



NATA LIGHTING CO.,LTD
www.nata.cn
Email:info@nata.cn
Tel:+86 0750-377 0000(10 lines) Fax:+86 0750-377 1111
Address:380JinOu Road,Gaoxin Zone,Jiang Men City,Guangdong,China

Nata

LumCAT: 3-1938-M	
Luminaire: BJB 47.319.2011	
Report No: GC20170406116	Voltage(V): 217.6000
Test No: NT-0010	Current(A): 0.1030
LampCAT: LUXEON CoB 1205	Power (W): 20.4000
Lamp flux(lm): 2428.0	PF: 0.9060
Number of Lamps: 1	Ballast type: DC
Length(mm): 78	Width(mm): 78
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 2266.77
Efficiency(%): 93.36%
Lumens(lm)/Power(W): 111.12
Central intensity(cd): 10201.670
Maximum intensity(cd): 10201.670
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=15.8
 [C90/270]Total=15.8
Field angle(10%Imax): [C0/180]Total=58.6
 [C90/270]Total=58.6
Maximum s/h(1/2): C0_180=0.27 C90_270=0.27
Maximum s/h(1/4): C0_180=0.35 C90_270=0.35
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 93.36%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.697%

Equipment: gms1980
Temperature(°C): 25.0

Date: 2017/4/6
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.42

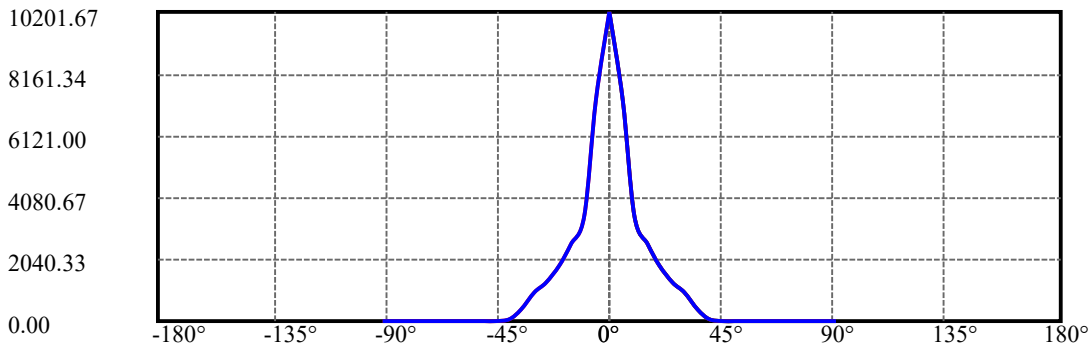
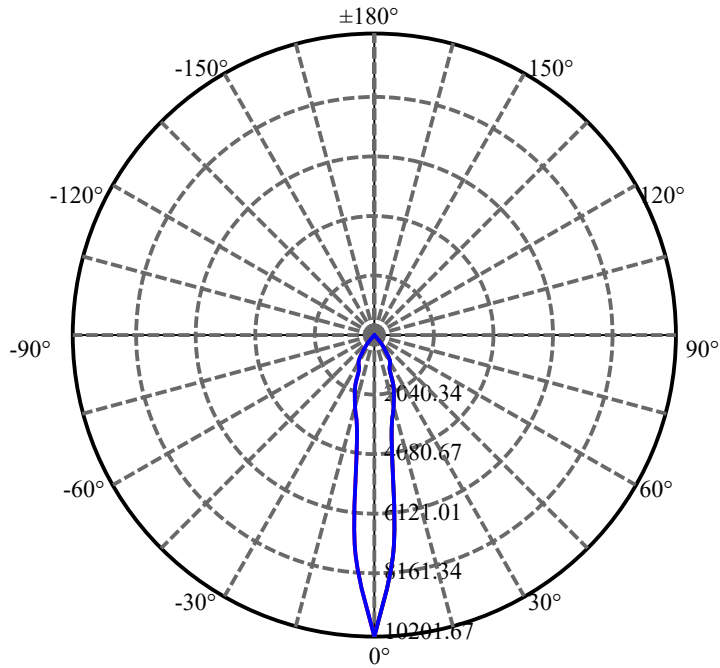
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	10201.676	0.000	0	.000%	.000%
5.0	7302.612	209.259	209.259	8.619%	9.232%
10.0	3505.647	386.645	595.904	15.924%	26.289%
15.0	2539.545	358.597	954.501	14.769%	42.108%
20.0	1858.704	362.478	1316.979	14.929%	58.099%
25.0	1297.604	331.038	1648.017	13.634%	72.703%
30.0	974.801	287.575	1935.592	11.844%	85.390%
35.0	397.872	202.136	2137.727	8.325%	94.307%
40.0	41.471	73.301	2211.029	3.019%	97.541%
45.0	17.928	10.998	2222.027	.453%	98.026%
50.0	11.459	5.938	2227.965	.245%	98.288%
55.0	10.123	4.693	2232.657	.193%	98.495%
60.0	9.669	4.575	2237.232	.188%	98.697%
65.0	9.428	4.643	2241.875	.191%	98.902%
70.0	9.387	4.764	2246.639	.196%	99.112%
75.0	9.380	4.905	2251.545	.202%	99.328%
80.0	9.656	5.093	2256.638	.210%	99.553%
85.0	9.215	5.128	2261.766	.211%	99.779%
90.0	9.057	5.003	2266.769	.206%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1935.59	79.72%	85.39%
0-40	2211.03	91.06%	97.54%
0-60	2237.23	92.14%	98.70%
0-90	2261.77	93.15%	99.78%
0-120	2261.77	93.15%	99.78%
0-180	2266.77	93.36%	100.00%
60-90	29.11	1.20%	1.28%
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%
0-27.88	1813.42	74.69%	80.00%

