



SGSO

Address: LIT by CARDI

Client:

LumCAT: 0017440217 RIO 7W 6500K 700lm

Luminaire:

Report No:

Voltage(V): 232.25

Test No:

Current(A): 0.0315

LampCAT: LED

Power (W): 7.0000

Lamp flux(lm): -1.0

PF: 0.9550

Number of Lamps: 1

Ballast type:

Length(mm): -47

Width(mm): -47

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 700.00

Efficiency(%): 0.00%

Lumens(lm)/Power(W): 100.00

Central intensity(cd): 349.512

Maximum intensity(cd): 369.229

Angle of maximum intensity: C=45.0 γ =10.0

Beam Angle(50%Imax): [C0/180]Total=85.8

[C90/270]Total=82.4

Field angle(10%Imax): [C0/180]Total=136.7

[C90/270]Total=140.9

Maximum s/h(1/2): C0_180=1.07 C90_270=1.11

Maximum s/h(1/4): C0_180=1.15 C90_270=1.16

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 2.31%

Down flux rate of LUM(%): 97.69%

CIE Type : Direct lighting

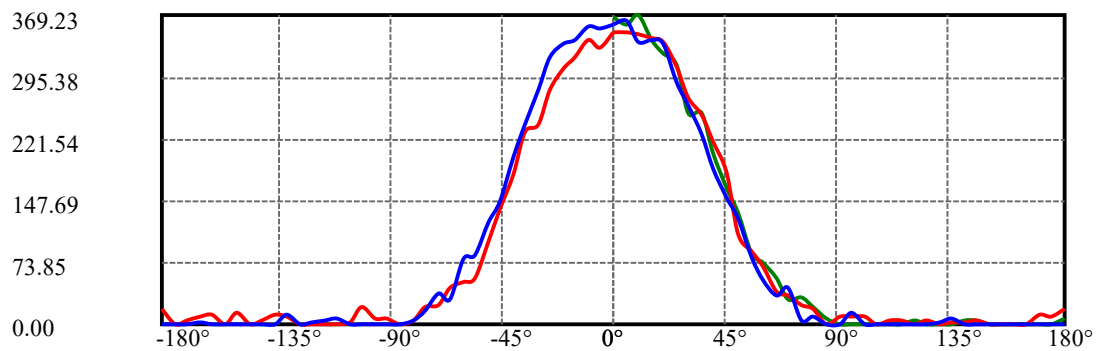
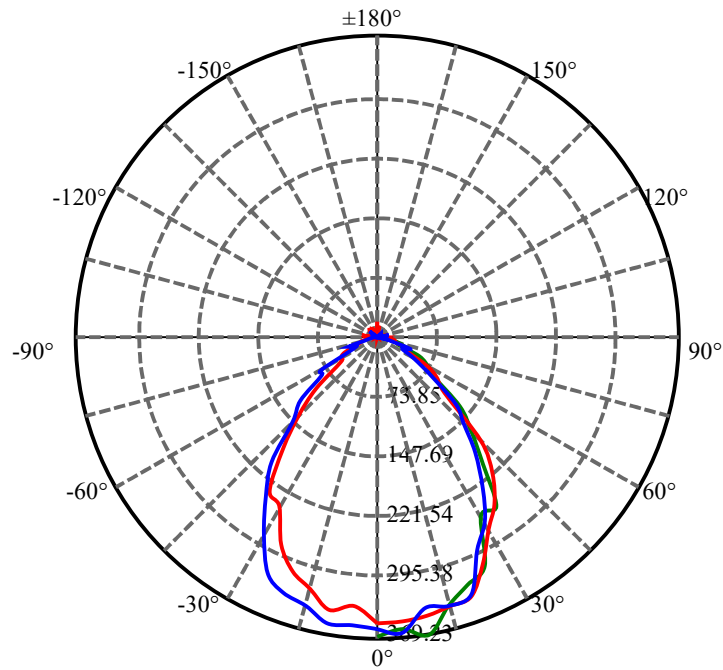
Output flux ratio in π solid angle : 86.904%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	355.001	0.000	0	.000%	.000%
5.0	349.904	8.427	8.427	.000%	1.204%
10.0	351.473	25.090	33.517	.000%	4.788%
15.0	338.422	40.924	74.441	.000%	10.634%
20.0	324.251	54.614	129.055	.000%	18.436%
25.0	298.206	65.284	194.339	.000%	27.763%
30.0	261.574	70.841	265.18	.000%	37.883%
35.0	236.145	73.293	338.472	.000%	48.353%
40.0	196.265	72.144	410.617	.000%	58.659%
45.0	154.592	64.964	475.581	.000%	67.940%
50.0	117.232	54.926	530.507	.000%	75.786%
55.0	81.889	43.296	573.802	.000%	81.971%
60.0	67.494	34.529	608.332	.000%	86.904%
65.0	42.905	26.838	635.17	.000%	90.738%
70.0	36.128	20.012	655.181	.000%	93.597%
75.0	21.621	15.094	670.276	.000%	95.753%
80.0	10.754	8.663	678.938	.000%	96.991%
85.0	2.689	3.653	682.591	.000%	97.512%
90.0	1.848	1.242	683.833	.000%	97.690%
95.0	3.697	1.518	685.351	.000%	97.907%
100.0	5.825	2.587	687.939	.000%	98.276%
105.0	1.400	1.933	689.872	.000%	98.553%
110.0	2.745	1.083	690.955	.000%	98.707%
115.0	1.288	1.021	691.977	.000%	98.853%
120.0	2.353	0.885	692.862	.000%	98.980%
125.0	0.896	0.751	693.613	.000%	99.087%
130.0	3.193	0.889	694.502	.000%	99.214%
135.0	3.249	1.302	695.803	.000%	99.400%
140.0	2.745	1.110	696.913	.000%	99.558%
145.0	2.017	0.794	697.707	.000%	99.672%
150.0	2.633	0.685	698.392	.000%	99.770%
155.0	0.560	0.404	698.796	.000%	99.827%
160.0	2.521	0.323	699.119	.000%	99.873%
165.0	1.400	0.323	699.442	.000%	99.920%
170.0	1.960	0.199	699.641	.000%	99.948%
175.0	4.033	0.214	699.856	.000%	99.979%
180.0	8.402	0.149	700.005	.000%	100.000%

