
Nata

LumCAT: 3-1548-A3
Luminaire: TE 2213258-1+92.76.365.00
Report No: GC201592410
Test No: NT-0010
LampCAT: SAMSUNG LC033B
Lamp flux(lm): 4000.0
Number of Lamps: 1
Length(mm): 79
Phm Type: C

Voltage(V): 35.3000
Current(A): 0.9000
Power (W): 31.7700
PF: 0.0000
Ballast type: DC
Width(mm): 79
Height(mm): 0

Photometric Results

Lumens(lm): 3660.63
Efficiency(%): 91.52%
Lumens(lm)/Power(W): 115.22
Central intensity(cd): 20098.790
Maximum intensity(cd): 20098.790
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=17.2
 [C90/270]Total=17.2
Field angle(10%Imax): [C0/180]Total=38.0
 [C90/270]Total=38.0
Maximum s/h(1/2): C0_180=0.30 C90_270=0.30
Maximum s/h(1/4): C0_180=0.32 C90_270=0.32
Up flux rate of lamp(%): 2.87%
Down flux rate of lamp(%): 88.65%
Up flux rate of LUM(%): 3.13%
Down flux rate of LUM(%): 96.87%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 94.484%

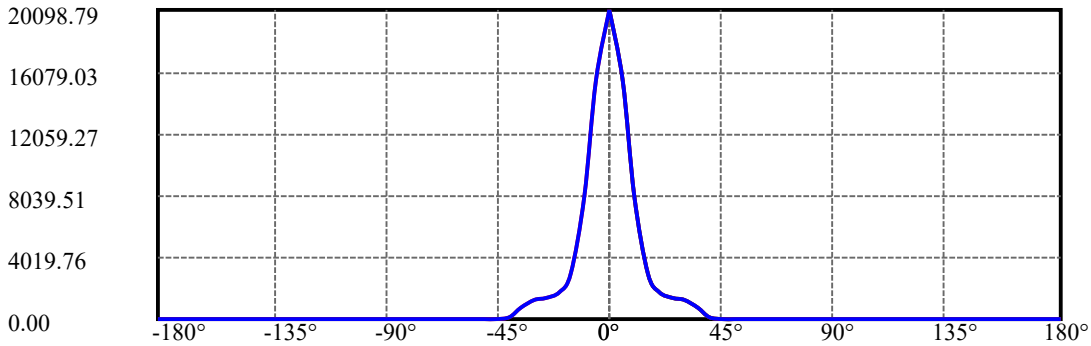
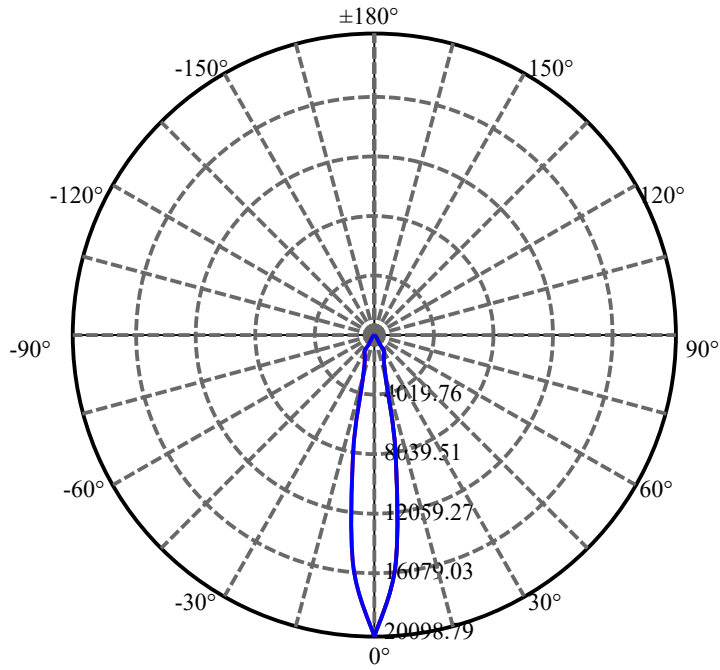
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	20098.781	0.000	0	.000%	.000%
5.0	15456.522	425.054	425.054	10.626%	11.612%
10.0	7966.777	837.925	1262.979	20.948%	34.502%
15.0	3017.685	651.591	1914.57	16.290%	52.302%
20.0	1763.445	394.032	2308.602	9.851%	63.066%
25.0	1406.481	332.467	2641.069	8.312%	72.148%
30.0	1196.331	329.388	2970.457	8.235%	81.146%
35.0	713.200	281.192	3251.649	7.030%	88.828%
40.0	164.103	146.371	3398.02	3.659%	92.826%
45.0	22.884	34.622	3432.642	.866%	93.772%
50.0	19.974	8.660	3441.302	.217%	94.009%
55.0	19.303	8.540	3449.842	.214%	94.242%
60.0	19.079	8.872	3458.714	.222%	94.484%
65.0	20.646	9.657	3468.371	.241%	94.748%
70.0	29.038	12.580	3480.951	.315%	95.092%
75.0	38.886	17.754	3498.706	.444%	95.577%
80.0	40.340	21.199	3519.904	.530%	96.156%
85.0	19.023	16.130	3536.035	.403%	96.596%
90.0	17.177	9.912	3545.946	.248%	96.867%
95.0	16.673	9.268	3555.215	.232%	97.120%
100.0	17.289	9.228	3564.443	.231%	97.373%
105.0	17.177	9.222	3573.665	.231%	97.624%
110.0	16.897	8.906	3582.571	.223%	97.868%
115.0	16.729	8.514	3591.086	.213%	98.100%
120.0	16.617	8.107	3599.192	.203%	98.322%
125.0	16.561	7.669	3606.862	.192%	98.531%
130.0	16.673	7.226	3614.088	.181%	98.729%
135.0	16.785	6.761	3620.849	.169%	98.913%
140.0	16.841	6.226	3627.075	.156%	99.083%
145.0	17.512	5.732	3632.806	.143%	99.240%
150.0	19.974	5.520	3638.327	.138%	99.391%
155.0	24.059	5.572	3643.899	.139%	99.543%
160.0	28.311	5.493	3649.392	.137%	99.693%
165.0	30.157	4.819	3654.21	.120%	99.825%
170.0	30.157	3.578	3657.788	.089%	99.922%
175.0	29.542	2.136	3659.924	.053%	99.981%
180.0	29.150	0.702	3660.625	.018%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2970.46	74.26%	81.15%
0-40	3398.02	84.95%	92.83%
0-60	3458.71	86.47%	94.48%
0-90	3545.95	88.65%	96.87%
0-120	3599.19	89.98%	98.32%
0-180	3660.63	91.52%	100.00%
60-90	96.10	2.40%	2.63%
90-120	63.16	1.58%	1.73%
90-130	78.05	1.95%	2.13%
90-150	102.29	2.56%	2.79%
90-180	123.89	3.10%	3.38%
0-29.36	2928.50	73.21%	80.00%

