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Nata

LumCAT: 2-1550-A2	
Luminaire: 92.76.375.00	
Report No: NATA0100	Voltage(V): 35.3000
Test No: GC201709012	Current(A): 0.9000
LampCAT: Vero SE 18	Power (W): 31.7700
Lamp flux(lm): 3422.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 70	Width(mm): 70
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 3030.25
Efficiency(%): 88.55%
Lumens(lm)/Power(W): 96.38
Central intensity(cd): 5804.872
Maximum intensity(cd): 5804.872
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=40.3
 [C90/270]Total=40.3
Field angle(10%Imax): [C0/180]Total=72.7
 [C90/270]Total=72.7
Maximum s/h(1/2): C0_180=0.66 C90_270=0.66
Maximum s/h(1/4): C0_180=0.64 C90_270=0.64
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 89.48%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.697%

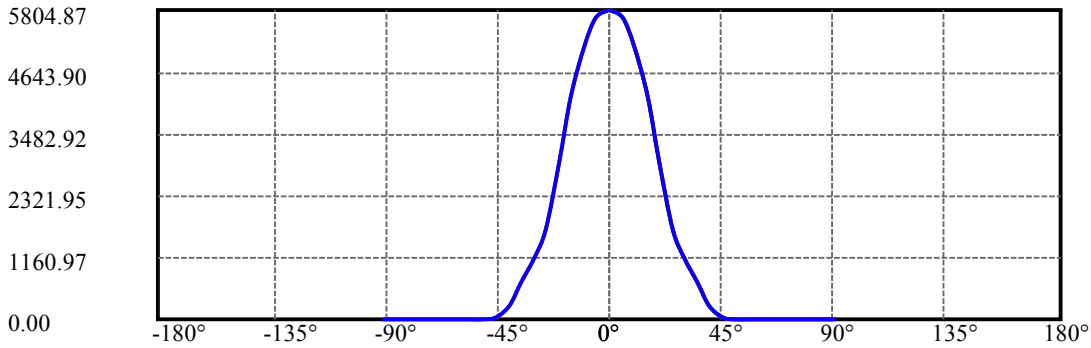
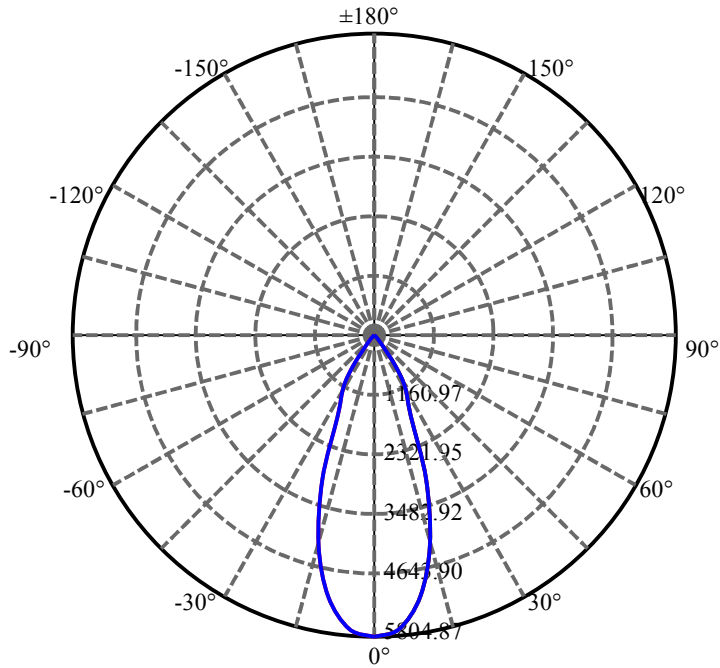
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5804.872	34.714	34.714	1.014%	1.146%
5.0	5670.259	270.887	305.601	7.916%	10.085%
10.0	5120.796	487.413	793.014	14.244%	26.170%
15.0	4186.145	593.882	1386.896	17.355%	45.768%
20.0	2944.347	551.989	1938.885	16.131%	63.984%
25.0	1701.656	394.193	2333.078	11.519%	76.993%
30.0	1163.018	318.747	2651.825	9.315%	87.512%
35.0	700.779	220.324	2872.149	6.438%	94.783%
40.0	249.041	87.746	2959.895	2.564%	97.678%
45.0	32.242	12.497	2972.392	.365%	98.091%
50.0	15.010	6.303	2978.694	.184%	98.299%
55.0	14.198	6.375	2985.069	.186%	98.509%
60.0	13.702	6.504	2991.574	.190%	98.724%
65.0	13.406	6.660	2998.234	.195%	98.943%
70.0	13.289	6.845	3005.079	.200%	99.169%
75.0	13.413	7.102	3012.18	.208%	99.404%
80.0	13.592	7.337	3019.517	.214%	99.646%
85.0	13.324	7.275	3026.793	.213%	99.886%
90.0	12.622	3.459	3030.252	.101%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2651.82	77.49%	87.51%
0-40	2959.89	86.50%	97.68%
0-60	2991.57	87.42%	98.72%
0-90	3026.79	88.45%	99.89%
0-120	3026.79	88.45%	99.89%
0-180	3030.25	88.55%	100.00%
60-90	41.72	1.22%	1.38%
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%
0-26.43	2424.20	70.84%	80.00%