ZONAL LUMEN SUMMARY			
Zone	Lumens	%Lamp	%Fixt
0-30	265.18	N.A.	37.88%
0-40	410.62	N.A.	58.66%
0-60	608.33	N.A.	86.90%
0-90	683.83	N.A.	97.69%
0-120	692.86	N.A.	98.98%
0-180	700.00	N.A.	100.00%
60-90	110.03	N.A.	15.72%
90-120	10.27	N.A.	1.47%
90-130	11.91	N.A.	1.70%
90-150	15.80	N.A.	2.26%
90-180	17.26	N.A.	2.47%
0-53.41	560.00	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	33.52
10-20	95.54
20-30	136.12
30-40	145.44
40-50	119.89
50-60	77.83
60-70	46.85
70-80	23.76
80-90	4.89
90-100	4.11
100-110	3.02
110-120	1.91
120-130	1.64
130-140	2.41
140-150	1.48
150-160	0.73
160-170	0.52
170-180	0.21



C45(Max):

C0/C180:

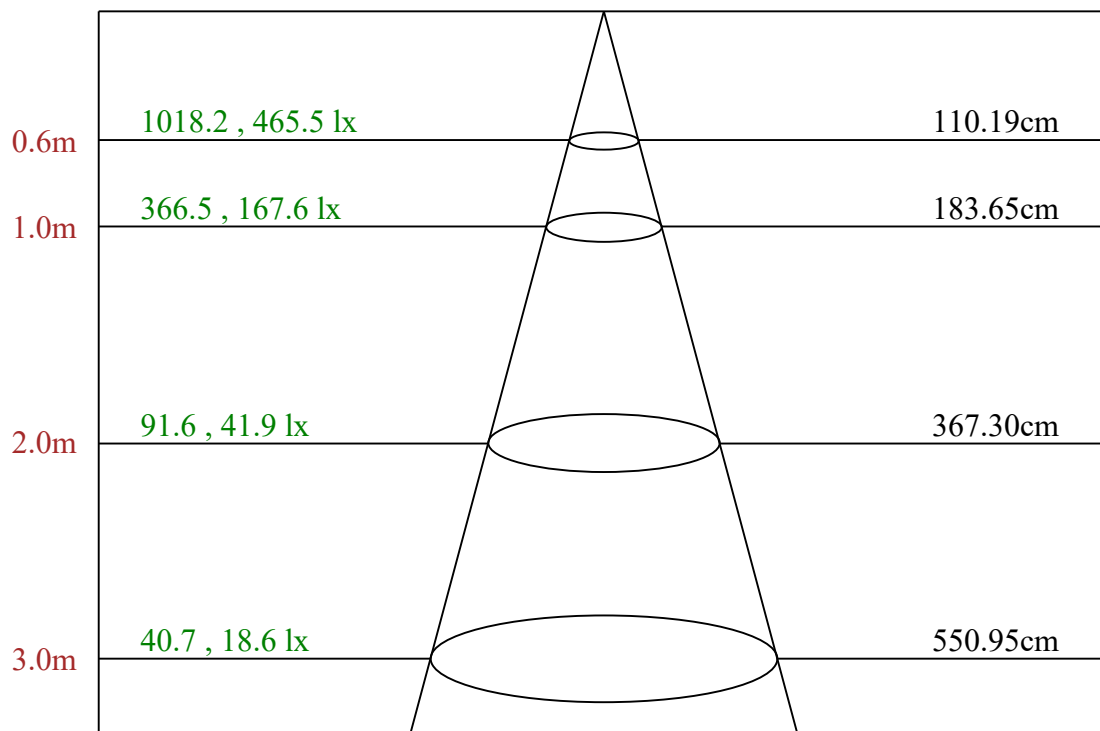
C90/C270:

Field angle(10%Imax):C0/180Left:72.1 Right:64.6

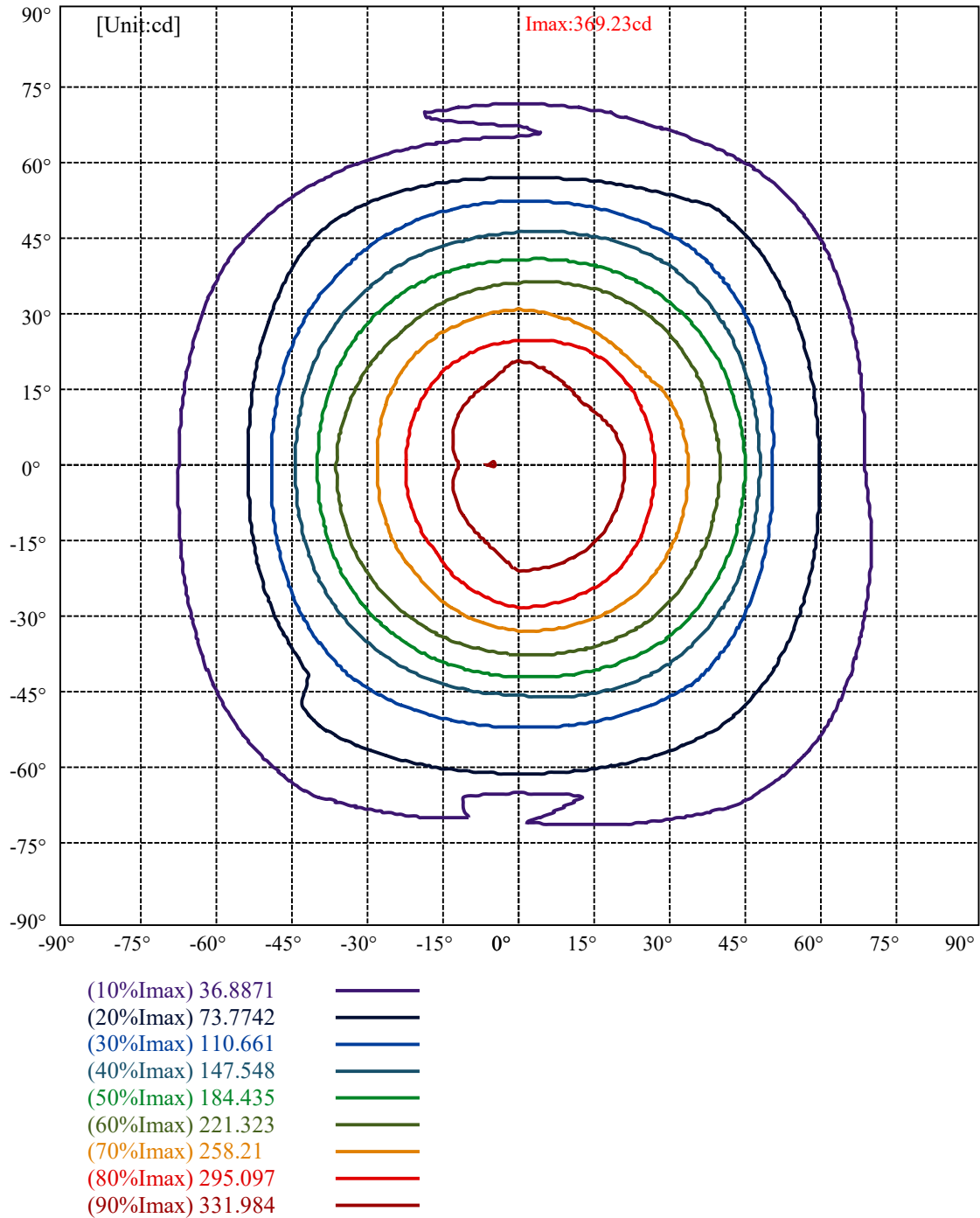
:C90/270Left:75.0 Right:65.9

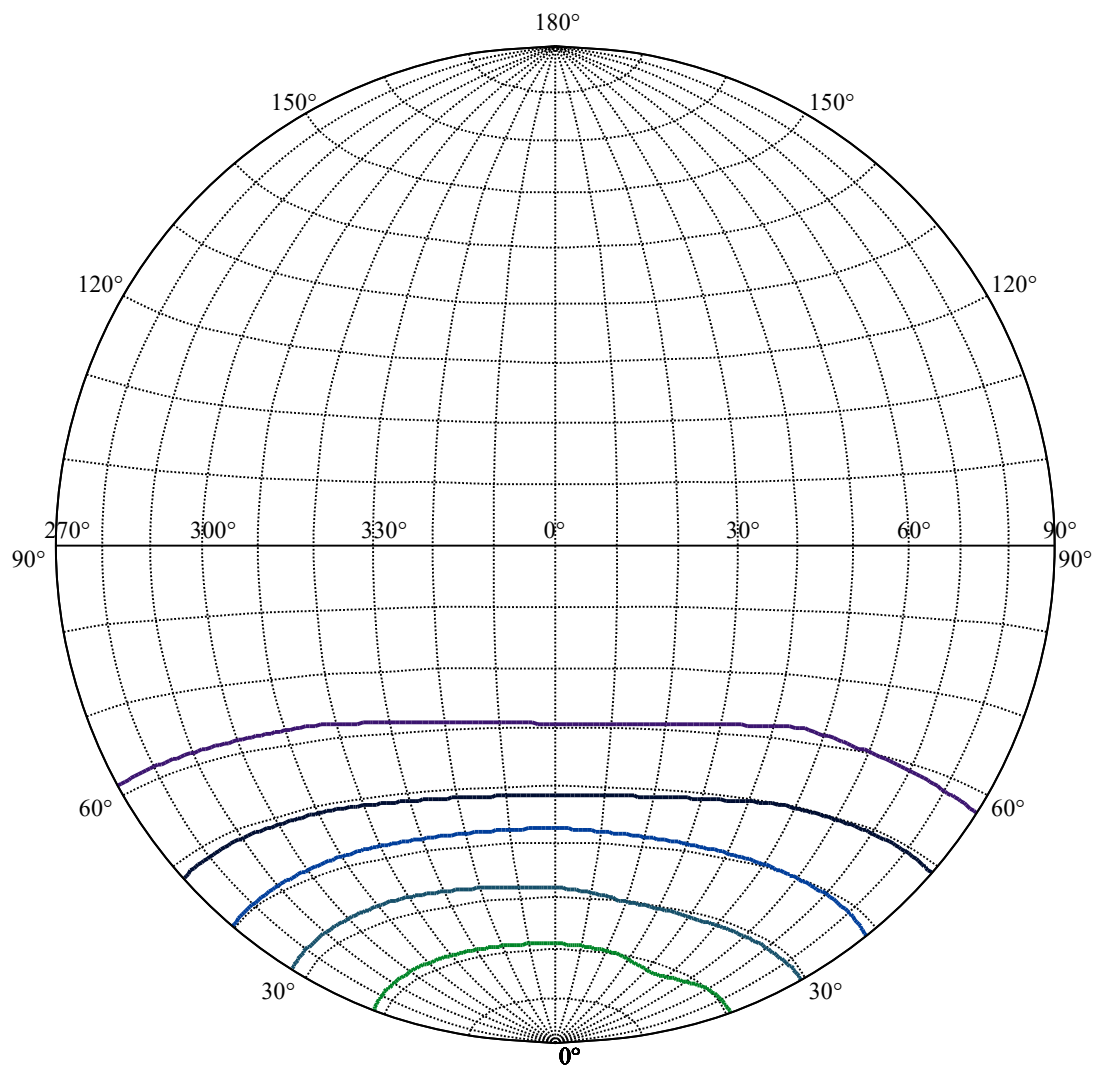
Beam Angle(50%Imax):C0/180Left:45.4 Right:40.4

:C90/270Left:46.8 Right:35.6



Max , Ave Beam angle of C45 plane 85.12





House

[Unit:cd]