ZONAL LUMEN SUMMARY

0-10	595.90
10-20	721.07
20-30	618.61
30-40	275.44
40-50	16.94
50-60	9.27
60-70	9.41
70-80	10.00
80-90	5.13
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: —————

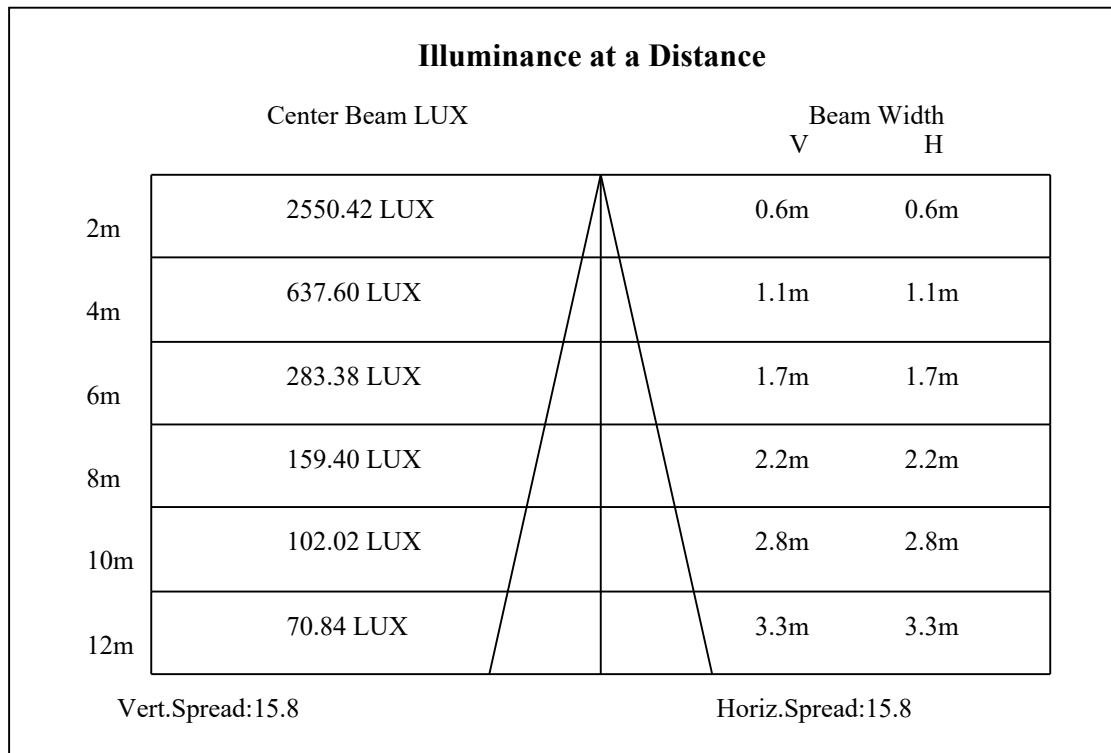
