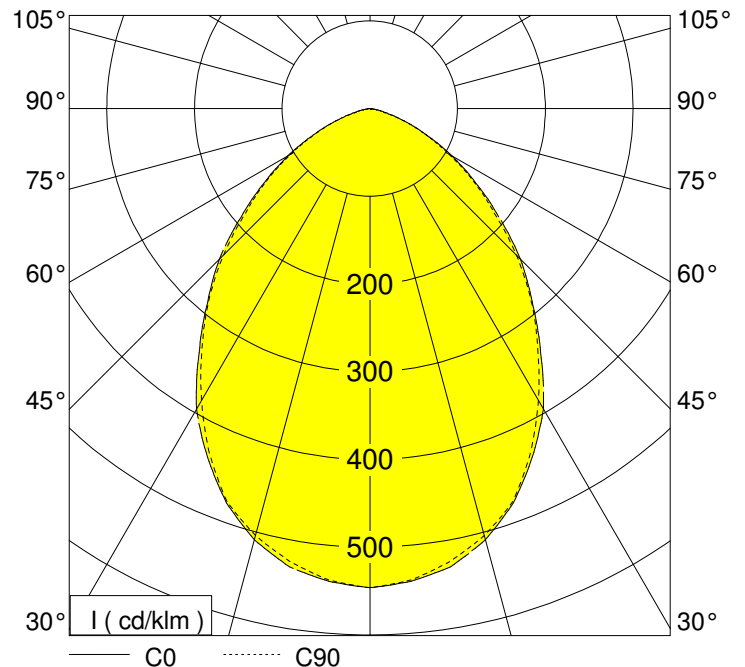
no of planes	: 24	samples / plane	: 37
first c-plane	: 0.0 °	first gamma-angle	: 0.0 °
step angle	: 15.0 °	step angle	: 5.0 °
last c-plane	: 345.0 °	last gamma-angle	: 180.0 °
symmetrics	: symmetric		

performance

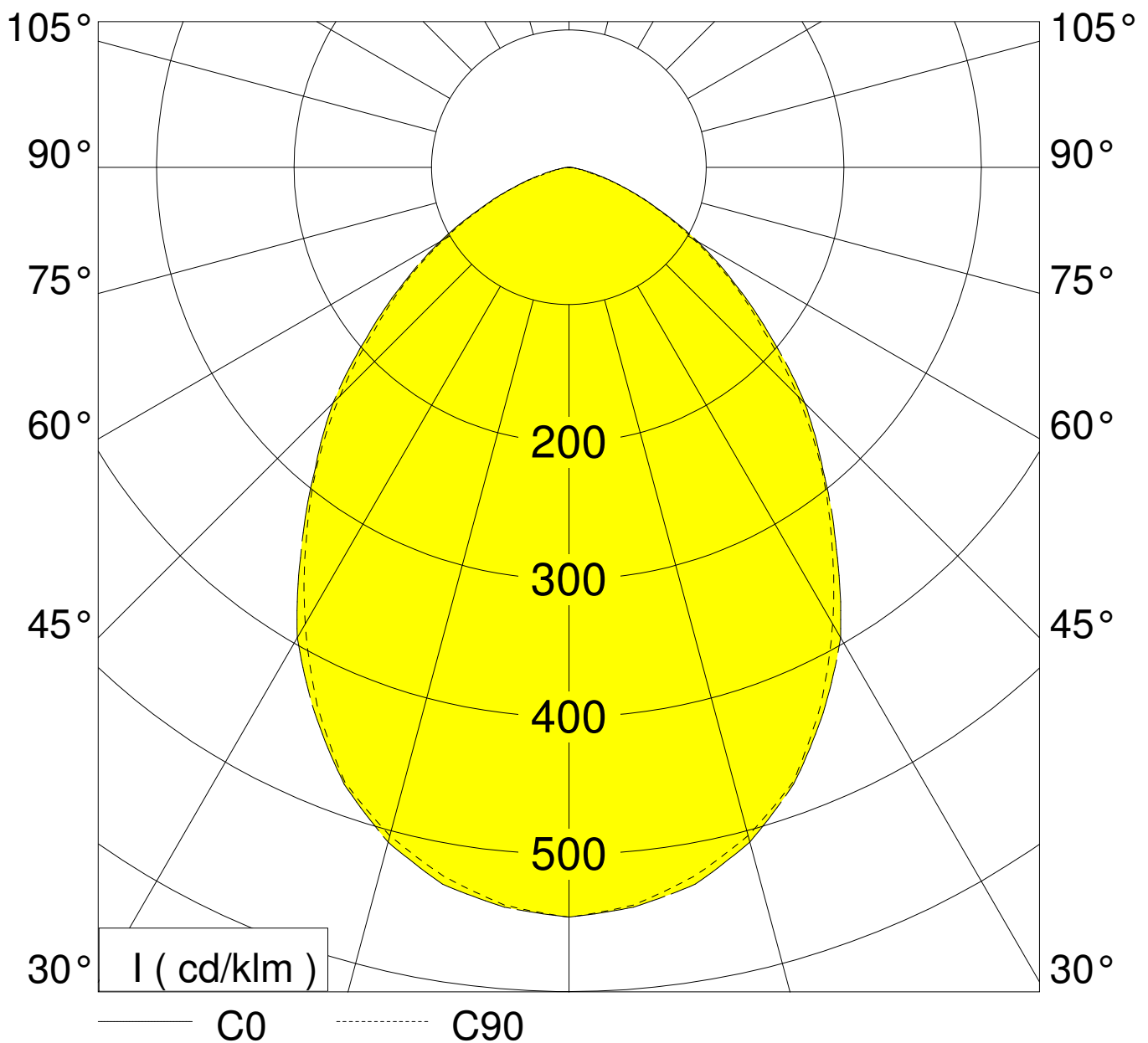
light output ratio	: 100.0 %
DFF	: 100.0 %
UFF	: 0.0 %

classification

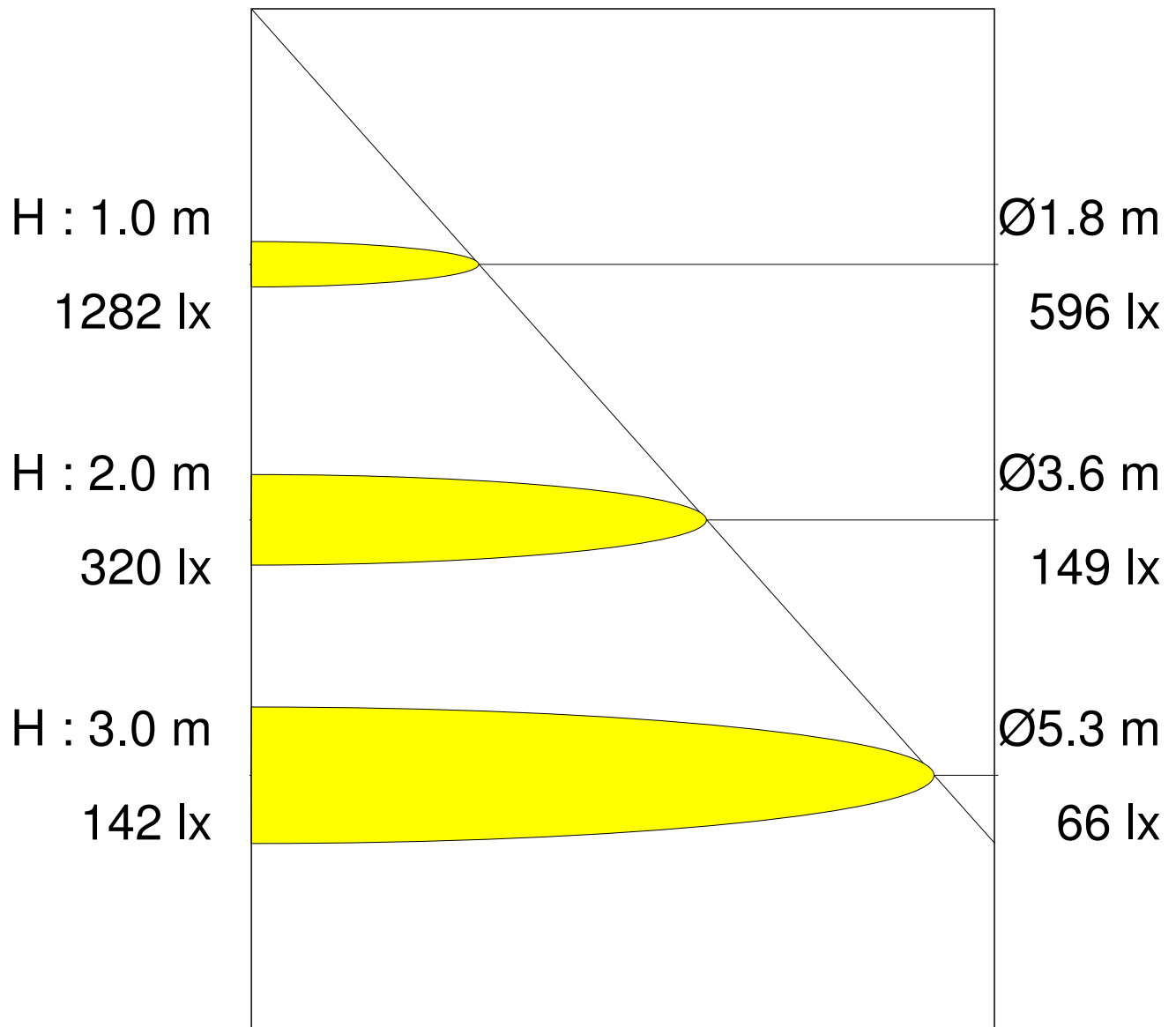
LiTG / DIN	: A50
UTE	: 1.00C
CIE	: 63 91 99 100 100
BZ	: 2 2 2 2 2 2 2 2
Ambient Temperature	: 25 degC
Input Voltage	: 240 V
Circuit Watts	: 27.2 W
Amps (running)	: 0.123 A
V.A.	: 29.57 VA
Power Factor	: 0.92
CCT	: 3000K(nominal)



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 2260
 lumens measured.
 In reality the LED lumens would approximate to
 this value divided by the actual Light Output



Half peak divergence : 83.4°



	C 0.0	C 15.0	C 30.0	C 45.0	C 60.0	C 75.0	C 90.0	C 105.0
0.0°	545.50	545.50	545.50	545.50	545.50	545.50	545.50	545.50
5.0°	540.20	539.50	538.80	538.80	538.70	538.70	538.70	538.70
10.0°	529.50	528.10	526.60	525.90	525.20	524.40	523.70	524.40
15.0°	508.20	506.70	505.10	505.70	506.20	504.70	503.30	504.70
20.0°	477.60	474.60	471.60	469.30	466.90	471.60	476.10	471.60
25.0°	437.70	434.50	431.30	430.90	430.50	431.50	432.60	431.50
30.0°	395.10	388.40	381.50	382.30	383.00	383.30	383.60	383.30
35.0°	339.20	335.50	331.90	331.70	331.60	332.50	333.30	332.50
40.0°	287.40	284.80	282.20	281.20	280.10	283.00	285.70	283.00
45.0°	242.60	239.50	236.30	234.50	232.70	234.10	235.60	234.10
50.0°	191.30	187.40	183.40	183.20	183.00	183.90	184.90	183.90
55.0°	146.70	144.30	141.80	143.00	144.20	144.00	143.90	144.00
60.0°	108.00	106.40	104.80	104.40	104.10	104.10	104.20	104.10
65.0°	71.10	69.40	67.70	68.20	68.70	69.00	69.30	69.00
70.0°	41.80	39.70	37.60	38.40	39.10	40.50	41.90	40.50
75.0°	20.20	18.60	16.90	16.60	16.30	16.20	16.10	16.20
80.0°	7.40	6.20	4.90	4.60	4.30	4.70	5.10	4.70
85.0°	1.60	1.50	1.30	1.30	1.30	1.40	1.50	1.40
90.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0°	0.00	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	0.00
175.0°	0.00	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	0.00
	cd / klm							

	C 120.0	C 135.0	C 150.0	C 165.0	C 180.0	C 195.0	C 210.0	C 225.0
0.0°	545.50	545.50	545.50	545.50	545.50	545.50	545.50	545.50
5.0°	538.70	538.80	538.80	539.50	540.20	539.50	538.80	538.80
10.0°	525.20	525.90	526.60	528.10	529.50	528.10	526.60	525.90
15.0°	506.20	505.70	505.10	506.70	508.20	506.70	505.10	505.70
20.0°	466.90	469.30	471.60	474.60	477.60	474.60	471.60	469.30
25.0°	430.50	430.90	431.30	434.50	437.70	434.50	431.30	430.90
30.0°	383.00	382.30	381.50	388.40	395.10	388.40	381.50	382.30
35.0°	331.60	331.70	331.90	335.50	339.20	335.50	331.90	331.70
40.0°	280.10	281.20	282.20	284.80	287.40	284.80	282.20	281.20
45.0°	232.70	234.50	236.30	239.50	242.60	239.50	236.30	234.50
50.0°	183.00	183.20	183.40	187.40	191.30	187.40	183.40	183.20
55.0°	144.20	143.00	141.80	144.30	146.70	144.30	141.80	143.00
60.0°	104.10	104.40	104.80	106.40	108.00	106.40	104.80	104.40
65.0°	68.70	68.20	67.70	69.40	71.10	69.40	67.70	68.20
70.0°	39.10	38.40	37.60	39.70	41.80	39.70	37.60	38.40
75.0°	16.30	16.60	16.90	18.60	20.20	18.60	16.90	16.60
80.0°	4.30	4.60	4.90	6.20	7.40	6.20	4.90	4.60
85.0°	1.30	1.30	1.30	1.50	1.60	1.50	1.30	1.30
90.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0°	0.00	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	0.00
175.0°	0.00	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	0.00
	cd / klm							