ZONAL LUMEN SUMMARY

0-10	793.01
10-20	1145.87
20-30	712.94
30-40	308.07
40-50	18.80
50-60	12.88
60-70	13.50
70-80	14.44
80-90	7.28
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: —————

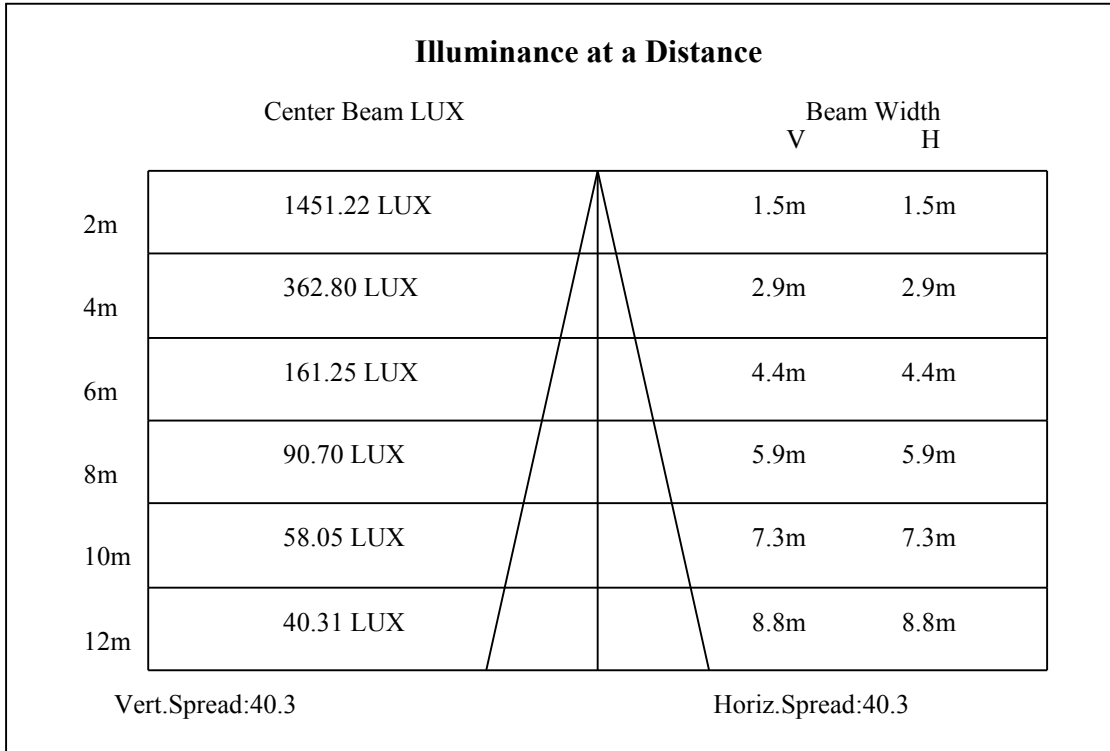
