



NATA LIGHTING CO.,LTD.  
www.nata.cn  
Email:info@nata.com  
Tel:+86-750-3770000 Fax:+86-750-3771111  
Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

---

LumCAT: 4-2126-E  
Luminaire: 92.76.263.00  
Report No: NATA0100  
Test No:  
LampCAT: BRIDGELUX Vero 18 LES18  
Lamp flux(lm): 2824.0  
Number of Lamps: 1  
Length(mm): 100  
Phm Type: C

Voltage(V): 30.4000  
Current(A): 0.9500  
Power (W): 28.8800  
PF: 0.0000  
Ballast type:  
Width(mm): 100  
Height(mm): 0

---

### Photometric Results

Lumens(lm): 2569.30  
Efficiency(%): 90.98%  
Lumens(lm)/Power(W): 89.35  
Central intensity(cd): 2258.826  
Maximum intensity(cd): 2258.826  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=72.1  
                                  [C90/270]Total=72.1  
Field angle(10%Imax): [C0/180]Total=85.0  
                                  [C90/270]Total=85.0  
Maximum s/h(1/2): C0\_180=1.18 C90\_270=1.18  
Maximum s/h(1/4): C0\_180=1.05 C90\_270=1.05  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 91.37%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 98.273%

---

Equipment: gms1980  
Temperature(°C): 25.0

Date: 2016/7/25  
Humidity(%): 60.0%

Operator: Jaye  
Distance(m): 7.42

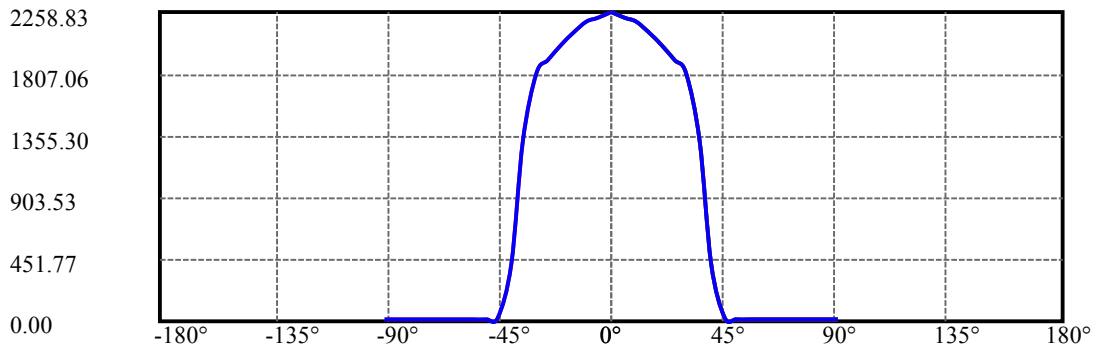
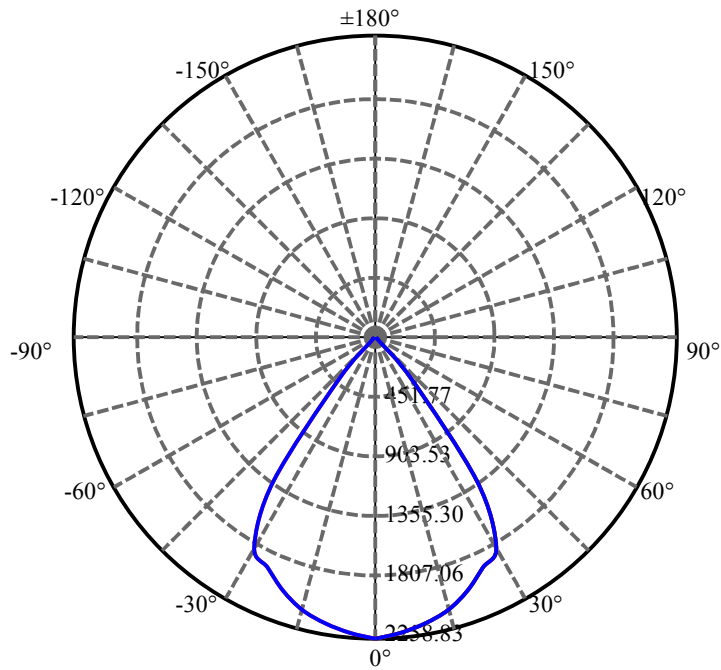
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2258.826	13.508	13.508	.478%	.526%
5.0	2223.522	106.225	119.733	3.762%	4.660%
10.0	2182.023	207.692	327.425	7.355%	12.744%
15.0	2109.981	299.340	626.765	10.600%	24.394%
20.0	2015.353	377.826	1004.591	13.379%	39.100%
25.0	1910.732	442.627	1447.218	15.674%	56.327%
30.0	1811.645	496.515	1943.733	17.582%	75.652%
35.0	1318.890	414.657	2358.39	14.683%	91.791%
40.0	414.134	145.914	2504.304	5.167%	97.470%
45.0	35.002	13.567	2517.871	.480%	97.998%
50.0	14.962	6.282	2524.153	.222%	98.243%
55.0	12.924	5.803	2529.956	.205%	98.469%
60.0	12.305	5.841	2535.798	.207%	98.696%
65.0	11.810	5.867	2541.664	.208%	98.924%
70.0	11.493	5.920	2547.584	.210%	99.155%
75.0	11.204	5.932	2553.516	.210%	99.386%
80.0	11.562	6.241	2559.757	.221%	99.629%
85.0	12.126	6.622	2566.379	.234%	99.886%
90.0	10.653	2.920	2569.299	.103%	100.000%

## ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1943.73	68.83%	75.65%
0-40	2504.30	88.68%	97.47%
0-60	2535.80	89.79%	98.70%
0-90	2566.38	90.88%	99.89%
0-120	2566.38	90.88%	99.89%
0-180	2569.30	90.98%	100.00%
60-90	36.42	1.29%	1.42%
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%
0-31.35	2055.44	72.78%	80.00%

## ZONAL LUMEN SUMMARY

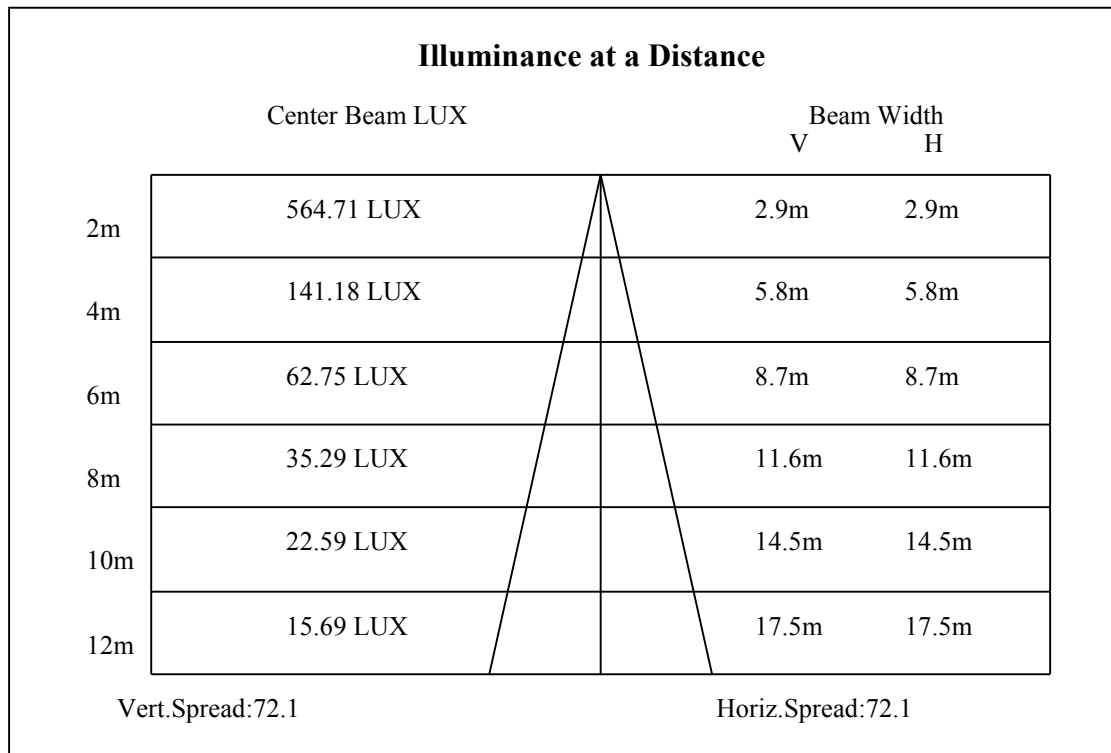
0-10	327.42
10-20	677.17
20-30	939.14
30-40	560.57
40-50	19.85
50-60	11.64
60-70	11.79
70-80	12.17
80-90	6.62
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

