
Nata

LumCAT: 2-1794-N
Luminaire: 92.70.135.00
Report No: NT2017122930
Test No: nata-0100
LampCAT: NICHIA NVEWJ048Z-V1
Lamp flux(lm): 3200.0
Number of Lamps: 1
Length(mm): 69
Phm Type: C

Voltage(V): 43.4000
Current(A): 0.5000
Power (W): 21.7000
PF: 0.0000
Ballast type: DC
Width(mm): 69
Height(mm): 0

Photometric Results

Lumens(lm): 2711.52
Efficiency(%): 84.73%
Lumens(lm)/Power(W): 127.41
Central intensity(cd): 9323.664
Maximum intensity(cd): 9323.664
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=27.4
 [C90/270]Total=27.4
Field angle(10%Imax): [C0/180]Total=56.5
 [C90/270]Total=56.5
Maximum s/h(1/2): C0_180=0.46 C90_270=0.46
Maximum s/h(1/4): C0_180=0.48 C90_270=0.48
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 86.40%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 96.639%

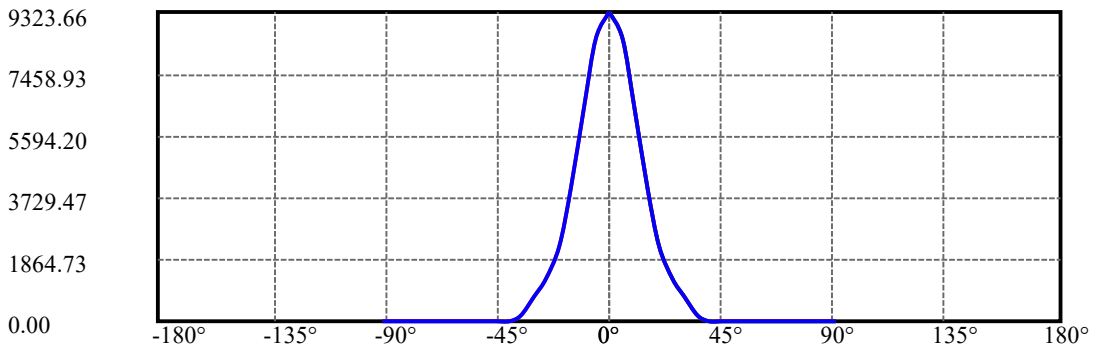
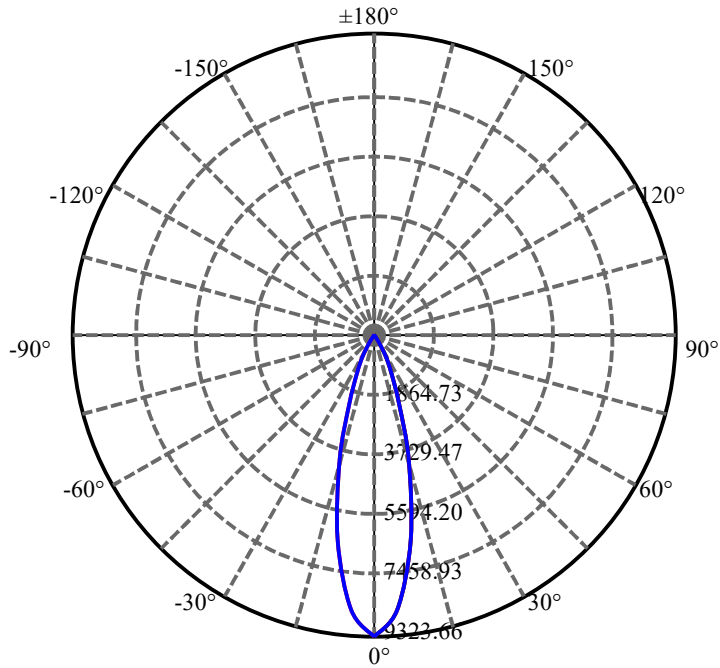
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	9323.664	55.757	55.757	1.742%	2.056%
5.0	8496.648	405.913	461.67	12.685%	17.026%
10.0	6460.180	614.900	1076.57	19.216%	39.704%
15.0	4019.186	570.195	1646.766	17.819%	60.732%
20.0	2285.804	428.529	2075.295	13.392%	76.536%
25.0	1295.085	300.010	2375.305	9.375%	87.601%
30.0	739.428	202.654	2577.959	6.333%	95.074%
35.0	183.090	57.563	2635.522	1.799%	97.197%
40.0	23.358	8.230	2643.752	.257%	97.501%
45.0	18.582	7.202	2650.954	.225%	97.766%
50.0	16.483	6.921	2657.875	.216%	98.022%
55.0	15.381	6.906	2664.781	.216%	98.276%
60.0	14.721	6.988	2671.769	.218%	98.534%
65.0	14.239	7.074	2678.843	.221%	98.795%
70.0	13.971	7.196	2686.039	.225%	99.060%
75.0	13.764	7.288	2693.326	.228%	99.329%
80.0	13.571	7.326	2700.652	.229%	99.599%
85.0	13.365	7.298	2707.95	.228%	99.868%
90.0	13.021	3.569	2711.519	.112%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2577.96	80.56%	95.07%
0-40	2643.75	82.62%	97.50%
0-60	2671.77	83.49%	98.53%
0-90	2707.95	84.62%	99.87%
0-120	2707.95	84.62%	99.87%
0-180	2711.52	84.73%	100.00%
60-90	43.17	1.35%	1.59%
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%
0-21.57	2169.22	67.79%	80.00%