C90/C270: —————

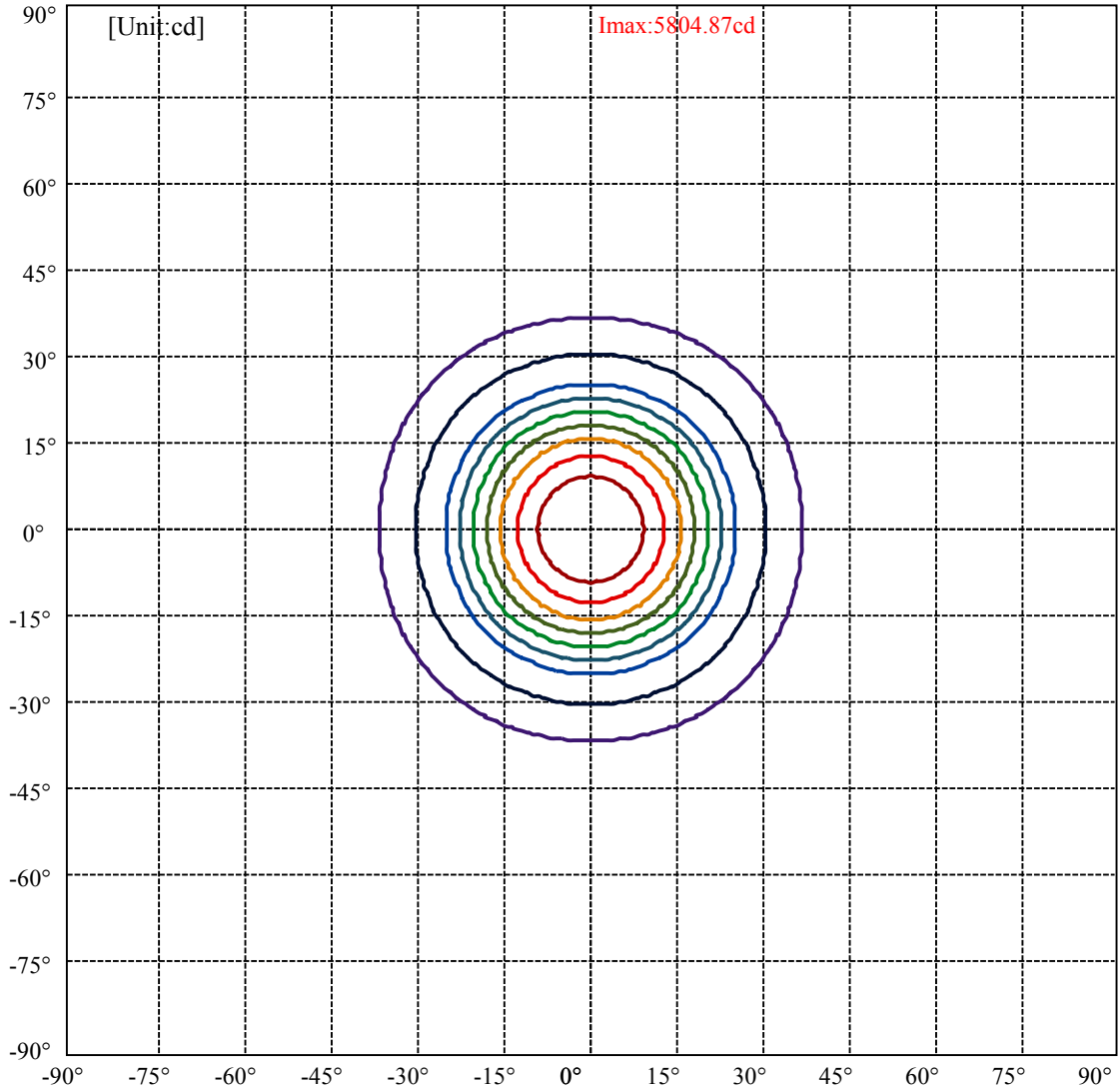
Field angle(10%Imax):C0/180Left:36.3 Right:36.3

:C90/270Left:36.3 Right:36.3

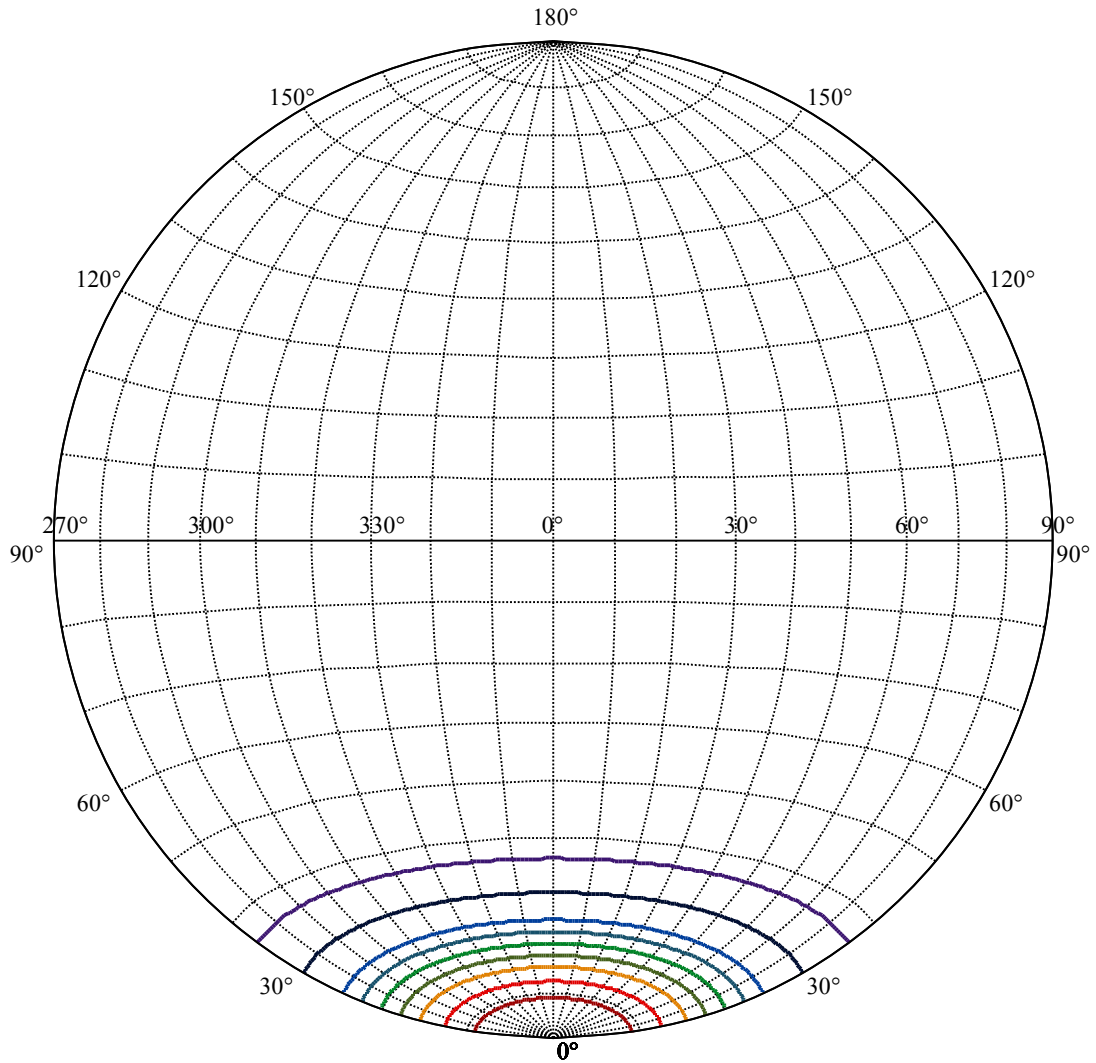
Beam Angle(50%Imax):C0/180Left:20.2 Right:20.2