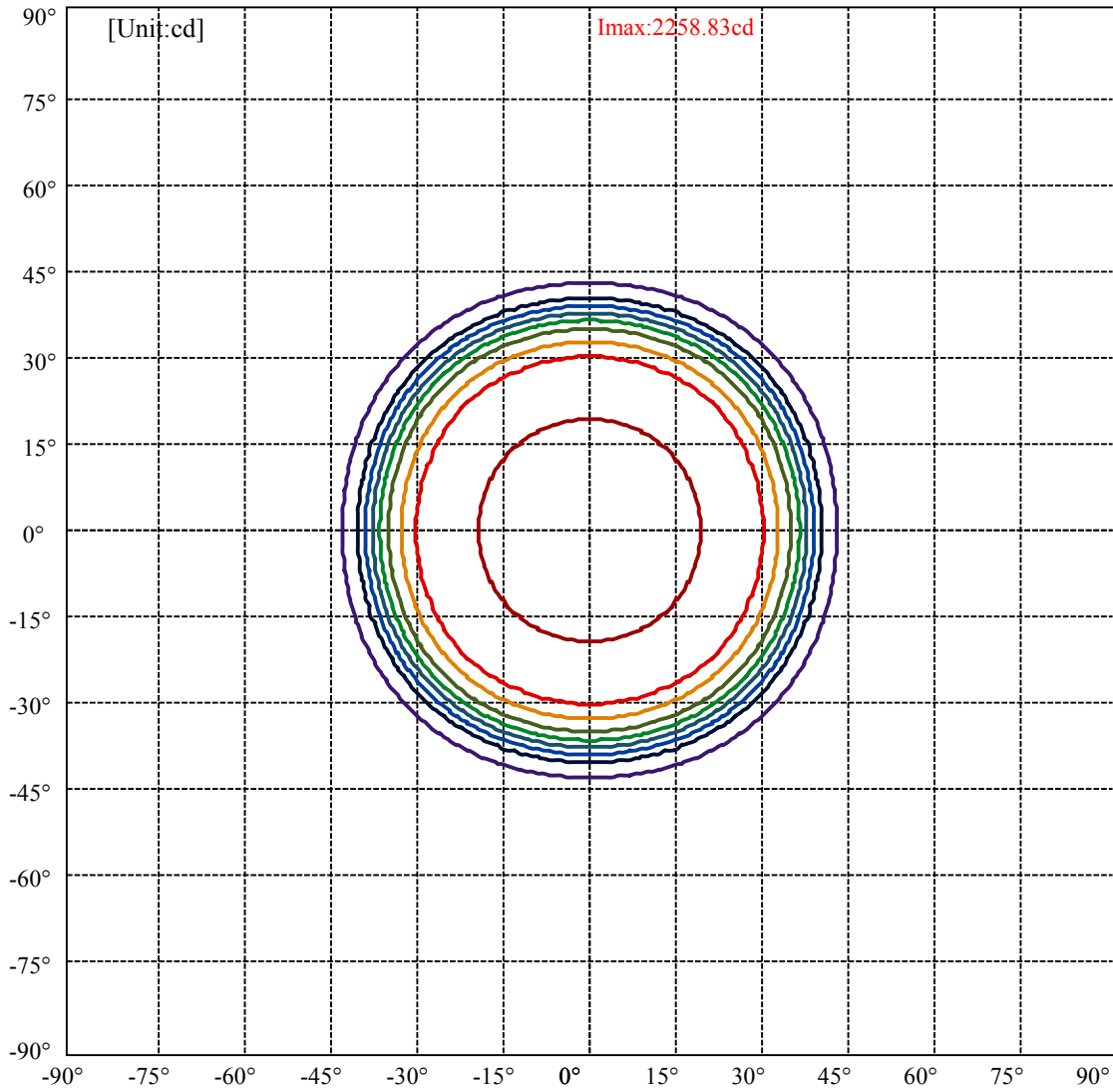


C0(Max): —————  
C0/C180: —————  
C90/C270: —————

Field angle(10%Imax):C0/180Left:42.5 Right:42.5  
:C90/270Left:42.5 Right:42.5

Beam Angle(50%Imax):C0/180Left:36.0 Right:36.0  