	C 240.0	C 255.0	C 270.0	C 285.0	C 300.0	C 315.0	C 330.0	C 345.0
0.0°	545.50	545.50	545.50	545.50	545.50	545.50	545.50	545.50
5.0°	538.70	538.70	538.70	538.70	538.70	538.80	538.80	539.50
10.0°	525.20	524.40	523.70	524.40	525.20	525.90	526.60	528.10
15.0°	506.20	504.70	503.30	504.70	506.20	505.70	505.10	506.70
20.0°	466.90	471.60	476.10	471.60	466.90	469.30	471.60	474.60
25.0°	430.50	431.50	432.60	431.50	430.50	430.90	431.30	434.50
30.0°	383.00	383.30	383.60	383.30	383.00	382.30	381.50	388.40
35.0°	331.60	332.50	333.30	332.50	331.60	331.70	331.90	335.50
40.0°	280.10	283.00	285.70	283.00	280.10	281.20	282.20	284.80
45.0°	232.70	234.10	235.60	234.10	232.70	234.50	236.30	239.50
50.0°	183.00	183.90	184.90	183.90	183.00	183.20	183.40	187.40
55.0°	144.20	144.00	143.90	144.00	144.20	143.00	141.80	144.30
60.0°	104.10	104.10	104.20	104.10	104.10	104.40	104.80	106.40
65.0°	68.70	69.00	69.30	69.00	68.70	68.20	67.70	69.40
70.0°	39.10	40.50	41.90	40.50	39.10	38.40	37.60	39.70
75.0°	16.30	16.20	16.10	16.20	16.30	16.60	16.90	18.60
80.0°	4.30	4.70	5.10	4.70	4.30	4.60	4.90	6.20
85.0°	1.30	1.40	1.50	1.40	1.30	1.30	1.30	1.50
90.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0°	0.00	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	0.00
175.0°	0.00	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	0.00
	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	26.0	27.3	26.3	27.5	27.7	26.0	27.3	26.2	27.4	27.6
	3H	25.9	26.9	26.1	27.0	27.2	25.8	26.8	26.1	27.0	27.1
	4H	26.1	27.0	26.3	27.2	27.4	26.0	26.9	26.3	27.1	27.3
	6H	26.1	27.0	26.4	27.2	27.5	26.0	26.9	26.3	27.1	27.3
	8H	26.2	27.0	26.5	27.3	27.5	26.1	26.9	26.3	27.2	27.4
	12H	26.2	27.1	26.5	27.3	27.6	26.1	26.9	26.4	27.2	27.4
4H	2H	25.8	26.7	26.0	26.9	27.1	25.7	26.6	26.0	26.8	27.0
	3H	26.6	27.4	26.9	27.7	27.9	26.5	27.4	26.8	27.6	27.9
	4H	26.9	27.7	27.2	28.0	28.3	26.8	27.6	27.1	27.9	28.2
	6H	26.7	27.4	27.1	27.7	28.0	26.6	27.3	27.0	27.6	27.9
	8H	26.8	27.4	27.1	27.8	28.1	26.7	27.3	27.0	27.6	28.0
	12H	26.9	27.6	27.4	27.9	28.4	26.8	27.4	27.2	27.8	28.2
8H	4H	26.8	27.4	27.1	27.7	28.1	26.7	27.3	27.1	27.7	28.0
	6H	27.1	27.7	27.5	28.1	28.5	27.0	27.6	27.4	28.0	28.4
	8H	27.2	27.8	27.7	28.2	28.7	27.1	27.6	27.5	28.1	28.6
	12H	27.1	27.6	27.6	28.0	28.6	27.0	27.5	27.5	27.9	28.4
12H	4H	26.9	27.5	27.3	27.9	28.3	26.8	27.5	27.3	27.9	28.3
	6H	27.2	27.7	27.6	28.2	28.7	27.1	27.6	27.5	28.1	28.6
	8H	27.1	27.6	27.6	28.0	28.6	27.0	27.5	27.5	27.9	28.4
variation of observer position											
S =	1.0H	+0.4/ -0.5				+0.4/ -0.6					
	1.5H	+0.7/ -1.4				+0.7/ -1.5					
	2.0H	+1.6/ -2.7				+1.6/ -2.6					
standard-table		BK02					BK02				
correction for luminaire		9.2					9.1				
correct glare indices for a total flux of 2260 lm											

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

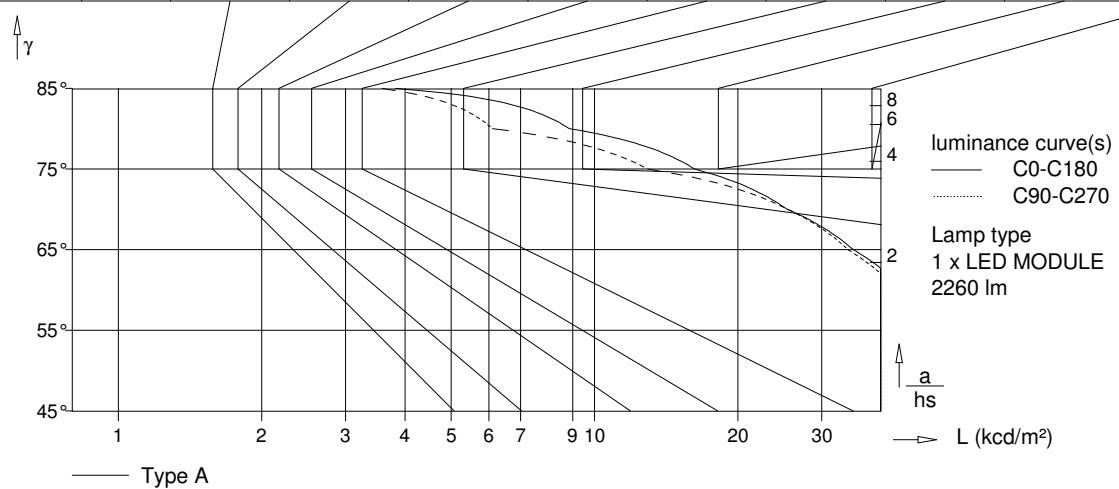
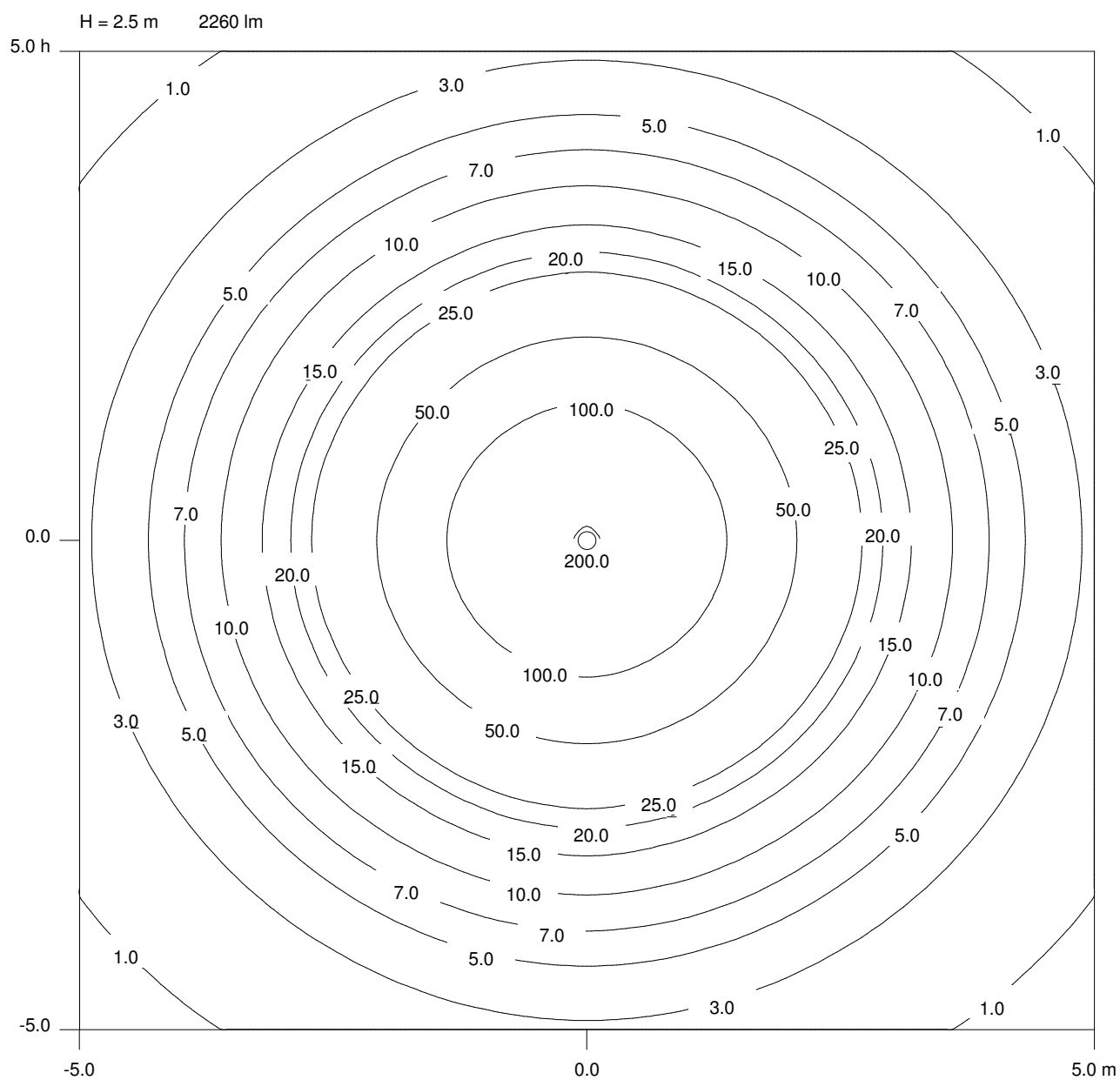


Tabelle der berechneten Leuchtdichten

gamma	C 0	C 90	C 180	C 270
45°	71288.8	69231.8	71288.8	69231.8
50°	61839.1	59770.2	61839.1	59770.2
55°	53144.0	52129.7	53144.0	52129.7
60°	44881.7	43302.5	44881.7	43302.5
65°	34957.2	34072.2	34957.2	34072.2
70°	25394.5	25455.3	25394.5	25455.3
75°	16217.0	12925.4	16217.0	12925.4
80°	8854.8	6102.6	8854.8	6102.6
85°	3814.5	3576.1	3814.5	3576.1

alle Werte in cd/m²



filename : NWT2300-LED-840.LDT
 meas. number : 3201
 luminaire number : NWT2300/LED/840
 date / operator : 25-11-2013

default lamp type(s)

no of lamps	lamp type	luminaire lumens	input wattage
1	LED MODULE	2350 lm	27.2 W

dimensions

luminaire		luminous area	
diameter	: 180 mm	diameter	: 120 mm
height	: 5 mm	height	: 0 mm

coordinate system

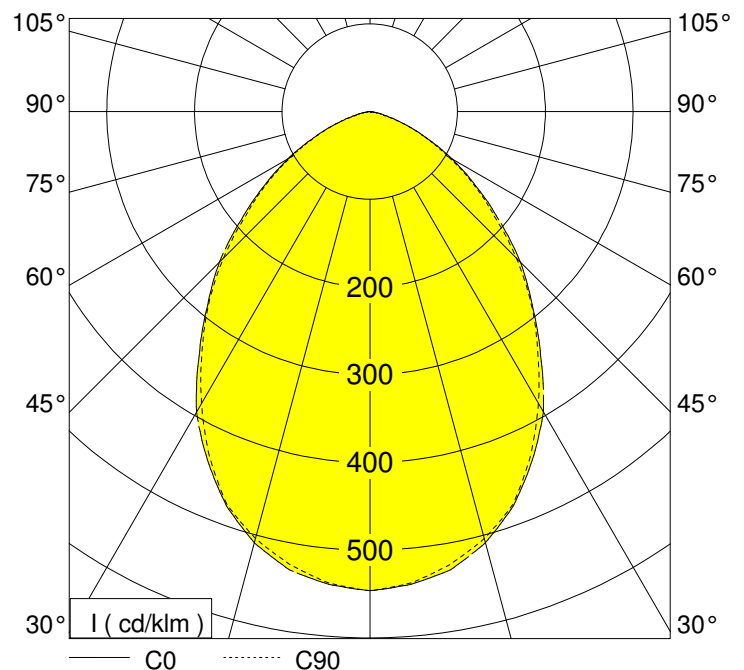
no of planes	: 24	samples / plane	: 37
first c-plane	: 0.0 °	first gamma-angle	: 0.0 °
step angle	: 15.0 °	step angle	: 5.0 °
last c-plane	: 345.0 °	last gamma-angle	: 180.0 °
symmetrics	: symmetric		

performance

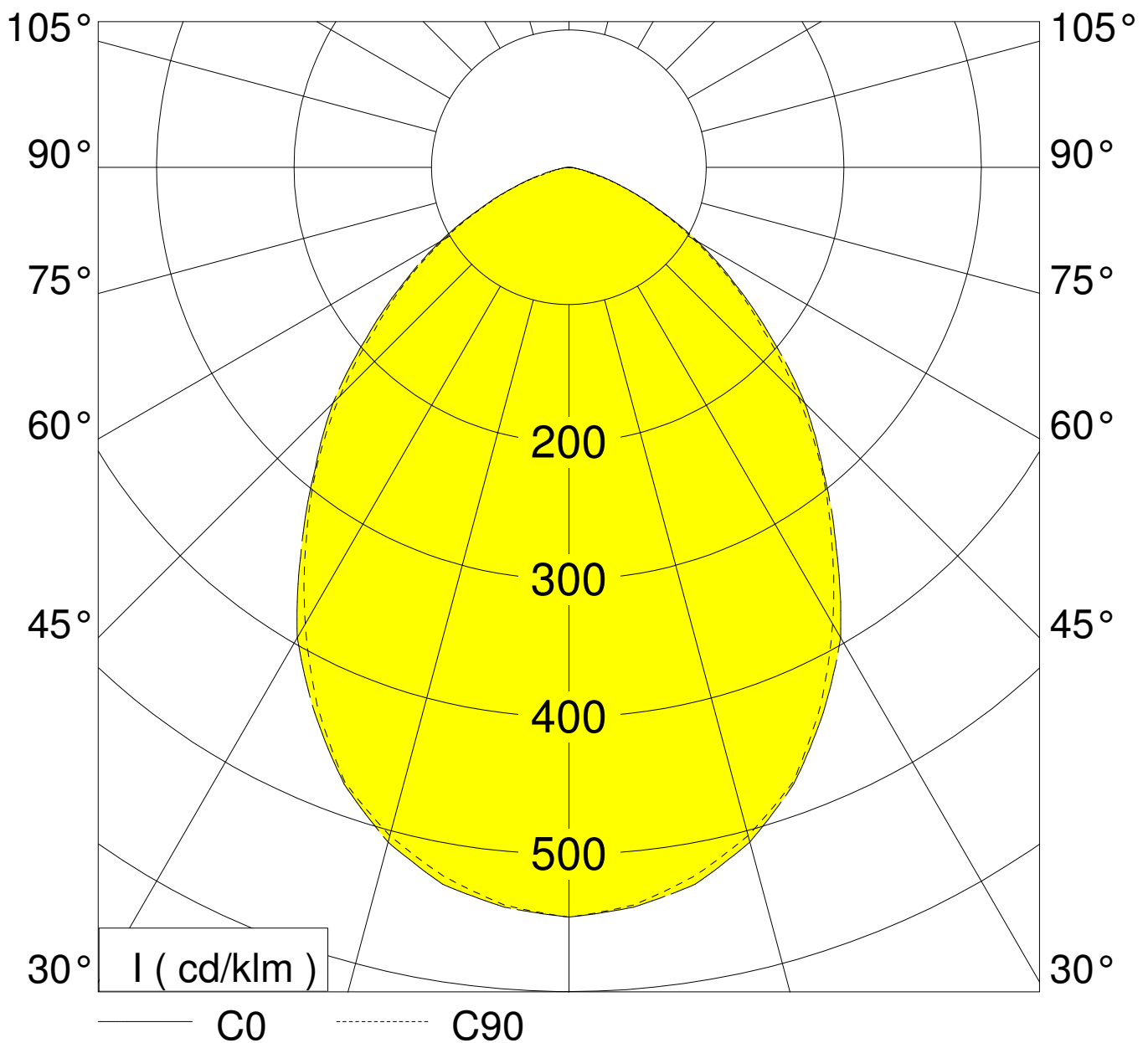
light output ratio	: 100.0 %
DFF	: 100.0 %
UFF	: 0.0 %