:C90/270Left:20.2 Right:20.2





(10%Imax) 580.487	—
(20%Imax) 1160.97	—
(30%Imax) 1741.46	—
(40%Imax) 2321.95	—
(50%Imax) 2902.44	—
(60%Imax) 3482.92	—
(70%Imax) 4063.41	—
(80%Imax) 4643.9	—
(90%Imax) 5224.38	—



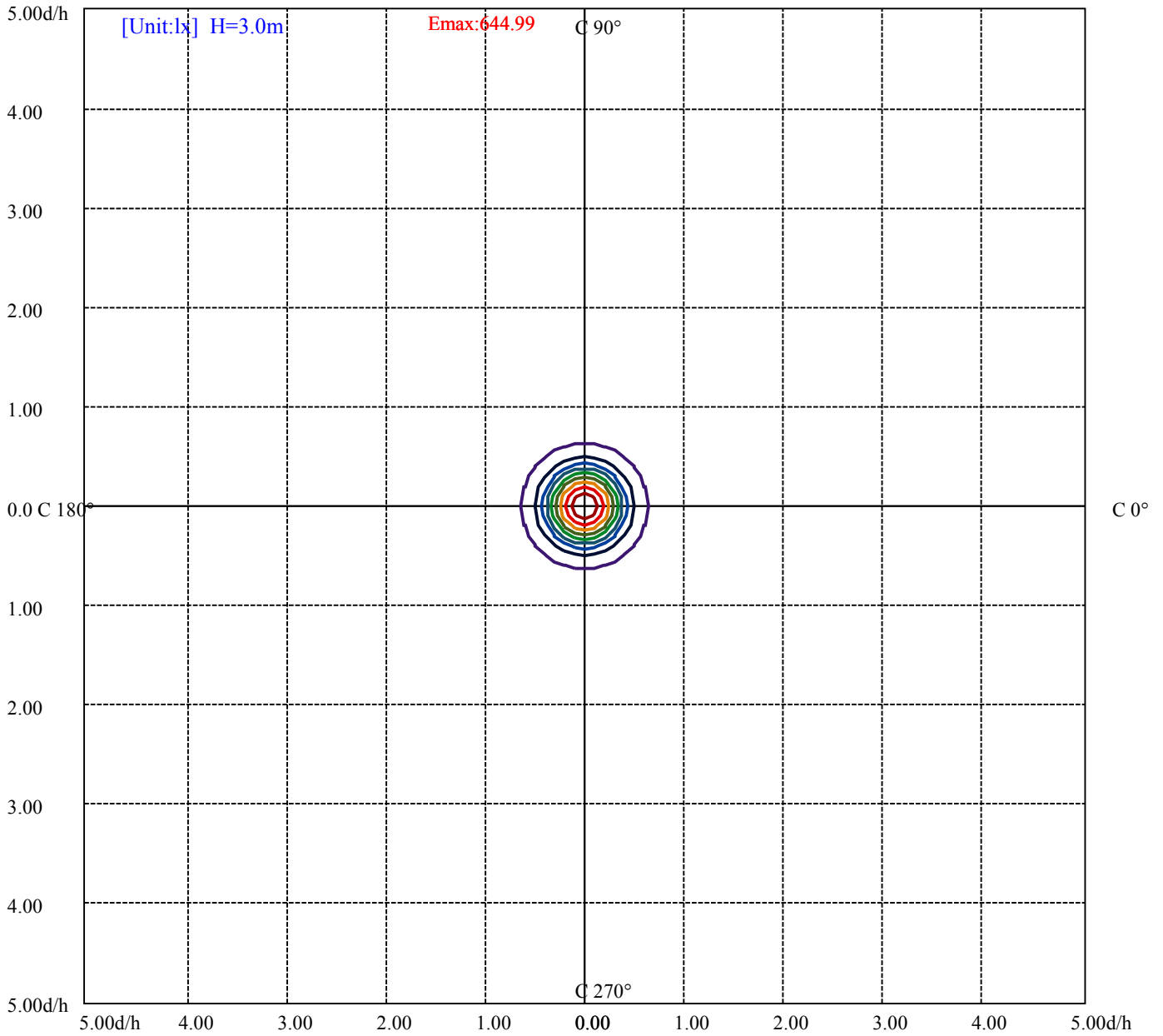
House

[Unit:cd]