Road

Imax:369.23

(10%Imax) 65.9603

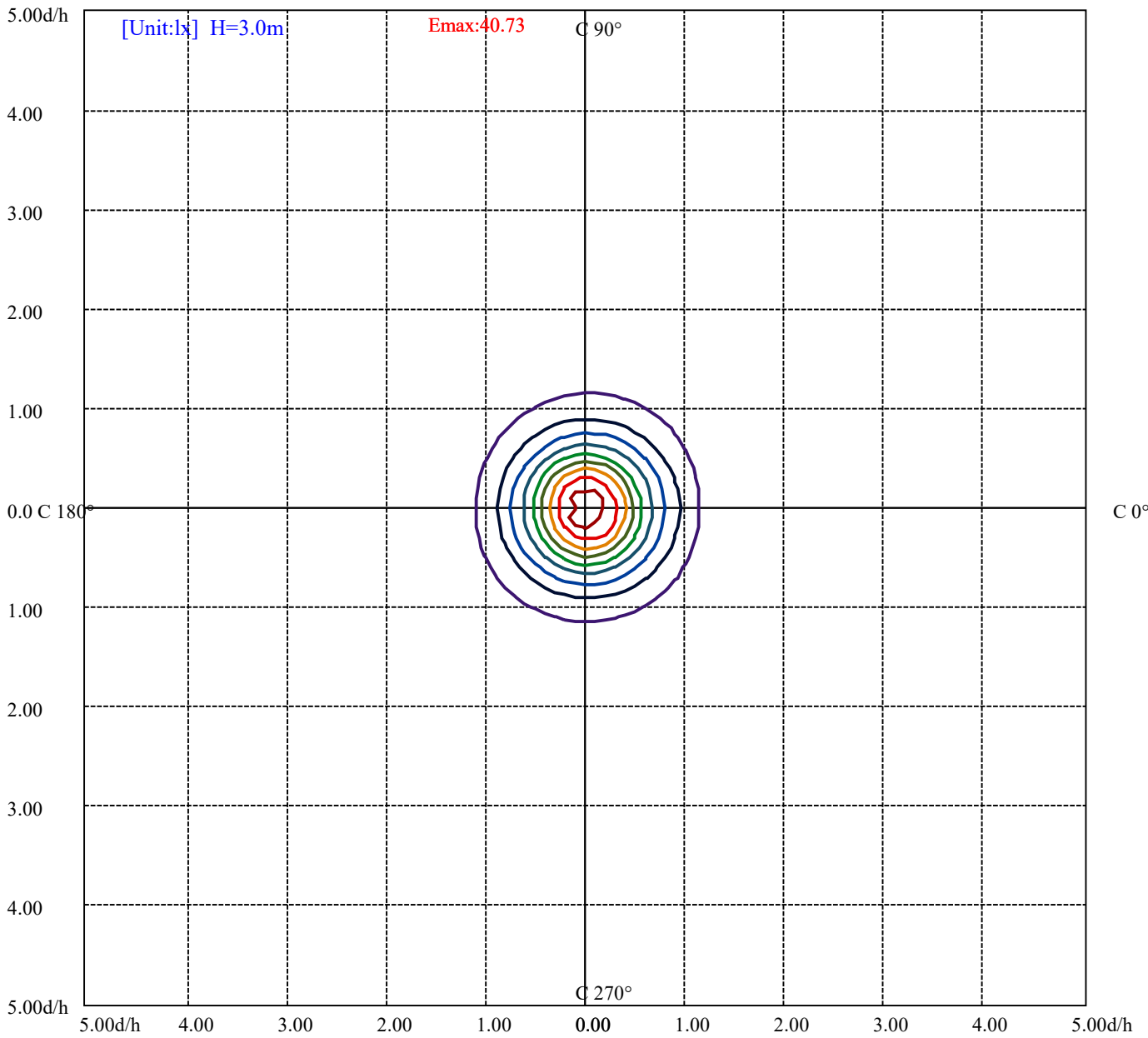
(20%Imax) 131.921

(30%Imax) 197.881

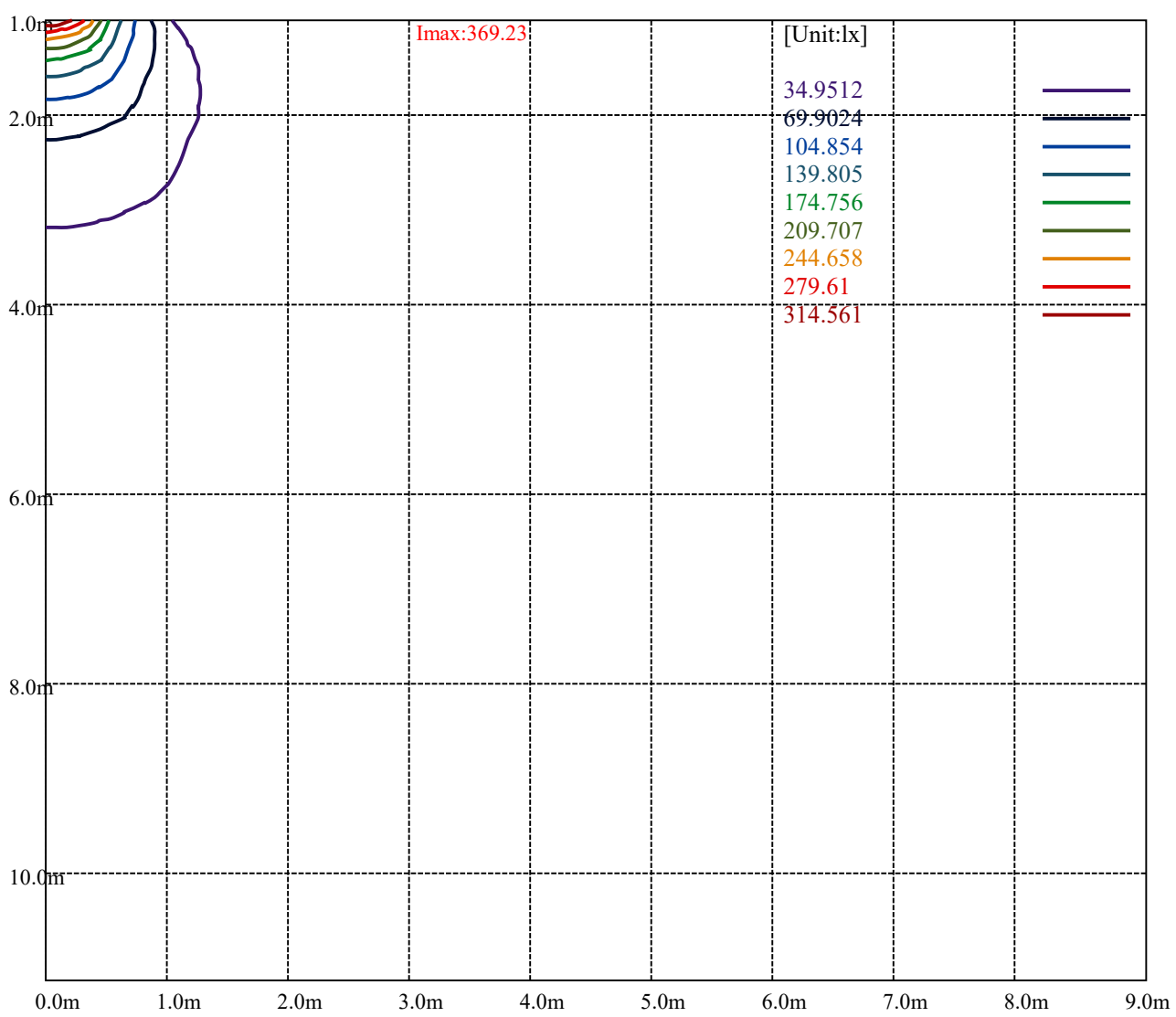
(40%Imax) 263.841

(50%Imax) 329.802





(10%Emax)	4.072656	—
(20%Emax)	8.145311	—
(30%Emax)	12.218	—
(40%Emax)	16.29067	—
(50%Emax)	20.36333	—
(60%Emax)	24.43589	—
(70%Emax)	28.50855	—
(80%Emax)	32.58122	—
(90%Emax)	36.65389	—



