
Nata

LumCAT: 1651-S
Luminaire: 92.70.044.00
Report No: NT2017121101
Test No: nata-0100
LampCAT: LUMIEDS 1202S
Lamp flux(lm): 1251.0
Number of Lamps: 1
Length(mm): 22
Phm Type: C

Voltage(V): 38.3000
Current(A): 0.3000
Power (W): 11.4900
PF: 0.0000
Ballast type: DC
Width(mm): 22
Height(mm): 0

Photometric Results

Lumens(lm): 1133.26
Efficiency(%): 90.59%
Lumens(lm)/Power(W): 100.43
Central intensity(cd): 3632.071
Maximum intensity(cd): 3632.071
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=23.4
 [C90/270]Total=23.4
Field angle(10%Imax): [C0/180]Total=65.5
 [C90/270]Total=65.5
Maximum s/h(1/2): C0_180=0.40 C90_270=0.40
Maximum s/h(1/4): C0_180=0.41 C90_270=0.41
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 92.24%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 96.934%

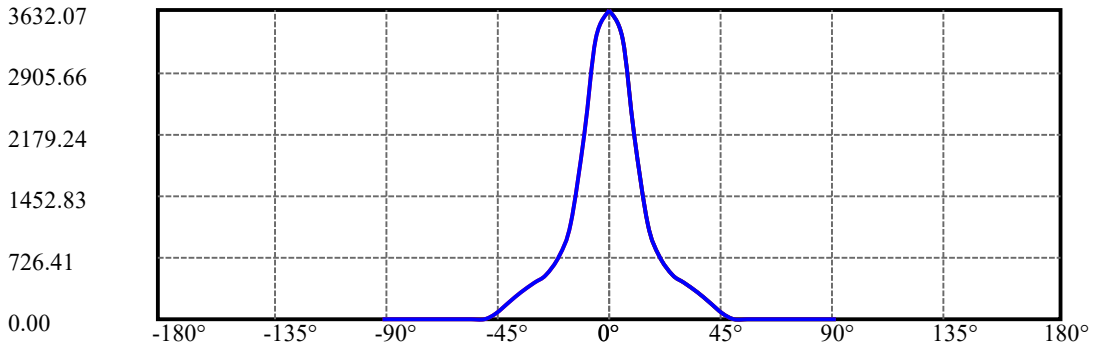
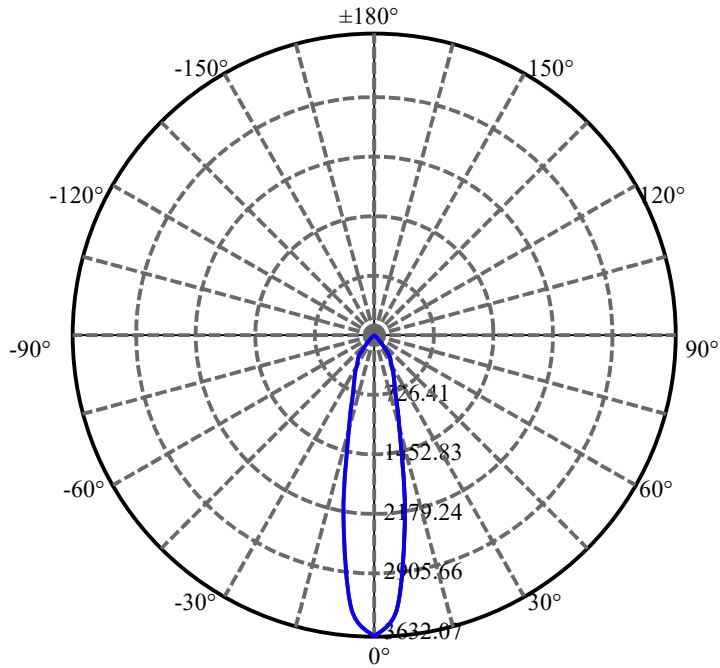
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3632.071	21.721	21.721	1.736%	1.917%
5.0	3287.831	157.071	178.791	12.556%	15.777%
10.0	2174.659	206.991	385.782	16.546%	34.042%
15.0	1123.508	159.390	545.172	12.741%	48.107%
20.0	734.969	137.788	682.96	11.014%	60.265%
25.0	520.992	120.689	803.649	9.647%	70.915%
30.0	418.140	114.599	918.248	9.161%	81.027%
35.0	317.675	99.877	1018.125	7.984%	89.841%
40.0	194.452	68.513	1086.637	5.477%	95.886%
45.0	56.894	22.052	1108.689	1.763%	97.832%
50.0	10.743	4.511	1113.2	.361%	98.230%
55.0	6.235	2.800	1115.999	.224%	98.477%
60.0	5.320	2.525	1118.525	.202%	98.700%
65.0	5.196	2.581	1121.106	.206%	98.928%
70.0	5.141	2.648	1123.754	.212%	99.161%
75.0	5.086	2.693	1126.447	.215%	99.399%
80.0	5.058	2.731	1129.177	.218%	99.640%
85.0	5.079	2.773	1131.95	.222%	99.885%
90.0	4.769	1.307	1133.258	.104%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	918.25	73.40%	81.03%
0-40	1086.64	86.86%	95.89%
0-60	1118.52	89.41%	98.70%
0-90	1131.95	90.48%	99.88%
0-120	1131.95	90.48%	99.88%
0-180	1133.26	90.59%	100.00%
60-90	15.95	1.28%	1.41%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-29.49	906.61	72.47%	80.00%