ZONAL LUMEN SUMMARY

0-10	1262.98
10-20	1045.62
20-30	661.85
30-40	427.56
40-50	43.28
50-60	17.41
60-70	22.24
70-80	38.95
80-90	26.04
90-100	18.50
100-110	18.13
110-120	16.62
120-130	14.90
130-140	12.99
140-150	11.25
150-160	11.07
160-170	8.40
170-180	2.14



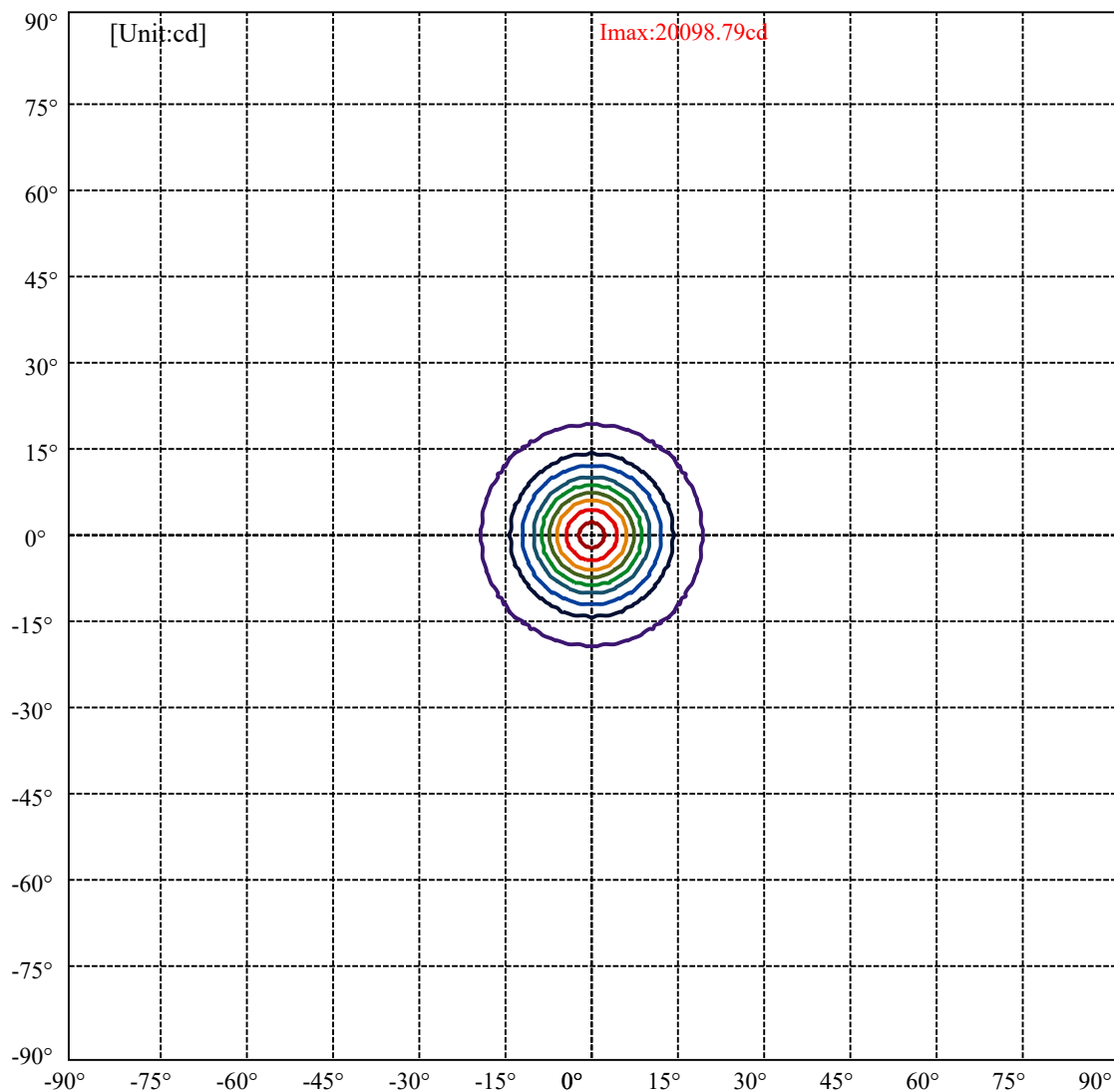
C0(Max): —————

C0/C180: —————

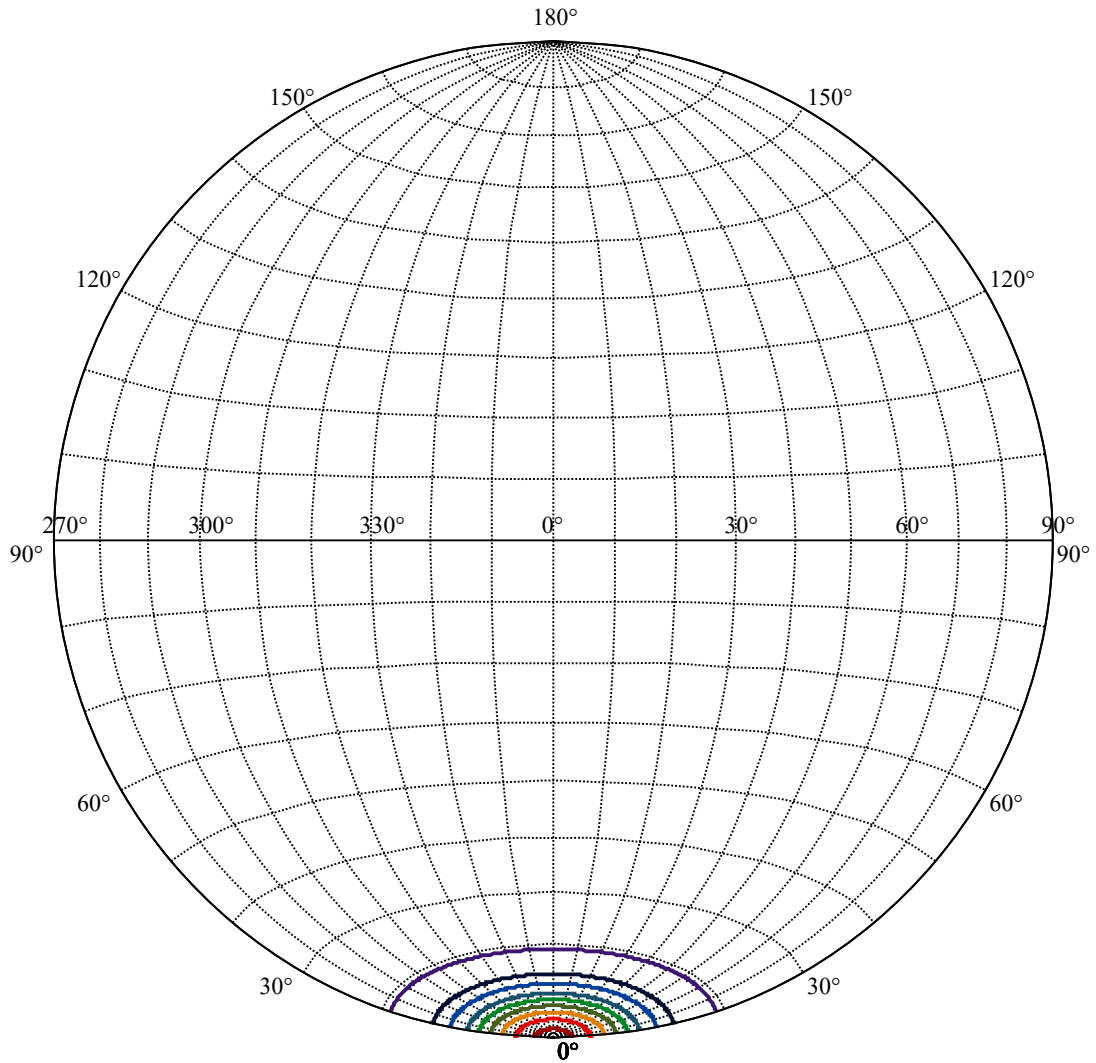
C90/C270: —————

Field angle(10%Imax):C0/180Left:19.0 Right:19.0
:C90/270Left:19.0 Right:19.0

Beam Angle(50%Imax):C0/180Left:8.6 Right:8.6
:C90/270Left:8.6 Right:8.6



(10%Imax) 2009.88	—
(20%Imax) 4019.76	—
(30%Imax) 6029.64	—
(40%Imax) 8039.51	—
(50%Imax) 10049.4	—
(60%Imax) 12059.3	—
(70%Imax) 14069.1	—
(80%Imax) 16079	—
(90%Imax) 18088.9	—