Luminance Limiting Curve(no luminous side)

Luminance Table

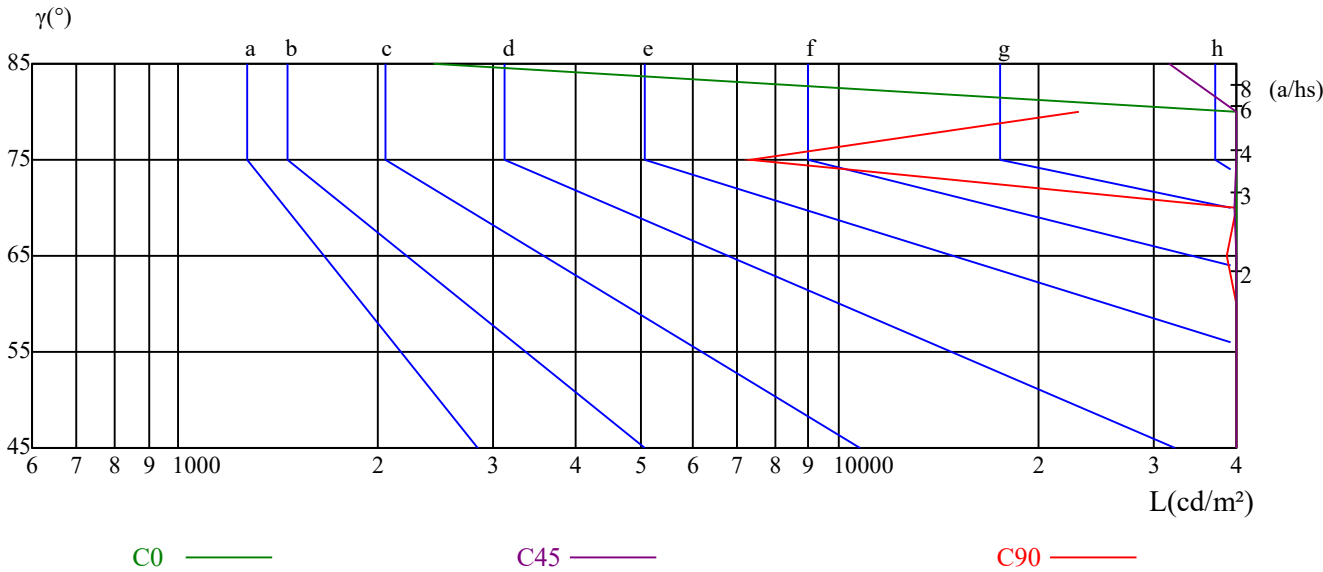
γ	45	50	55	60	65	70	75	80	85
C0	120690	79067	72363	65647	44596	47676	43364	49997	2429
C45	109310	97186	69041	69882	62634	39626	58911	57316	31585
C90	100625	93233	66087	49552	38584	60058	7364	23171	0

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
46600	35827	54742	40091	19227	49297	1215	0	28549