ZONAL LUMEN SUMMARY

0-10	385.78
10-20	297.18
20-30	235.29
30-40	168.39
40-50	26.56
50-60	5.32
60-70	5.23
70-80	5.42
80-90	2.77
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



C0(Max): —————

C0/C180: —————

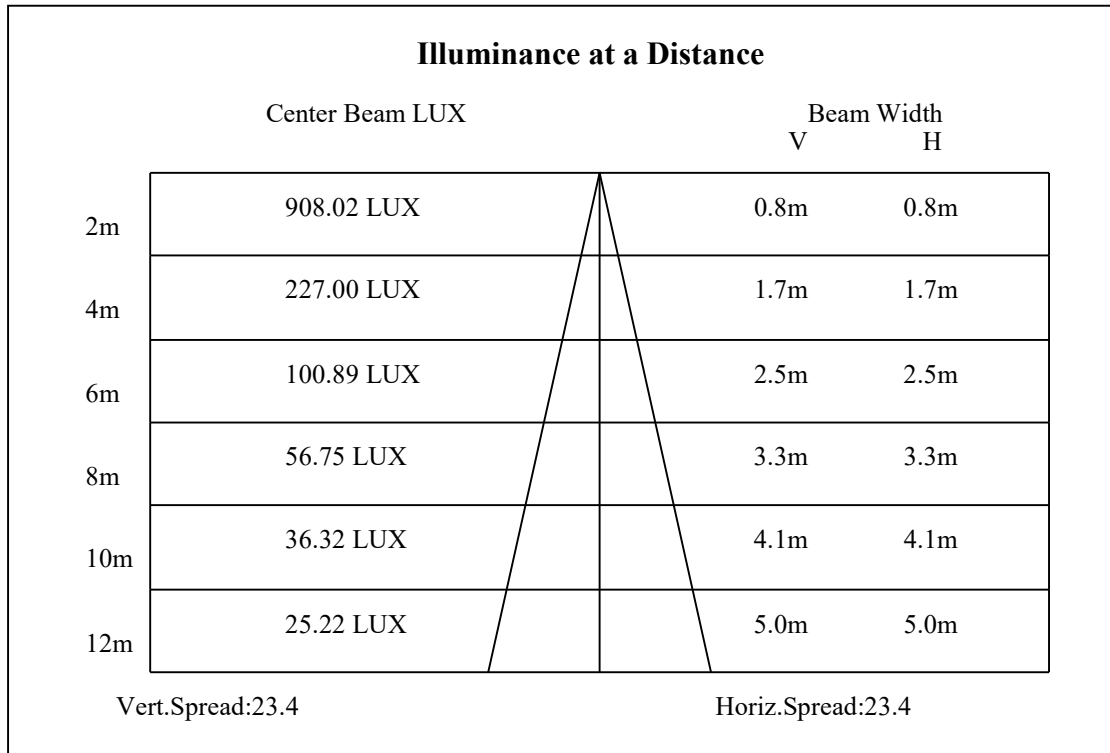