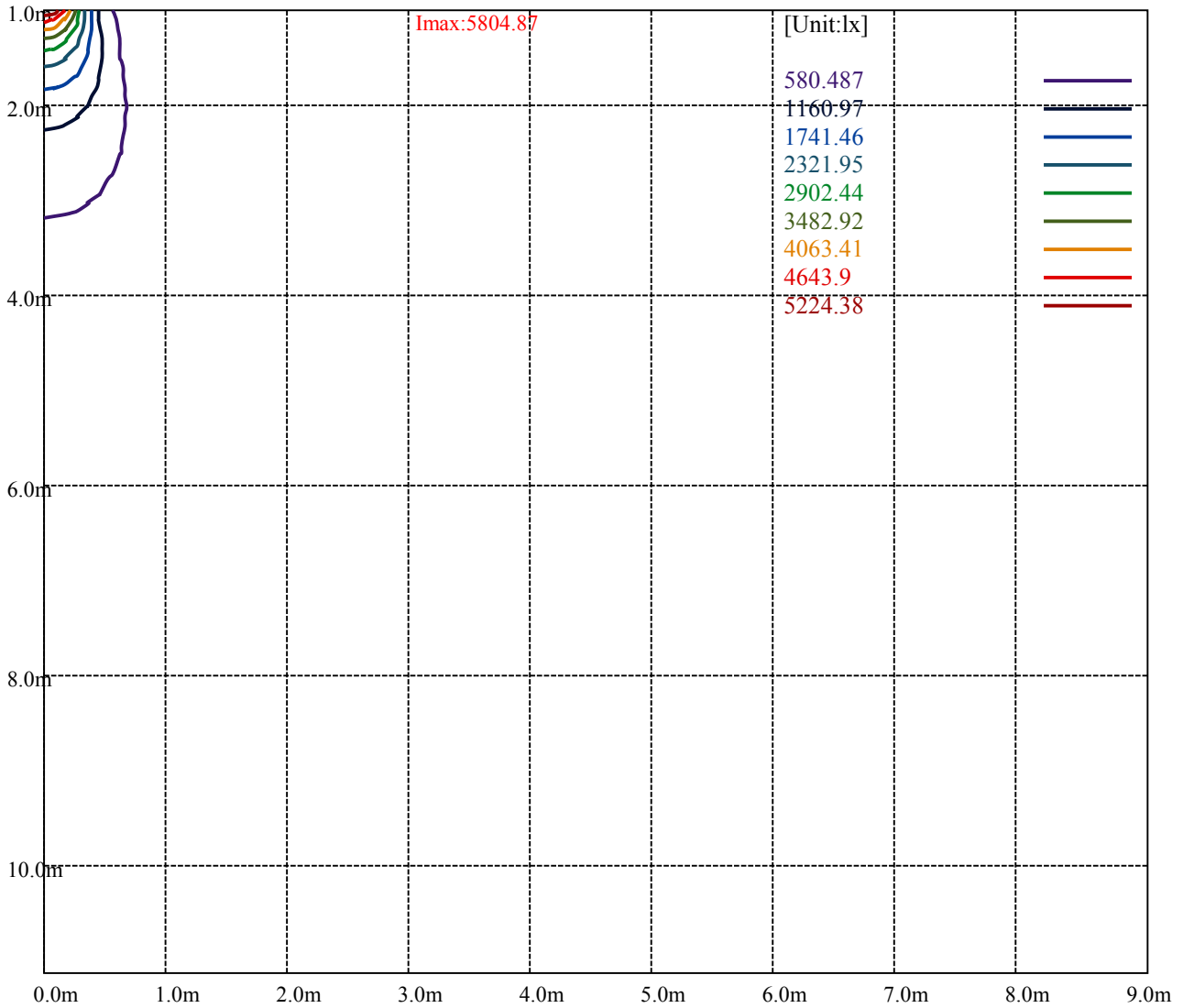
Road

Imax:5804.87

(10%Imax)	580.487	—
(20%Imax)	1160.97	—
(30%Imax)	1741.46	—
(40%Imax)	2321.95	—
(50%Imax)	2902.44	—
(60%Imax)	3482.92	—
(70%Imax)	4063.41	—
(80%Imax)	4643.9	—
(90%Imax)	5224.38	—