:C90/270Left:36.0 Right:36.0



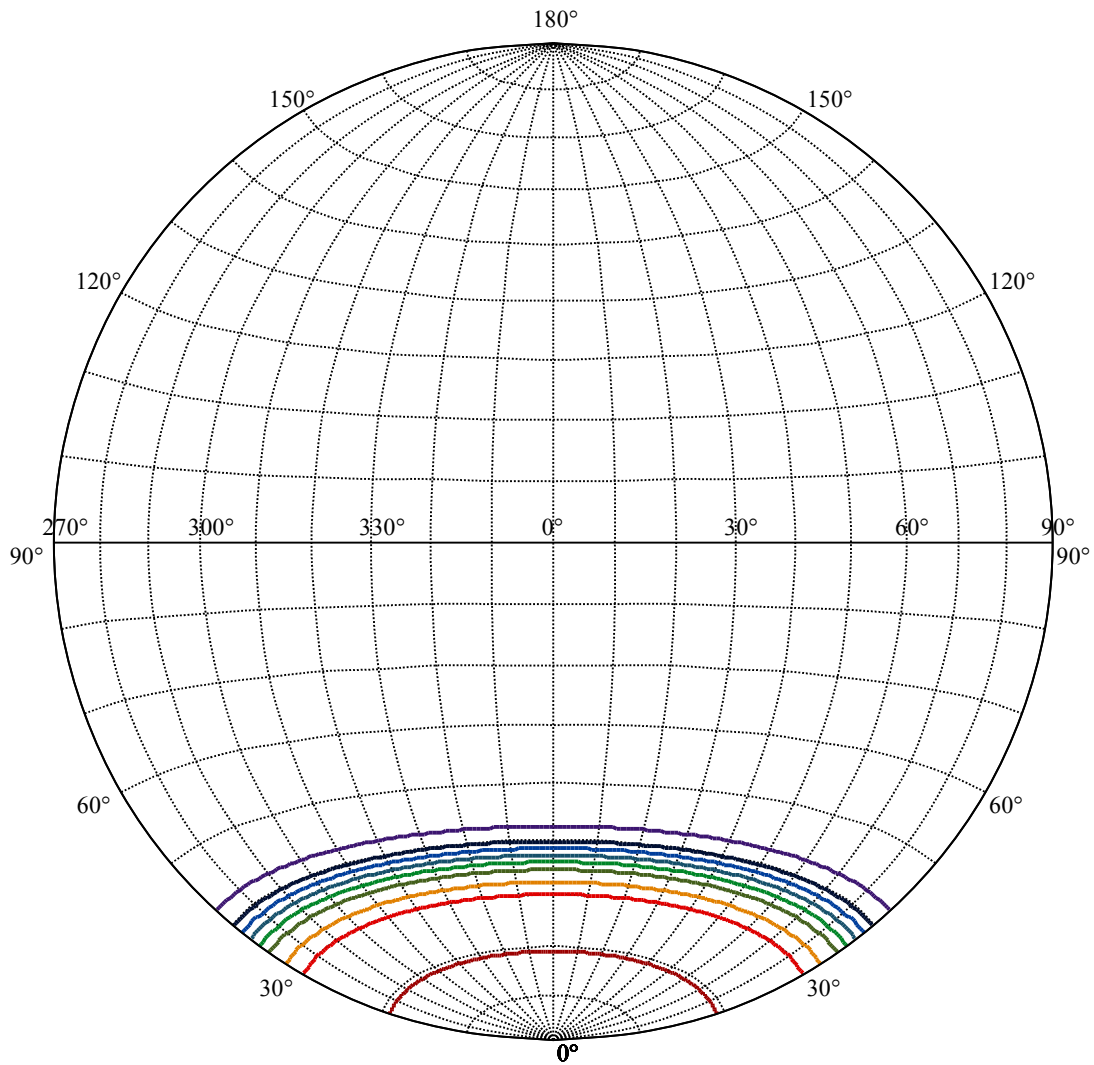


(10%Imax) 225.883	—
(20%Imax) 451.765	—
(30%Imax) 677.648	—
(40%Imax) 903.53	—
(50%Imax) 1129.41	—
(60%Imax) 1355.3	—
(70%Imax) 1581.18	—
(80%Imax) 1807.06	—
(90%Imax) 2032.94	—