ZONAL LUMEN SUMMARY

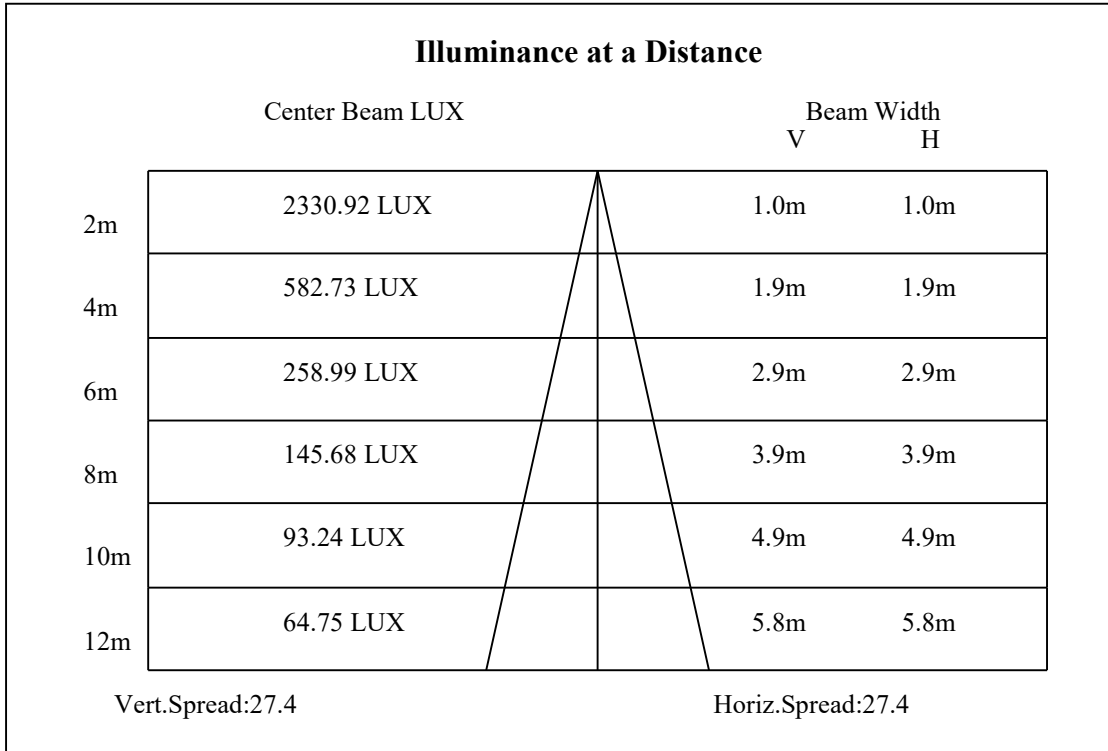
0-10	1076.57
10-20	998.72
20-30	502.66
30-40	65.79
40-50	14.12
50-60	13.89
60-70	14.27
70-80	14.61
80-90	7.30
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

