



SGSO

Address: LIT by CARDI

Client:

LumCAT: 0017440217 RIO 7W 3000K 700lm

Luminaire:

Report No:

Voltage(V): 232.25

Test No: KYZ-A251030009-06-004

Current(A): 0.0318

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): 359.572

Maximum intensity(cd): 372.648

Angle of maximum intensity: C=315.0 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=82.0

[C90/270]Total=83.5

Field angle(10%Imax): [C0/180]Total=136.6

[C90/270]Total=138.6

Maximum s/h(1/2): C0_180=1.08 C90_270=1.07

Maximum s/h(1/4): C0_180=1.14 C90_270=1.18

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 1.84%

Down flux rate of LUM(%): 98.16%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 85.834%

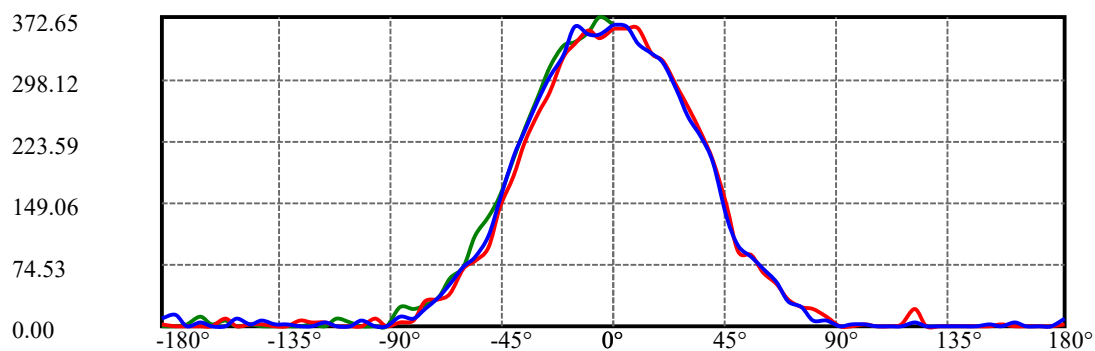
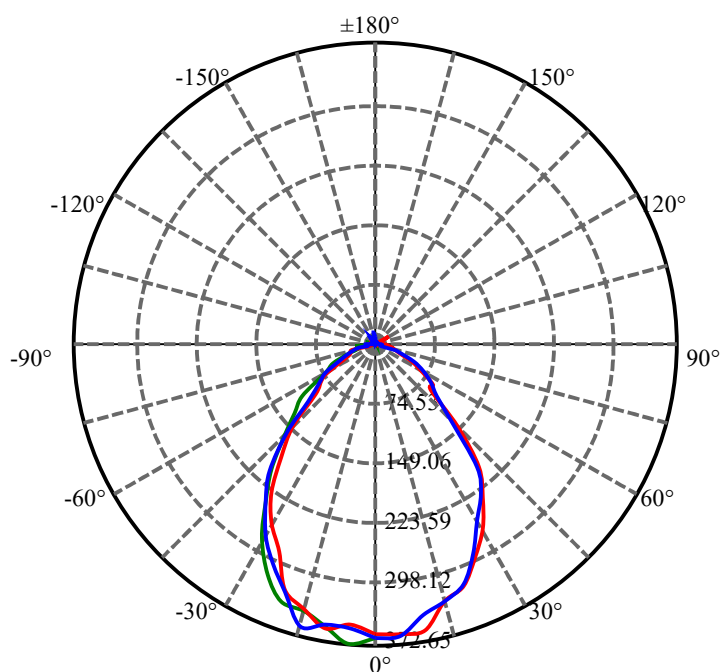
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	330.614	0.000	0	.000%	.000%
5.0	329.069	8.638	8.638	.000%	1.234%
10.0	319.903	25.430	34.068	.000%	4.867%
15.0	310.417	40.956	75.024	.000%	10.718%
20.0	295.549	54.702	129.726	.000%	18.532%
25.0	265.333	64.436	194.162	.000%	27.738%
30.0	242.205	70.354	264.516	.000%	37.788%
35.0	208.579	72.711	337.227	.000%	48.176%
40.0	175.326	70.159	407.386	.000%	58.198%
45.0	136.210	63.184	470.57	.000%	67.225%
50.0	100.186	52.322	522.893	.000%	74.699%
55.0	78.177	42.480	565.373	.000%	80.768%
60.0	61.870	35.458	600.831	.000%	85.834%
65.0	45.030	28.466	629.297	.000%	89.900%
70.0	31.814	21.313	650.61	.000%	92.945%
75.0	22.809	15.639	666.249	.000%	95.179%
80.0	14.175	10.840	677.089	.000%	96.728%
85.0	9.539	7.058	684.147	.000%	97.736%
90.0	0.373	2.973	687.12	.000%	98.161%
95.0	2.078	0.735	687.855	.000%	98.266%
100.0	1.812	1.158	689.013	.000%	98.431%
105.0	1.226	0.890	689.903	.000%	98.558%
110.0	1.119	0.671	690.575	.000%	98.654%
115.0	1.972	0.857	691.432	.000%	98.777%
120.0	3.944	1.575	693.007	.000%	99.002%
125.0	0.799	1.201	694.208	.000%	99.173%
130.0	2.558	0.800	695.008	.000%	99.287%
135.0	1.332	0.861	695.869	.000%	99.410%
140.0	2.345	0.746	696.614	.000%	99.517%
145.0	1.226	0.653	697.267	.000%	99.610%
150.0	2.345	0.576	697.843	.000%	99.692%
155.0	3.464	0.805	698.648	.000%	99.807%
160.0	1.332	0.551	699.199	.000%	99.886%
165.0	3.091	0.399	699.598	.000%	99.943%
170.0	0.267	0.218	699.816	.000%	99.974%
175.0	1.919	0.086	699.902	.000%	99.987%
180.0	5.223	0.094	699.996	.000%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	264.52	N.A.	37.79%
0-40	407.39	N.A.	58.20%
0-60	600.83	N.A.	85.83%
0-90	687.12	N.A.	98.16%
0-120	693.01	N.A.	99.00%
0-180	700.00	N.A.	100.00%
60-90	121.75	N.A.	17.39%
90-120	8.86	N.A.	1.27%
90-130	10.86	N.A.	1.55%
90-150	13.70	N.A.	1.96%
90-180	15.75	N.A.	2.25%
0-54.37	560.00	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	34.07
10-20	95.66
20-30	134.79
30-40	142.87
40-50	115.51
50-60	77.94
60-70	49.78
70-80	26.48
80-90	10.03
90-100	1.89
100-110	1.56
110-120	2.43
120-130	2.00
130-140	1.61
140-150	1.23
150-160	1.36
160-170	0.62
170-180	0.09