C90/C270: —————

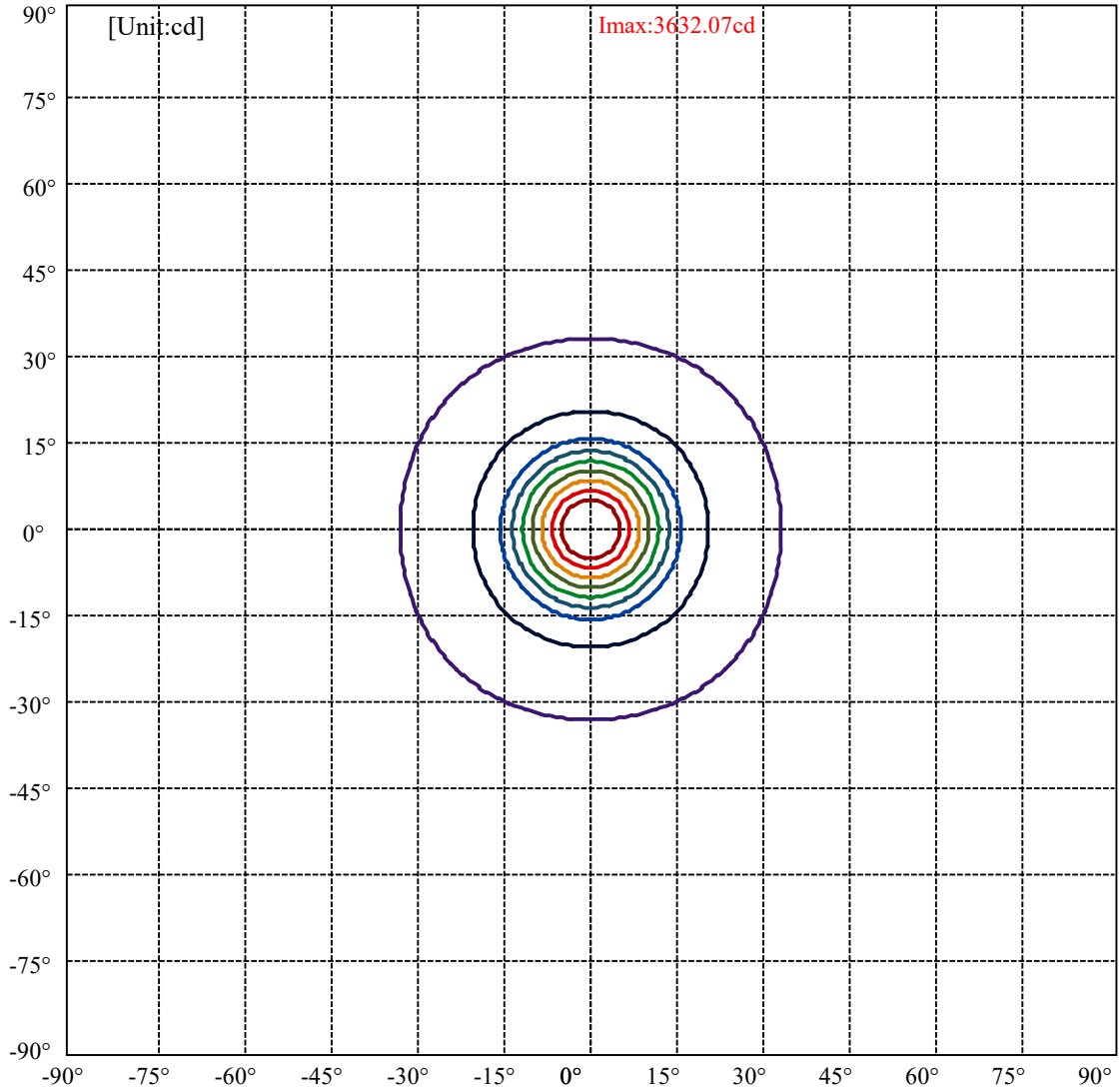
Field angle(10%Imax):C0/180Left:32.7 Right:32.7

:C90/270Left:32.7 Right:32.7

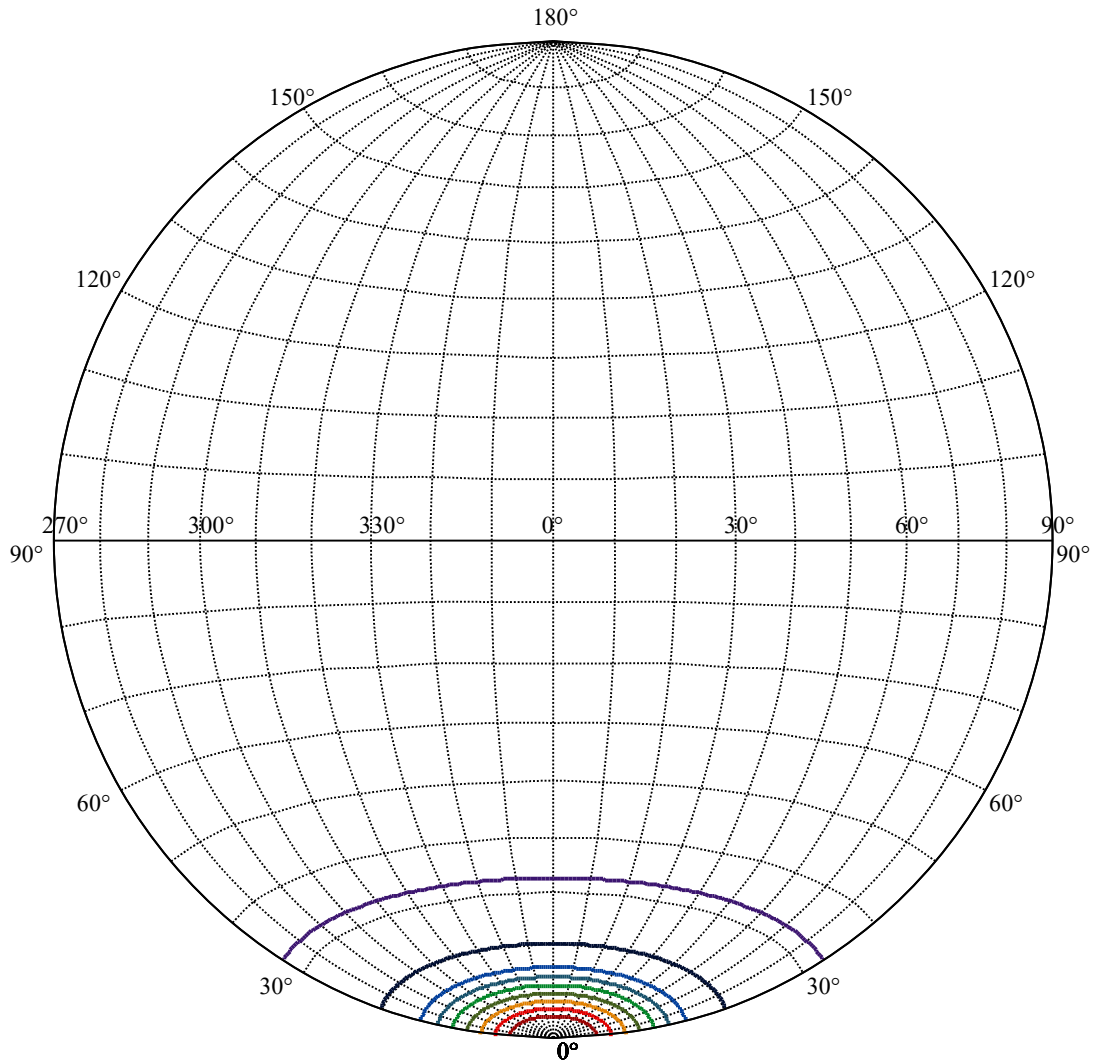
Beam Angle(50%Imax):C0/180Left:11.7 Right:11.7