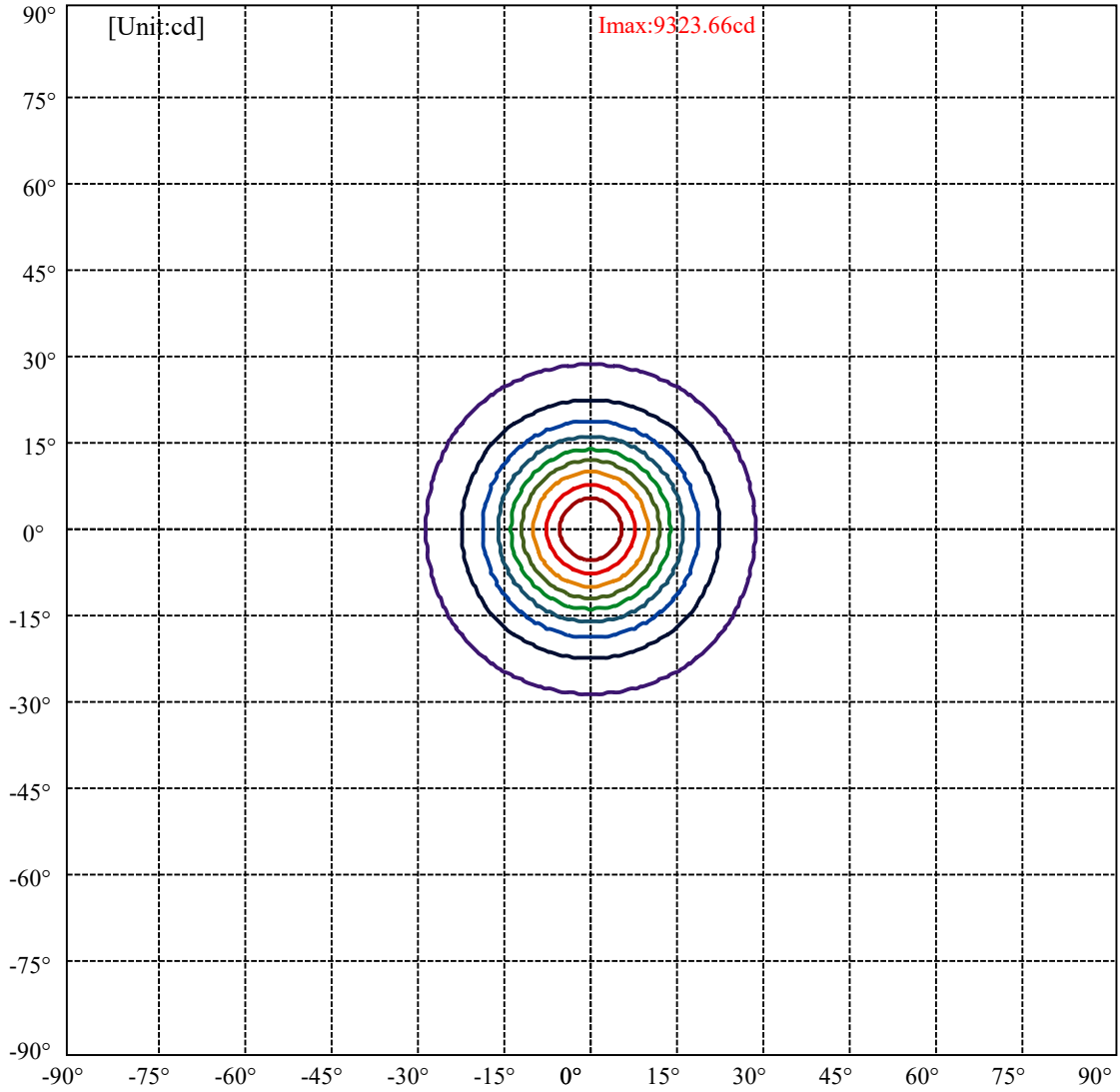


C0(Max): ———
 C0/C180: ———
 C90/C270: ———

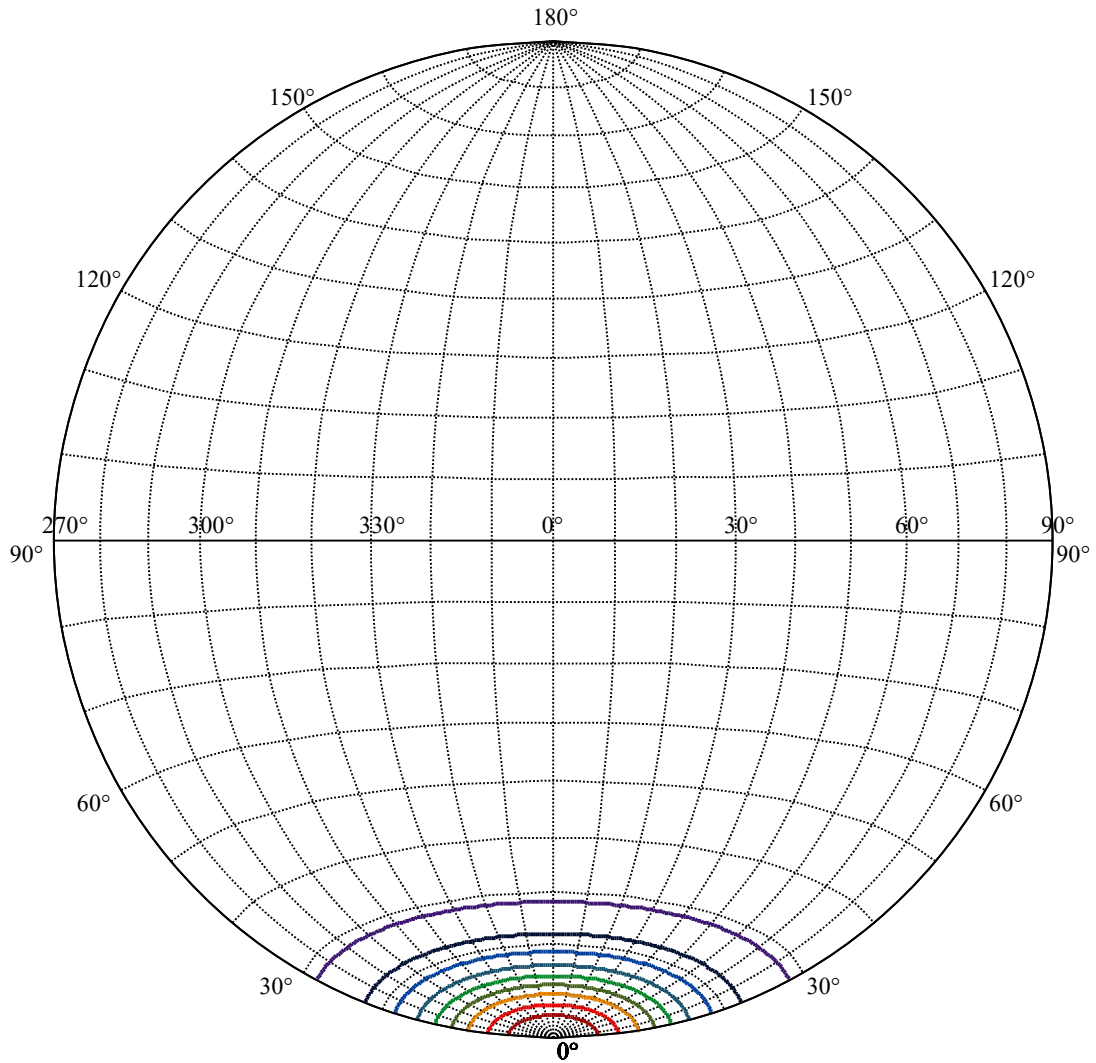
Field angle(10%Imax):C0/180Left:28.3 Right:28.3
 :C90/270Left:28.3 Right:28.3