- (10%Emax) 64.49856 ———
- (20%Emax) 128.9967 ———
- (30%Emax) 193.4955 ———
- (40%Emax) 257.9944 ———
- (50%Emax) 322.4922 ———
- (60%Emax) 386.9911 ———
- (70%Emax) 451.49 ———
- (80%Emax) 515.9878 ———
- (90%Emax) 580.4866 ———



Luminance Table

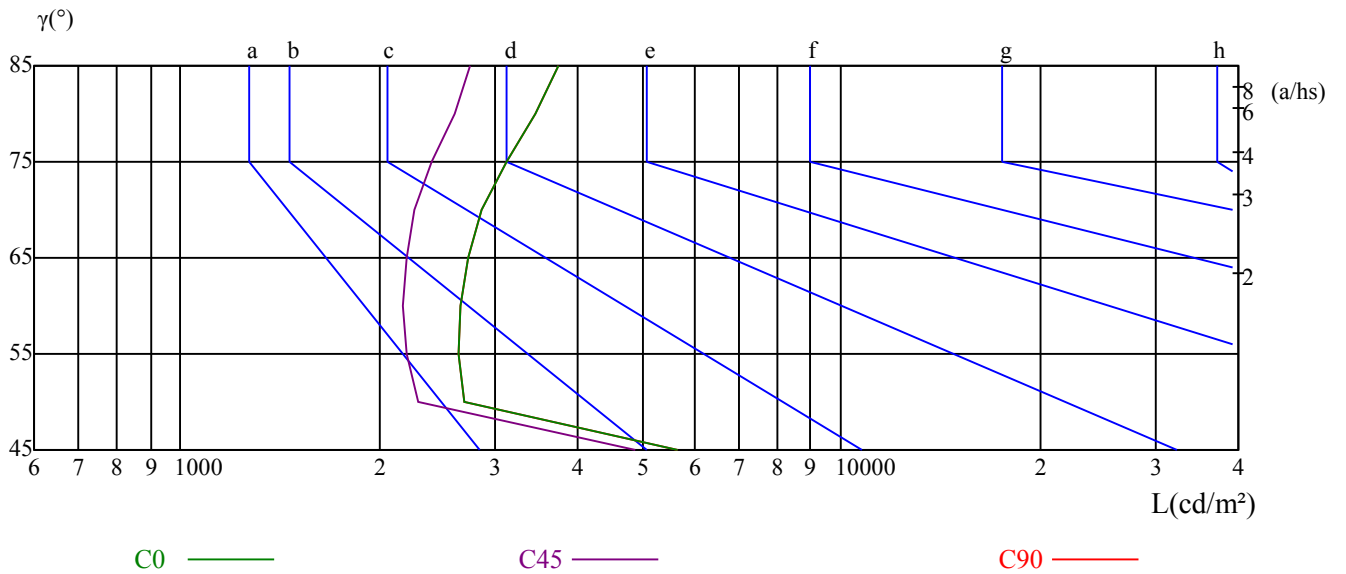
γ	45	50	55	60	65	70	75	80	85
C0	5664	2698	2634	2646	2722	2867	3111	3438	3737
C45	4874	2287	2198	2172	2195	2267	2408	2595	2739
C90	5664	2698	2634	2646	2722	2867	3111	3438	3737