C315(Max): —————

C0/C180: —————

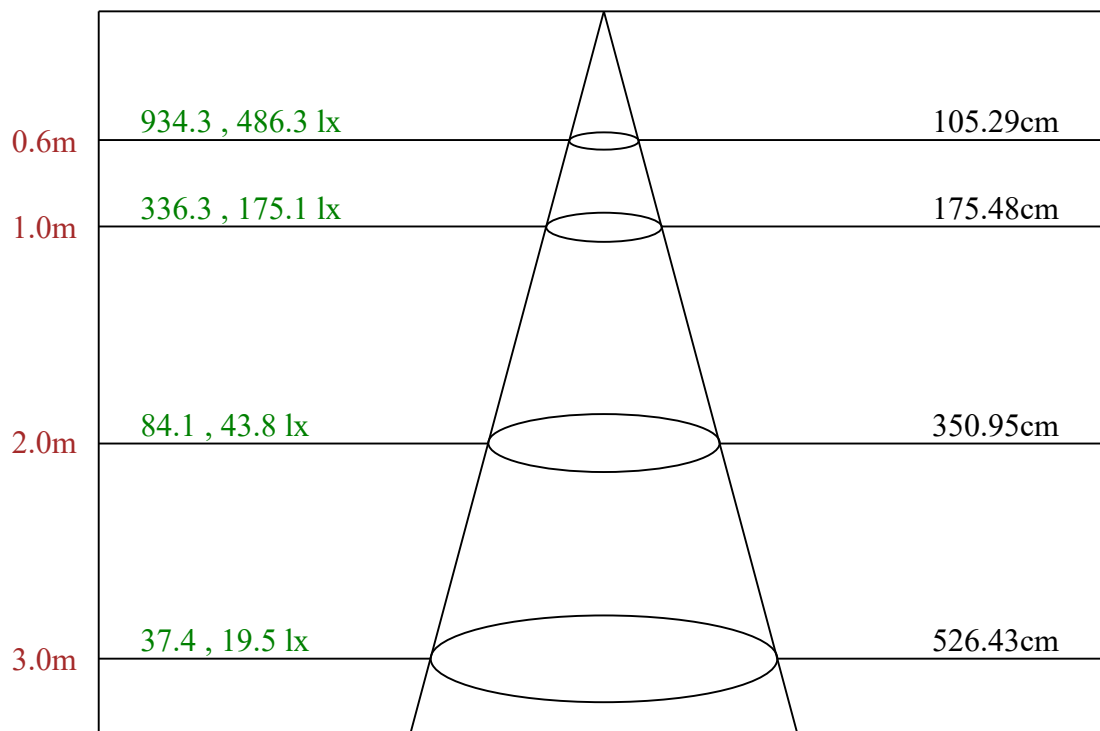
C90/C270: —————

Field angle(10%Imax):C0/180Left:77.5 Right:59.1