Equipment: gms1980  
Temperature(°C): 25.0

Date: 2016/7/25  
Humidity(%): 60.0%

Operator: Jaye  
Distance(m): 7.42












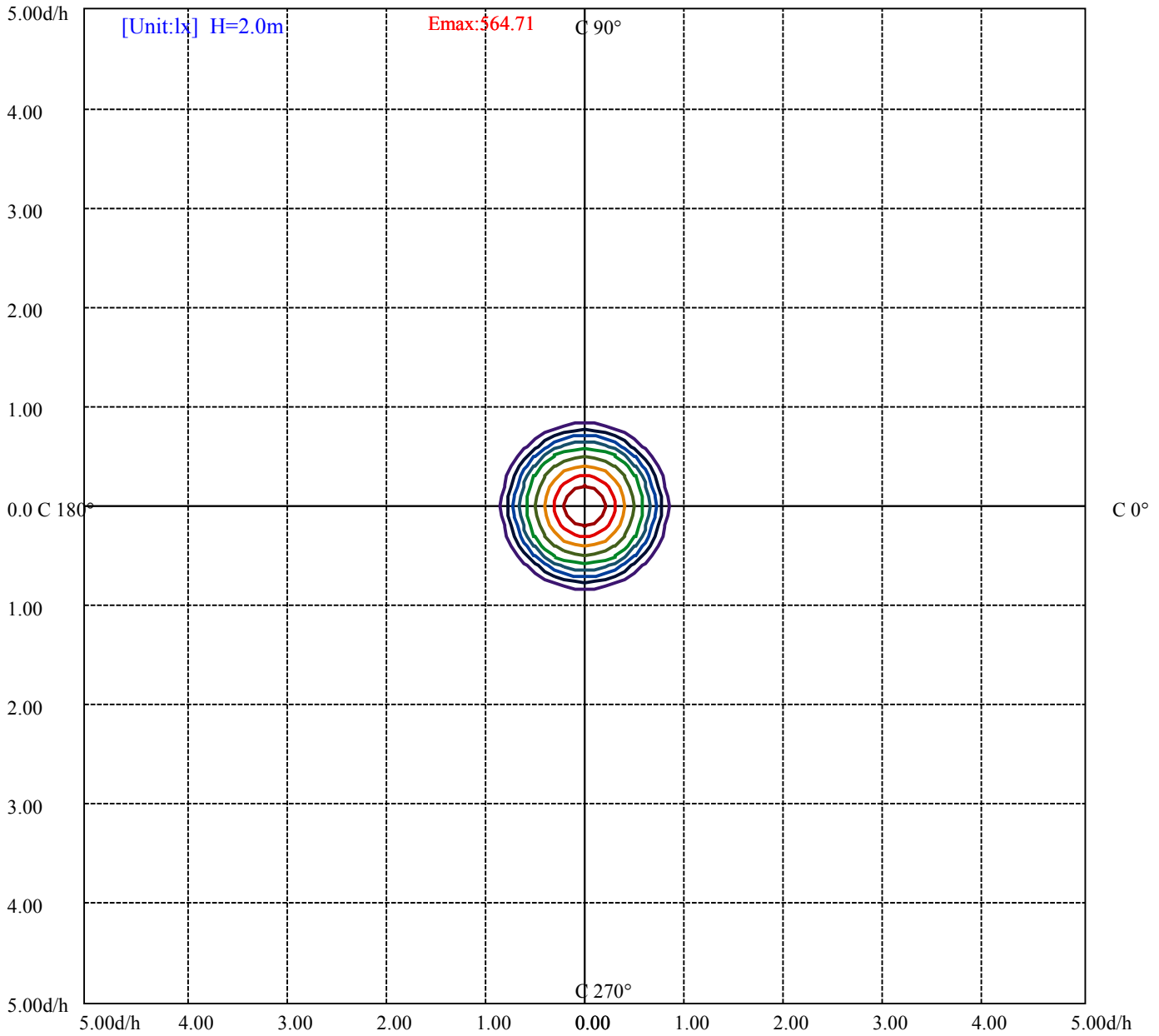
House

[Unit:cd]