C90/C270: —————

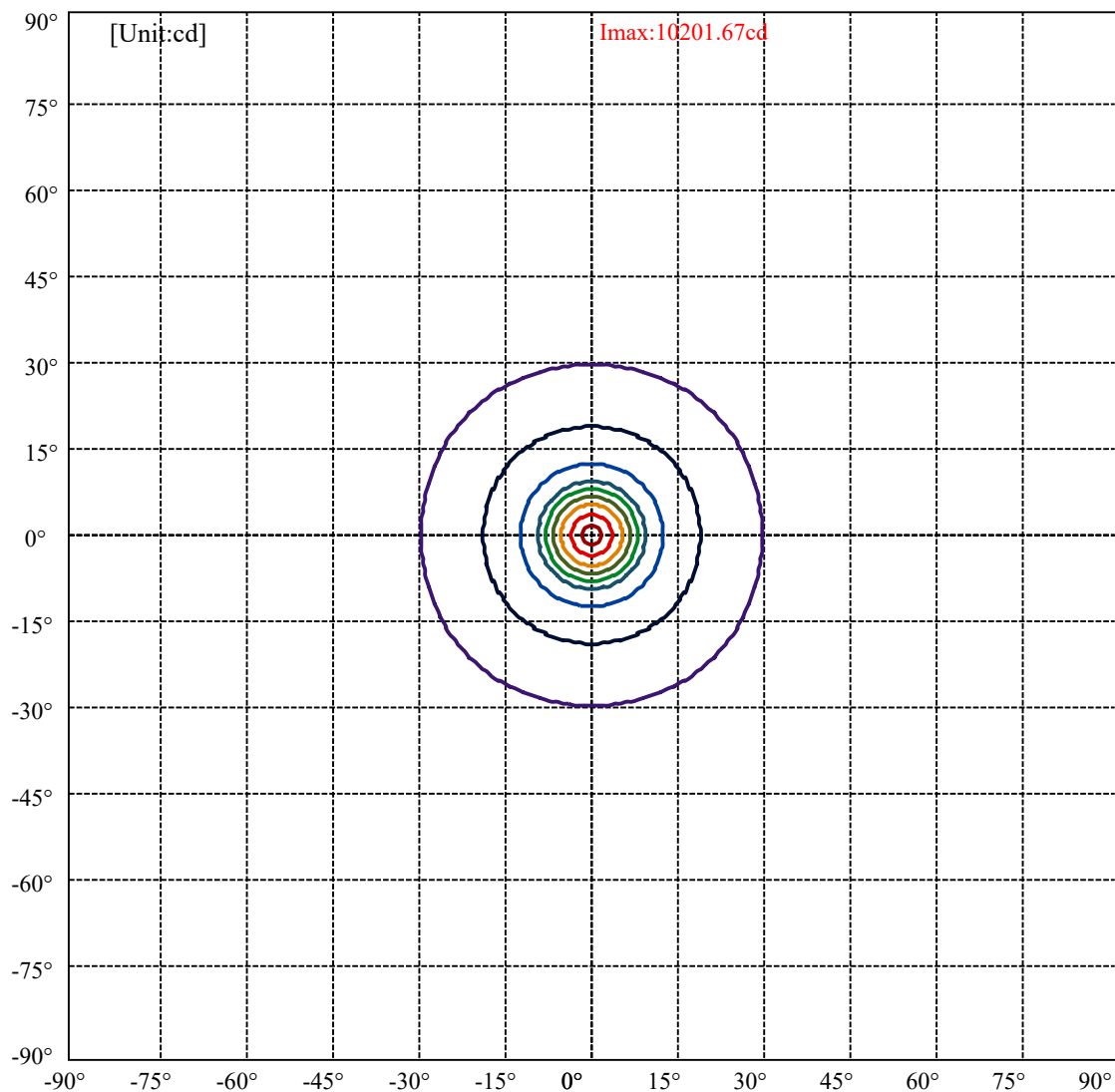
Field angle(10%Imax):C0/180Left:29.3 Right:29.3

:C90/270Left:29.3 Right:29.3

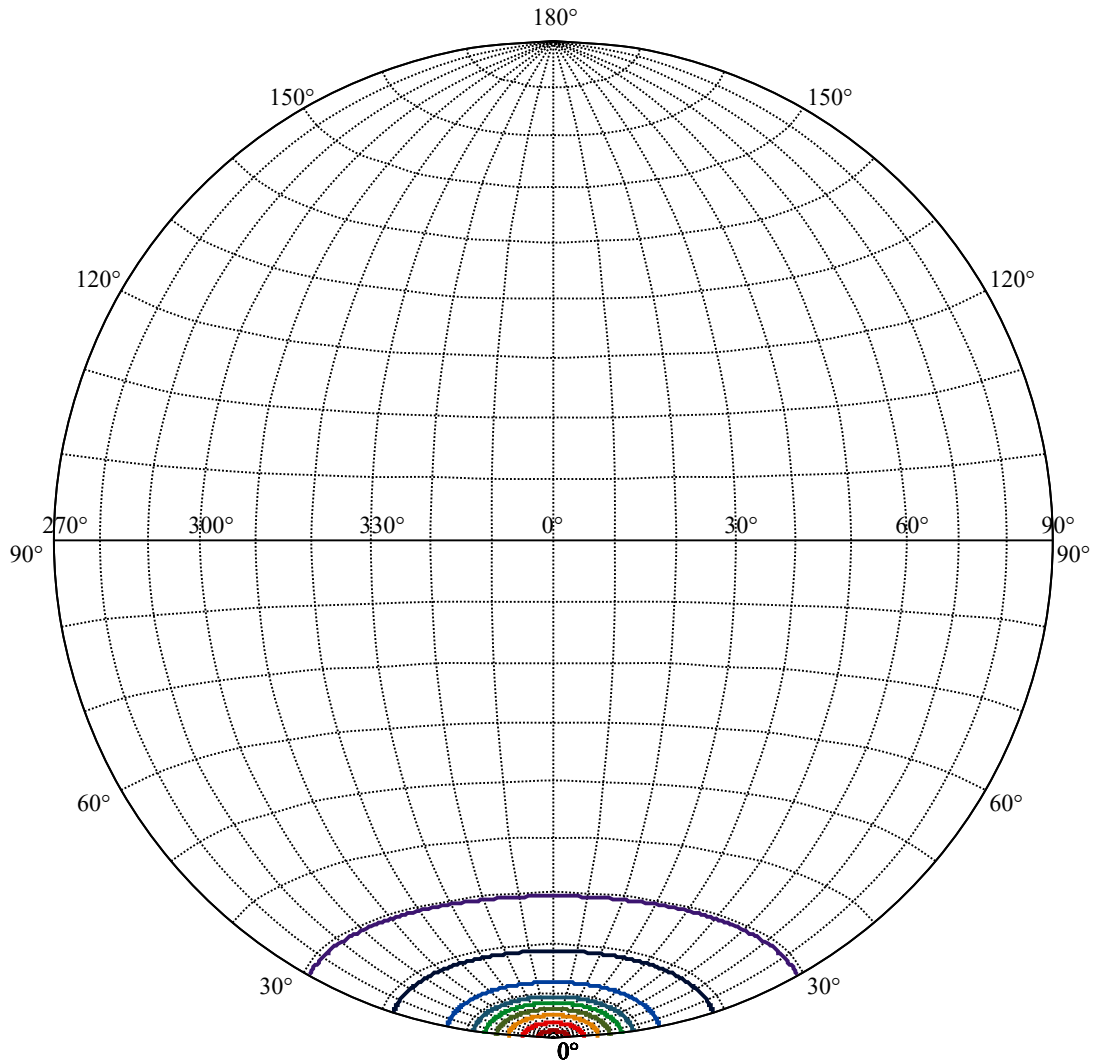
Beam Angle(50%Imax):C0/180Left:7.9 Right:7.9