classification

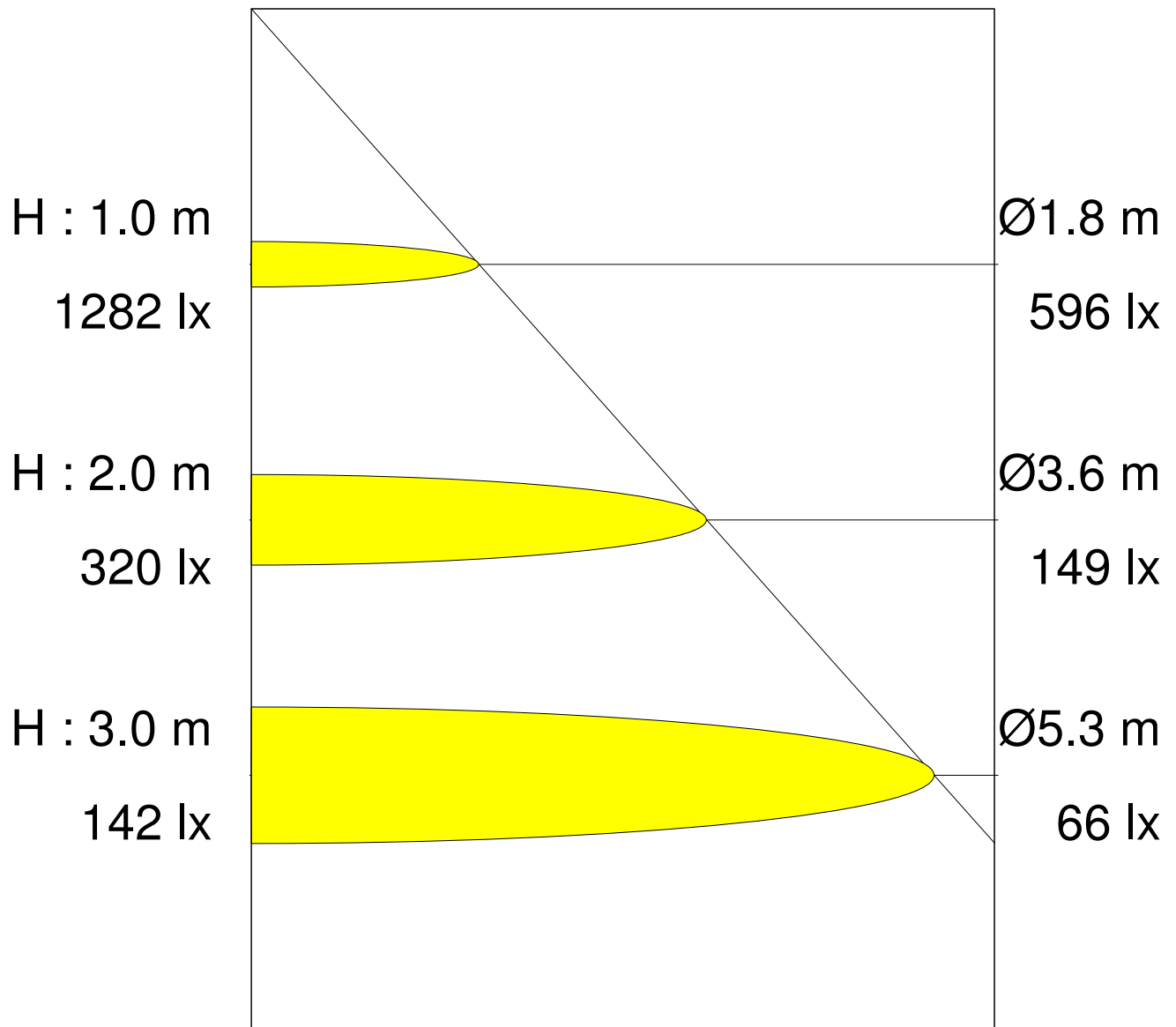
LiTG / DIN	: A50
UTE	: 1.00C
CIE	: 63 91 99 100 100
BZ	: 2 2 2 2 2 2 2 2
Ambient Temperature	: 25 degC
Input Voltage	: 240 V
Circuit Watts	: 27.2 W
Amps (running)	: 0.123 A
V.A.	: 29.57 VA
Power Factor	: 0.92
CCT	: 4631K(measured):4500K(nominal)



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 2350
lumens measured.
In reality the LED lumens would approximate to
this value divided by the actual Light Output



Half peak divergence : 83.4°



	C 0.0	C 15.0	C 30.0	C 45.0	C 60.0	C 75.0	C 90.0	C 105.0
0.0°	545.50	545.50	545.50	545.50	545.50	545.50	545.50	545.50
5.0°	540.20	539.50	538.80	538.80	538.70	538.70	538.70	538.70
10.0°	529.50	528.10	526.60	525.90	525.20	524.40	523.70	524.40
15.0°	508.20	506.70	505.10	505.70	506.20	504.70	503.30	504.70
20.0°	477.60	474.60	471.60	469.30	466.90	471.60	476.10	471.60
25.0°	437.70	434.50	431.30	430.90	430.50	431.50	432.60	431.50
30.0°	395.10	388.40	381.50	382.30	383.00	383.30	383.60	383.30
35.0°	339.20	335.50	331.90	331.70	331.60	332.50	333.30	332.50
40.0°	287.40	284.80	282.20	281.20	280.10	283.00	285.70	283.00
45.0°	242.60	239.50	236.30	234.50	232.70	234.10	235.60	234.10
50.0°	191.30	187.40	183.40	183.20	183.00	183.90	184.90	183.90
55.0°	146.70	144.30	141.80	143.00	144.20	144.00	143.90	144.00
60.0°	108.00	106.40	104.80	104.40	104.10	104.10	104.20	104.10
65.0°	71.10	69.40	67.70	68.20	68.70	69.00	69.30	69.00
70.0°	41.80	39.70	37.60	38.40	39.10	40.50	41.90	40.50
75.0°	20.20	18.60	16.90	16.60	16.30	16.20	16.10	16.20
80.0°	7.40	6.20	4.90	4.60	4.30	4.70	5.10	4.70
85.0°	1.60	1.50	1.30	1.30	1.30	1.40	1.50	1.40
90.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0°	0.00	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	0.00
175.0°	0.00	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	0.00
	cd / klm							

	C 120.0	C 135.0	C 150.0	C 165.0	C 180.0	C 195.0	C 210.0	C 225.0
0.0°	545.50	545.50	545.50	545.50	545.50	545.50	545.50	545.50
5.0°	538.70	538.80	538.80	539.50	540.20	539.50	538.80	538.80
10.0°	525.20	525.90	526.60	528.10	529.50	528.10	526.60	525.90
15.0°	506.20	505.70	505.10	506.70	508.20	506.70	505.10	505.70
20.0°	466.90	469.30	471.60	474.60	477.60	474.60	471.60	469.30
25.0°	430.50	430.90	431.30	434.50	437.70	434.50	431.30	430.90
30.0°	383.00	382.30	381.50	388.40	395.10	388.40	381.50	382.30
35.0°	331.60	331.70	331.90	335.50	339.20	335.50	331.90	331.70
40.0°	280.10	281.20	282.20	284.80	287.40	284.80	282.20	281.20
45.0°	232.70	234.50	236.30	239.50	242.60	239.50	236.30	234.50
50.0°	183.00	183.20	183.40	187.40	191.30	187.40	183.40	183.20
55.0°	144.20	143.00	141.80	144.30	146.70	144.30	141.80	143.00
60.0°	104.10	104.40	104.80	106.40	108.00	106.40	104.80	104.40
65.0°	68.70	68.20	67.70	69.40	71.10	69.40	67.70	68.20
70.0°	39.10	38.40	37.60	39.70	41.80	39.70	37.60	38.40
75.0°	16.30	16.60	16.90	18.60	20.20	18.60	16.90	16.60
80.0°	4.30	4.60	4.90	6.20	7.40	6.20	4.90	4.60
85.0°	1.30	1.30	1.30	1.50	1.60	1.50	1.30	1.30
90.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0°	0.00	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	0.00
175.0°	0.00	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	0.00
	cd / klm							

	C 240.0	C 255.0	C 270.0	C 285.0	C 300.0	C 315.0	C 330.0	C 345.0
0.0°	545.50	545.50	545.50	545.50	545.50	545.50	545.50	545.50
5.0°	538.70	538.70	538.70	538.70	538.70	538.80	538.80	539.50
10.0°	525.20	524.40	523.70	524.40	525.20	525.90	526.60	528.10
15.0°	506.20	504.70	503.30	504.70	506.20	505.70	505.10	506.70
20.0°	466.90	471.60	476.10	471.60	466.90	469.30	471.60	474.60
25.0°	430.50	431.50	432.60	431.50	430.50	430.90	431.30	434.50
30.0°	383.00	383.30	383.60	383.30	383.00	382.30	381.50	388.40
35.0°	331.60	332.50	333.30	332.50	331.60	331.70	331.90	335.50
40.0°	280.10	283.00	285.70	283.00	280.10	281.20	282.20	284.80
45.0°	232.70	234.10	235.60	234.10	232.70	234.50	236.30	239.50
50.0°	183.00	183.90	184.90	183.90	183.00	183.20	183.40	187.40
55.0°	144.20	144.00	143.90	144.00	144.20	143.00	141.80	144.30
60.0°	104.10	104.10	104.20	104.10	104.10	104.40	104.80	106.40
65.0°	68.70	69.00	69.30	69.00	68.70	68.20	67.70	69.40
70.0°	39.10	40.50	41.90	40.50	39.10	38.40	37.60	39.70
75.0°	16.30	16.20	16.10	16.20	16.30	16.60	16.90	18.60
80.0°	4.30	4.70	5.10	4.70	4.30	4.60	4.90	6.20
85.0°	1.30	1.40	1.50	1.40	1.30	1.30	1.30	1.50
90.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0°	0.00	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	0.00
175.0°	0.00	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	0.00
	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	26.0	27.3	26.3	27.5	27.7	26.0	27.3	26.2	27.4	27.6
	3H	25.9	26.9	26.1	27.0	27.2	25.8	26.8	26.1	27.0	27.1
	4H	26.1	27.0	26.3	27.2	27.4	26.0	26.9	26.3	27.1	27.3
	6H	26.1	27.0	26.4	27.2	27.5	26.0	26.9	26.3	27.1	27.3
	8H	26.2	27.0	26.5	27.3	27.5	26.1	26.9	26.3	27.2	27.4
	12H	26.2	27.1	26.5	27.3	27.6	26.1	26.9	26.4	27.2	27.4
4H	2H	25.8	26.7	26.0	26.9	27.1	25.7	26.6	26.0	26.8	27.0
	3H	26.6	27.4	26.9	27.7	27.9	26.5	27.4	26.8	27.6	27.9
	4H	26.9	27.7	27.2	28.0	28.3	26.8	27.6	27.1	27.9	28.2
	6H	26.7	27.4	27.1	27.7	28.0	26.6	27.3	27.0	27.6	27.9
	8H	26.8	27.4	27.1	27.8	28.1	26.7	27.3	27.0	27.6	28.0
	12H	26.9	27.6	27.4	27.9	28.4	26.8	27.4	27.2	27.8	28.2
8H	4H	26.8	27.4	27.1	27.7	28.1	26.7	27.3	27.1	27.7	28.0
	6H	27.1	27.7	27.5	28.1	28.5	27.0	27.6	27.4	28.0	28.4
	8H	27.2	27.8	27.7	28.2	28.7	27.1	27.6	27.5	28.1	28.6
	12H	27.1	27.6	27.6	28.0	28.6	27.0	27.5	27.5	27.9	28.4
12H	4H	26.9	27.5	27.3	27.9	28.3	26.8	27.5	27.3	27.9	28.3
	6H	27.2	27.7	27.6	28.2	28.7	27.1	27.6	27.5	28.1	28.6
	8H	27.1	27.6	27.6	28.0	28.6	27.0	27.5	27.5	27.9	28.4
variation of observer position											
S =	1.0H	+0.4/ -0.5				+0.4/ -0.6					
	1.5H	+0.7/ -1.4				+0.7/ -1.5					
	2.0H	+1.6/ -2.7				+1.6/ -2.6					
standard-table		BK02					BK02				
correction for luminaire		9.2					9.1				
correct glare indices for a total flux of 2350lm											

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

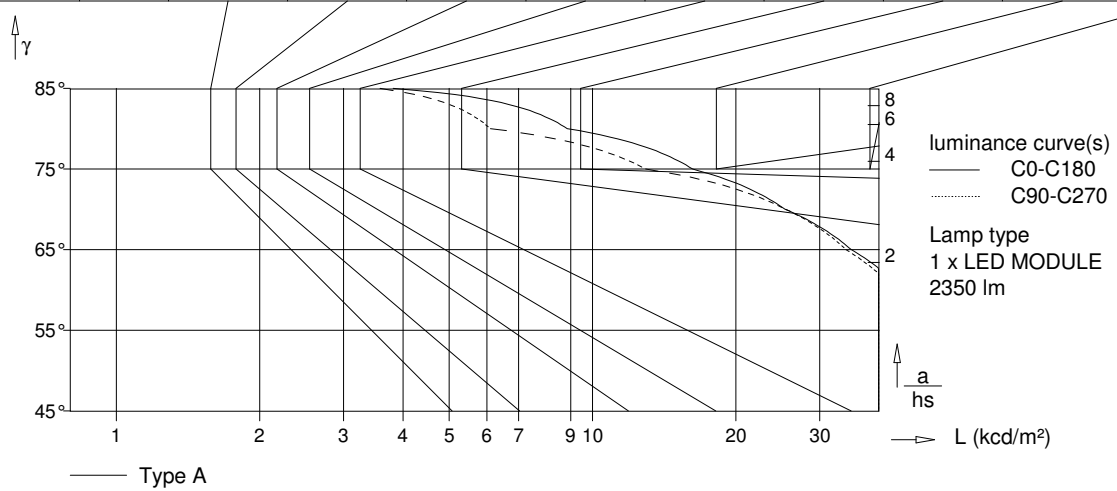
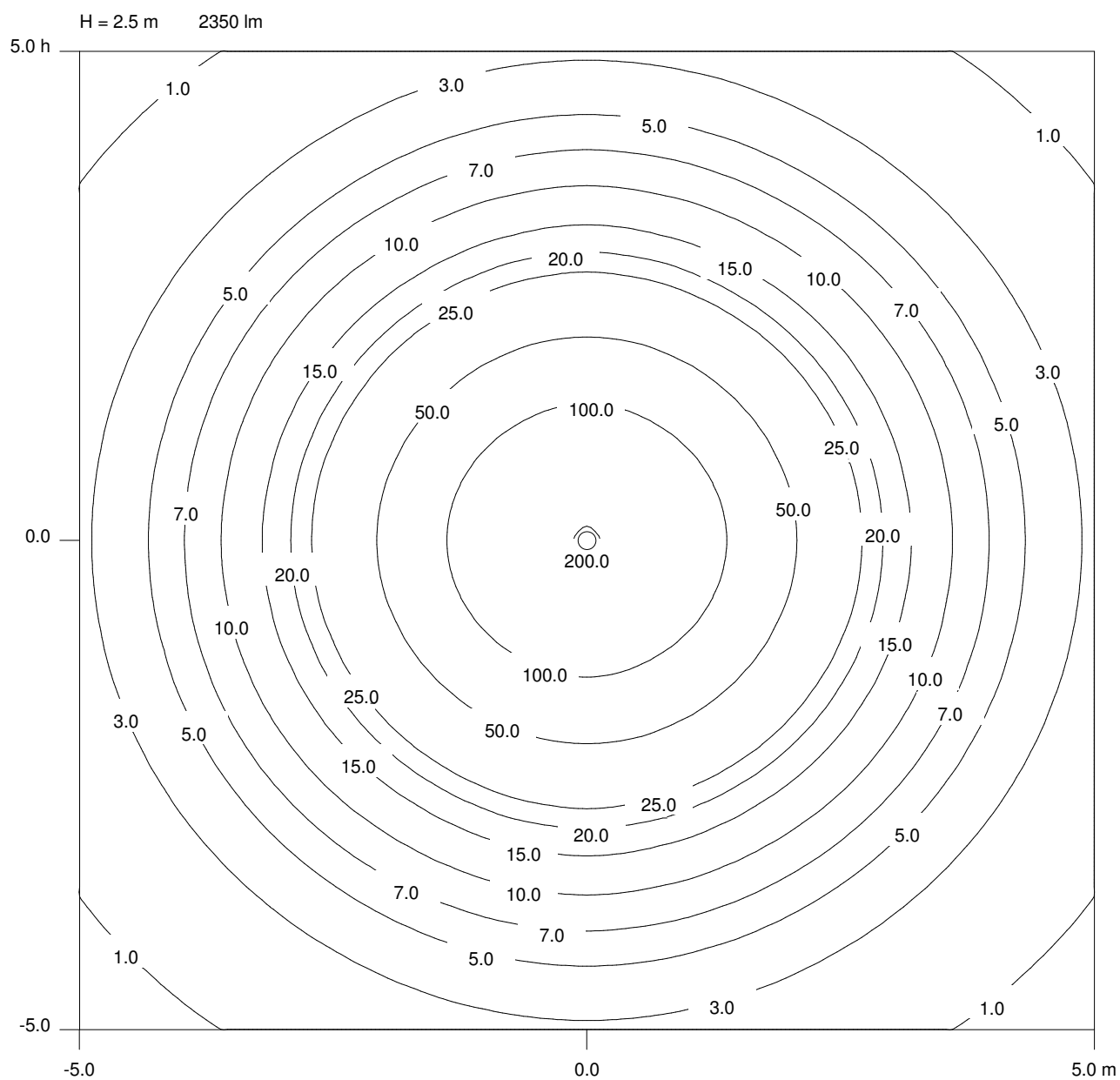