Road

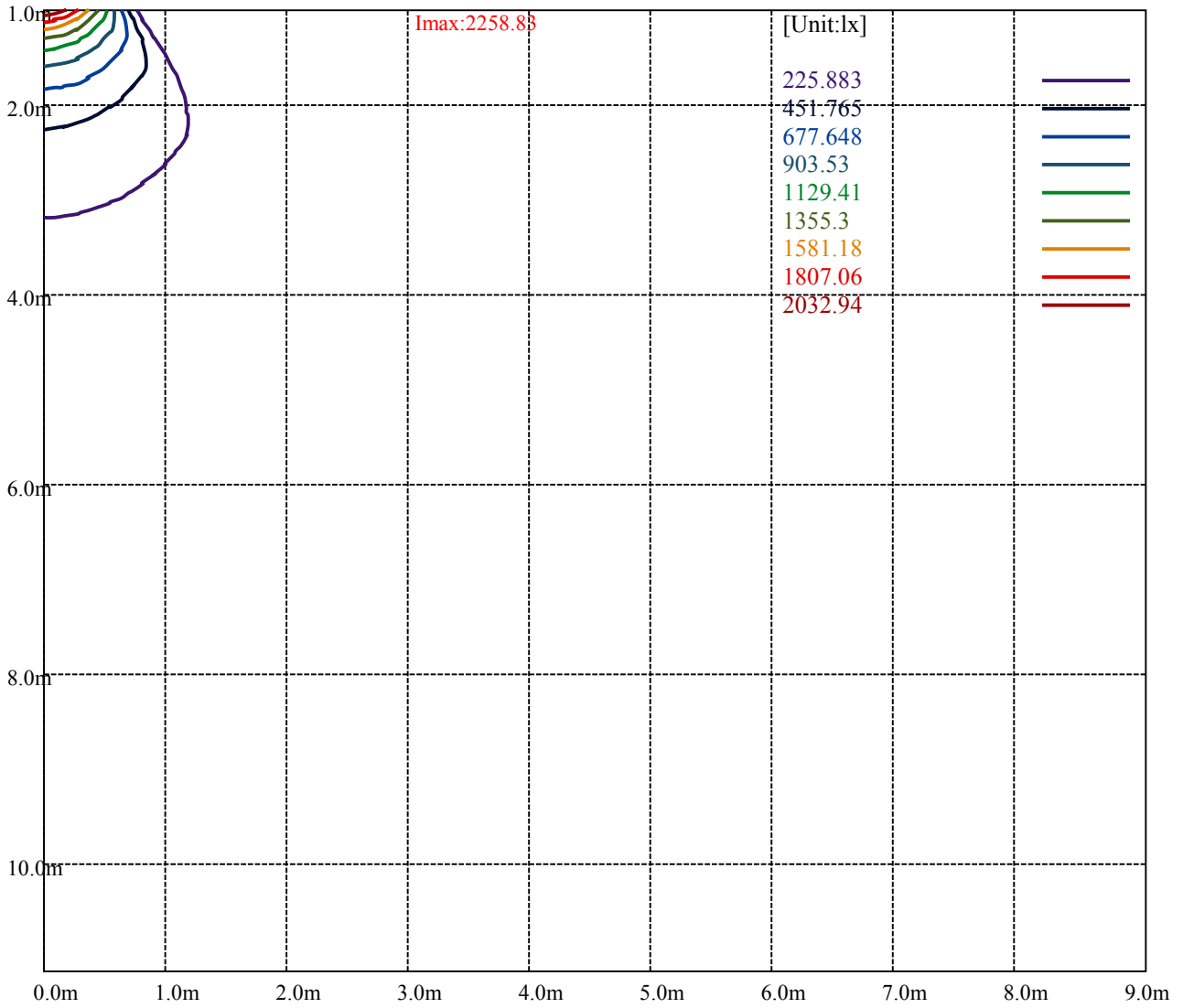
**Imax:2258.83**

(10%Imax)	225.883	
(20%Imax)	451.765	
(30%Imax)	677.648	
(40%Imax)	903.53	
(50%Imax)	1129.41	
(60%Imax)	1355.3	
(70%Imax)	1581.18	
(80%Imax)	1807.06	
(90%Imax)	2032.94	



(10%Emax) 56.47075	—
(20%Emax) 112.9413	—
(30%Emax) 169.412	—
(40%Emax) 225.8825	—
(50%Emax) 282.3525	—
(60%Emax) 338.825	—
(70%Emax) 395.295	—