:C90/270Left:7.9 Right:7.9





(10%Imax) 1020.17	—
(20%Imax) 2040.33	—
(30%Imax) 3060.5	—
(40%Imax) 4080.67	—
(50%Imax) 5100.84	—
(60%Imax) 6121	—
(70%Imax) 7141.17	—
(80%Imax) 8161.34	—
(90%Imax) 9181.51	—



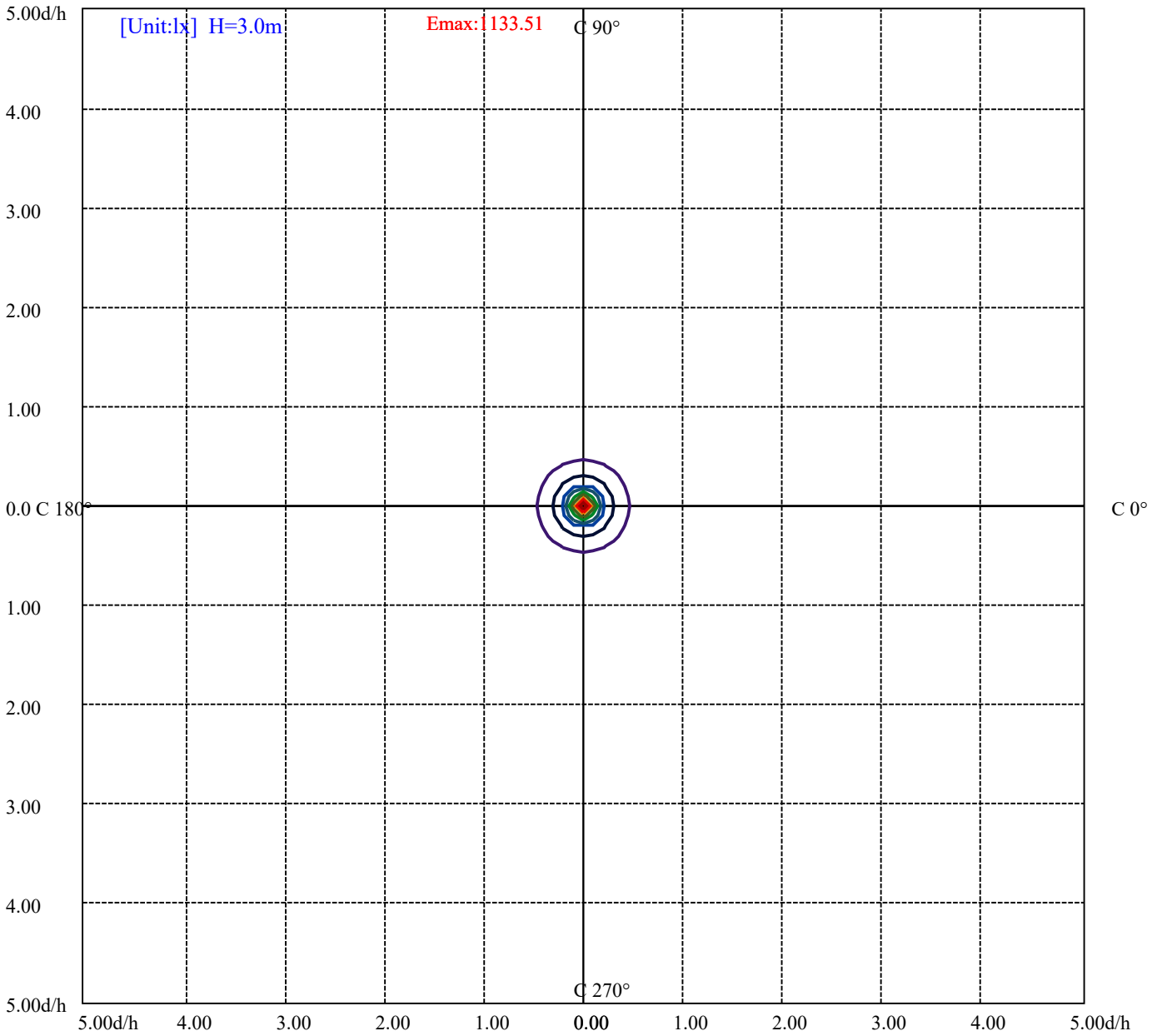