:C90/270Left:11.7 Right:11.7





(10%Imax) 363.207	—
(20%Imax) 726.414	—
(30%Imax) 1089.62	—
(40%Imax) 1452.83	—
(50%Imax) 1816.04	—
(60%Imax) 2179.24	—
(70%Imax) 2542.45	—
(80%Imax) 2905.66	—
(90%Imax) 3268.86	—



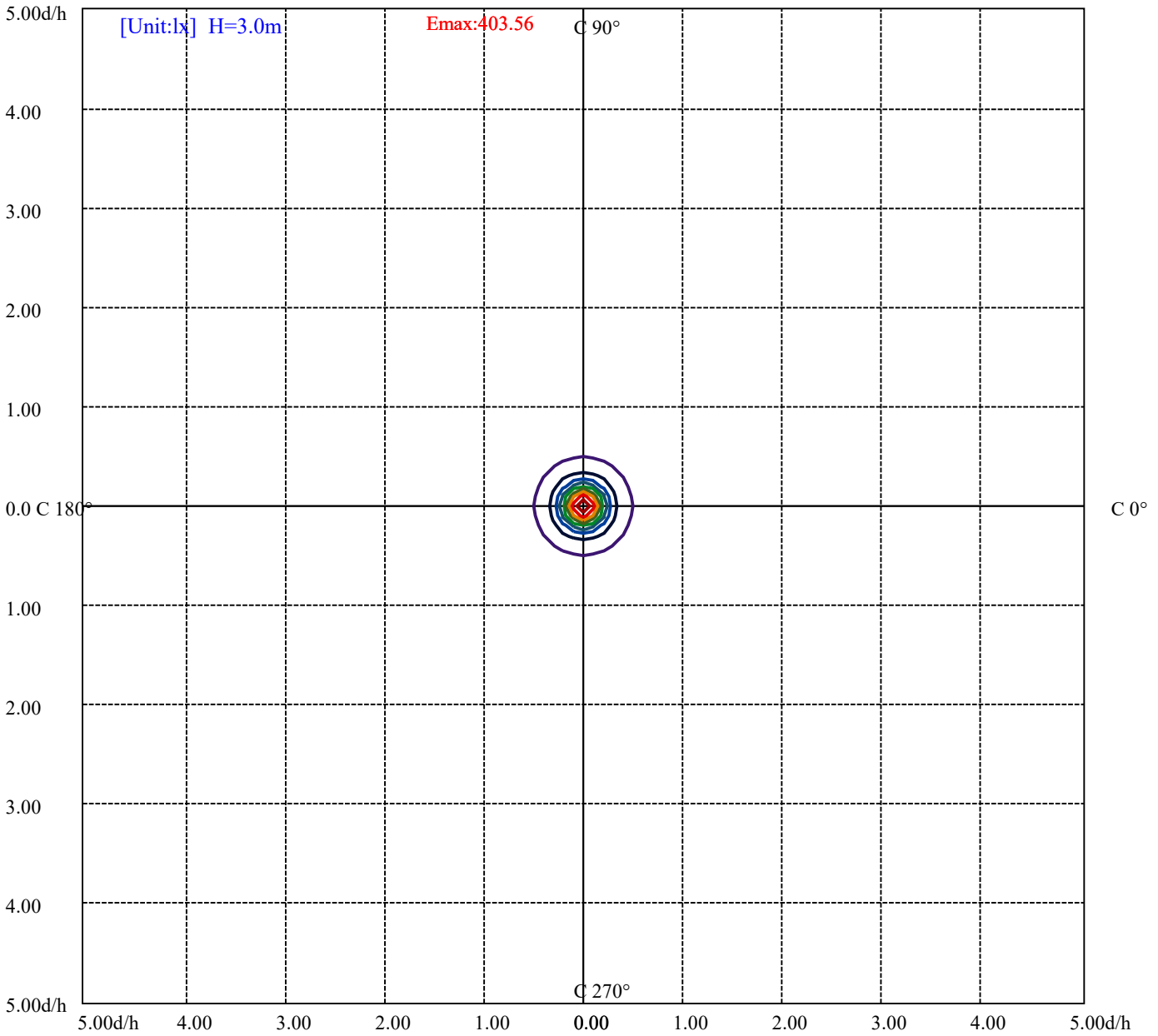
House

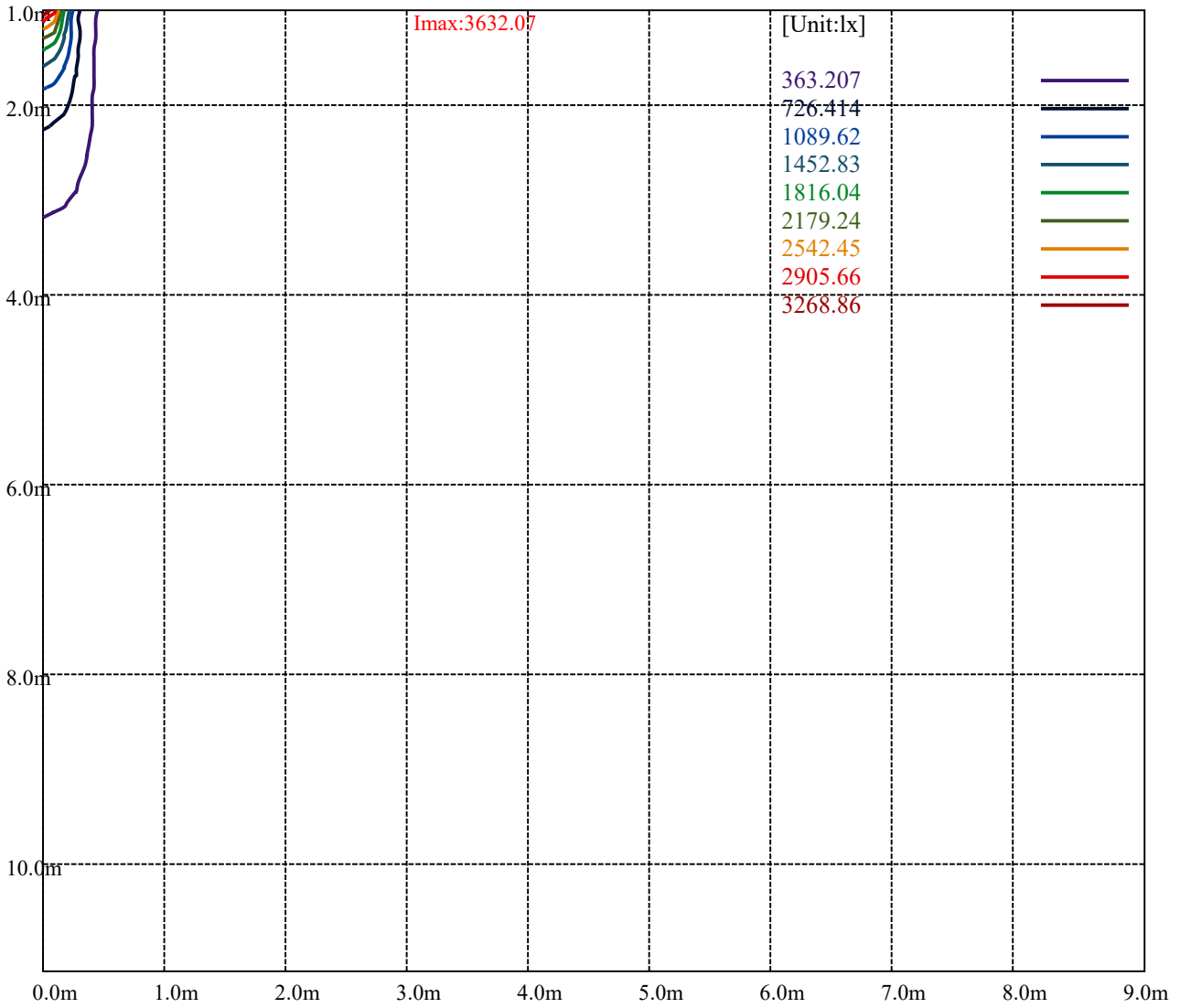
[Unit:cd]