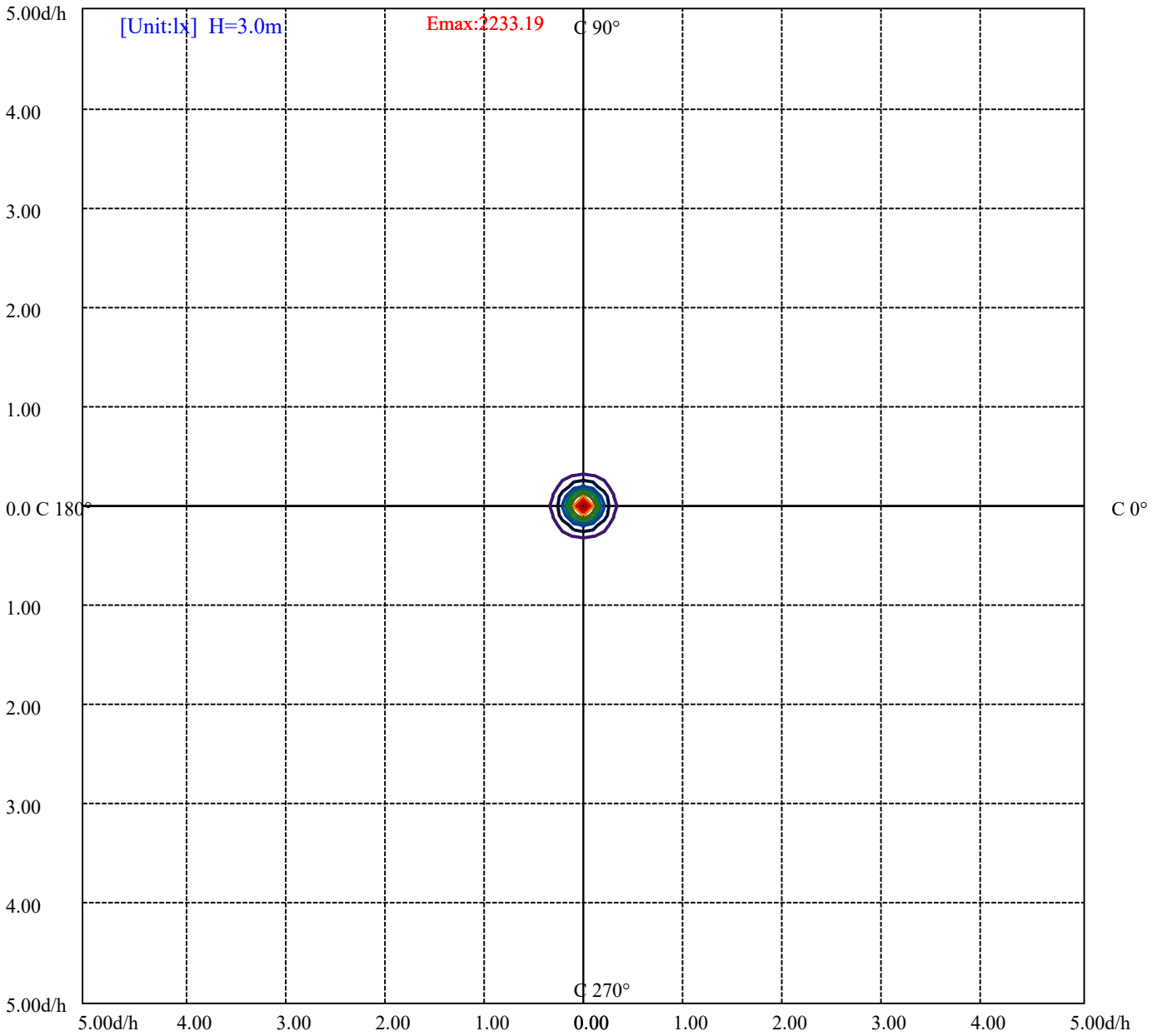
House

[Unit:cd]