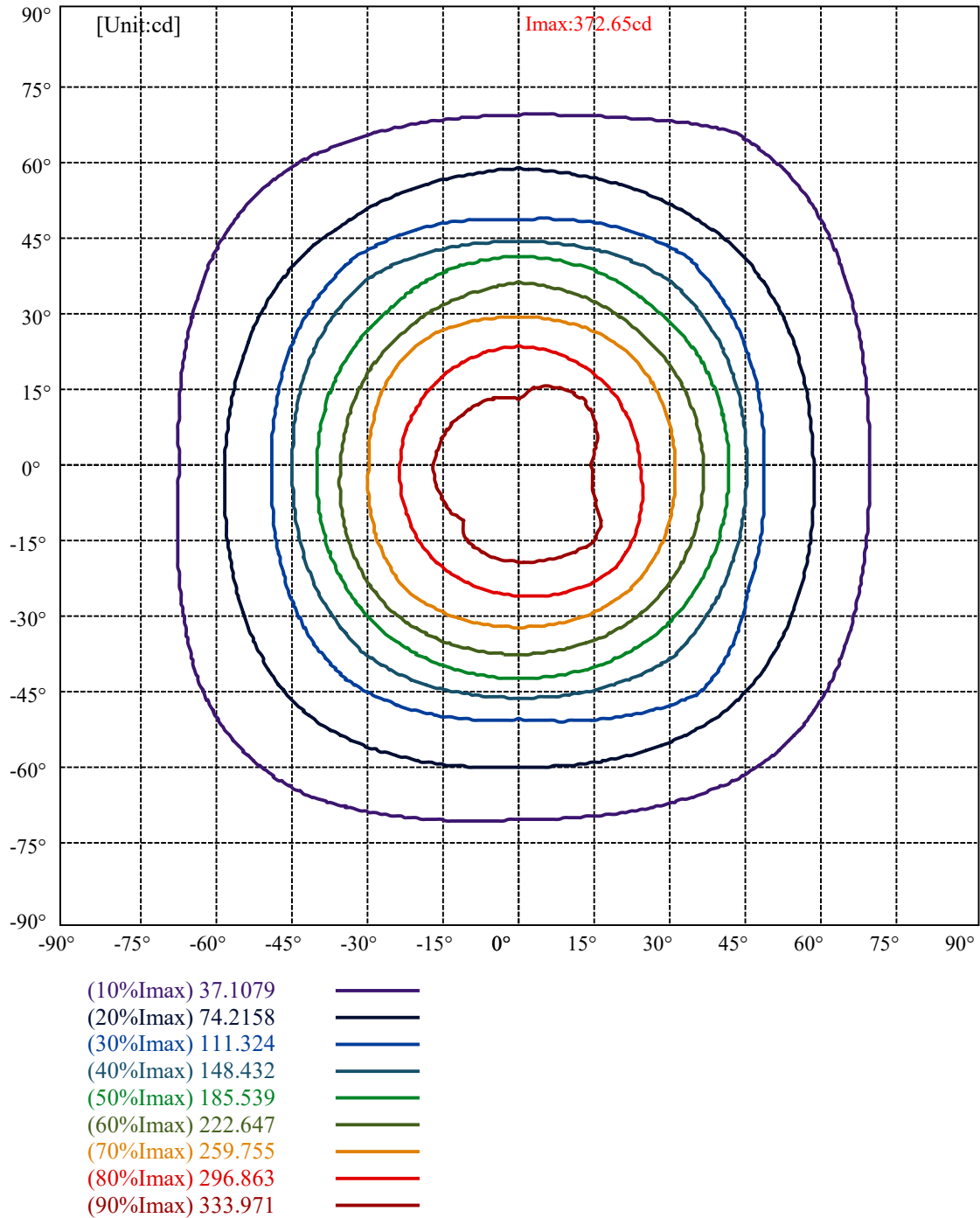
:C90/270Left:69.8 Right:68.8

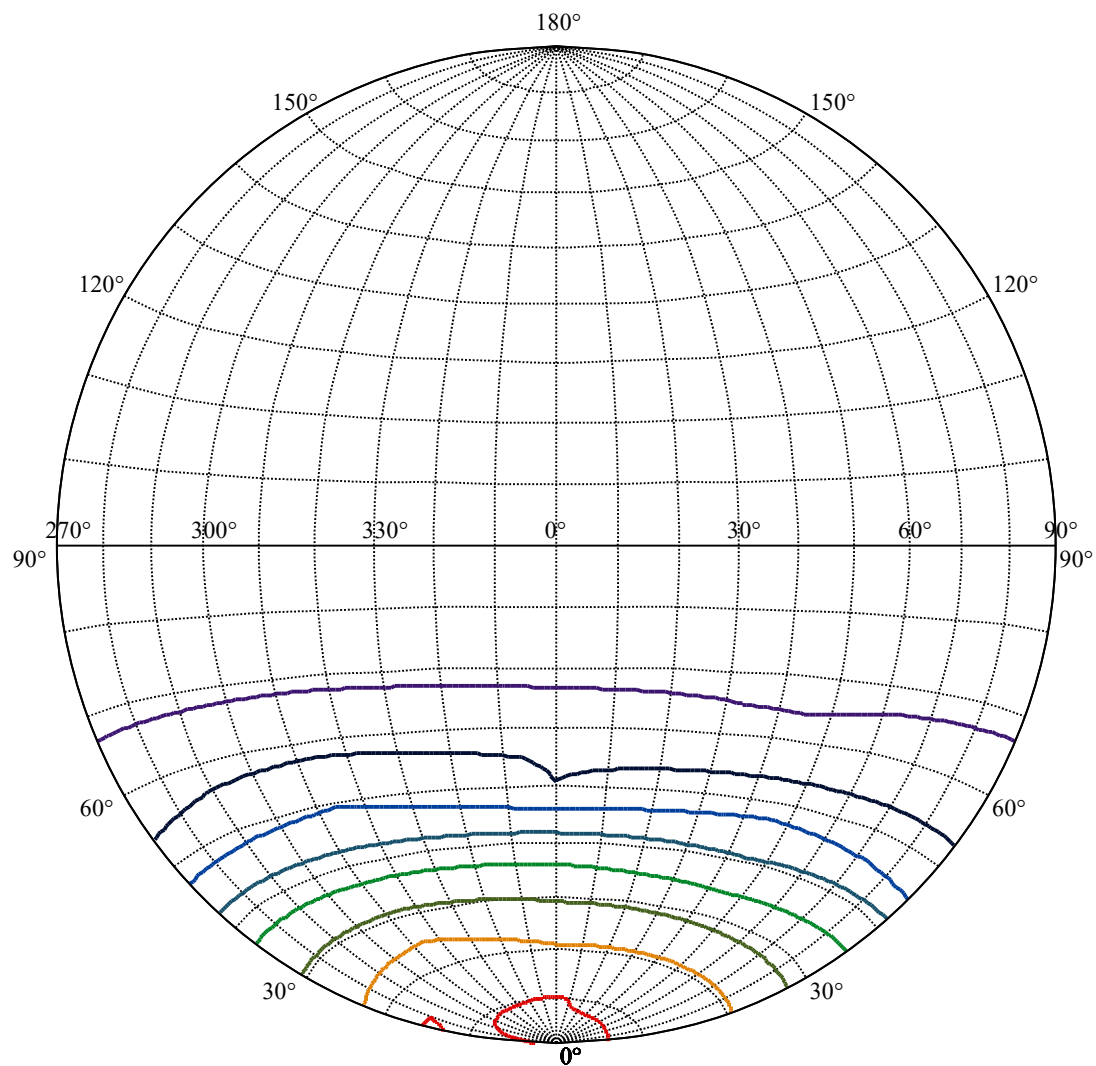
Beam Angle(50%Imax):C0/180Left:50.2 Right:31.8