House

[Unit:cd]

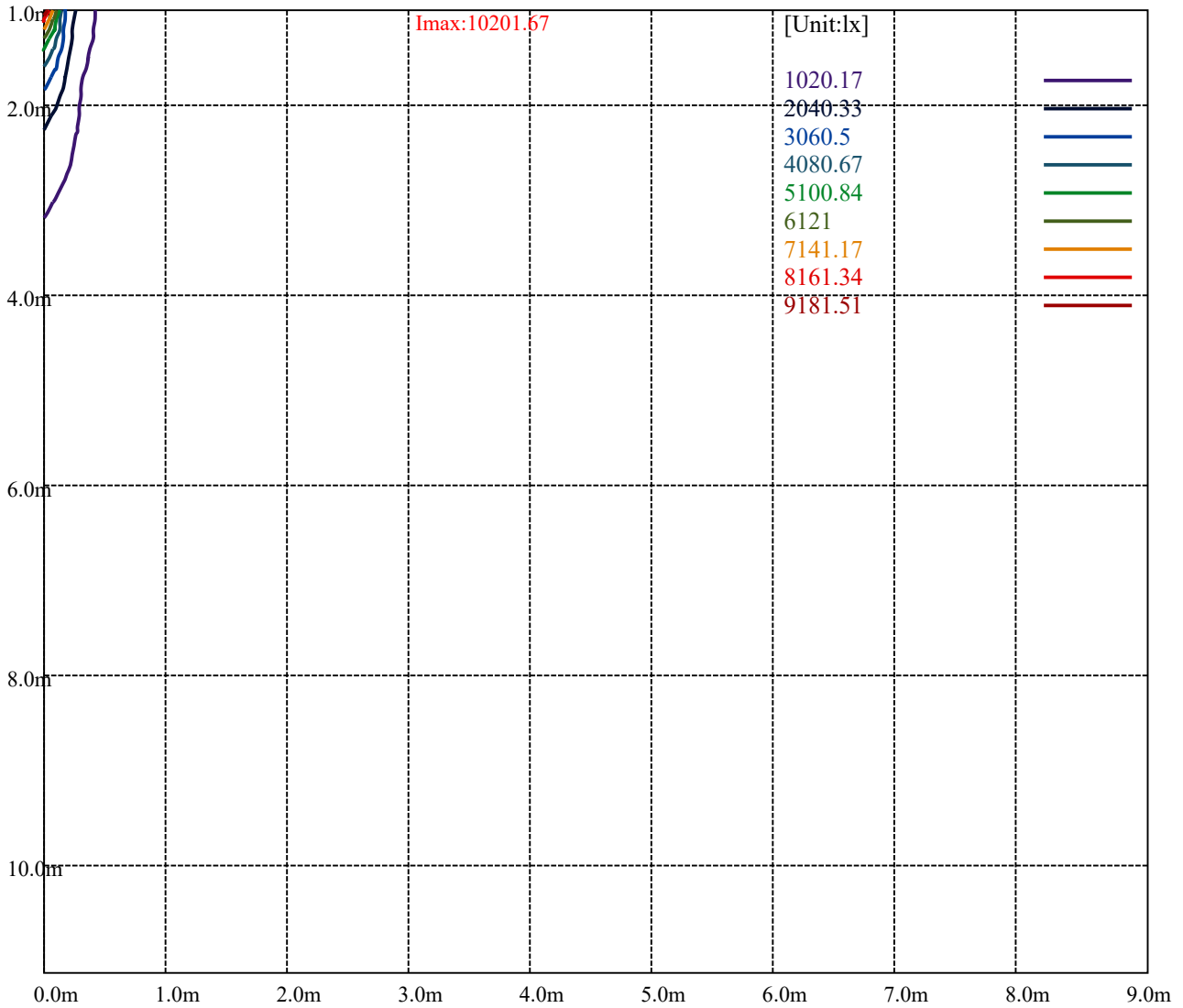
Road

Imax:10201.67

(10%Imax)	1020.17	—
(20%Imax)	2040.33	—
(30%Imax)	3060.5	—
(40%Imax)	4080.67	—
(50%Imax)	5100.84	—
(60%Imax)	6121	—
(70%Imax)	7141.17	—
(80%Imax)	8161.34	—
(90%Imax)	9181.51	—