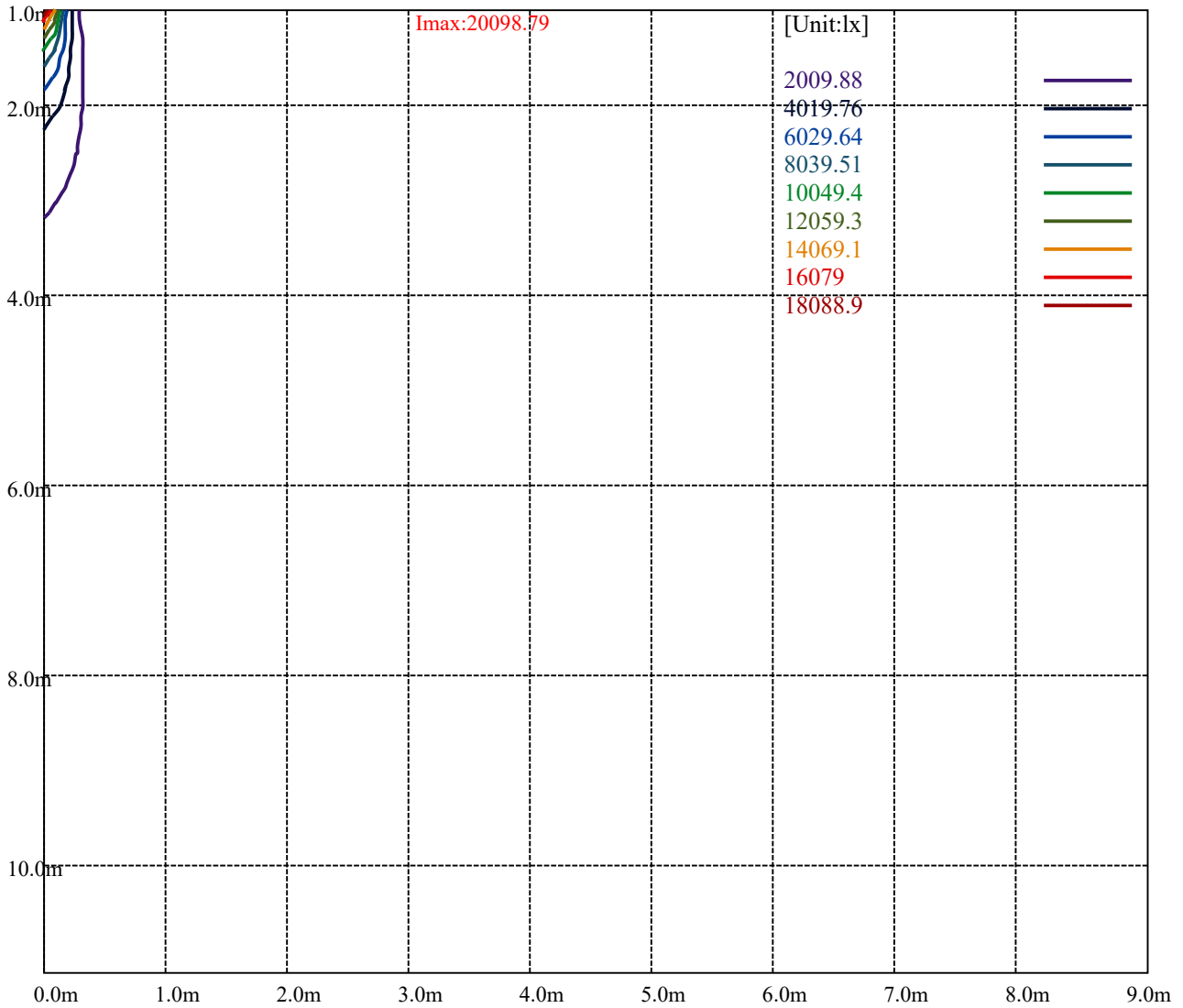
Road

Imax:20098.79

(10%Imax) 2009.88	—
(20%Imax) 4019.76	—
(30%Imax) 6029.64	—
(40%Imax) 8039.51	—
(50%Imax) 10049.4	—
(60%Imax) 12059.3	—
(70%Imax) 14069.1	—
(80%Imax) 16079	—
(90%Imax) 18088.9	—



- (10%Emax) 223.3178
- (20%Emax) 446.6367
- (30%Emax) 669.9544
- (40%Emax) 893.2733
- (50%Emax) 1116.589
- (60%Emax) 1339.911
- (70%Emax) 1563.233
- (80%Emax) 1786.544
- (90%Emax) 2009.867