:C90/270Left:42.3 Right:41.2



Max , Ave Beam angle of C315 plane 82.53



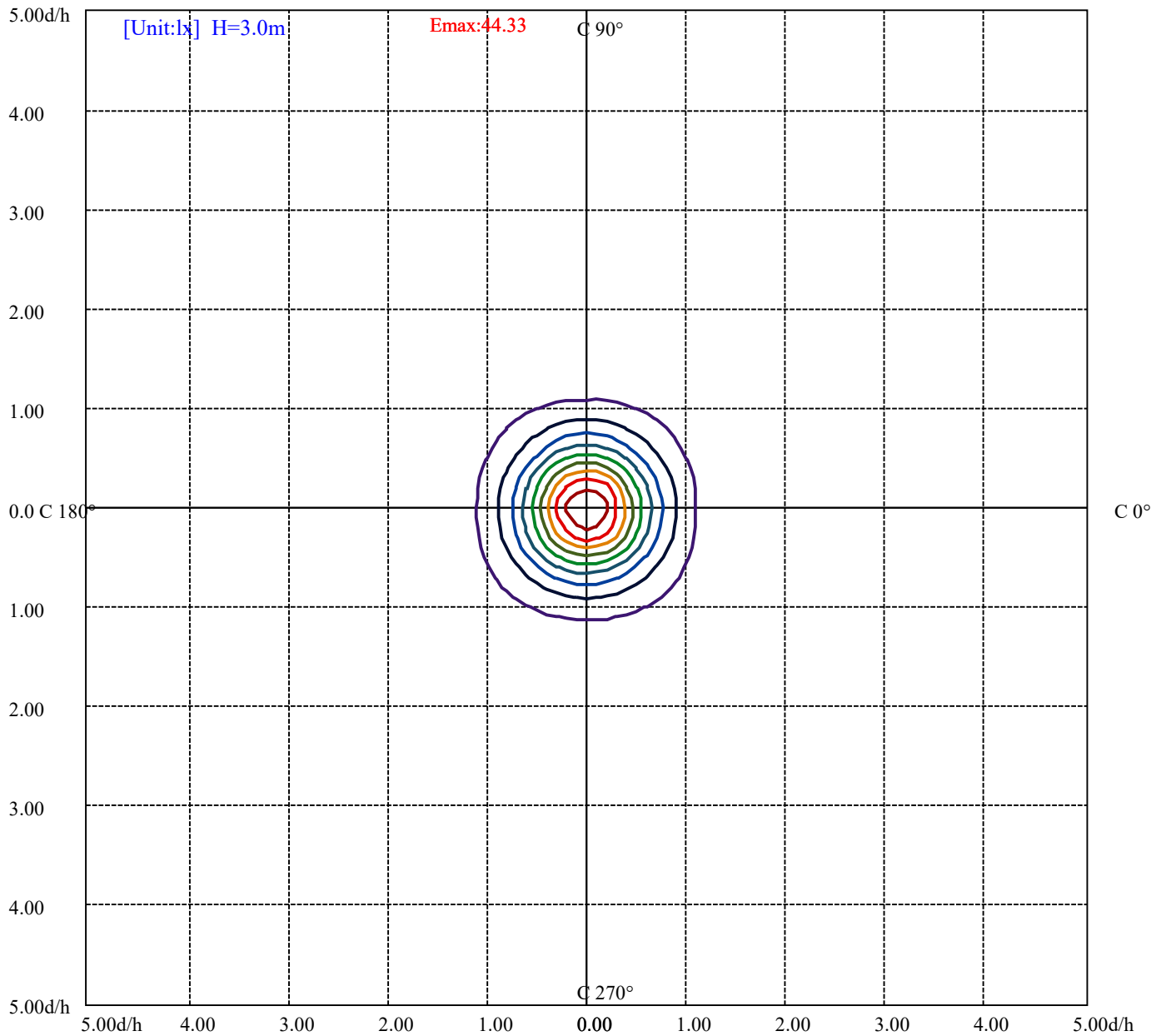


House

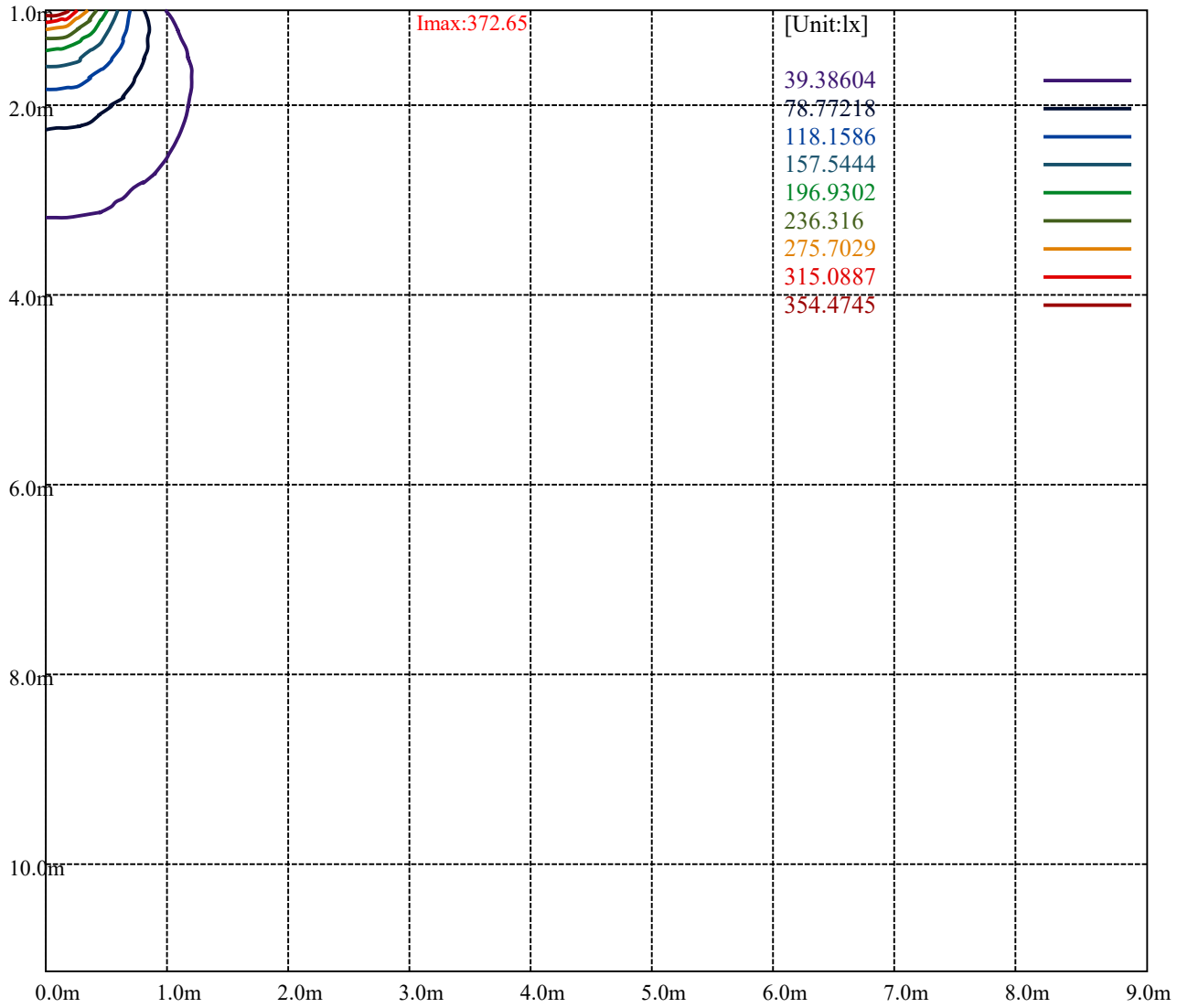
[Unit:cd]