Beam Angle(50%Imax):C0/180Left:13.7 Right:13.7
 :C90/270Left:13.7 Right:13.7





(10%Imax) 932.366	—
(20%Imax) 1864.73	—
(30%Imax) 2797.1	—
(40%Imax) 3729.47	—
(50%Imax) 4661.83	—
(60%Imax) 5594.2	—
(70%Imax) 6526.56	—
(80%Imax) 7458.93	—
(90%Imax) 8391.3	—



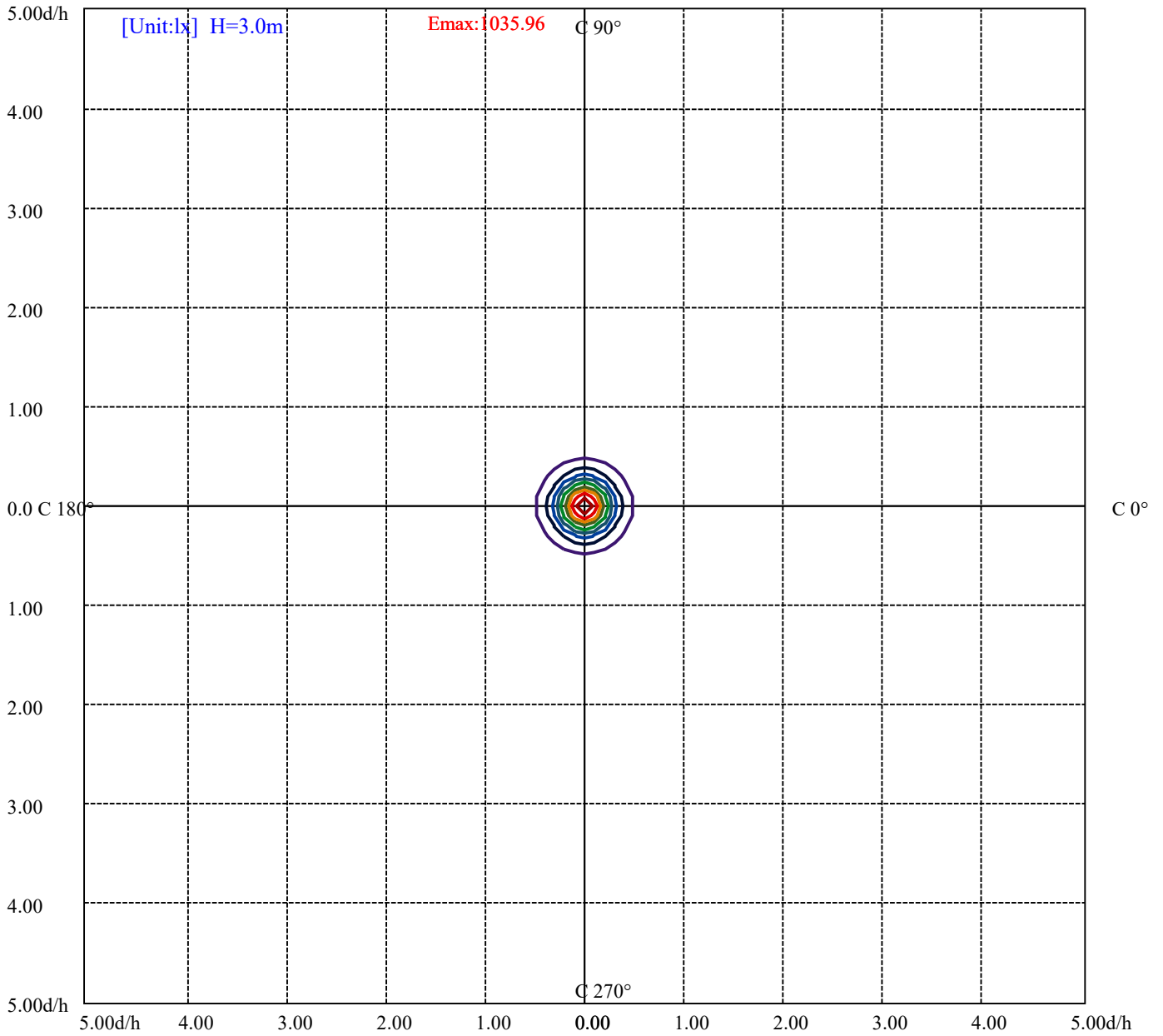
House

[Unit:cd]

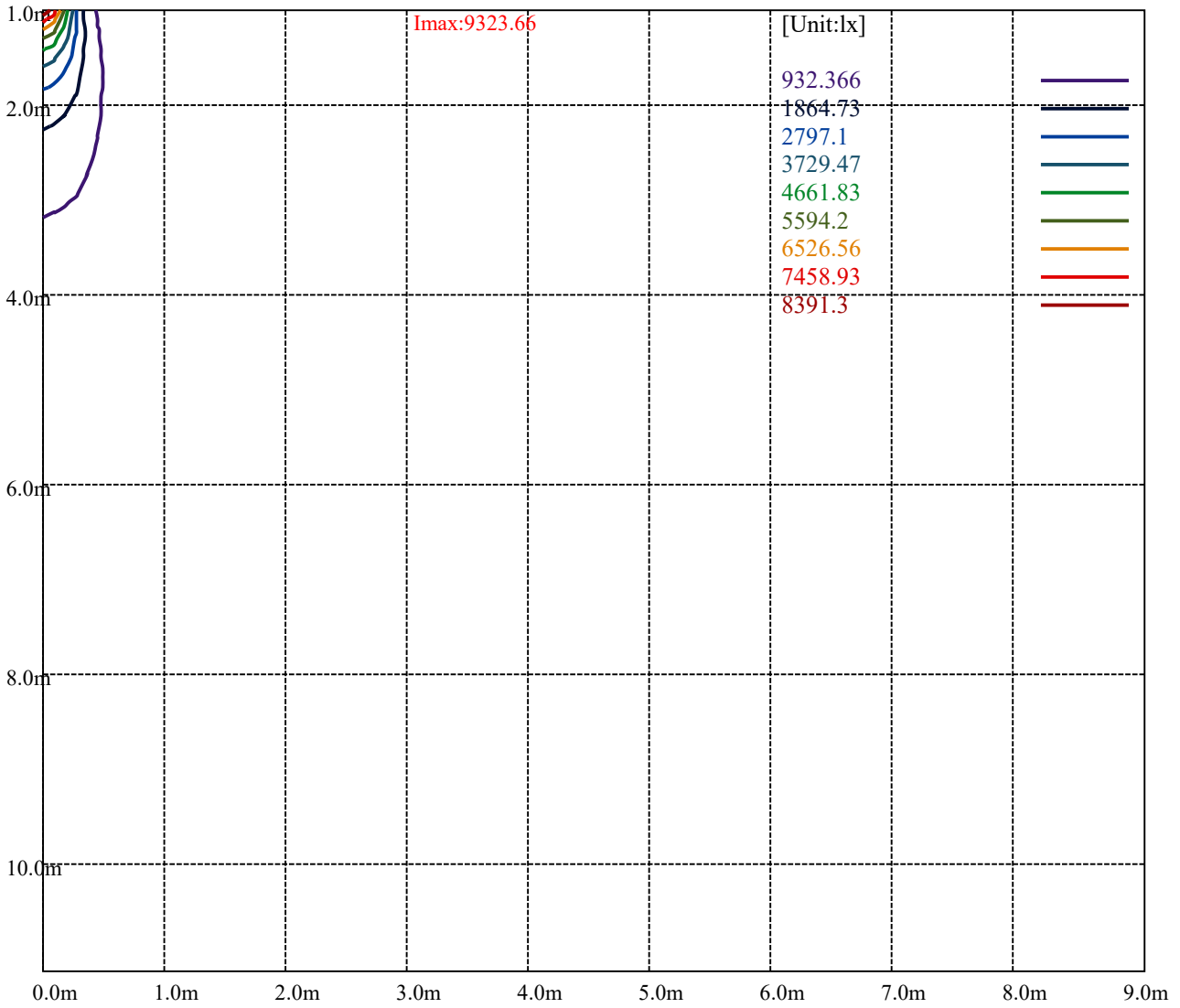
Road

Imax:9323.66

(10%Imax) 932.366	—
(20%Imax) 1864.73	—
(30%Imax) 2797.1	—
(40%Imax) 3729.47	—
(50%Imax) 4661.83	—
(60%Imax) 5594.2	—
(70%Imax) 6526.56	—
(80%Imax) 7458.93	—
(90%Imax) 8391.3	—