Road

Imax:3632.07

(10%Imax)	363.207	—
(20%Imax)	726.414	—
(30%Imax)	1089.62	—
(40%Imax)	1452.83	—
(50%Imax)	1816.04	—
(60%Imax)	2179.24	—
(70%Imax)	2542.45	—
(80%Imax)	2905.66	—
(90%Imax)	3268.86	—





Luminance Table

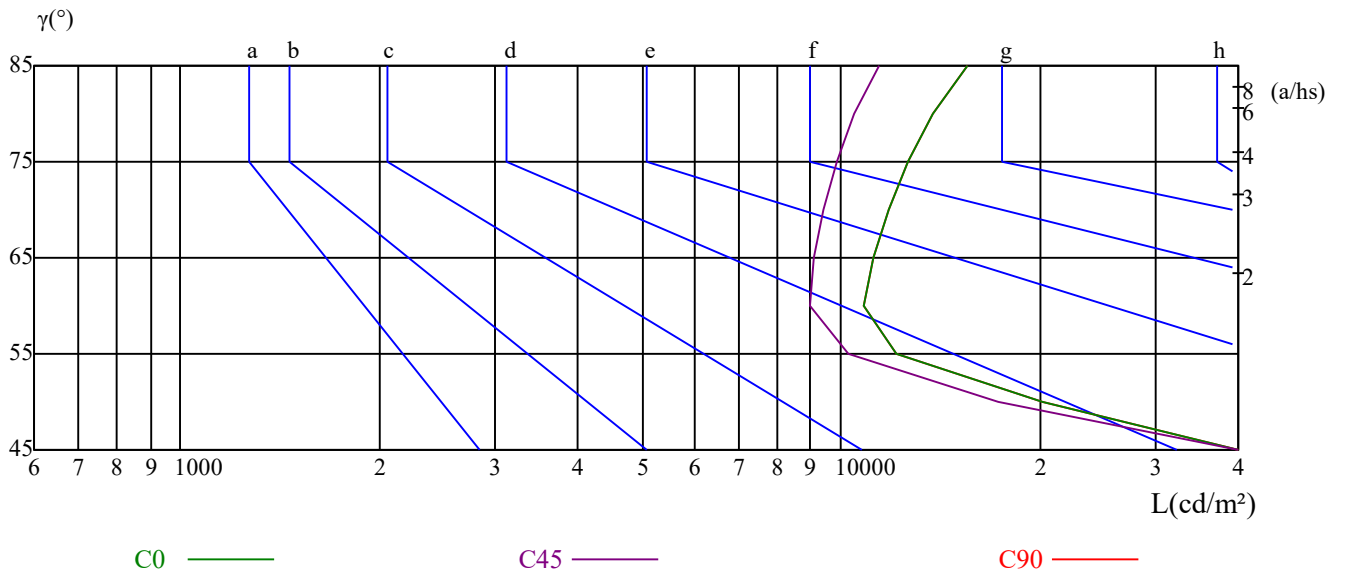
γ	45	50	55	60	65	70	75	80	85
C0	104494	20262	12181	10864	11204	11837	12666	13832	15527
C45	90561	17301	10240	8982	9098	9422	9857	10486	11411
C90	104494	20262	12181	10864	11204	11837	12666	13832	15527