- (10%E_{max}) 113.3511
- (20%E_{max}) 226.7022
- (30%E_{max}) 340.0533
- (40%E_{max}) 453.4033
- (50%E_{max}) 566.7545
- (60%E_{max}) 680.1056
- (70%E_{max}) 793.4567
- (80%E_{max}) 906.8078
- (90%E_{max}) 1020.159



Luminance Table

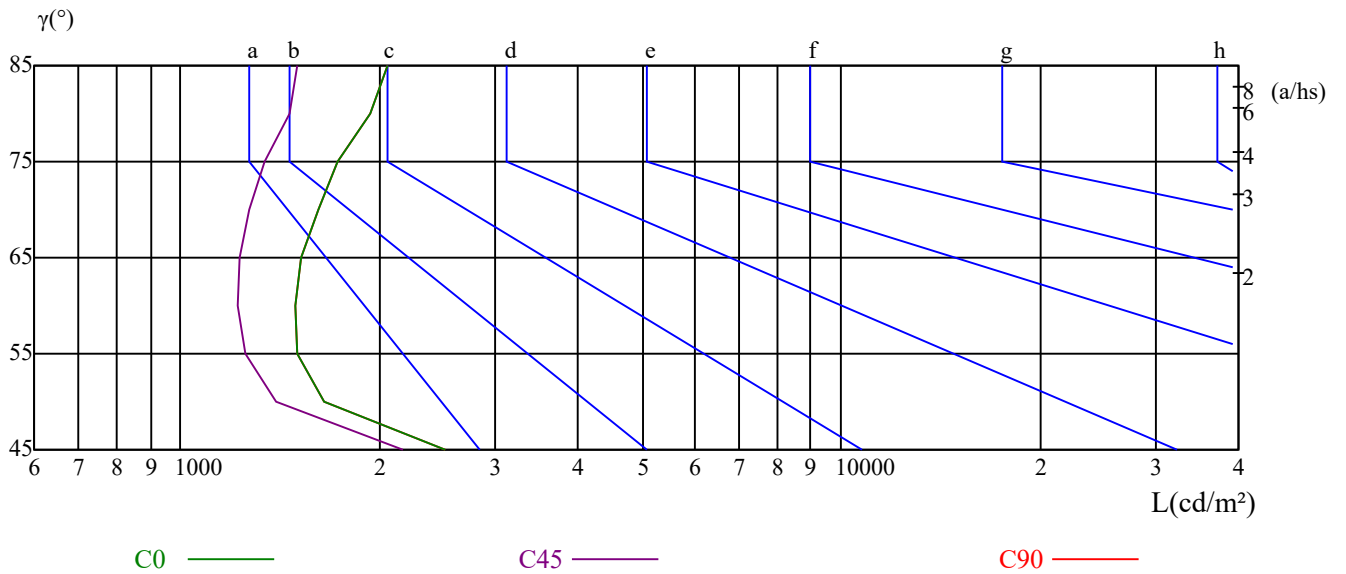
γ	45	50	55	60	65	70	75	80	85
C0	2520	1647	1500	1491	1526	1613	1732	1941	2051
C45	2165	1394	1250	1222	1229	1274	1338	1464	1502
C90	2520	1647	1500	1491	1526	1613	1732	1941	2051