Road

Imax:372.65
(10%Imax) 48.93921
(20%Imax) 97.87842
(30%Imax) 146.8175
(40%Imax) 195.757
(50%Imax) 244.6966
(60%Imax) 293.635
(70%Imax) 342.5746
(80%Imax) 391.5141



(10%Emax)	4.433063	
(20%Emax)	8.866115	
(30%Emax)	13.29924	
(40%Emax)	17.73228	
(50%Emax)	22.16532	
(60%Emax)	26.59836	
(70%Emax)	31.03139	
(80%Emax)	35.46443	
(90%Emax)	39.89759	



Luminance Table

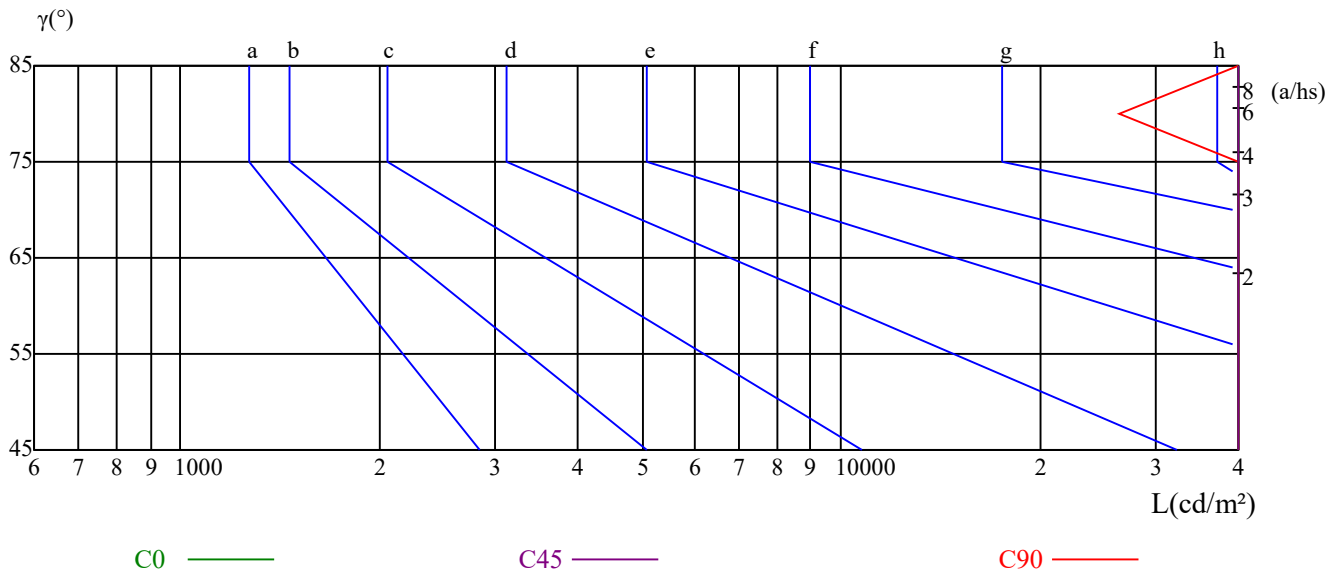
γ	45	50	55	60	65	70	75	80	85
C0	118001	80816	86345	74826	69420	55089	50958	72851	74120
C45	123711	103010	82591	68904	57956	69253	67597	86801	64855
C90	107343	87935	83999	79134	72605	51939	53039	26352	46325

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
61141	70695	68624	58758	50438	56678	49415	61765	82612