Tabelle der berechneten Leuchtdichten

gamma	C 0	C 90	C 180	C 270
45°	71288.8	69231.8	71288.8	69231.8
50°	61839.1	59770.2	61839.1	59770.2
55°	53144.0	52129.7	53144.0	52129.7
60°	44881.7	43302.5	44881.7	43302.5
65°	34957.2	34072.2	34957.2	34072.2
70°	25394.5	25455.3	25394.5	25455.3
75°	16217.0	12925.4	16217.0	12925.4
80°	8854.8	6102.6	8854.8	6102.6
85°	3814.5	3576.1	3814.5	3576.1

alle Werte in cd/m²



filename : NWT2300-LED-DG-840.LDT
 meas. number : 3198
 luminaire number : NWT2300/LED/DG/840
 date / operator : 25-11-2013

default lamp type(s)

no of lamps	lamp type	luminaire lumens	input wattage
1	LED MODULE	2240 lm	28.2 W

dimensions

luminaire	luminous area
diameter : 225 mm	diameter : 220 mm
height : 20 mm	height : 20 mm

coordinate system

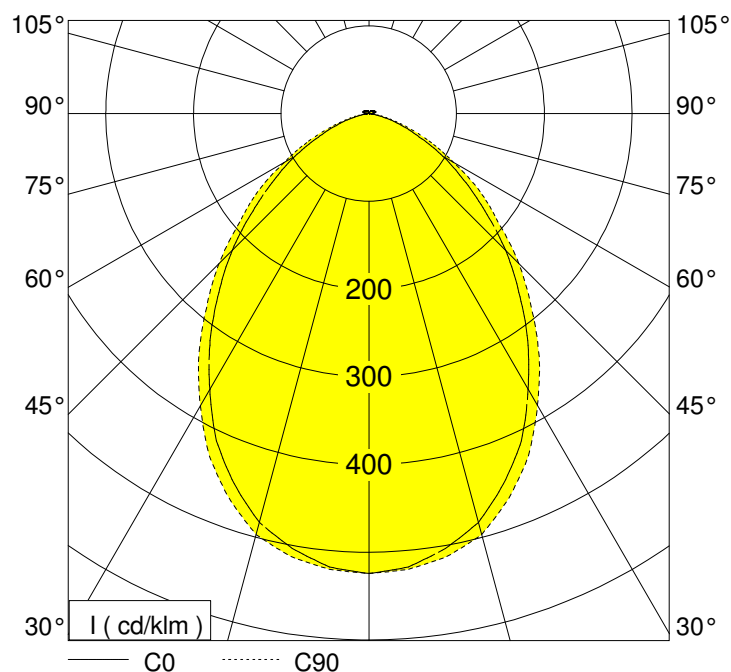
no of planes : 24	samples / plane : 37
first c-plane : 0.0 °	first gamma-angle : 0.0 °
step angle : 15.0 °	step angle : 5.0 °
last c-plane : 345.0 °	last gamma-angle : 180.0 °
symmetrics : symmetric	

performance

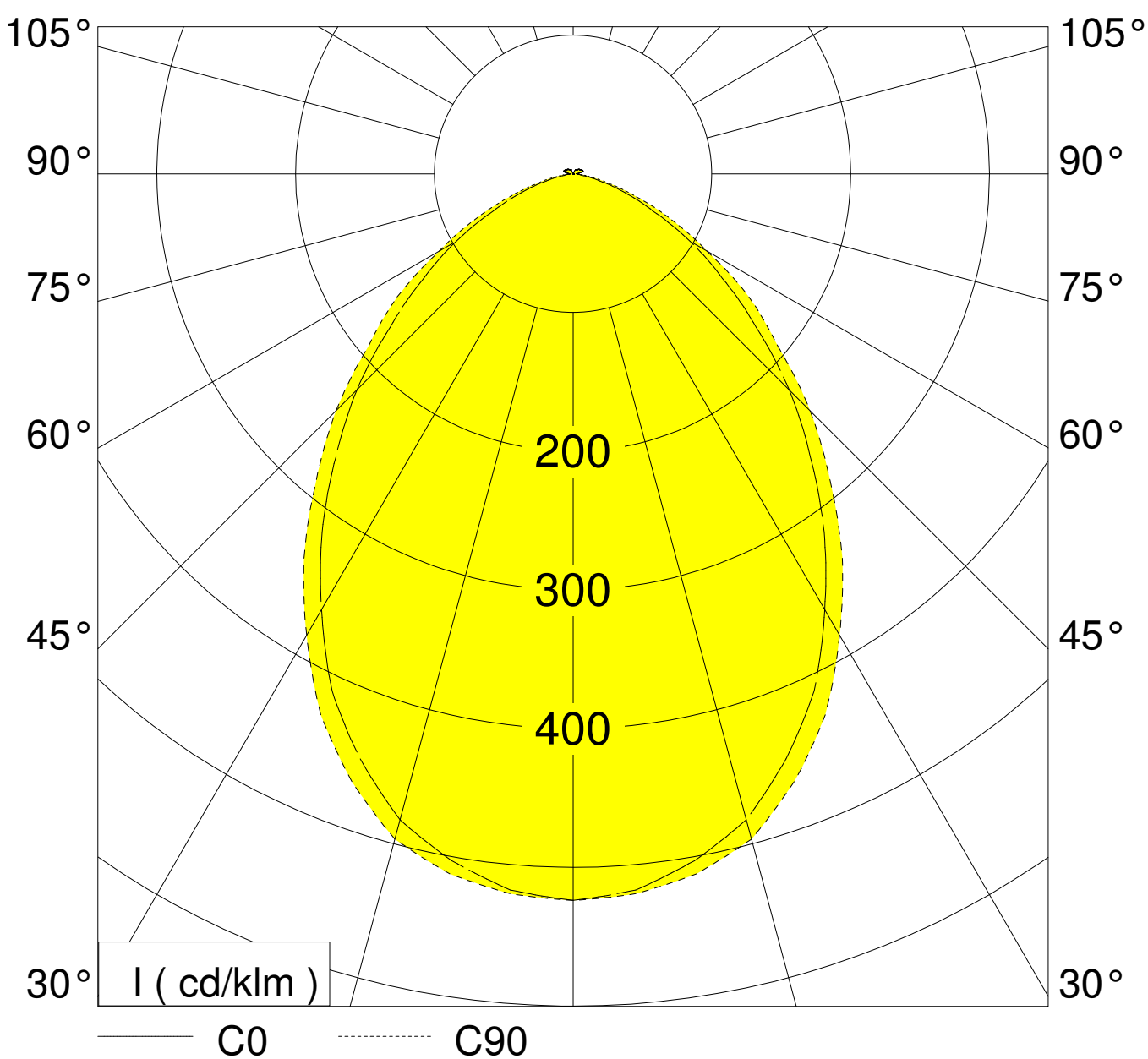
light output ratio : 100.0 %
 DFF : 97.3 %
 UFF : 2.7 %

classification

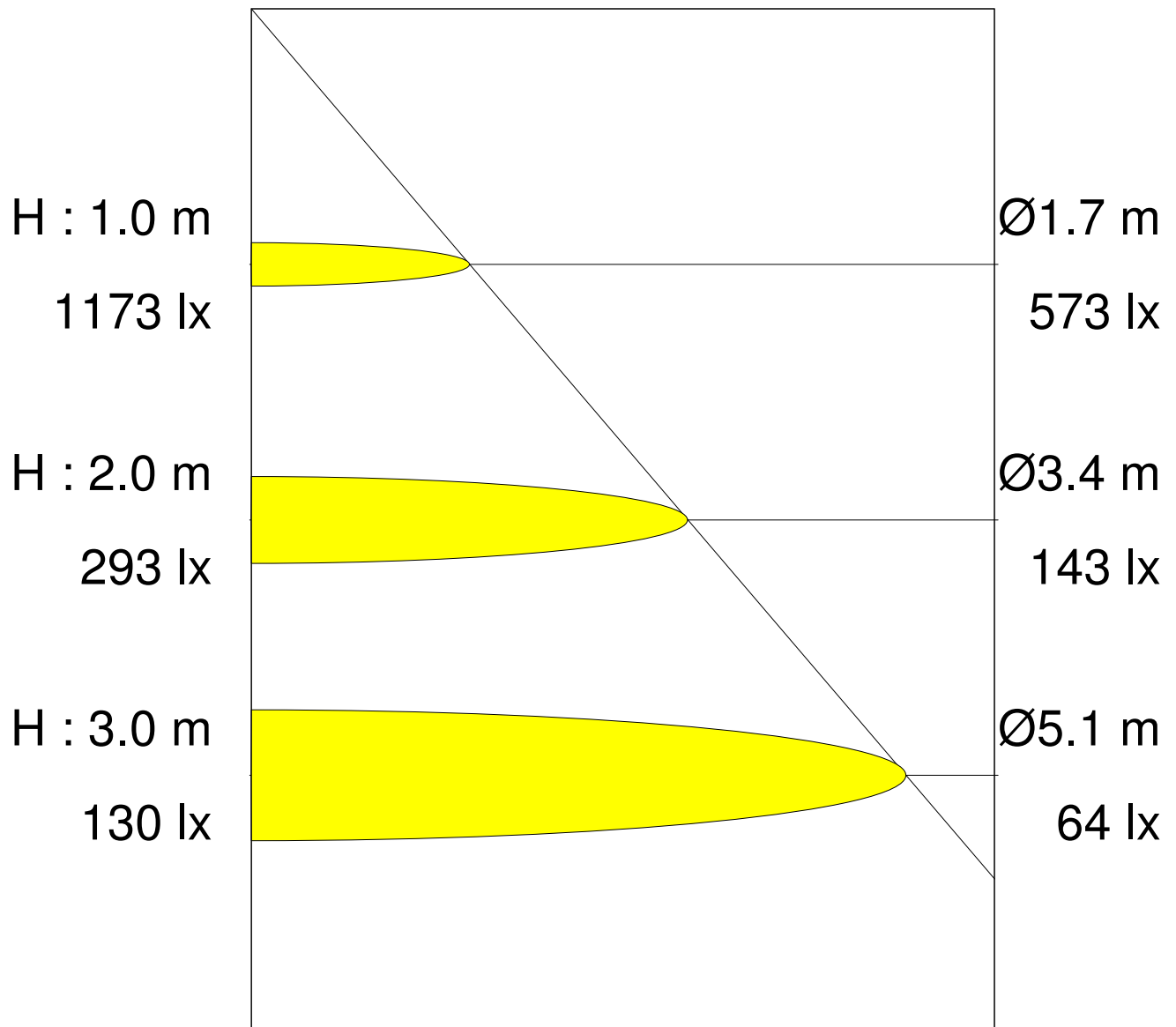
LiTG / DIN : A51
 UTE : 0.97C+0.03T
 CIE : 62 90 99 97 100
 BZ : 2 2 2 2 2 2 2 2 2
 Ambient Temperature : 25 degC
 Input Voltage : 240 V
 Circuit Watts : 28.2 W
 Amps (running) : 0.126 A
 V.A. : 30.32 VA
 Power Factor : 0.93
 CCT : 4520K(measured)
 : 4500K(nominal)



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 2240
 lumens measured.
 In reality the LED lumens would approximate to
 this value divided by the actual Light Output



Half peak divergence : 81.0°



	C 0.0	C 15.0	C 30.0	C 45.0	C 60.0	C 75.0	C 90.0	C 105.0
0.0°	523.50	523.50	523.50	523.50	523.50	523.50	523.50	523.50
5.0°	517.90	516.50	515.10	517.80	520.60	520.60	520.60	520.60
10.0°	502.60	501.10	499.60	503.70	507.70	509.90	512.00	509.90
15.0°	481.80	479.50	477.10	483.90	490.70	493.40	496.20	493.40
20.0°	448.50	446.70	444.90	454.20	463.60	464.70	465.90	464.70
25.0°	411.00	409.00	407.00	413.80	420.80	425.40	430.00	425.40
30.0°	362.40	359.40	356.40	367.90	379.40	381.70	383.90	381.70
35.0°	315.20	312.70	310.20	321.30	332.30	335.20	338.00	335.20
40.0°	265.70	264.00	262.40	272.40	282.40	285.00	287.60	285.00
45.0°	220.20	219.10	218.10	227.30	236.40	239.10	241.60	239.10
50.0°	172.30	170.00	167.50	176.90	186.20	189.00	191.80	189.00
55.0°	131.50	130.60	129.70	137.10	144.70	149.70	154.70	149.70
60.0°	97.30	94.60	91.80	98.90	106.10	108.70	111.30	108.70
65.0°	63.40	61.70	59.90	66.60	73.30	75.90	78.40	75.90
70.0°	40.00	37.90	35.80	39.00	42.20	45.40	48.70	45.40
75.0°	19.90	19.40	18.80	21.10	23.30	24.90	26.60	24.90
80.0°	6.60	5.90	5.20	7.30	9.40	11.10	12.80	11.10
85.0°	3.30	3.10	2.90	3.40	3.80	3.90	4.00	3.90
90.0°	2.80	2.60	2.50	2.30	2.10	2.00	1.90	2.00
95.0°	3.70	3.60	3.50	3.30	3.10	3.10	3.00	3.10
100.0°	5.80	6.00	6.10	5.30	4.50	4.00	3.40	4.00
105.0°	7.00	6.90	6.70	6.40	6.10	6.00	6.00	6.00
110.0°	6.90	6.40	6.00	6.00	6.10	6.00	6.00	6.00
115.0°	6.50	6.20	5.90	5.90	5.90	6.00	6.00	6.00
120.0°	5.90	5.70	5.40	5.50	5.50	5.60	5.70	5.60
125.0°	5.50	5.30	5.20	5.20	5.20	5.30	5.30	5.30
130.0°	5.00	4.80	4.60	4.60	4.70	4.80	4.90	4.80
135.0°	4.40	4.40	4.30	4.40	4.40	4.40	4.40	4.40
140.0°	4.10	3.90	3.60	3.70	3.80	3.80	3.90	3.80
145.0°	3.70	3.60	3.50	3.40	3.40	3.60	3.70	3.60
150.0°	3.30	3.20	3.10	3.10	3.10	3.30	3.40	3.30
155.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0°	0.00	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	0.00
175.0°	0.00	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	0.00
	cd / klm							