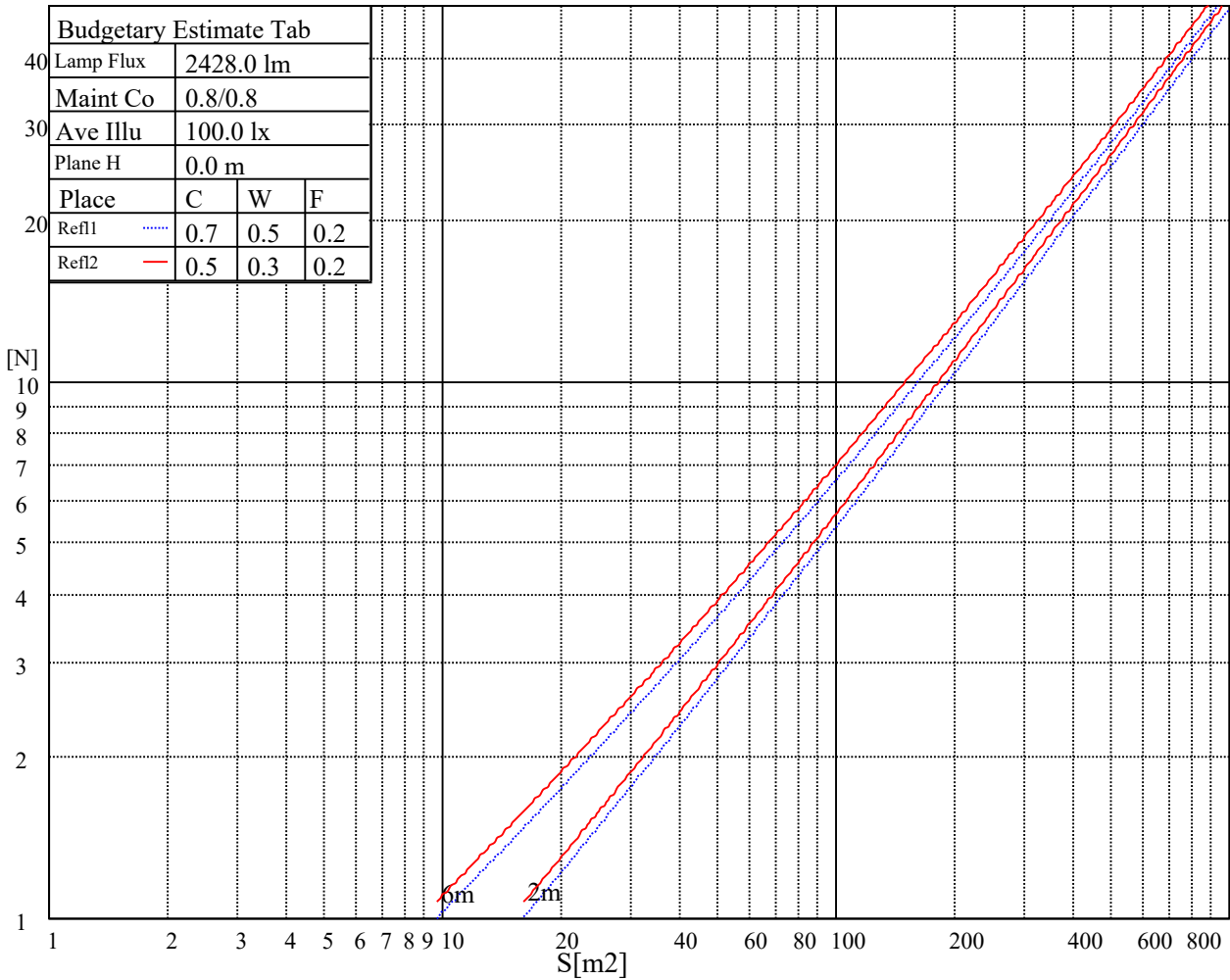
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3667	3667	3667	5957	5957	5957	17379	17379	17379