Glare Table

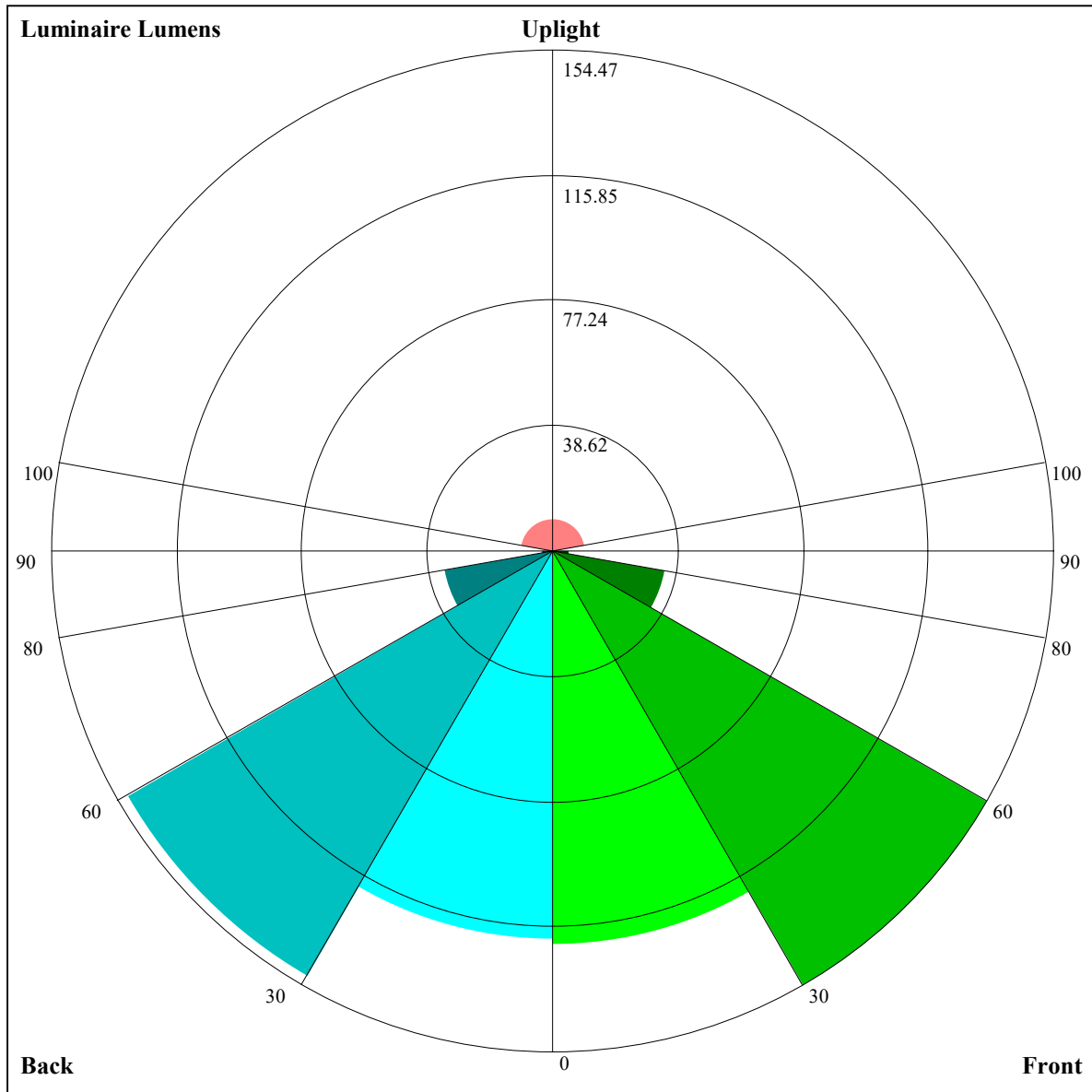
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

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	21.62	23.03	22.01	23.38	23.75	21.66	23.07	22.05	23.43	23.79
	3H	22.64	23.91	23.06	24.29	24.68	22.68	23.95	23.09	24.32	24.71
	4H	23.04	24.23	23.47	24.62	25.03	23.07	24.25	23.49	24.64	25.05
	6H	23.61	24.71	24.05	25.12	25.55	23.28	24.38	23.72	24.79	25.23
	8H	23.87	24.93	24.31	25.34	25.79	23.30	24.36	23.75	24.78	25.22
	12H	24.06	25.07	24.51	25.49	25.95	23.34	24.36	23.79	24.78	25.24
4H	2H	21.99	23.18	22.42	23.57	23.98	22.03	23.22	22.46	23.61	24.02
	3H	23.26	24.26	23.71	24.68	25.14	23.28	24.28	23.73	24.70	25.16
	4H	23.87	24.76	24.34	25.21	25.69	23.88	24.76	24.34	25.21	25.70
	6H	24.62	25.41	25.12	25.88	26.37	24.20	24.98	24.69	25.46	25.95
	8H	25.00	25.73	25.50	26.21	26.72	24.30	25.03	24.80	25.51	26.02
	12H	25.28	25.95	25.79	26.43	26.98	24.41	25.09	24.92	25.56	26.11
8H	4H	24.20	24.93	24.70	25.41	25.92	24.20	24.93	24.70	25.41	25.92
	6H	25.19	25.80	25.71	26.30	26.85	24.73	25.34	25.25	25.84	26.39
	8H	25.72	26.26	26.27	26.80	27.33	24.97	25.51	25.52	26.05	26.58
	12H	26.09	26.54	26.65	27.08	27.63	25.16	25.60	25.71	26.15	26.70
12H	4H	24.24	24.92	24.75	25.40	25.95	24.26	24.94	24.77	25.42	25.97
	6H	25.35	25.88	25.89	26.42	26.95	24.93	25.46	25.47	26.00	26.53
	8H	25.89	26.34	26.45	26.88	27.43	25.19	25.64	25.74	26.18	26.73
Variation with the observer position at spacings:											
S = 1.0H		0.3/-0.7					0.3/-0.7				
S = 1.5H		1.0/-0.9					0.8/-1.0				
S = 2.0H		1.5/-1.1					1.2/-1.0				
Standard tables:		BK4					BK4				
Uncorrected UGR		12.8					13.1				