Luminance Table

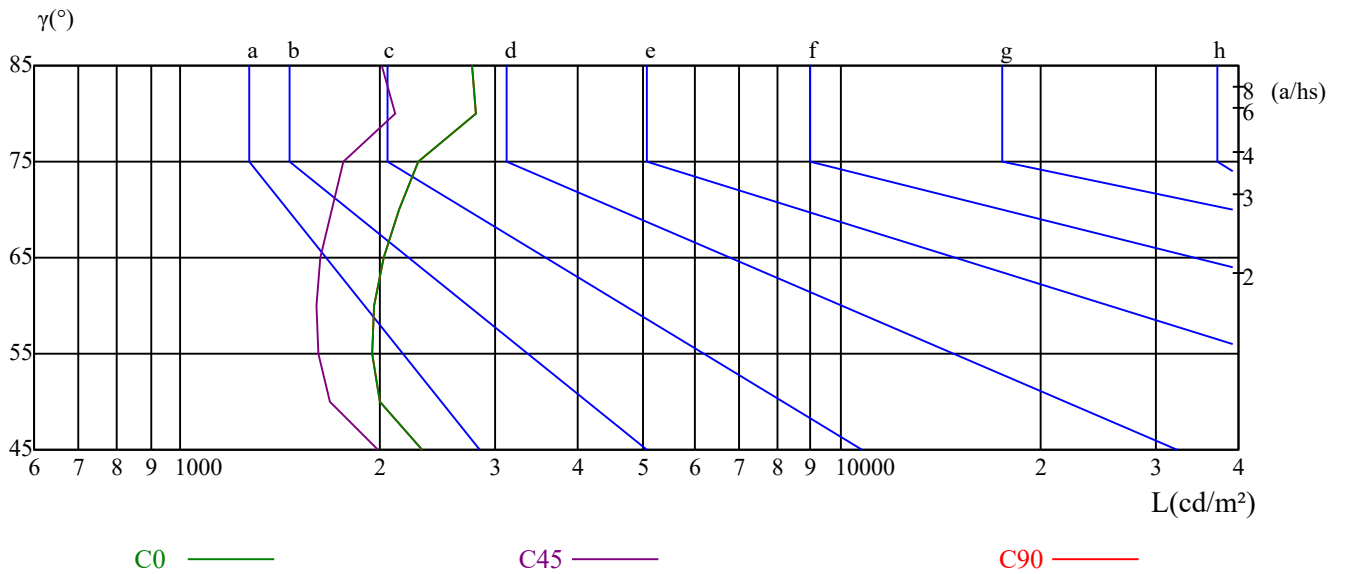
γ	45	50	55	60	65	70	75	80	85
C0	2320	1997	1950	1961	2032	2146	2288	2802	2761
C45	1987	1685	1619	1602	1631	1690	1764	2109	2020
C90	2320	1997	1950	1961	2032	2146	2288	2802	2761

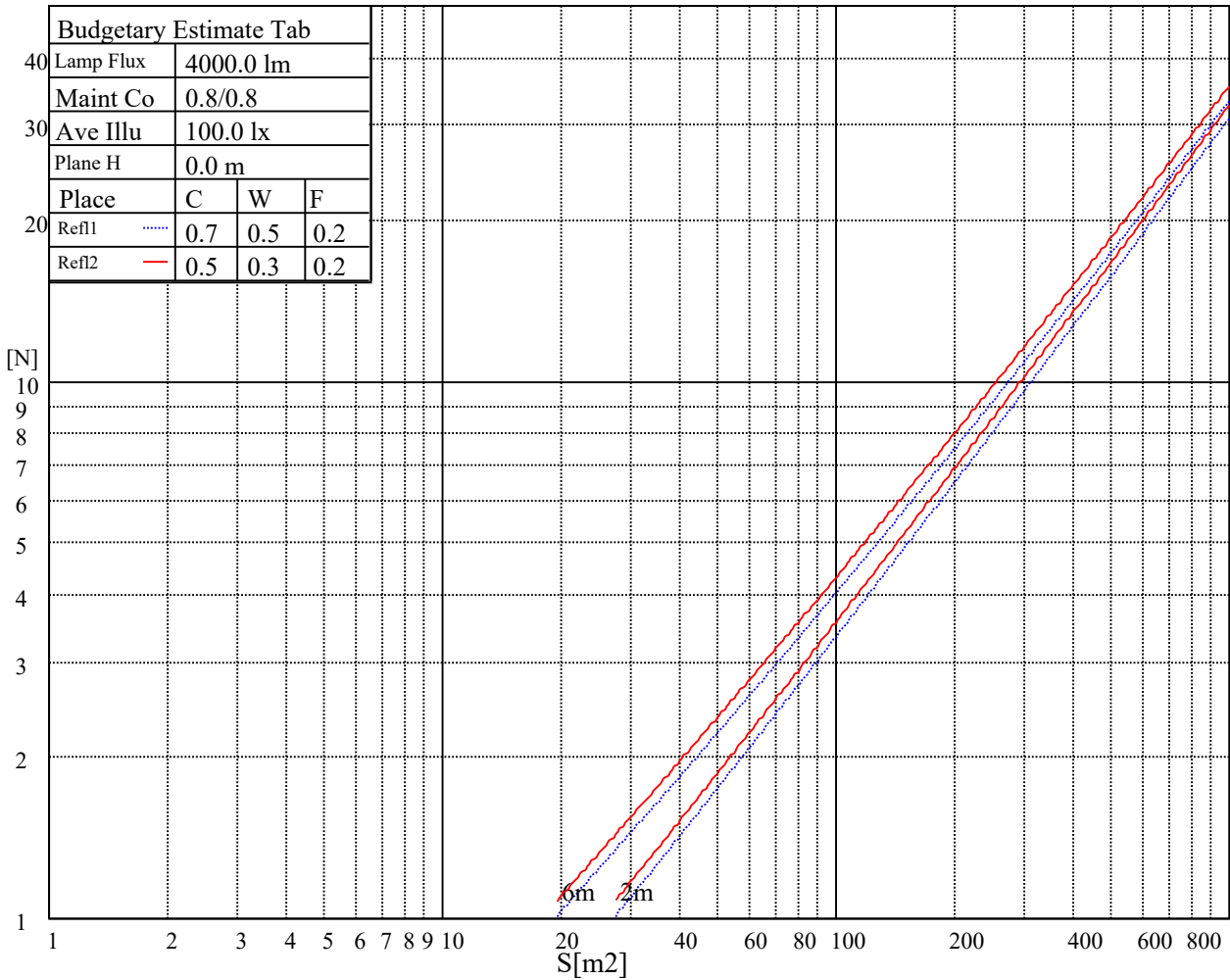
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4992	4992	4992	8090	8090	8090	24205	24205	24205