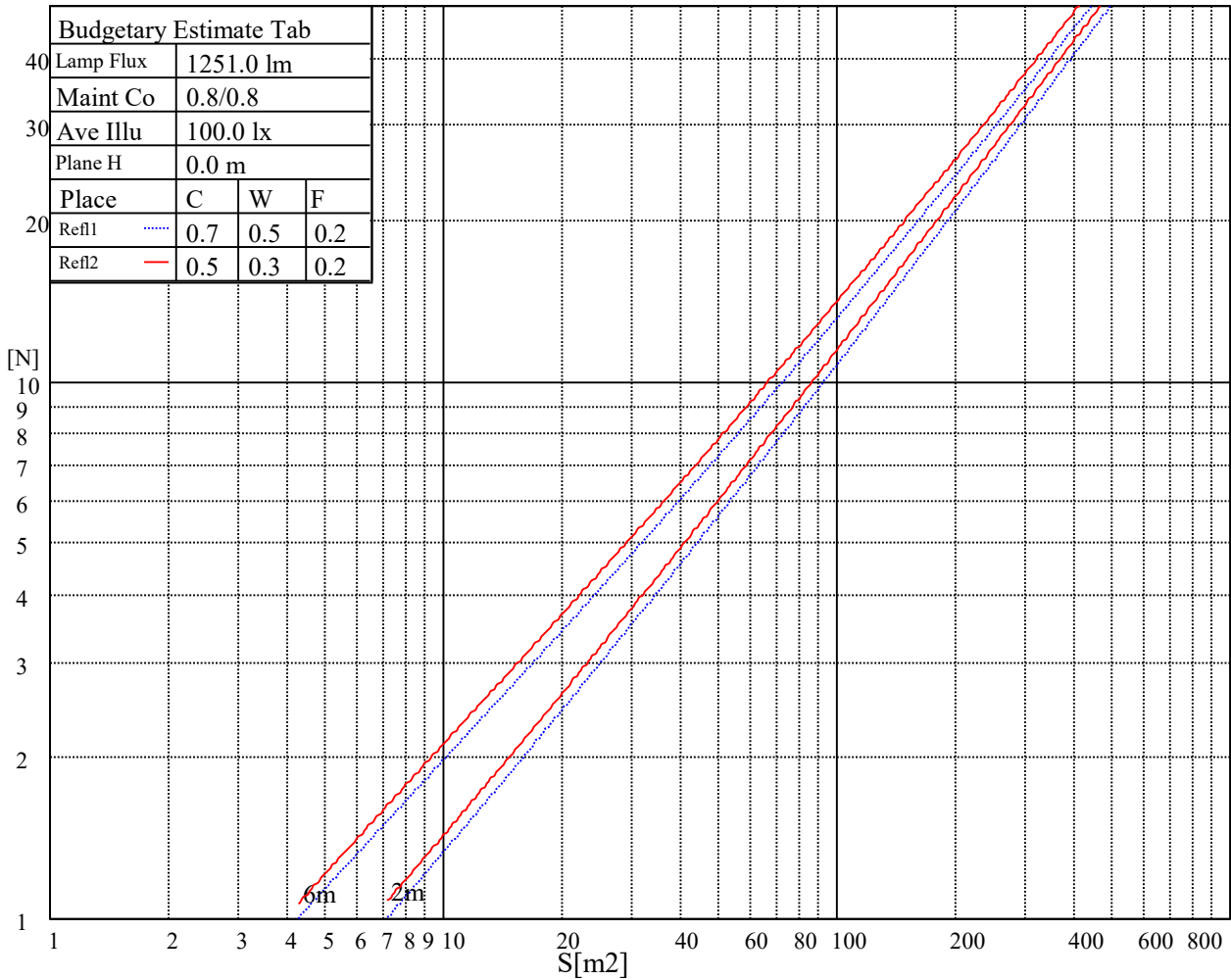
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
25402	25402	25402	40600	40600	40600	120402	120402	120402