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



Luminaire Lumens:

FL=121.18,FM=154.47,FH=35.31,FVH=5.27

BL=119.93,BM=151.64,BH=33.87,BVH=3.42

UL=1.73,UH=10.01

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	359.57	358.64	359.57	329.22	318.95	289.53	264.31	231.15	198.93
45.0	364.24	363.78	347.43	351.63	321.75	279.25	261.97	218.54	183.06
90.0	362.37	360.97	340.43	329.22	316.61	285.79	252.17	226.95	197.06
135.0	362.37	355.84	348.83	332.96	315.21	280.19	264.31	210.14	176.98
180.0	359.57	346.96	355.84	339.49	323.15	282.52	255.90	221.81	181.65
225.0	364.24	372.18	345.56	334.36	329.22	294.20	273.18	245.63	193.80
270.0	362.37	352.57	351.17	361.44	326.88	300.27	272.71	235.82	204.54
315.0	362.37	372.65	354.44	341.83	338.09	313.34	277.85	237.69	200.33
360.0	359.57	358.64	359.57	329.22	318.95	289.53	264.31	231.15	198.93
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	144.76	90.13	85.92	64.91	50.90	32.69	22.88	21.95	11.21
45.0	151.77	114.88	82.19	59.77	42.49	41.09	30.35	26.15	9.81
90.0	131.69	98.07	83.59	68.65	53.24	30.82	23.82	7.94	7.00
135.0	154.10	111.14	77.05	59.31	52.30	27.08	27.08	16.34	16.81
180.0	142.90	95.26	79.85	69.11	38.76	33.16	29.89	7.94	3.74
225.0	156.44	127.48	84.06	77.05	48.57	43.43	18.68	14.01	0.00
270.0	153.64	109.74	82.65	72.38	50.43	35.49	21.48	9.81	11.67
315.0	158.31	131.22	109.74	70.98	57.91	35.02	25.68	20.08	23.35
360.0	144.76	90.13	85.92	64.91	50.90	32.69	22.88	21.95	11.21
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.00	0.00	2.34	0.00	0.00	1.87	20.08	0.00	0.00
45.0	0.00	0.00	0.93	3.74	0.00	1.87	2.80	0.00	10.74
90.0	0.00	1.87	2.80	0.00	0.00	0.00	3.74	0.00	0.00
135.0	3.27	6.07	3.74	2.80	0.47	2.34	0.00	0.00	3.27
180.0	0.00	10.27	0.00	0.00	0.00	5.14	4.20	7.00	0.00
225.0	0.00	0.00	0.00	0.00	0.00	2.34	0.93	0.00	5.14
270.0	0.00	0.00	6.07	0.00	0.00	3.74	0.47	0.00	3.27
315.0	0.00	0.00	0.00	4.20	9.34	0.00	2.34	0.00	0.00
360.0	0.00	0.00	2.34	0.00	0.00	1.87	20.08	0.00	0.00
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.00	0.00	0.00	0.00	2.34	0.00	0.00	0.93	0.00
45.0	7.00	0.00	0.00	7.00	12.14	4.20	0.00	0.00	2.80
90.0	0.00	0.00	0.93	1.40	0.00	4.20	0.00	0.00	0.00
135.0	2.34	6.07	0.00	0.00	0.47	0.00	0.00	0.00	0.00
180.0	0.00	2.34	2.80	0.00	8.41	0.00	0.47	0.00	0.00
225.0	0.47	4.20	1.87	2.80	0.00	0.00	9.34	0.00	0.00
270.0	1.87	7.94	1.87	9.34	0.00	0.00	5.60	0.00	14.01
315.0	0.00	0.00	3.27	0.00	7.00	3.27	11.67	1.40	0.00
360.0	0.00	0.00	0.00	0.00	2.34	0.00	0.00	0.93	0.00
C/γ(°)	180.0								
0.0	2.34								
45.0	12.14								
90.0	8.41								
135.0	0.00								
180.0	2.34								
225.0	12.14								
270.0	8.41								
315.0	0.00								
360.0	2.34								