Glare Table

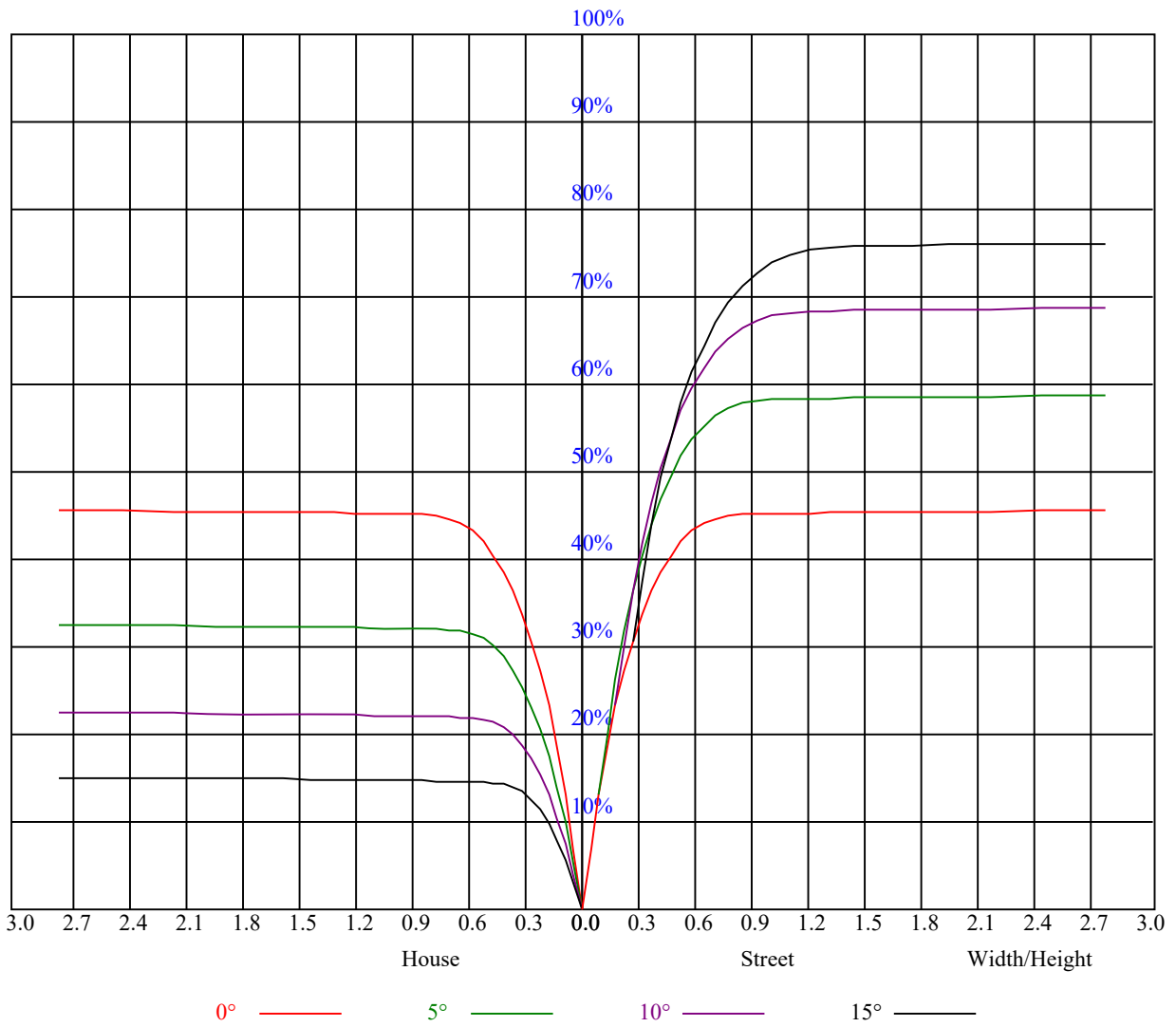
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.11	1.11	1.11	1.09	1.09	1.09	1.04	1.04	1.04	0.99	0.99	0.99	0.95	0.95	0.95	0.93
1	1.04	1.02	1.00	1.02	1.00	0.99	0.99	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89
2	0.98	0.95	0.92	0.97	0.94	0.91	0.94	0.91	0.89	0.91	0.89	0.87	0.89	0.87	0.86	0.84
3	0.93	0.89	0.86	0.92	0.88	0.85	0.89	0.86	0.84	0.87	0.85	0.83	0.85	0.83	0.81	0.80
4	0.88	0.84	0.81	0.87	0.83	0.80	0.86	0.82	0.79	0.84	0.81	0.78	0.82	0.80	0.78	0.76
5	0.84	0.80	0.76	0.83	0.79	0.76	0.82	0.78	0.75	0.80	0.77	0.75	0.79	0.76	0.74	0.73
6	0.81	0.76	0.73	0.80	0.75	0.72	0.79	0.75	0.72	0.77	0.74	0.71	0.76	0.73	0.71	0.70
7	0.77	0.72	0.69	0.76	0.72	0.69	0.75	0.71	0.69	0.74	0.71	0.68	0.73	0.70	0.68	0.67
8	0.74	0.69	0.66	0.73	0.69	0.66	0.72	0.69	0.66	0.72	0.68	0.65	0.71	0.68	0.65	0.64
9	0.71	0.66	0.63	0.71	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.63	0.68	0.65	0.63	0.62
10	0.68	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.61	0.67	0.63	0.61	0.66	0.63	0.60	0.59



Nata 3-1938-M

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	10312.06	9063.94	3968.47	2720.89	1977.08	1436.42	1063.14	539.00	54.78
45.0	9825.37	8766.63	4211.81	2796.87	2086.09	1454.04	1047.17	589.10	66.73
90.0	10253.70	6938.21	3433.87	2512.77	1790.43	1295.48	961.28	356.49	34.74
135.0	10415.57	7092.92	3511.50	2538.10	1821.82	1316.95	983.86	388.15	36.89
180.0	10312.06	6065.56	3145.37	2405.96	1732.07	1097.00	892.30	263.78	32.15
225.0	9825.37	5797.44	2995.07	2262.27	1685.28	1088.13	852.99	231.35	30.28
270.0	10253.70	7304.88	3415.15	2554.07	1908.81	1365.40	1014.69	431.09	39.03
315.0	10415.57	7391.32	3363.95	2525.44	1868.06	1327.41	982.98	384.02	37.16
360.0	10312.06	9063.94	3968.47	2720.89	1977.08	1436.42	1063.14	539.00	54.78
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	20.26	12.28	10.41	9.86	9.52	9.41	9.30	9.25	9.25
45.0	21.42	12.55	10.46	9.86	9.63	9.69	9.97	10.63	9.30
90.0	16.41	11.12	10.08	9.69	9.52	9.69	9.91	11.73	9.52
135.0	16.96	11.23	10.02	9.69	9.41	9.36	9.30	9.25	9.25
180.0	16.30	10.90	9.97	9.58	9.36	9.30	9.19	9.19	9.19
225.0	14.65	10.85	9.91	9.47	9.25	9.19	9.08	9.03	9.03
270.0	18.99	11.45	10.08	9.63	9.36	9.25	9.14	9.08	9.08
315.0	18.44	11.29	10.08	9.58	9.36	9.19	9.14	9.08	9.08
360.0	20.26	12.28	10.41	9.86	9.52	9.41	9.30	9.25	9.25
C/γ(°)	90.0								
0.0	9.14								
45.0	9.03								
90.0	9.03								
135.0	9.08								
180.0	9.08								
225.0	9.03								
270.0	9.03								
315.0	9.03								
360.0	9.14								