	C 120.0	C 135.0	C 150.0	C 165.0	C 180.0	C 195.0	C 210.0	C 225.0
0.0°	523.50	523.50	523.50	523.50	523.50	523.50	523.50	523.50
5.0°	520.60	517.80	515.10	516.50	517.90	516.50	515.10	517.80
10.0°	507.70	503.70	499.60	501.10	502.60	501.10	499.60	503.70
15.0°	490.70	483.90	477.10	479.50	481.80	479.50	477.10	483.90
20.0°	463.60	454.20	444.90	446.70	448.50	446.70	444.90	454.20
25.0°	420.80	413.80	407.00	409.00	411.00	409.00	407.00	413.80
30.0°	379.40	367.90	356.40	359.40	362.40	359.40	356.40	367.90
35.0°	332.30	321.30	310.20	312.70	315.20	312.70	310.20	321.30
40.0°	282.40	272.40	262.40	264.00	265.70	264.00	262.40	272.40
45.0°	236.40	227.30	218.10	219.10	220.20	219.10	218.10	227.30
50.0°	186.20	176.90	167.50	170.00	172.30	170.00	167.50	176.90
55.0°	144.70	137.10	129.70	130.60	131.50	130.60	129.70	137.10
60.0°	106.10	98.90	91.80	94.60	97.30	94.60	91.80	98.90
65.0°	73.30	66.60	59.90	61.70	63.40	61.70	59.90	66.60
70.0°	42.20	39.00	35.80	37.90	40.00	37.90	35.80	39.00
75.0°	23.30	21.10	18.80	19.40	19.90	19.40	18.80	21.10
80.0°	9.40	7.30	5.20	5.90	6.60	5.90	5.20	7.30
85.0°	3.80	3.40	2.90	3.10	3.30	3.10	2.90	3.40
90.0°	2.10	2.30	2.50	2.60	2.80	2.60	2.50	2.30
95.0°	3.10	3.30	3.50	3.60	3.70	3.60	3.50	3.30
100.0°	4.50	5.30	6.10	6.00	5.80	6.00	6.10	5.30
105.0°	6.10	6.40	6.70	6.90	7.00	6.90	6.70	6.40
110.0°	6.10	6.00	6.00	6.40	6.90	6.40	6.00	6.00
115.0°	5.90	5.90	5.90	6.20	6.50	6.20	5.90	5.90
120.0°	5.50	5.50	5.40	5.70	5.90	5.70	5.40	5.50
125.0°	5.20	5.20	5.20	5.30	5.50	5.30	5.20	5.20
130.0°	4.70	4.60	4.60	4.80	5.00	4.80	4.60	4.60
135.0°	4.40	4.40	4.30	4.40	4.40	4.40	4.30	4.40
140.0°	3.80	3.70	3.60	3.90	4.10	3.90	3.60	3.70
145.0°	3.40	3.40	3.50	3.60	3.70	3.60	3.50	3.40
150.0°	3.10	3.10	3.10	3.20	3.30	3.20	3.10	3.10
155.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0°	0.00	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	0.00
175.0°	0.00	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	0.00
	cd / klm							

	C 240.0	C 255.0	C 270.0	C 285.0	C 300.0	C 315.0	C 330.0	C 345.0
0.0°	523.50	523.50	523.50	523.50	523.50	523.50	523.50	523.50
5.0°	520.60	520.60	520.60	520.60	520.60	517.80	515.10	516.50
10.0°	507.70	509.90	512.00	509.90	507.70	503.70	499.60	501.10
15.0°	490.70	493.40	496.20	493.40	490.70	483.90	477.10	479.50
20.0°	463.60	464.70	465.90	464.70	463.60	454.20	444.90	446.70
25.0°	420.80	425.40	430.00	425.40	420.80	413.80	407.00	409.00
30.0°	379.40	381.70	383.90	381.70	379.40	367.90	356.40	359.40
35.0°	332.30	335.20	338.00	335.20	332.30	321.30	310.20	312.70
40.0°	282.40	285.00	287.60	285.00	282.40	272.40	262.40	264.00
45.0°	236.40	239.10	241.60	239.10	236.40	227.30	218.10	219.10
50.0°	186.20	189.00	191.80	189.00	186.20	176.90	167.50	170.00
55.0°	144.70	149.70	154.70	149.70	144.70	137.10	129.70	130.60
60.0°	106.10	108.70	111.30	108.70	106.10	98.90	91.80	94.60
65.0°	73.30	75.90	78.40	75.90	73.30	66.60	59.90	61.70
70.0°	42.20	45.40	48.70	45.40	42.20	39.00	35.80	37.90
75.0°	23.30	24.90	26.60	24.90	23.30	21.10	18.80	19.40
80.0°	9.40	11.10	12.80	11.10	9.40	7.30	5.20	5.90
85.0°	3.80	3.90	4.00	3.90	3.80	3.40	2.90	3.10
90.0°	2.10	2.00	1.90	2.00	2.10	2.30	2.50	2.60
95.0°	3.10	3.10	3.00	3.10	3.10	3.30	3.50	3.60
100.0°	4.50	4.00	3.40	4.00	4.50	5.30	6.10	6.00
105.0°	6.10	6.00	6.00	6.00	6.10	6.40	6.70	6.90
110.0°	6.10	6.00	6.00	6.00	6.10	6.00	6.00	6.40
115.0°	5.90	6.00	6.00	6.00	5.90	5.90	5.90	6.20
120.0°	5.50	5.60	5.70	5.60	5.50	5.50	5.40	5.70
125.0°	5.20	5.30	5.30	5.30	5.20	5.20	5.20	5.30
130.0°	4.70	4.80	4.90	4.80	4.70	4.60	4.60	4.80
135.0°	4.40	4.40	4.40	4.40	4.40	4.40	4.30	4.40
140.0°	3.80	3.80	3.90	3.80	3.80	3.70	3.60	3.90
145.0°	3.40	3.60	3.70	3.60	3.40	3.40	3.50	3.60
150.0°	3.10	3.30	3.40	3.30	3.10	3.10	3.10	3.20
155.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0°	0.00	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	0.00
175.0°	0.00	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	0.00
	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	20.5	21.8	20.8	22.0	22.2	21.2	22.5	21.5	22.7	23.0
	3H	20.4	21.3	20.6	21.5	21.7	21.2	22.2	21.5	22.4	22.6
	4H	20.5	21.5	20.8	21.7	21.9	21.4	22.4	21.7	22.6	22.8
	6H	20.6	21.5	20.9	21.7	22.0	21.5	22.4	21.8	22.7	22.9
	8H	20.6	21.5	20.9	21.8	22.1	21.6	22.4	21.9	22.7	23.0
	12H	20.6	21.5	21.0	21.8	22.1	21.6	22.5	22.0	22.8	23.1
4H	2H	20.3	21.2	20.6	21.5	21.7	20.9	21.9	21.2	22.1	22.3
	3H	21.0	21.9	21.4	22.2	22.5	21.8	22.7	22.2	23.0	23.3
	4H	21.3	22.2	21.7	22.5	22.8	22.1	23.0	22.5	23.3	23.7
	6H	21.2	21.9	21.6	22.2	22.6	22.1	22.8	22.5	23.1	23.5
	8H	21.2	21.9	21.6	22.3	22.7	22.1	22.8	22.6	23.2	23.6
	12H	21.4	22.0	21.9	22.5	22.9	22.3	22.9	22.8	23.4	23.9
8H	4H	21.2	21.9	21.7	22.3	22.7	22.0	22.7	22.5	23.1	23.5
	6H	21.5	22.2	22.0	22.6	23.1	22.4	23.0	22.9	23.5	24.0
	8H	21.6	22.2	22.2	22.7	23.3	22.6	23.1	23.1	23.7	24.2
	12H	21.6	22.1	22.1	22.6	23.2	22.5	23.0	23.1	23.5	24.1
12H	4H	21.4	22.0	21.9	22.5	23.0	22.2	22.8	22.7	23.3	23.8
	6H	21.6	22.2	22.2	22.7	23.3	22.5	23.1	23.0	23.6	24.2
	8H	21.6	22.0	22.1	22.6	23.2	22.5	23.0	23.0	23.5	24.1
variation of observer position											
S =	1.0H	+0.4/ -0.6				+0.3/ -0.5					
	1.5H	+0.8/ -1.5				+0.6/ -1.3					
	2.0H	+1.8/ -2.9				+1.5/ -2.4					
standard-table		BK02					BK02				
correction for luminaire		3.6					4.4				
correct glare indices for a total flux of 2240lm											

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

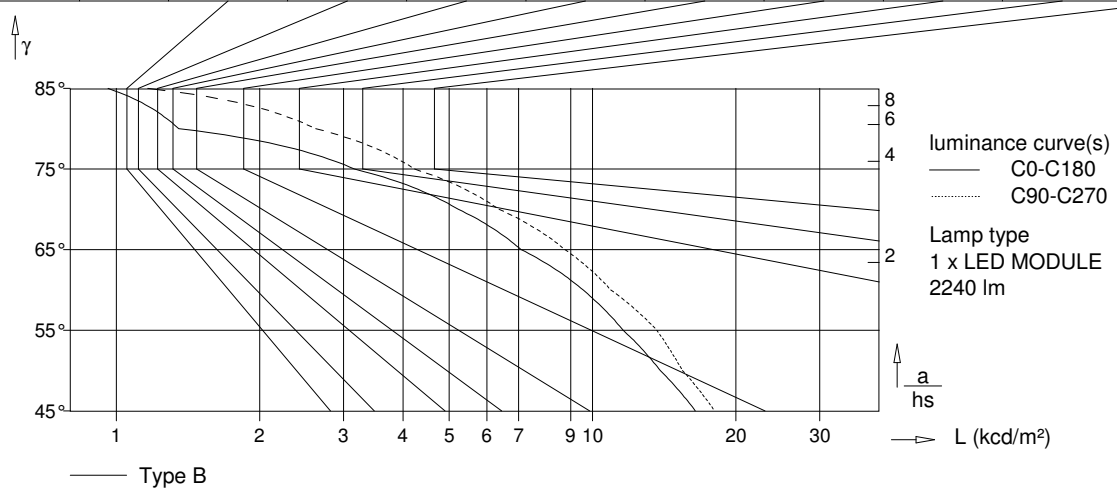
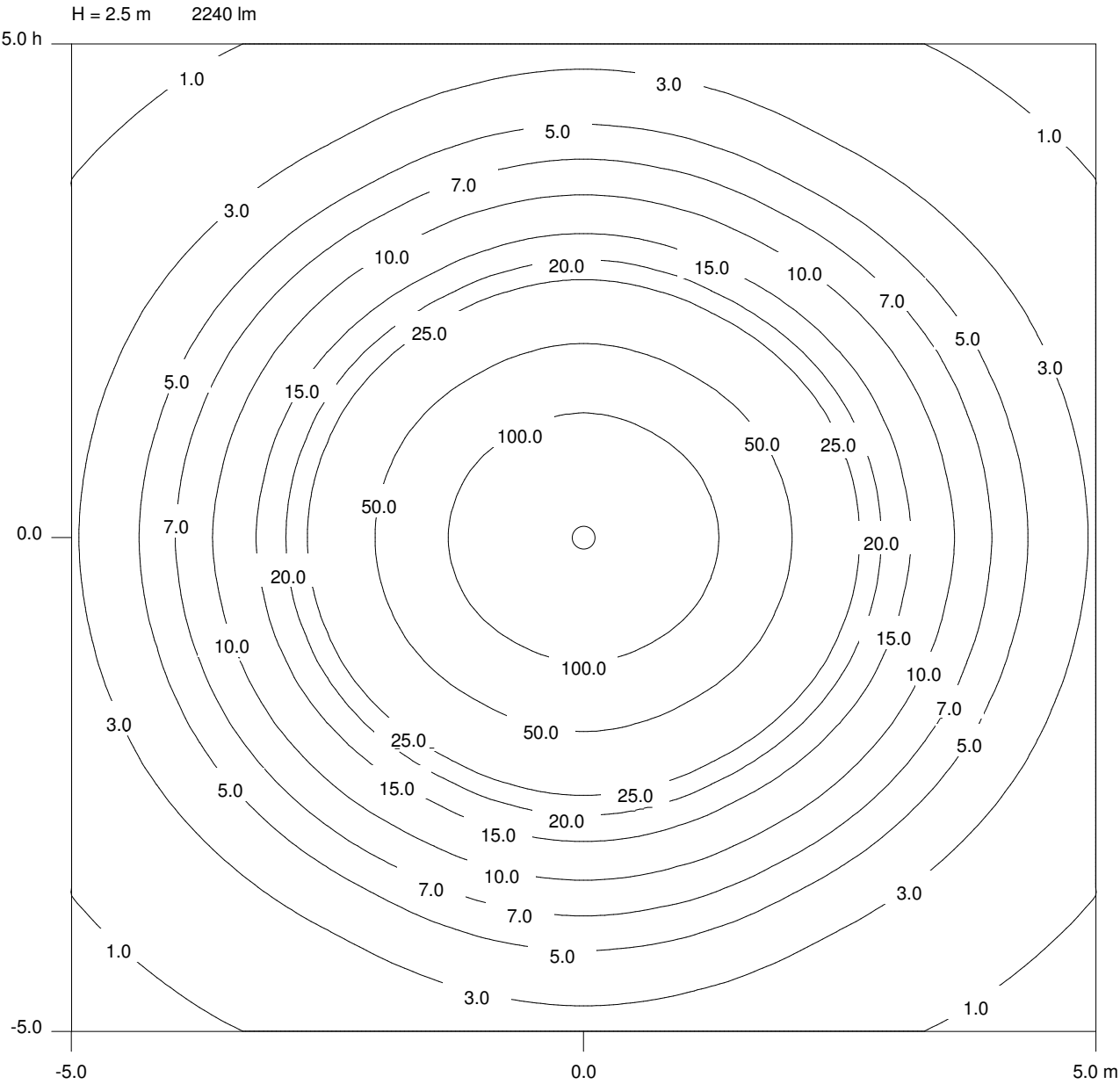