Glare Table

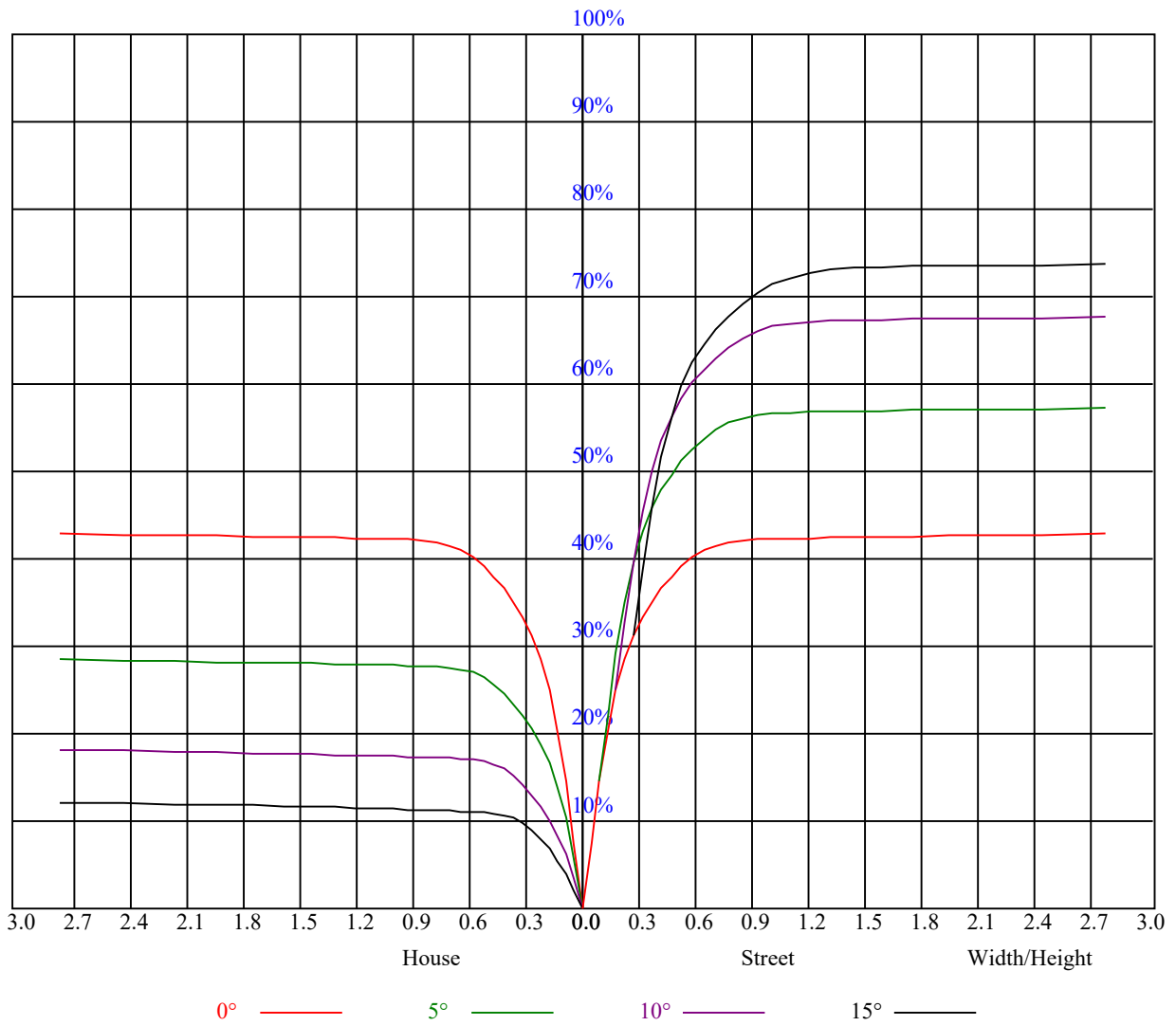
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve