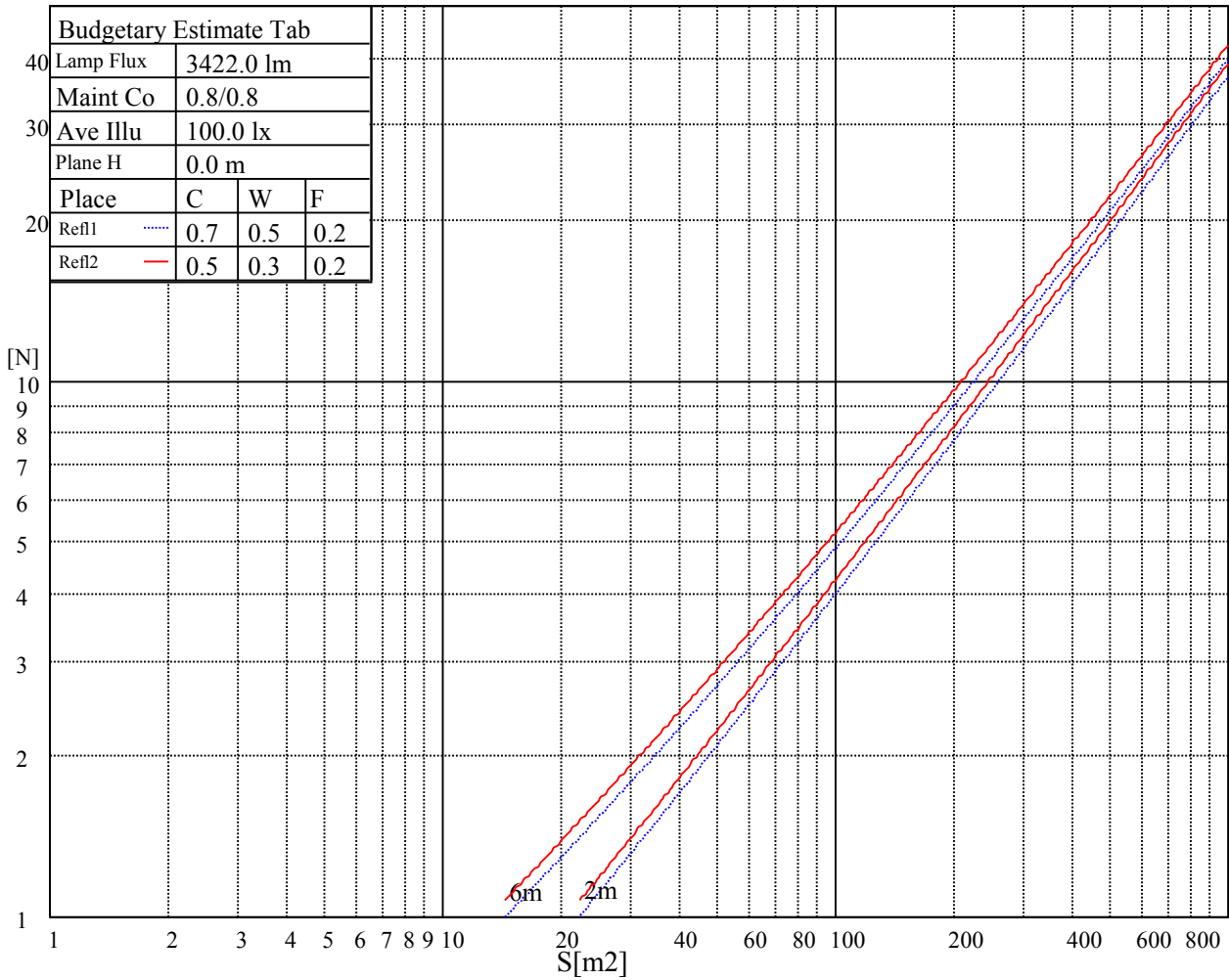
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6474	6474	6474	10576	10576	10576	31198	31198	31198

Glare Table

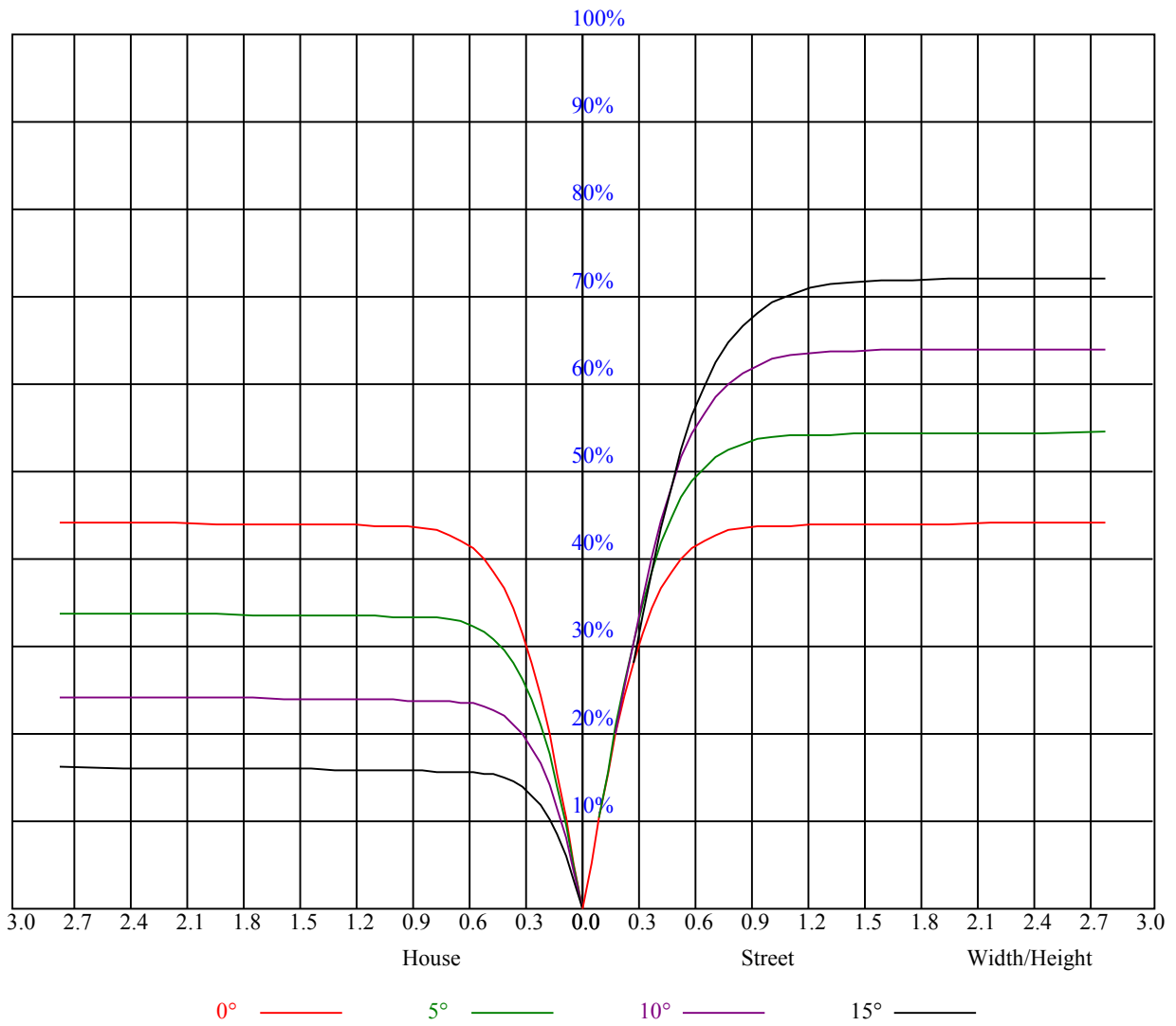
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.07	1.07	1.07	1.04	1.04	1.04	0.99	0.99	0.99	0.95	0.95	0.95	0.91	0.91	0.91	0.89
1	0.99	0.96	0.94	0.97	0.95	0.93	0.93	0.92	0.90	0.90	0.89	0.87	0.87	0.86	0.85	0.83
2	0.93	0.90	0.87	0.92	0.89	0.86	0.89	0.86	0.84	0.86	0.84	0.82	0.84	0.82	0.81	0.79
3	0.88	0.84	0.81	0.87	0.84	0.81	0.85	0.82	0.79	0.83	0.80	0.78	0.81	0.79	0.77	0.76
4	0.84	0.80	0.76	0.83	0.79	0.76	0.81	0.78	0.75	0.79	0.77	0.74	0.78	0.75	0.73	0.72
5	0.80	0.76	0.72	0.79	0.75	0.72	0.78	0.74	0.72	0.76	0.73	0.71	0.75	0.72	0.70	0.69
6	0.77	0.72	0.69	0.76	0.72	0.69	0.75	0.71	0.68	0.74	0.70	0.68	0.72	0.70	0.67	0.66
7	0.73	0.69	0.66	0.73	0.69	0.66	0.72	0.68	0.65	0.71	0.68	0.65	0.70	0.67	0.65	0.64
8	0.71	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.63	0.68	0.65	0.62	0.68	0.64	0.62	0.61
9	0.68	0.64	0.61	0.67	0.63	0.60	0.67	0.63	0.60	0.66	0.63	0.60	0.65	0.62	0.60	0.59
10	0.65	0.61	0.58	0.65	0.61	0.58	0.64	0.61	0.58	0.64	0.60	0.58	0.63	0.60	0.58	0.57