Glare Table

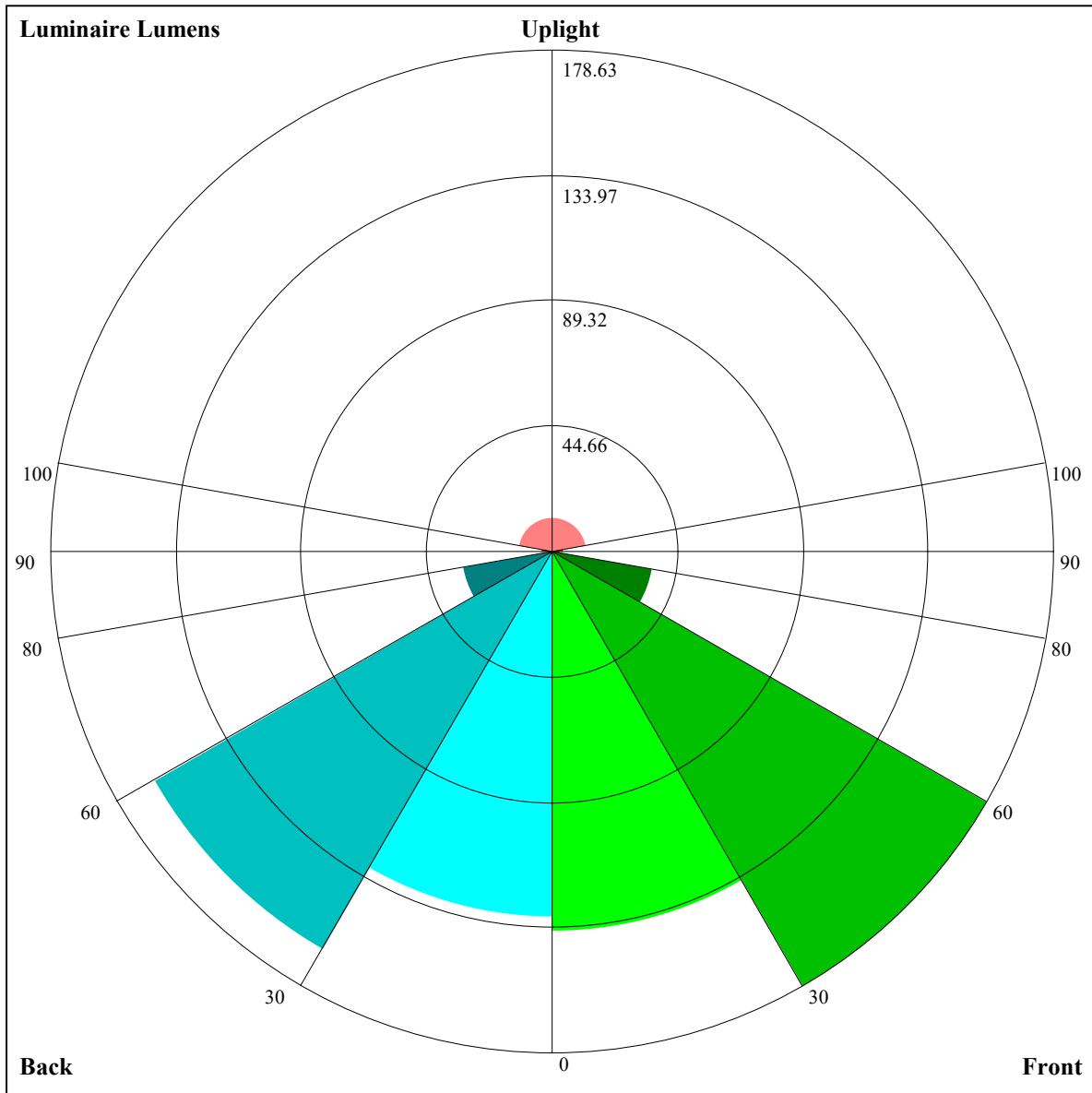
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve



Illumination assessment according UGR											
Rf of Ceiling	70	70	50	50	30	70	70	50	50	30	
Rf of Wall	50	30	50	30	30	50	30	50	30	30	
Rf of Floor	20	20	20	20	20	20	20	20	20	20	
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	27.02	28.41	27.42	28.78	29.15	26.63	28.02	27.03	28.38	28.75
	3H	27.75	29.00	28.18	29.38	29.78	27.51	28.76	27.94	29.15	29.55
	4H	28.13	29.29	28.56	29.69	30.11	27.63	28.79	28.07	29.19	29.61
	6H	28.54	29.61	28.98	30.03	30.48	27.69	28.77	28.14	29.18	29.64
	8H	28.62	29.65	29.07	30.07	30.53	27.68	28.71	28.13	29.14	29.60
	12H	28.59	29.57	29.04	30.01	30.48	27.63	28.62	28.09	29.05	29.52
4H	2H	27.41	28.57	27.85	28.97	29.40	27.09	28.25	27.52	28.65	29.07
	3H	28.29	29.27	28.75	29.70	30.17	28.11	29.08	28.57	29.52	29.98
	4H	28.88	29.74	29.36	30.20	30.70	28.37	29.23	28.84	29.69	30.19
	6H	29.42	30.18	29.92	30.66	31.16	28.51	29.27	29.01	29.75	30.25
	8H	29.57	30.28	30.09	30.77	31.29	28.55	29.26	29.07	29.75	30.27
	12H	29.58	30.23	30.10	30.72	31.28	28.54	29.19	29.05	29.68	30.24
8H	4H	29.12	29.82	29.63	30.31	30.83	28.64	29.35	29.15	29.84	30.36
	6H	29.82	30.41	30.35	30.92	31.47	28.95	29.54	29.48	30.05	30.61
	8H	30.08	30.59	30.64	31.14	31.69	29.10	29.61	29.65	30.16	30.71
	12H	30.10	30.53	30.67	31.08	31.65	29.10	29.52	29.66	30.07	30.64
12H	4H	29.13	29.78	29.65	30.27	30.83	28.68	29.34	29.20	29.82	30.38
	6H	29.92	30.43	30.47	30.98	31.52	29.09	29.60	29.65	30.16	30.70
	8H	30.17	30.59	30.73	31.15	31.71	29.24	29.66	29.80	30.21	30.78
Variation with the observer position at spacings:											
S = 1.0H		0.4/-0.8					0.5/-0.8				
S = 1.5H		0.8/-1.9					0.7/-1.1				
S = 2.0H		2.0/-2.3					1.7/-1.7				
Standard tables:		BK3					BK3				
Uncorrected UGR		11.0					11.7				