RHOCC	80			70			50			30			10			0
RHOW	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	COEFFICIENTS OF UTILIZATION RHOF=20 CU															
0	1.08	1.08	1.08	1.05	1.05	1.05	1.00	1.00	1.00	0.95	0.95	0.95	0.91	0.91	0.91	0.89
1	1.01	0.99	0.97	0.99	0.97	0.96	0.95	0.93	0.92	0.91	0.90	0.89	0.87	0.87	0.86	0.84
2	0.96	0.92	0.90	0.94	0.91	0.88	0.90	0.88	0.86	0.87	0.86	0.84	0.85	0.83	0.82	0.80
3	0.91	0.87	0.84	0.89	0.86	0.83	0.87	0.84	0.81	0.84	0.82	0.80	0.82	0.80	0.78	0.77
4	0.86	0.82	0.79	0.85	0.81	0.78	0.83	0.80	0.77	0.81	0.78	0.76	0.79	0.77	0.75	0.74
5	0.83	0.78	0.75	0.82	0.78	0.75	0.80	0.76	0.74	0.78	0.75	0.73	0.76	0.74	0.72	0.71
6	0.79	0.75	0.72	0.78	0.74	0.71	0.77	0.73	0.71	0.75	0.72	0.70	0.74	0.71	0.69	0.68
7	0.76	0.72	0.69	0.76	0.71	0.68	0.74	0.71	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.66
8	0.73	0.69	0.66	0.73	0.69	0.66	0.72	0.68	0.66	0.71	0.67	0.65	0.70	0.67	0.65	0.64
9	0.71	0.67	0.64	0.70	0.66	0.64	0.69	0.66	0.63	0.69	0.65	0.63	0.68	0.65	0.63	0.62
10	0.69	0.64	0.62	0.68	0.64	0.62	0.67	0.64	0.61	0.67	0.63	0.61	0.66	0.63	0.61	0.60



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	20098.78	15456.52	7966.78	3017.68	1763.44	1406.48	1196.33	713.20	164.10
45.0	20098.78	15456.52	7966.78	3017.68	1763.44	1406.48	1196.33	713.20	164.10
90.0	20098.78	15456.52	7966.78	3017.68	1763.44	1406.48	1196.33	713.20	164.10
135.0	20098.78	15456.52	7966.78	3017.68	1763.44	1406.48	1196.33	713.20	164.10
180.0	20098.78	15456.52	7966.78	3017.68	1763.44	1406.48	1196.33	713.20	164.10
225.0	20098.78	15456.52	7966.78	3017.68	1763.44	1406.48	1196.33	713.20	164.10
270.0	20098.78	15456.52	7966.78	3017.68	1763.44	1406.48	1196.33	713.20	164.10
315.0	20098.78	15456.52	7966.78	3017.68	1763.44	1406.48	1196.33	713.20	164.10
360.0	20098.78	15456.52	7966.78	3017.68	1763.44	1406.48	1196.33	713.20	164.10

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	22.88	19.97	19.30	19.08	20.65	29.04	38.89	40.34	19.02
45.0	22.88	19.97	19.30	19.08	20.65	29.04	38.89	40.34	19.02
90.0	22.88	19.97	19.30	19.08	20.65	29.04	38.89	40.34	19.02
135.0	22.88	19.97	19.30	19.08	20.65	29.04	38.89	40.34	19.02
180.0	22.88	19.97	19.30	19.08	20.65	29.04	38.89	40.34	19.02
225.0	22.88	19.97	19.30	19.08	20.65	29.04	38.89	40.34	19.02
270.0	22.88	19.97	19.30	19.08	20.65	29.04	38.89	40.34	19.02
315.0	22.88	19.97	19.30	19.08	20.65	29.04	38.89	40.34	19.02
360.0	22.88	19.97	19.30	19.08	20.65	29.04	38.89	40.34	19.02

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	17.18	16.67	17.29	17.18	16.90	16.73	16.62	16.56	16.67
45.0	17.18	16.67	17.29	17.18	16.90	16.73	16.62	16.56	16.67
90.0	17.18	16.67	17.29	17.18	16.90	16.73	16.62	16.56	16.67
135.0	17.18	16.67	17.29	17.18	16.90	16.73	16.62	16.56	16.67
180.0	17.18	16.67	17.29	17.18	16.90	16.73	16.62	16.56	16.67
225.0	17.18	16.67	17.29	17.18	16.90	16.73	16.62	16.56	16.67
270.0	17.18	16.67	17.29	17.18	16.90	16.73	16.62	16.56	16.67
315.0	17.18	16.67	17.29	17.18	16.90	16.73	16.62	16.56	16.67
360.0	17.18	16.67	17.29	17.18	16.90	16.73	16.62	16.56	16.67

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	16.79	16.84	17.51	19.97	24.06	28.31	30.16	30.16	29.54
45.0	16.79	16.84	17.51	19.97	24.06	28.31	30.16	30.16	29.54
90.0	16.79	16.84	17.51	19.97	24.06	28.31	30.16	30.16	29.54
135.0	16.79	16.84	17.51	19.97	24.06	28.31	30.16	30.16	29.54
180.0	16.79	16.84	17.51	19.97	24.06	28.31	30.16	30.16	29.54
225.0	16.79	16.84	17.51	19.97	24.06	28.31	30.16	30.16	29.54
270.0	16.79	16.84	17.51	19.97	24.06	28.31	30.16	30.16	29.54
315.0	16.79	16.84	17.51	19.97	24.06	28.31	30.16	30.16	29.54
360.0	16.79	16.84	17.51	19.97	24.06	28.31	30.16	30.16	29.54

C/γ(°)	180.0
0.0	29.15
45.0	29.15
90.0	29.15
135.0	29.15
180.0	29.15
225.0	29.15
270.0	29.15
315.0	29.15
360.0	29.15