- (10%Emax) 103.596
- (20%Emax) 207.1922
- (30%Emax) 310.7878
- (40%Emax) 414.3844
- (50%Emax) 517.98
- (60%Emax) 621.5756
- (70%Emax) 725.1722
- (80%Emax) 828.7678
- (90%Emax) 932.3633



Luminance Table

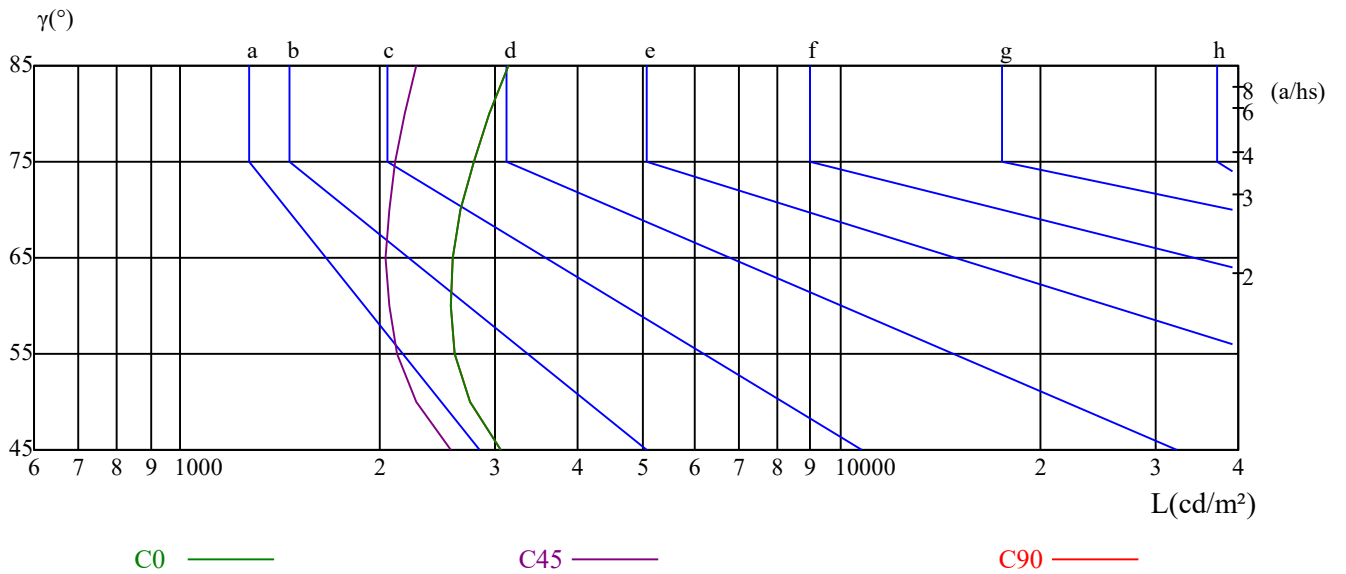
γ	45	50	55	60	65	70	75	80	85
C0	3047	2738	2609	2570	2582	2656	2772	2930	3134
C45	2570	2275	2134	2070	2044	2066	2114	2186	2281
C90	3047	2738	2609	2570	2582	2656	2772	2930	3134