UGR calculation is based on CIE Publ. 117 ,S/H = 0.25



Luminaire Lumens:

FL=135.26,FM=178.63,FH=36.05,FVH=2.91

BL=130.39,BM=163.71,BH=32.26,BVH=1.35

UL=4.1,UH=12.04

BUG Rating:B1-U2-G0

Intensity data(cd)

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	349.51	349.51	346.82	341.00	337.41	306.50	271.54	250.93	218.22
45.0	366.54	358.03	369.23	339.65	323.97	310.08	252.72	252.28	202.99
90.0	356.68	362.51	336.07	340.55	334.73	288.12	261.24	227.18	185.51
135.0	347.27	346.38	359.37	336.07	309.18	286.33	253.62	214.64	183.27
180.0	349.51	329.80	339.21	318.59	305.15	279.61	239.28	228.53	178.34
225.0	366.54	348.17	364.75	331.59	312.32	284.99	250.93	228.98	186.86
270.0	356.68	353.10	356.23	340.10	333.83	318.15	278.71	237.49	200.30
315.0	347.27	351.75	340.10	359.82	337.41	311.87	284.54	249.14	214.64
360.0	349.51	349.51	346.82	341.00	337.41	306.50	271.54	250.93	218.22
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	180.58	107.54	87.83	69.46	39.88	34.50	23.75	18.37	0.45
45.0	163.55	132.19	83.79	73.94	56.01	28.68	32.26	21.06	5.82
90.0	150.56	126.81	80.21	52.43	34.50	43.47	4.03	8.51	0.00
135.0	141.60	109.34	87.83	56.46	31.82	29.57	24.65	10.31	0.00
180.0	137.12	98.13	55.12	51.08	43.47	23.30	20.16	4.93	0.00
225.0	142.94	118.75	77.97	77.52	56.91	39.43	25.99	15.68	0.00
270.0	147.87	122.33	82.45	78.42	29.57	36.30	17.03	4.48	0.00
315.0	172.52	122.78	99.93	80.66	51.08	53.77	25.09	2.69	15.24
360.0	180.58	107.54	87.83	69.46	39.88	34.50	23.75	18.37	0.45
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	8.96	8.07	10.31	0.00	3.58	4.03	0.00	5.38	0.00
45.0	0.00	0.00	0.00	0.00	0.00	0.00	4.03	0.00	0.00
90.0	0.00	14.79	0.00	0.00	0.00	0.00	0.00	0.45	1.79
135.0	0.00	0.00	10.31	0.90	0.00	0.00	0.00	0.00	0.00
180.0	5.83	6.72	20.16	2.69	0.00	0.00	0.00	0.00	8.51
225.0	0.00	0.00	5.83	7.62	12.55	1.79	2.69	0.00	0.00
270.0	0.00	0.00	0.00	0.00	5.83	4.03	2.24	0.45	10.75
315.0	0.00	0.00	0.00	0.00	0.00	0.45	9.86	0.90	4.48
360.0	8.96	8.07	10.31	0.00	3.58	4.03	0.00	5.38	0.00
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	2.24	2.69	4.03	0.00	0.00	0.00	0.00	11.65	10.31
45.0	0.00	4.48	4.03	0.00	0.00	0.90	0.00	0.00	0.00
90.0	7.62	0.90	0.00	0.90	0.00	0.00	0.00	0.00	0.00
135.0	4.03	0.00	0.00	0.00	4.48	3.59	0.00	0.00	18.82
180.0	12.10	5.38	0.00	14.34	0.00	11.20	8.51	4.03	0.00
225.0	0.00	7.62	8.07	0.00	0.00	2.69	0.00	0.00	3.14
270.0	0.00	0.90	0.00	0.00	0.00	0.00	2.69	0.00	0.00
315.0	0.00	0.00	0.00	5.82	0.00	1.79	0.00	0.00	0.00
360.0	2.24	2.69	4.03	0.00	0.00	0.00	0.00	11.65	10.31
C/γ(°)	180.0								
0.0	17.92								
45.0	6.27								
90.0	0.00								
135.0	9.41								
180.0	17.92								
225.0	6.27								
270.0	0.00								
315.0	9.41								
360.0	17.92								