Tabelle der berechneten Leuchtdichten

gamma	C 0	C 90	C 180	C 270
45°	16446.7	18045.1	16446.7	18045.1
50°	13880.6	15451.6	13880.6	15451.6
55°	11593.3	13638.7	11593.3	13638.7
60°	9552.1	10926.5	9552.1	10926.5
65°	7082.1	8757.7	7082.1	8757.7
70°	5228.8	6366.0	5228.8	6366.0
75°	3164.0	4229.2	3164.0	4229.2
80°	1352.1	2622.3	1352.1	2622.3
85°	960.5	1164.2	960.5	1164.2

alle Werte in cd/m²



filename : NWT1100-LED-830.LDT
 meas. number : 3199
 luminaire number : NWT1100/LED/830
 date / operator : 25-11-2013

default lamp type(s)

no of lamps	lamp type	luminaire lumens	input wattage
1	LED MODULE	1160 lm	14.7 W

dimensions

luminaire	luminous area
diameter : 180 mm	diameter : 120 mm
height : 5 mm	height : 0 mm

coordinate system

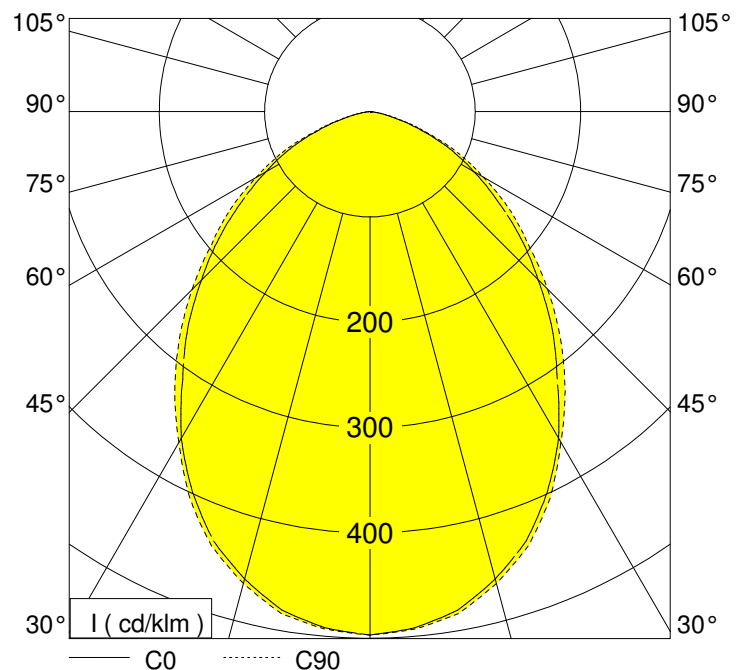
no of planes : 24	samples / plane : 37
first c-plane : 0.0 °	first gamma-angle : 0.0 °
step angle : 15.0 °	step angle : 5.0 °
last c-plane : 345.0 °	last gamma-angle : 180.0 °
symmetrics : symmetric	

performance

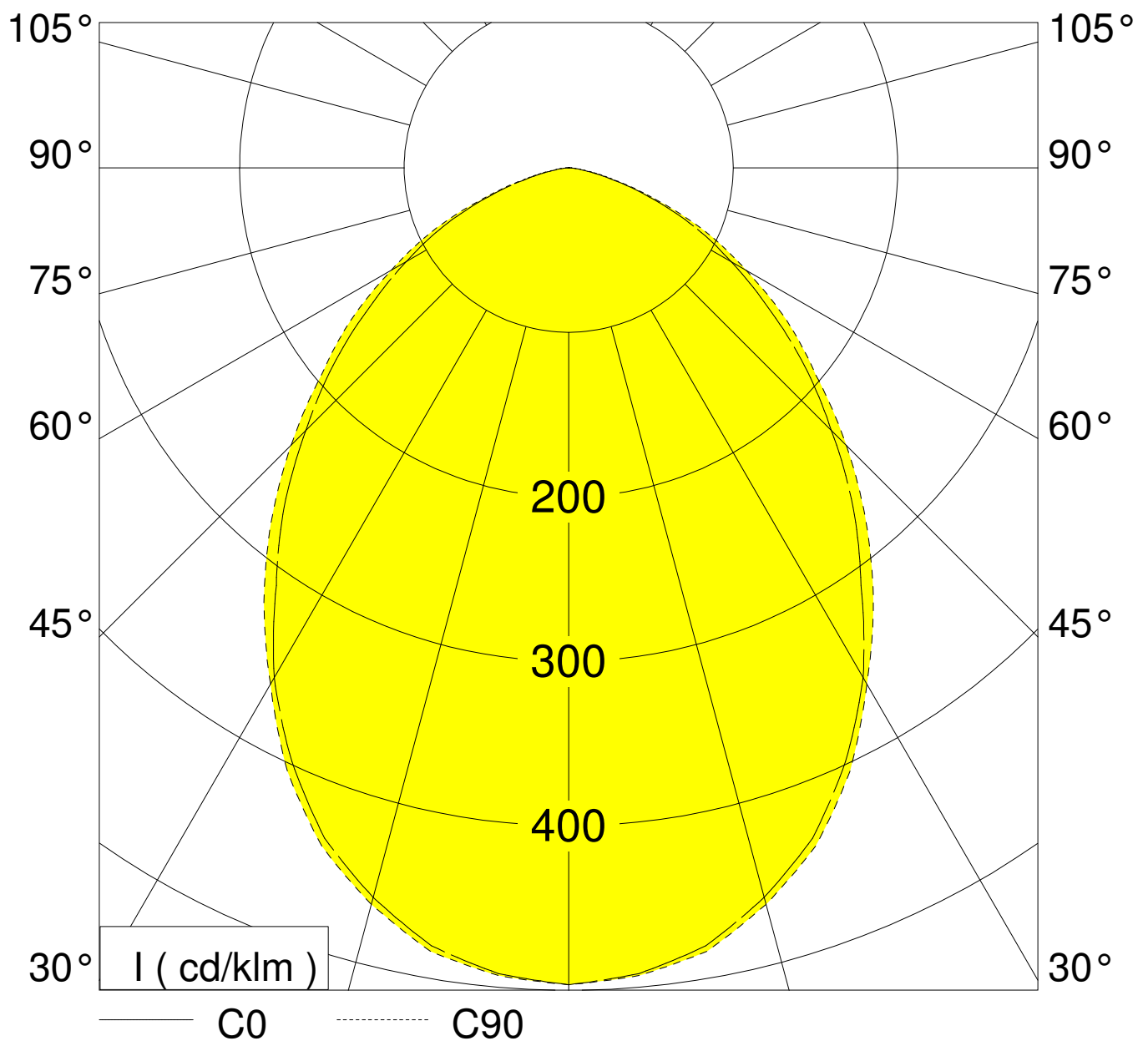
light output ratio : 100.0 %
 DFF : 100.0 %
 UFF : 0.0 %

classification

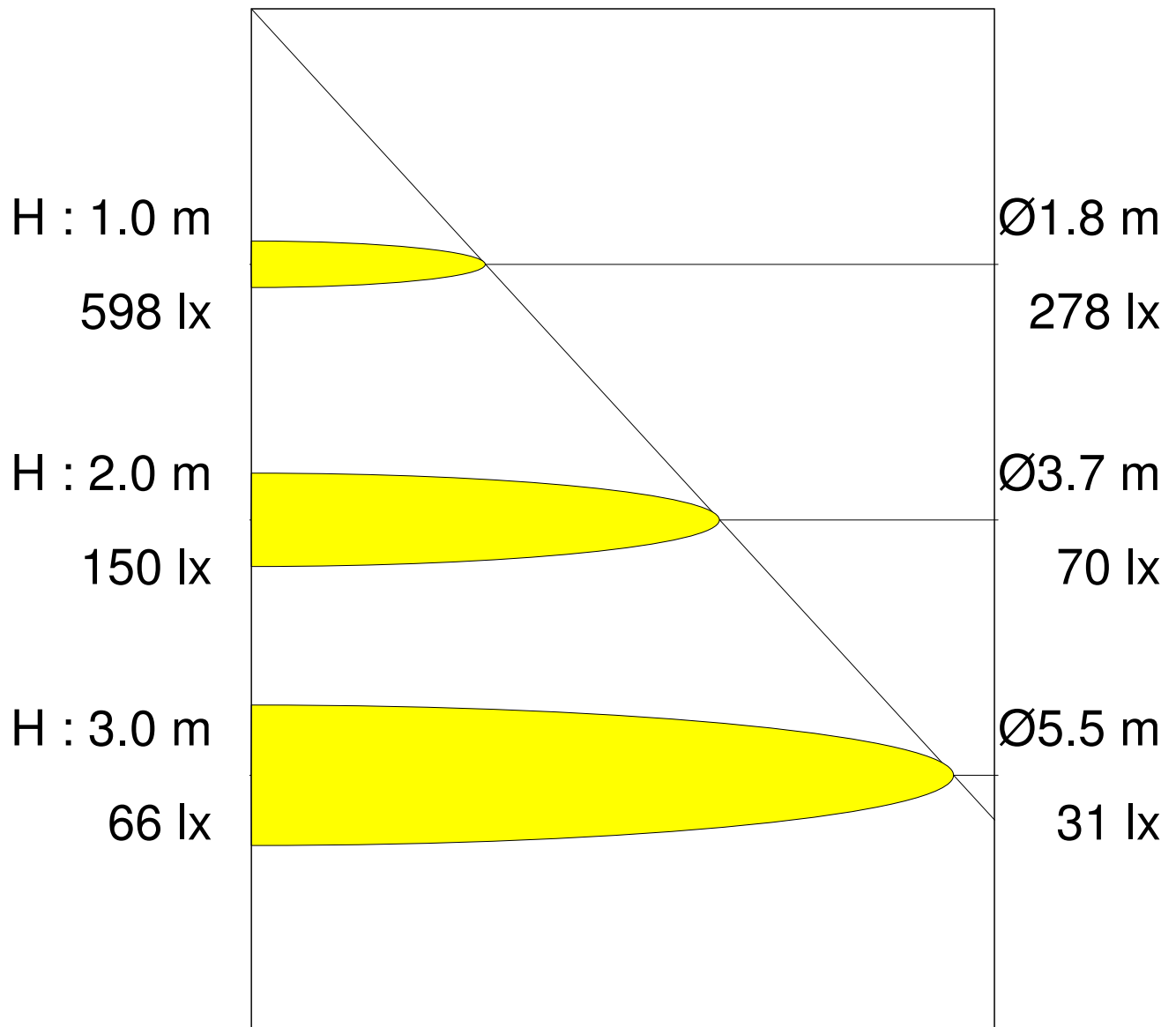
LiTG / DIN : A50
 UTE : 1.00C1.00D
 CIE : 59 88 99 100 100
 BZ : 3 3 3 3 3 3 3 3 3 3
 Ambient Temperature : 25 degC
 Input Voltage : 240 V
 Circuit Watts : 14.7 W
 Amps (running) : 0.070 A
 V.A. : 16.7 VA
 Power Factor : 0.88
 CCT : 4454K(measured): 4500K(nominal)



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 1160 lumens measured.
 In reality the LED lumens would approximate to this value divided by the actual Light Output



Half peak divergence : 85.0°



	C 0.0	C 15.0	C 30.0	C 45.0	C 60.0	C 75.0	C 90.0	C 105.0
0.0°	496.50	496.50	496.50	496.50	496.50	496.50	496.50	496.50
5.0°	491.60	492.60	493.70	493.70	493.60	493.20	492.80	493.20
10.0°	480.20	481.60	482.90	483.00	483.10	483.40	483.60	483.40
15.0°	459.10	461.90	464.60	465.90	467.10	465.30	463.50	465.30
20.0°	433.60	435.20	436.80	438.20	439.70	439.20	438.80	439.20
25.0°	398.20	399.30	400.40	402.30	404.30	404.50	404.60	404.50
30.0°	357.90	360.10	362.40	363.60	364.90	363.70	362.50	363.70
35.0°	309.80	313.10	316.60	318.90	321.20	322.00	322.90	322.00
40.0°	269.00	270.50	272.00	273.90	275.80	278.60	281.30	278.60
45.0°	225.80	228.90	231.90	234.00	236.00	237.30	238.60	237.30
50.0°	187.00	188.90	190.80	192.90	194.90	195.60	196.20	195.60
55.0°	147.70	151.20	154.60	155.50	156.50	159.10	161.80	159.10
60.0°	113.60	116.30	118.90	118.40	118.00	121.10	124.30	121.10
65.0°	83.80	85.10	86.50	88.20	89.80	90.70	91.60	90.70
70.0°	52.00	53.90	55.80	55.00	54.30	55.10	55.90	55.10
75.0°	26.60	27.20	27.80	27.10	26.40	27.60	28.90	27.60
80.0°	9.90	10.00	10.20	10.40	10.50	11.50	12.40	11.50
85.0°	1.80	2.00	2.10	2.10	2.10	2.20	2.40	2.20
90.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0°	0.00	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	0.00
175.0°	0.00	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	0.00
	cd / klm							

	C 120.0	C 135.0	C 150.0	C 165.0	C 180.0	C 195.0	C 210.0	C 225.0
0.0°	496.50	496.50	496.50	496.50	496.50	496.50	496.50	496.50
5.0°	493.60	493.70	493.70	492.60	491.60	492.60	493.70	493.70
10.0°	483.10	483.00	482.90	481.60	480.20	481.60	482.90	483.00
15.0°	467.10	465.90	464.60	461.90	459.10	461.90	464.60	465.90
20.0°	439.70	438.20	436.80	435.20	433.60	435.20	436.80	438.20
25.0°	404.30	402.30	400.40	399.30	398.20	399.30	400.40	402.30
30.0°	364.90	363.60	362.40	360.10	357.90	360.10	362.40	363.60
35.0°	321.20	318.90	316.60	313.10	309.80	313.10	316.60	318.90
40.0°	275.80	273.90	272.00	270.50	269.00	270.50	272.00	273.90
45.0°	236.00	234.00	231.90	228.90	225.80	228.90	231.90	234.00
50.0°	194.90	192.90	190.80	188.90	187.00	188.90	190.80	192.90
55.0°	156.50	155.50	154.60	151.20	147.70	151.20	154.60	155.50
60.0°	118.00	118.40	118.90	116.30	113.60	116.30	118.90	118.40
65.0°	89.80	88.20	86.50	85.10	83.80	85.10	86.50	88.20
70.0°	54.30	55.00	55.80	53.90	52.00	53.90	55.80	55.00
75.0°	26.40	27.10	27.80	27.20	26.60	27.20	27.80	27.10
80.0°	10.50	10.40	10.20	10.00	9.90	10.00	10.20	10.40
85.0°	2.10	2.10	2.10	2.00	1.80	2.00	2.10	2.10
90.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0°	0.00	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	0.00
175.0°	0.00	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	0.00
	cd / klm							