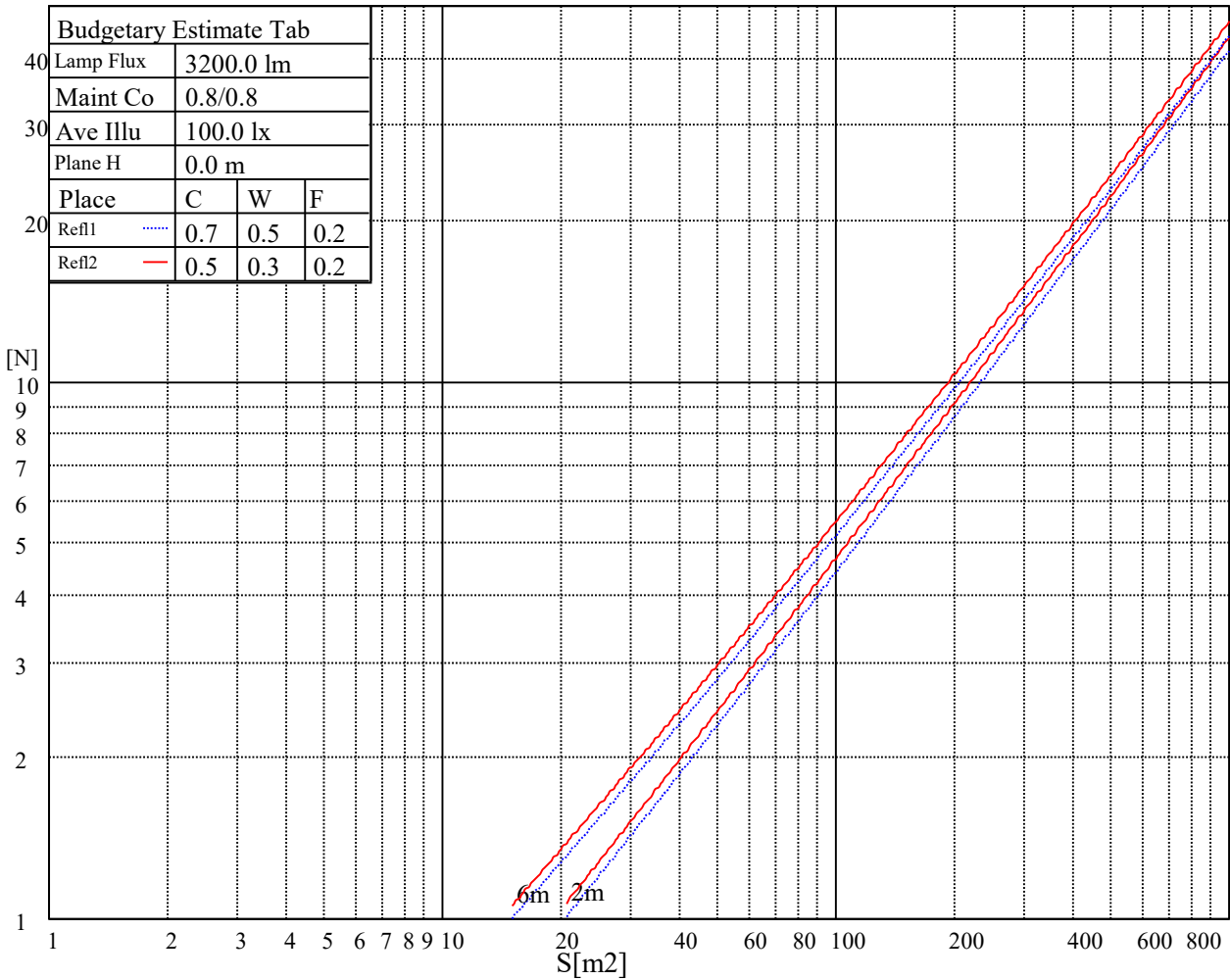
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
7077	7077	7077	11170	11170	11170	32209	32209	32209