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	5790.28	5702.19	5219.90	4310.37	3115.09	1836.13	1257.49	781.80	319.88
45.0	5817.26	5662.00	5112.54	4165.57	2963.14	1702.34	1196.38	661.23	279.14
90.0	5809.00	5657.60	5071.80	4082.43	2862.93	1662.70	1088.19	651.65	198.70
135.0	5802.94	5705.49	5186.31	4335.69	3124.45	1788.78	1266.85	777.95	298.41
180.0	5790.28	5633.92	4995.27	4005.35	2676.84	1552.04	1088.47	627.59	172.66
225.0	5817.26	5706.05	5164.29	4279.53	2986.26	1695.74	1078.11	715.24	248.25
270.0	5809.00	5695.03	5219.90	4285.04	3115.09	1778.87	1232.71	754.27	280.79
315.0	5802.94	5599.79	4996.37	4025.17	2710.98	1596.64	1095.95	636.51	194.51
360.0	5790.28	5702.19	5219.90	4310.37	3115.09	1836.13	1257.49	781.80	319.88

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	35.73	14.98	14.15	13.60	13.27	13.16	13.49	13.87	13.32
45.0	29.12	14.87	14.15	13.71	13.32	13.16	12.99	12.88	12.88
90.0	29.73	15.14	14.31	13.87	13.49	13.32	13.27	12.88	12.88
135.0	30.06	15.31	14.42	13.98	13.71	13.76	14.65	15.58	14.42
180.0	28.13	14.59	13.87	13.49	13.27	13.27	13.10	12.94	12.99
225.0	34.58	14.98	14.15	13.54	13.32	13.05	12.88	12.83	12.88
270.0	31.99	15.25	14.26	13.71	13.38	13.16	13.16	13.16	13.32
315.0	38.59	14.98	14.26	13.71	13.49	13.43	13.76	14.59	13.87
360.0	35.73	14.98	14.15	13.60	13.27	13.16	13.49	13.87	13.32

C/γ(°)	90.0
0.0	12.55
45.0	12.72
90.0	12.61
135.0	12.61
180.0	12.50
225.0	12.72
270.0	12.66
315.0	12.61
360.0	12.55