	C 240.0	C 255.0	C 270.0	C 285.0	C 300.0	C 315.0	C 330.0	C 345.0
0.0°	496.50	496.50	496.50	496.50	496.50	496.50	496.50	496.50
5.0°	493.60	493.20	492.80	493.20	493.60	493.70	493.70	492.60
10.0°	483.10	483.40	483.60	483.40	483.10	483.00	482.90	481.60
15.0°	467.10	465.30	463.50	465.30	467.10	465.90	464.60	461.90
20.0°	439.70	439.20	438.80	439.20	439.70	438.20	436.80	435.20
25.0°	404.30	404.50	404.60	404.50	404.30	402.30	400.40	399.30
30.0°	364.90	363.70	362.50	363.70	364.90	363.60	362.40	360.10
35.0°	321.20	322.00	322.90	322.00	321.20	318.90	316.60	313.10
40.0°	275.80	278.60	281.30	278.60	275.80	273.90	272.00	270.50
45.0°	236.00	237.30	238.60	237.30	236.00	234.00	231.90	228.90
50.0°	194.90	195.60	196.20	195.60	194.90	192.90	190.80	188.90
55.0°	156.50	159.10	161.80	159.10	156.50	155.50	154.60	151.20
60.0°	118.00	121.10	124.30	121.10	118.00	118.40	118.90	116.30
65.0°	89.80	90.70	91.60	90.70	89.80	88.20	86.50	85.10
70.0°	54.30	55.10	55.90	55.10	54.30	55.00	55.80	53.90
75.0°	26.40	27.60	28.90	27.60	26.40	27.10	27.80	27.20
80.0°	10.50	11.50	12.40	11.50	10.50	10.40	10.20	10.00
85.0°	2.10	2.20	2.40	2.20	2.10	2.10	2.10	2.00
90.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0°	0.00	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	0.00
175.0°	0.00	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	0.00
	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	24.0	25.3	24.2	25.5	25.7	24.2	25.6	24.5	25.8	26.0
	3H	24.2	25.2	24.4	25.3	25.5	24.4	25.4	24.7	25.6	25.8
	4H	24.4	25.4	24.7	25.6	25.8	24.7	25.7	25.0	25.9	26.1
	6H	24.5	25.4	24.8	25.6	25.9	24.8	25.7	25.1	25.9	26.2
	8H	24.5	25.5	24.8	25.7	25.9	24.9	25.8	25.1	26.0	26.2
	12H	24.6	25.5	24.9	25.7	26.0	24.9	25.8	25.2	26.0	26.3
4H	2H	23.9	24.8	24.1	25.0	25.2	24.1	25.0	24.3	25.2	25.4
	3H	25.0	25.9	25.3	26.2	26.4	25.2	26.1	25.5	26.4	26.6
	4H	25.4	26.3	25.7	26.6	26.8	25.6	26.5	26.0	26.8	27.1
	6H	25.3	26.1	25.7	26.4	26.7	25.6	26.3	25.9	26.6	26.9
	8H	25.4	26.1	25.8	26.4	26.7	25.6	26.3	26.0	26.6	27.0
	12H	25.5	26.2	26.0	26.6	27.0	25.8	26.5	26.2	26.8	27.2
8H	4H	25.4	26.0	25.7	26.4	26.7	25.6	26.3	25.9	26.6	26.9
	6H	25.8	26.4	26.2	26.8	27.2	26.0	26.6	26.4	27.0	27.5
	8H	25.9	26.5	26.4	26.9	27.4	26.1	26.7	26.6	27.2	27.7
	12H	25.8	26.3	26.3	26.8	27.3	26.1	26.6	26.6	27.0	27.5
12H	4H	25.5	26.2	26.0	26.6	27.0	25.7	26.4	26.2	26.8	27.2
	6H	25.9	26.5	26.4	26.9	27.4	26.1	26.7	26.6	27.1	27.6
	8H	25.8	26.3	26.3	26.8	27.3	26.1	26.6	26.6	27.0	27.5
variation of observer position											
S =	1.0H	+0.3/ -0.4				+0.2/ -0.4					
	1.5H	+0.5/ -1.0				+0.4/ -0.9					
	2.0H	+1.0/ -1.7				+1.0/ -1.6					
standard-table		BK03					BK03				
correction for luminaire		8.1					8.3				
correct glare indices for a total flux of 1160 lm											

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

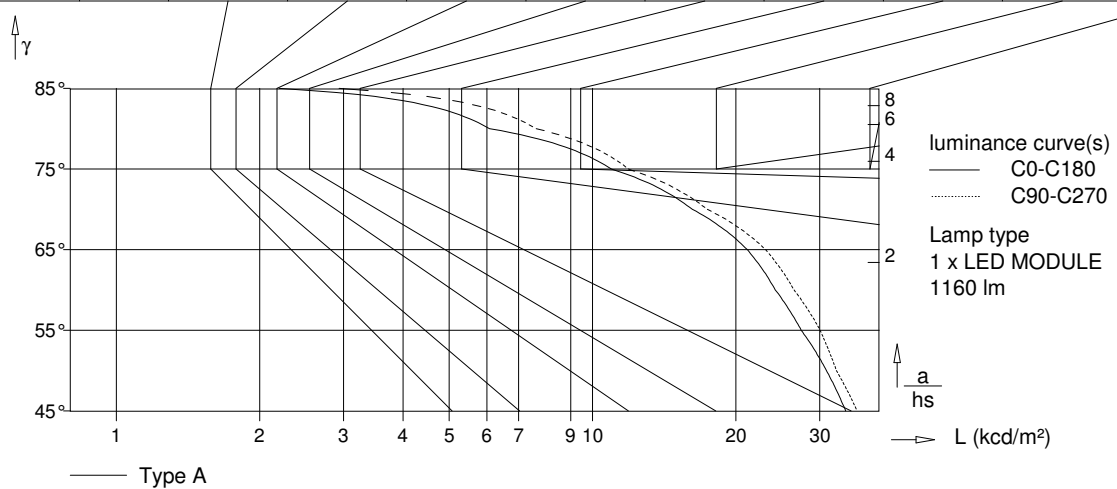
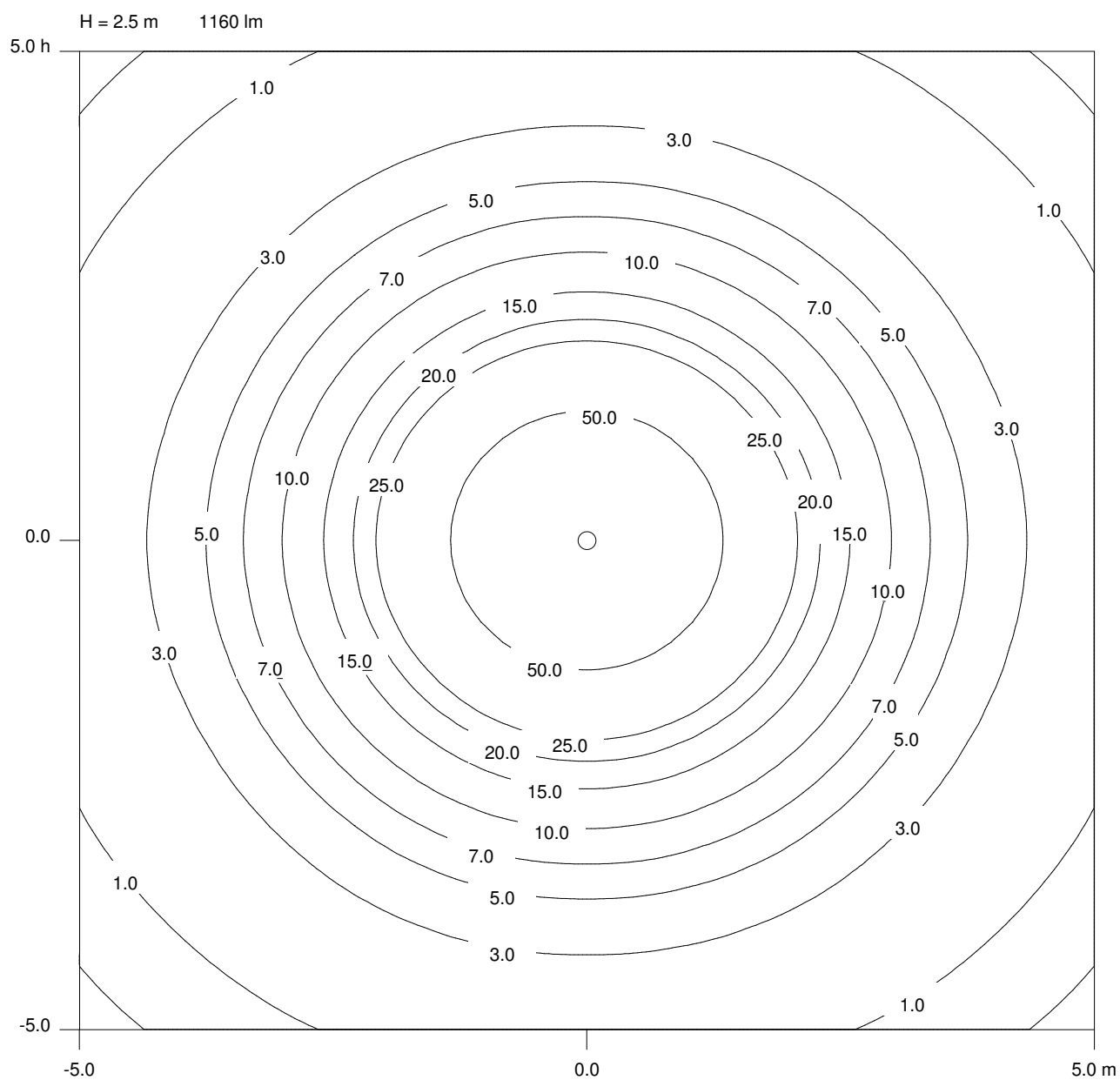


Tabelle der berechneten Leuchtdichten

gamma	C 0	C 90	C 180	C 270
45°	34023.1	35951.8	34023.1	35951.8
50°	30996.2	32521.2	30996.2	32521.2
55°	27436.2	30055.4	27436.2	30055.4
60°	24207.1	26487.2	24207.1	26487.2
65°	21126.6	23093.1	21126.6	23093.1
70°	16198.9	17413.9	16198.9	17413.9
75°	10950.2	11897.0	10950.2	11897.0
80°	6074.3	7608.3	6074.3	7608.3
	2200.4	2933.9	2200.4	2933.9

alle Werte in cd/m²



filename : NWT1100-LED-840.LDT
 meas. number : 3199
 luminaire number : NWT1100/LED/840
 date / operator : 25-11-2013

default lamp type(s)

no of lamps	lamp type	luminaire lumens	input wattage
1	LED MODULE	1205 lm	14.7 W

dimensions

luminaire	luminous area
diameter : 180 mm	diameter : 120 mm
height : 5 mm	height : 0 mm

coordinate system

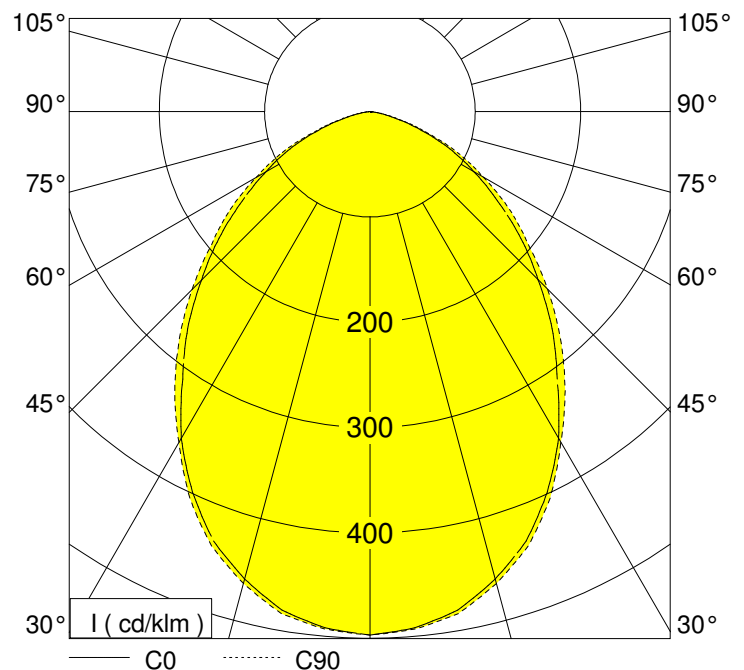
no of planes : 24	samples / plane : 37
first c-plane : 0.0 °	first gamma-angle : 0.0 °
step angle : 15.0 °	step angle : 5.0 °
last c-plane : 345.0 °	last gamma-angle : 180.0 °
symmetrics : symmetric	

performance

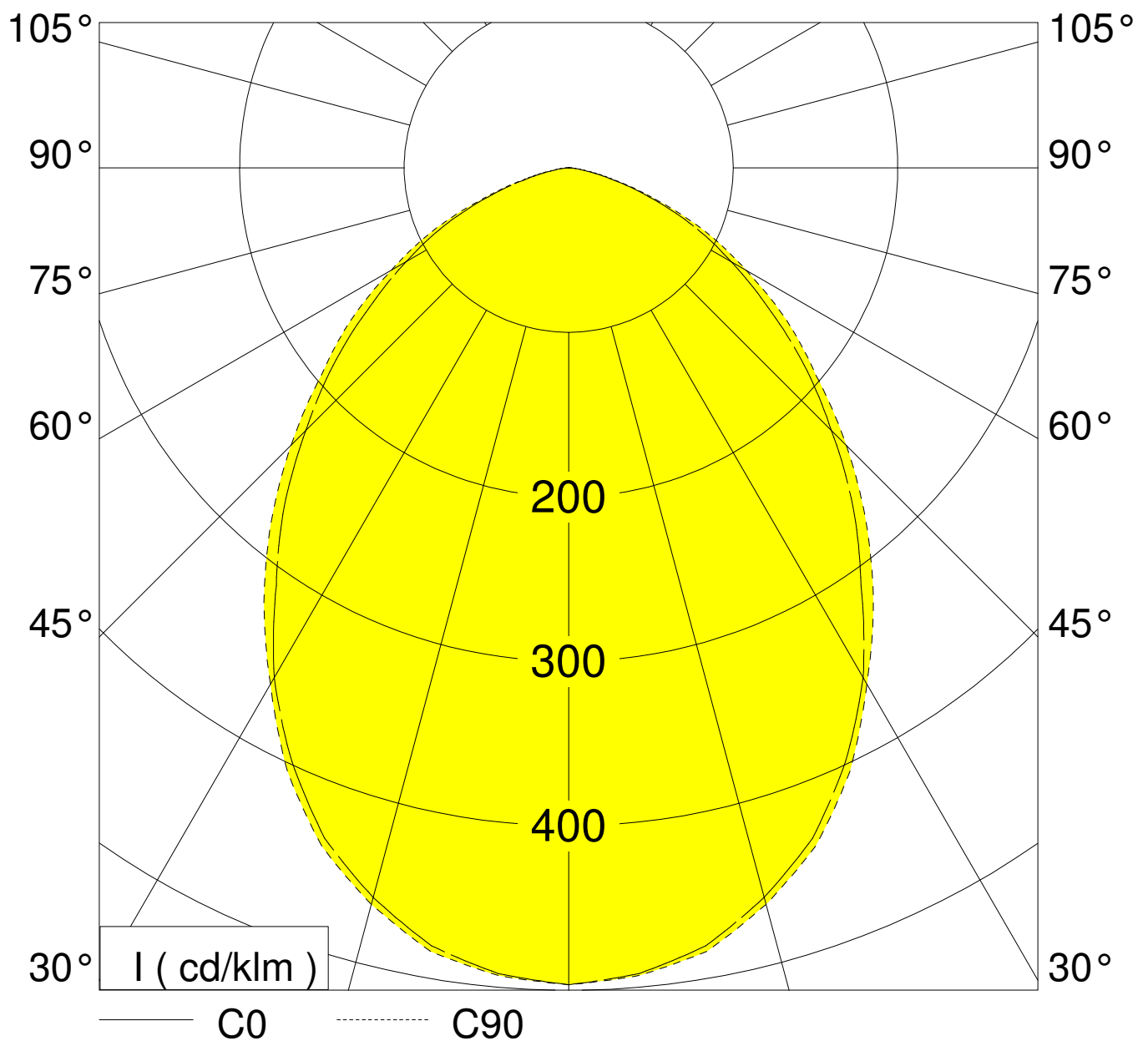
light output ratio : 100.0 %
 DFF : 100.0 %
 UFF : 0.0 %