Glare Table

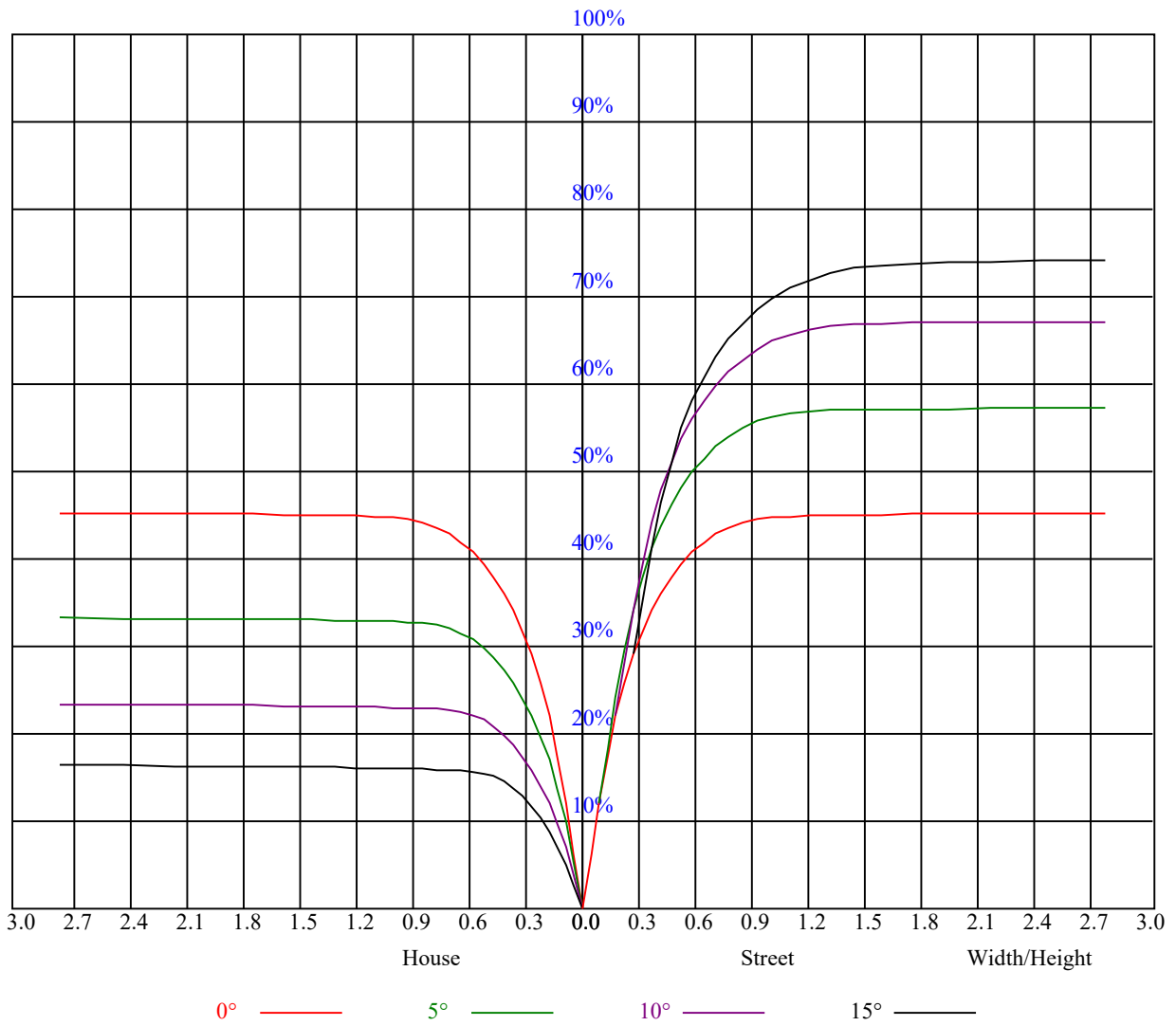
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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 RHOFC=20 CU															
0	1.10	1.10	1.10	1.07	1.07	1.07	1.02	1.02	1.02	0.98	0.98	0.98	0.94	0.94	0.94	0.92
1	1.01	0.98	0.96	0.99	0.96	0.94	0.95	0.93	0.91	0.92	0.90	0.89	0.88	0.87	0.86	0.84
2	0.95	0.91	0.88	0.93	0.90	0.87	0.90	0.88	0.85	0.88	0.85	0.84	0.85	0.83	0.82	0.80
3	0.90	0.86	0.82	0.89	0.85	0.82	0.86	0.83	0.80	0.84	0.81	0.79	0.82	0.80	0.78	0.76
4	0.86	0.81	0.77	0.84	0.80	0.77	0.83	0.79	0.76	0.81	0.78	0.75	0.79	0.76	0.74	0.73
5	0.82	0.77	0.73	0.81	0.76	0.73	0.79	0.75	0.72	0.78	0.74	0.72	0.76	0.73	0.71	0.70
6	0.78	0.73	0.70	0.77	0.73	0.69	0.76	0.72	0.69	0.75	0.71	0.69	0.74	0.70	0.68	0.67
7	0.75	0.70	0.67	0.74	0.70	0.66	0.73	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.65	0.64
8	0.72	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.63	0.69	0.66	0.63	0.69	0.65	0.63	0.62
9	0.69	0.64	0.61	0.69	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.61	0.66	0.63	0.61	0.60
10	0.67	0.62	0.59	0.66	0.62	0.59	0.66	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.59	0.58



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	3638.68	3417.35	2486.35	1324.66	806.03	572.59	443.75	357.87	280.79
45.0	3622.16	3153.63	1892.84	1011.39	654.07	483.95	396.41	280.79	149.26
90.0	3613.90	2985.16	1722.16	906.94	629.74	460.33	373.67	257.00	123.71
135.0	3653.54	3253.83	2055.26	1091.22	697.01	500.46	406.87	293.45	153.44
180.0	3638.68	3140.42	1910.46	1018.38	661.23	478.99	395.80	276.82	131.86
225.0	3622.16	3455.34	2457.72	1083.90	815.88	557.34	442.65	353.85	221.66
270.0	3613.90	3520.86	2610.22	1457.34	870.44	581.95	454.22	379.89	281.34
315.0	3653.54	3376.06	2262.27	1094.25	745.35	532.34	431.75	341.74	213.56
360.0	3638.68	3417.35	2486.35	1324.66	806.03	572.59	443.75	357.87	280.79
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	85.23	11.23	6.55	5.29	5.18	5.12	5.07	5.07	5.12
45.0	29.12	8.86	5.51	5.34	5.23	5.23	5.18	5.12	5.12
90.0	18.44	8.53	5.51	5.29	5.23	5.18	5.12	5.12	5.18
135.0	42.23	9.36	5.62	5.34	5.23	5.18	5.12	5.12	5.12
180.0	29.68	9.30	5.56	5.34	5.18	5.18	5.07	5.07	5.18
225.0	79.89	11.89	6.94	5.40	5.29	5.18	5.12	5.07	5.01
270.0	100.31	15.25	7.87	5.34	5.18	5.07	5.01	4.96	4.96
315.0	70.25	11.51	6.33	5.23	5.07	5.01	5.01	4.96	4.96
360.0	85.23	11.23	6.55	5.29	5.18	5.12	5.07	5.07	5.12
C/ γ (°)	90.0								
0.0	4.73								
45.0	4.79								
90.0	4.79								
135.0	4.73								
180.0	4.73								
225.0	4.84								
270.0	4.79								
315.0	4.73								
360.0	4.73								