Glare Table

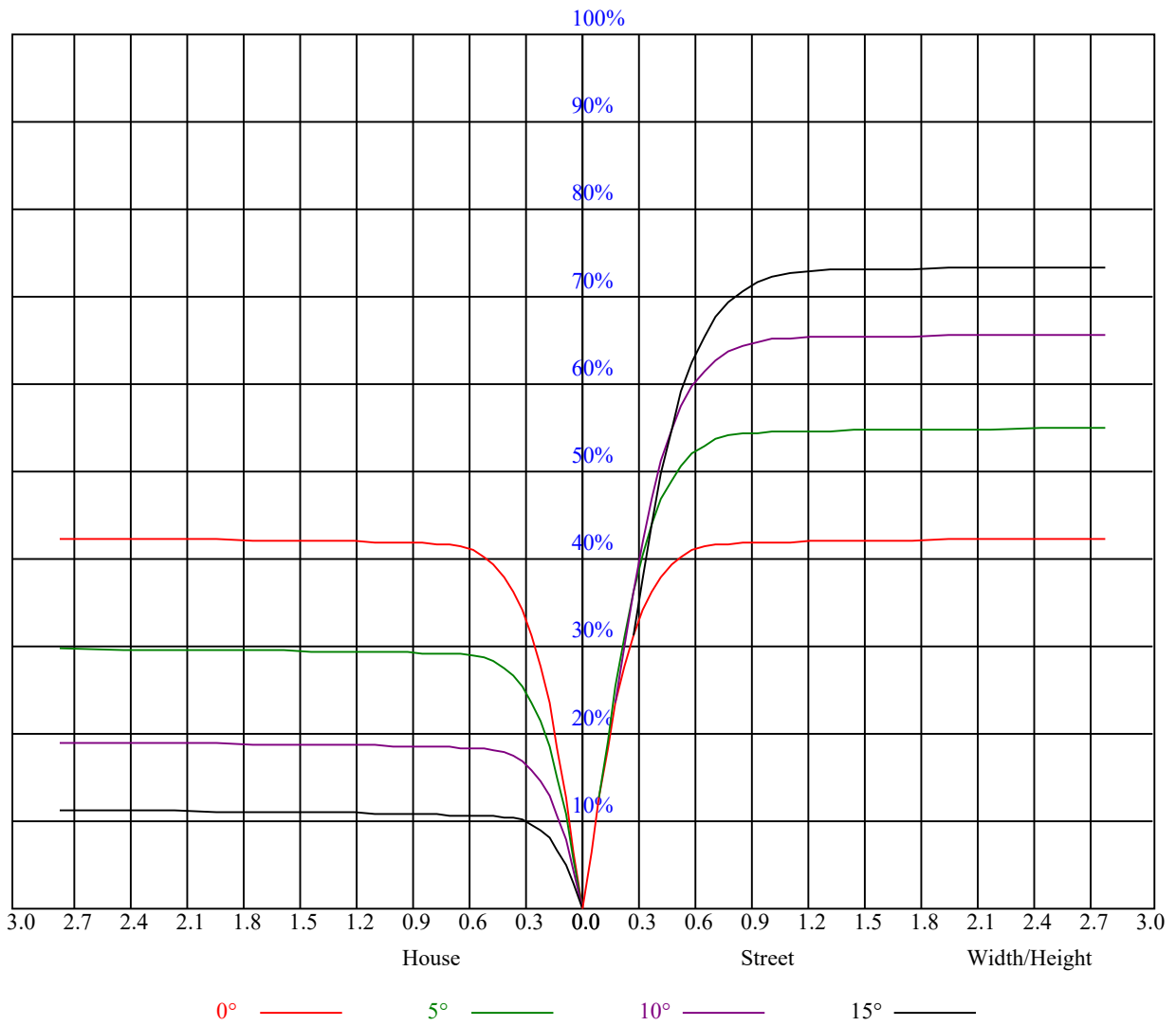
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.03	1.03	1.03	1.00	1.00	1.00	0.96	0.96	0.96	0.92	0.92	0.92	0.88	0.88	0.88	0.86
1	0.95	0.93	0.90	0.93	0.91	0.89	0.90	0.88	0.86	0.86	0.85	0.84	0.83	0.82	0.81	0.80
2	0.90	0.87	0.84	0.89	0.86	0.83	0.86	0.84	0.82	0.83	0.82	0.80	0.81	0.80	0.78	0.77
3	0.86	0.83	0.80	0.85	0.82	0.79	0.83	0.80	0.78	0.81	0.79	0.77	0.79	0.77	0.75	0.74
4	0.83	0.79	0.76	0.82	0.78	0.76	0.80	0.77	0.75	0.78	0.76	0.74	0.77	0.75	0.73	0.72
5	0.80	0.76	0.73	0.79	0.75	0.73	0.78	0.74	0.72	0.76	0.73	0.71	0.75	0.73	0.71	0.70
6	0.77	0.73	0.70	0.76	0.73	0.70	0.75	0.72	0.70	0.74	0.71	0.69	0.73	0.71	0.69	0.68
7	0.74	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.71	0.69	0.67	0.66
8	0.72	0.68	0.66	0.72	0.68	0.66	0.71	0.68	0.65	0.70	0.67	0.65	0.69	0.67	0.65	0.64
9	0.70	0.66	0.64	0.70	0.66	0.64	0.69	0.66	0.64	0.68	0.65	0.63	0.68	0.65	0.63	0.62
10	0.68	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.62	0.67	0.64	0.62	0.66	0.64	0.62	0.61



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	9335.36	8654.87	6780.75	4262.47	2453.31	1445.78	813.18	302.26	22.96
45.0	9344.72	8593.75	6403.06	3874.32	2179.68	1325.21	694.26	160.05	23.51
90.0	9292.97	8110.91	5876.72	3484.52	1997.45	1077.29	557.83	63.98	22.74
135.0	9333.16	8530.44	6538.50	4163.92	2380.09	1378.61	785.10	304.46	21.58
180.0	9335.36	8327.28	6193.85	3869.91	2175.28	1071.18	685.45	89.52	20.87
225.0	9344.72	8483.64	6476.28	4041.14	2276.03	1330.16	780.75	143.31	25.88
270.0	9269.85	8811.78	6961.33	4501.96	2576.09	1466.70	886.41	300.06	27.86
315.0	9333.16	8460.52	6450.96	3955.25	2248.50	1265.75	712.43	101.08	21.47
360.0	9335.36	8654.87	6780.75	4262.47	2453.31	1445.78	813.18	302.26	22.96

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	18.06	16.08	15.09	14.53	14.15	13.93	13.71	13.54	13.38
45.0	18.99	16.68	15.64	14.76	14.20	13.93	13.76	13.54	13.32
90.0	18.39	16.41	15.31	14.65	14.20	13.98	13.82	13.65	13.49
135.0	17.73	16.02	15.09	14.65	14.31	14.04	13.82	13.65	13.38
180.0	17.51	15.91	14.98	14.53	14.15	13.93	13.71	13.49	13.27
225.0	20.43	17.56	16.02	14.98	14.26	13.98	13.76	13.54	13.32
270.0	19.99	17.29	15.86	15.03	14.37	14.04	13.82	13.60	13.38
315.0	17.56	15.91	15.09	14.65	14.26	13.93	13.71	13.54	13.38
360.0	18.06	16.08	15.09	14.53	14.15	13.93	13.71	13.54	13.38

C/γ(°)	90.0
0.0	12.99
45.0	12.94
90.0	12.99
135.0	12.99
180.0	13.05
225.0	13.05
270.0	13.10
315.0	13.05
360.0	12.99