classification

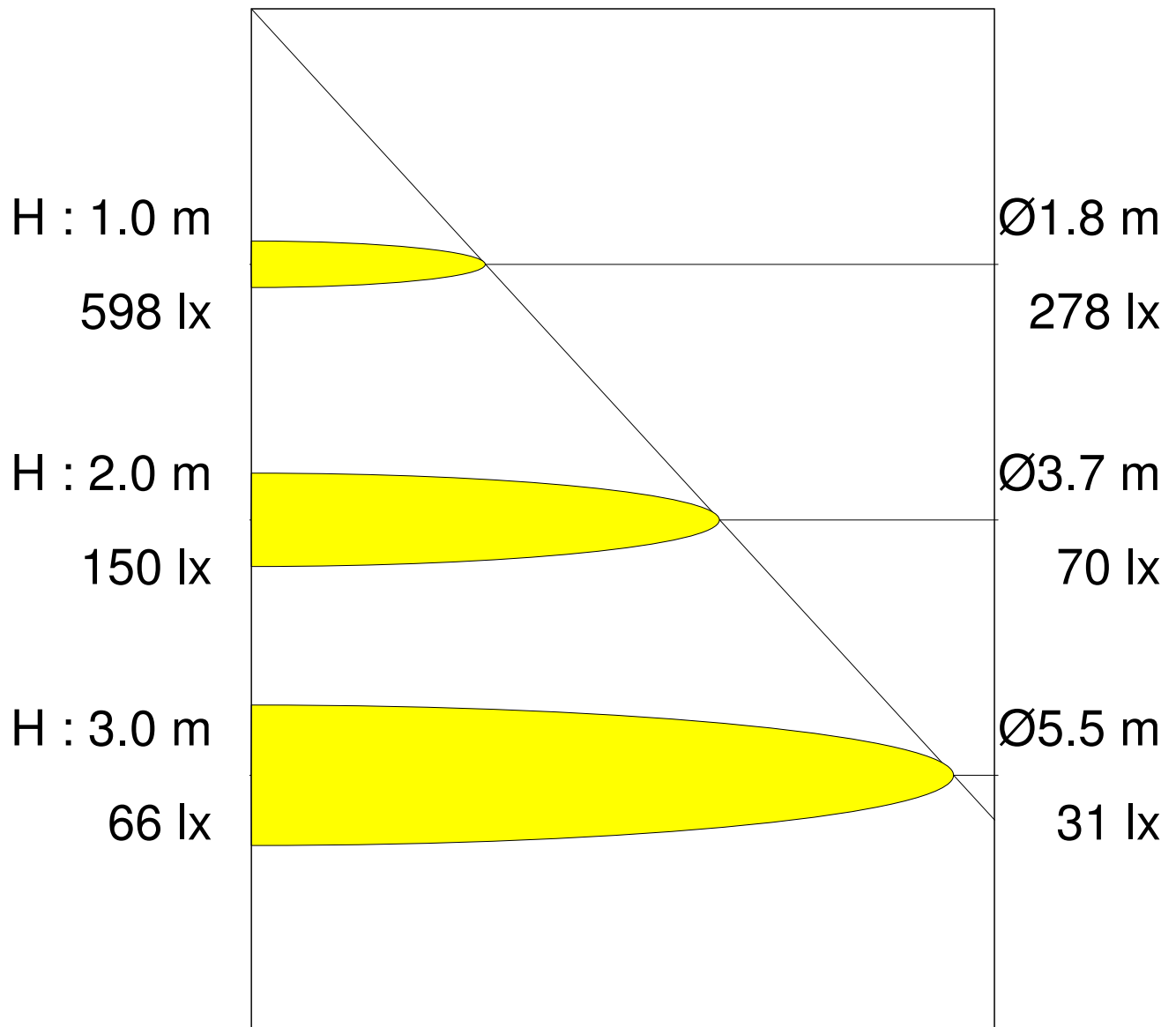
LiTG / DIN : A50
 UTE : 1.00C1.00D
 CIE : 59 88 99 100 100
 BZ : 3 3 3 3 3 3 3 3 3 3
 Ambient Temperature : 25 degC
 Input Voltage : 240 V
 Circuit Watts : 14.7 W
 Amps (running) : 0.070 A
 V.A. : 16.7 VA
 Power Factor : 0.88
 CCT : 4454K(measured): 4500K(nominal)



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 1205 lumens measured.
 In reality the LED lumens would approximate to this value divided by the actual Light Output



Half peak divergence : 85.0°



	C 0.0	C 15.0	C 30.0	C 45.0	C 60.0	C 75.0	C 90.0	C 105.0
0.0°	496.50	496.50	496.50	496.50	496.50	496.50	496.50	496.50
5.0°	491.60	492.60	493.70	493.70	493.60	493.20	492.80	493.20
10.0°	480.20	481.60	482.90	483.00	483.10	483.40	483.60	483.40
15.0°	459.10	461.90	464.60	465.90	467.10	465.30	463.50	465.30
20.0°	433.60	435.20	436.80	438.20	439.70	439.20	438.80	439.20
25.0°	398.20	399.30	400.40	402.30	404.30	404.50	404.60	404.50
30.0°	357.90	360.10	362.40	363.60	364.90	363.70	362.50	363.70
35.0°	309.80	313.10	316.60	318.90	321.20	322.00	322.90	322.00
40.0°	269.00	270.50	272.00	273.90	275.80	278.60	281.30	278.60
45.0°	225.80	228.90	231.90	234.00	236.00	237.30	238.60	237.30
50.0°	187.00	188.90	190.80	192.90	194.90	195.60	196.20	195.60
55.0°	147.70	151.20	154.60	155.50	156.50	159.10	161.80	159.10
60.0°	113.60	116.30	118.90	118.40	118.00	121.10	124.30	121.10
65.0°	83.80	85.10	86.50	88.20	89.80	90.70	91.60	90.70
70.0°	52.00	53.90	55.80	55.00	54.30	55.10	55.90	55.10
75.0°	26.60	27.20	27.80	27.10	26.40	27.60	28.90	27.60
80.0°	9.90	10.00	10.20	10.40	10.50	11.50	12.40	11.50
85.0°	1.80	2.00	2.10	2.10	2.10	2.20	2.40	2.20
90.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0°	0.00	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	0.00
175.0°	0.00	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	0.00
	cd / klm							

	C 120.0	C 135.0	C 150.0	C 165.0	C 180.0	C 195.0	C 210.0	C 225.0
0.0°	496.50	496.50	496.50	496.50	496.50	496.50	496.50	496.50
5.0°	493.60	493.70	493.70	492.60	491.60	492.60	493.70	493.70
10.0°	483.10	483.00	482.90	481.60	480.20	481.60	482.90	483.00
15.0°	467.10	465.90	464.60	461.90	459.10	461.90	464.60	465.90
20.0°	439.70	438.20	436.80	435.20	433.60	435.20	436.80	438.20
25.0°	404.30	402.30	400.40	399.30	398.20	399.30	400.40	402.30
30.0°	364.90	363.60	362.40	360.10	357.90	360.10	362.40	363.60
35.0°	321.20	318.90	316.60	313.10	309.80	313.10	316.60	318.90
40.0°	275.80	273.90	272.00	270.50	269.00	270.50	272.00	273.90
45.0°	236.00	234.00	231.90	228.90	225.80	228.90	231.90	234.00
50.0°	194.90	192.90	190.80	188.90	187.00	188.90	190.80	192.90
55.0°	156.50	155.50	154.60	151.20	147.70	151.20	154.60	155.50
60.0°	118.00	118.40	118.90	116.30	113.60	116.30	118.90	118.40
65.0°	89.80	88.20	86.50	85.10	83.80	85.10	86.50	88.20
70.0°	54.30	55.00	55.80	53.90	52.00	53.90	55.80	55.00
75.0°	26.40	27.10	27.80	27.20	26.60	27.20	27.80	27.10
80.0°	10.50	10.40	10.20	10.00	9.90	10.00	10.20	10.40
85.0°	2.10	2.10	2.10	2.00	1.80	2.00	2.10	2.10
90.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0°	0.00	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	0.00
175.0°	0.00	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	0.00
	cd / klm							

	C 240.0	C 255.0	C 270.0	C 285.0	C 300.0	C 315.0	C 330.0	C 345.0
0.0°	496.50	496.50	496.50	496.50	496.50	496.50	496.50	496.50
5.0°	493.60	493.20	492.80	493.20	493.60	493.70	493.70	492.60
10.0°	483.10	483.40	483.60	483.40	483.10	483.00	482.90	481.60
15.0°	467.10	465.30	463.50	465.30	467.10	465.90	464.60	461.90
20.0°	439.70	439.20	438.80	439.20	439.70	438.20	436.80	435.20
25.0°	404.30	404.50	404.60	404.50	404.30	402.30	400.40	399.30
30.0°	364.90	363.70	362.50	363.70	364.90	363.60	362.40	360.10
35.0°	321.20	322.00	322.90	322.00	321.20	318.90	316.60	313.10
40.0°	275.80	278.60	281.30	278.60	275.80	273.90	272.00	270.50
45.0°	236.00	237.30	238.60	237.30	236.00	234.00	231.90	228.90
50.0°	194.90	195.60	196.20	195.60	194.90	192.90	190.80	188.90
55.0°	156.50	159.10	161.80	159.10	156.50	155.50	154.60	151.20
60.0°	118.00	121.10	124.30	121.10	118.00	118.40	118.90	116.30
65.0°	89.80	90.70	91.60	90.70	89.80	88.20	86.50	85.10
70.0°	54.30	55.10	55.90	55.10	54.30	55.00	55.80	53.90
75.0°	26.40	27.60	28.90	27.60	26.40	27.10	27.80	27.20
80.0°	10.50	11.50	12.40	11.50	10.50	10.40	10.20	10.00
85.0°	2.10	2.20	2.40	2.20	2.10	2.10	2.10	2.00
90.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
110.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
140.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
155.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
160.0°	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0°	0.00	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	0.00
175.0°	0.00	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	0.00
	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	24.0	25.3	24.2	25.5	25.7	24.2	25.6	24.5	25.8	26.0
	3H	24.2	25.2	24.4	25.3	25.5	24.4	25.4	24.7	25.6	25.8
	4H	24.4	25.4	24.7	25.6	25.8	24.7	25.7	25.0	25.9	26.1
	6H	24.5	25.4	24.8	25.6	25.9	24.8	25.7	25.1	25.9	26.2
	8H	24.5	25.5	24.8	25.7	25.9	24.9	25.8	25.1	26.0	26.2
	12H	24.6	25.5	24.9	25.7	26.0	24.9	25.8	25.2	26.0	26.3
4H	2H	23.9	24.8	24.1	25.0	25.2	24.1	25.0	24.3	25.2	25.4
	3H	25.0	25.9	25.3	26.2	26.4	25.2	26.1	25.5	26.4	26.6
	4H	25.4	26.3	25.7	26.6	26.8	25.6	26.5	26.0	26.8	27.1
	6H	25.3	26.1	25.7	26.4	26.7	25.6	26.3	25.9	26.6	26.9
	8H	25.4	26.1	25.8	26.4	26.7	25.6	26.3	26.0	26.6	27.0
	12H	25.5	26.2	26.0	26.6	27.0	25.8	26.5	26.2	26.8	27.2
8H	4H	25.4	26.0	25.7	26.4	26.7	25.6	26.3	25.9	26.6	26.9
	6H	25.8	26.4	26.2	26.8	27.2	26.0	26.6	26.4	27.0	27.5
	8H	25.9	26.5	26.4	26.9	27.4	26.1	26.7	26.6	27.2	27.7
	12H	25.8	26.3	26.3	26.8	27.3	26.1	26.6	26.6	27.0	27.5
12H	4H	25.5	26.2	26.0	26.6	27.0	25.7	26.4	26.2	26.8	27.2
	6H	25.9	26.5	26.4	26.9	27.4	26.1	26.7	26.6	27.1	27.6
	8H	25.8	26.3	26.3	26.8	27.3	26.1	26.6	26.6	27.0	27.5
variation of observer position											
S =	1.0H	+0.3/ -0.4				+0.2/ -0.4					
	1.5H	+0.5/ -1.0				+0.4/ -0.9					
	2.0H	+1.0/ -1.7				+1.0/ -1.6					
standard-table		BK03					BK03				
correction for luminaire		8.1					8.3				
correct glare indices for a total flux of 1205lm											

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

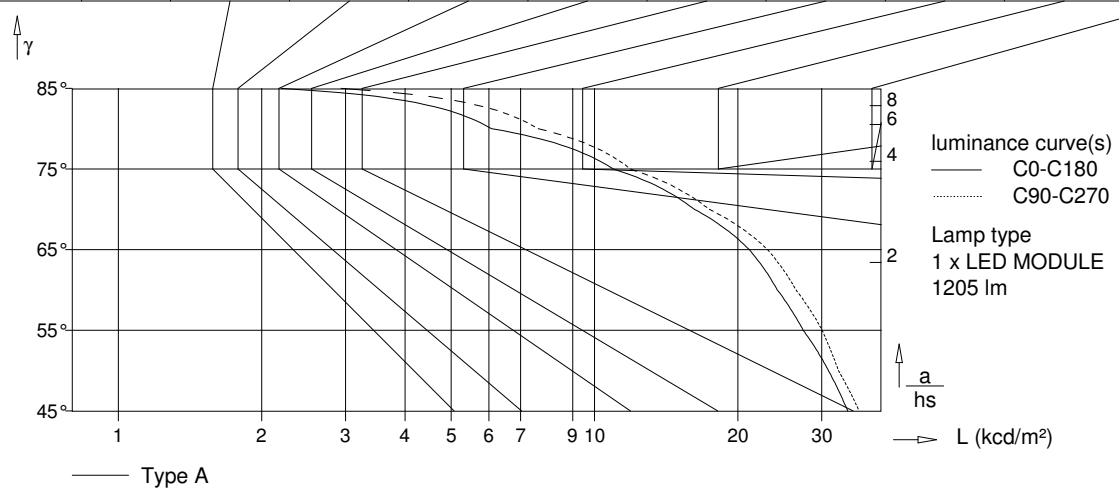


Tabelle der berechneten Leuchtdichten

gamma	C 0	C 90	C 180	C 270
45°	34023.1	35951.8	34023.1	35951.8
50°	30996.2	32521.2	30996.2	32521.2
55°	27436.2	30055.4	27436.2	30055.4
60°	24207.1	26487.2	24207.1	26487.2
65°	21126.6	23093.1	21126.6	23093.1
70°	16198.9	17413.9	16198.9	17413.9
75°	10950.2	11897.0	10950.2	11897.0
80°	6074.3	7608.3	6074.3	7608.3
85°	2200.4	2933.9	2200.4	2933.9

alle Werte in cd/m²