(80%Emax) 451.765	—
(90%Emax) 508.235	—





Luminance Table

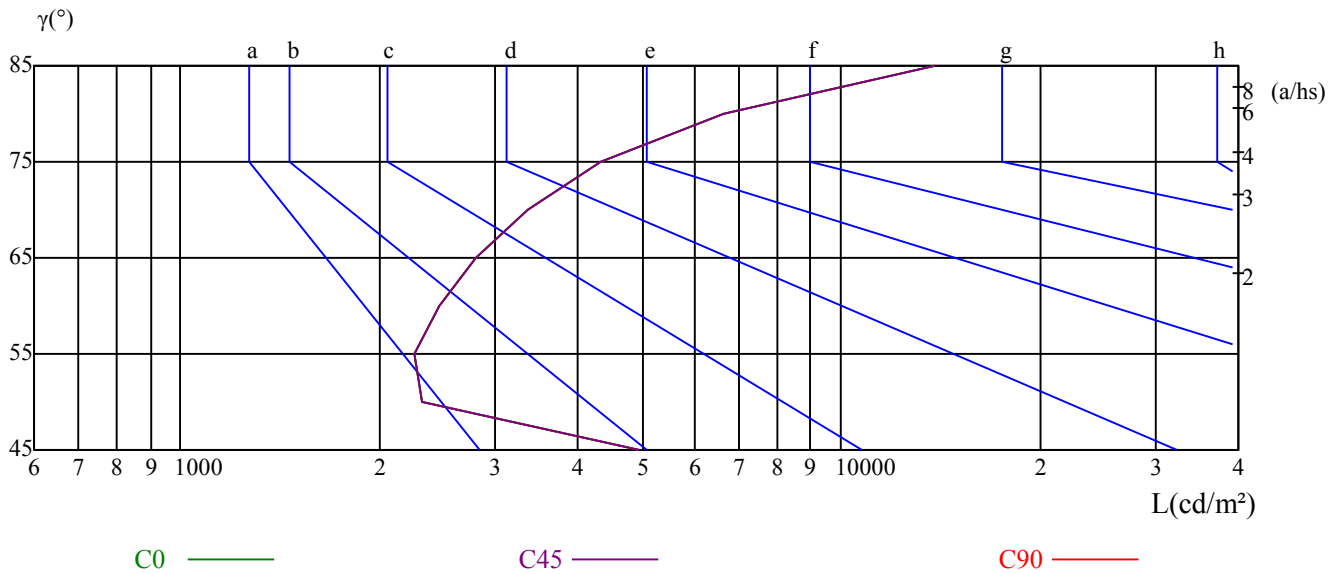
$\gamma$	45	50	55	60	65	70	75	80	85
C0	4950	2328	2253	2461	2794	3360	4329	6658	13913
C45	4950	2328	2253	2461	2794	3360	4329	6658	13913
C90	4950	2328	2253	2461	2794	3360	4329	6658	13913

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2794	2794	2794	4329	4329	4329	13913	13913	13913

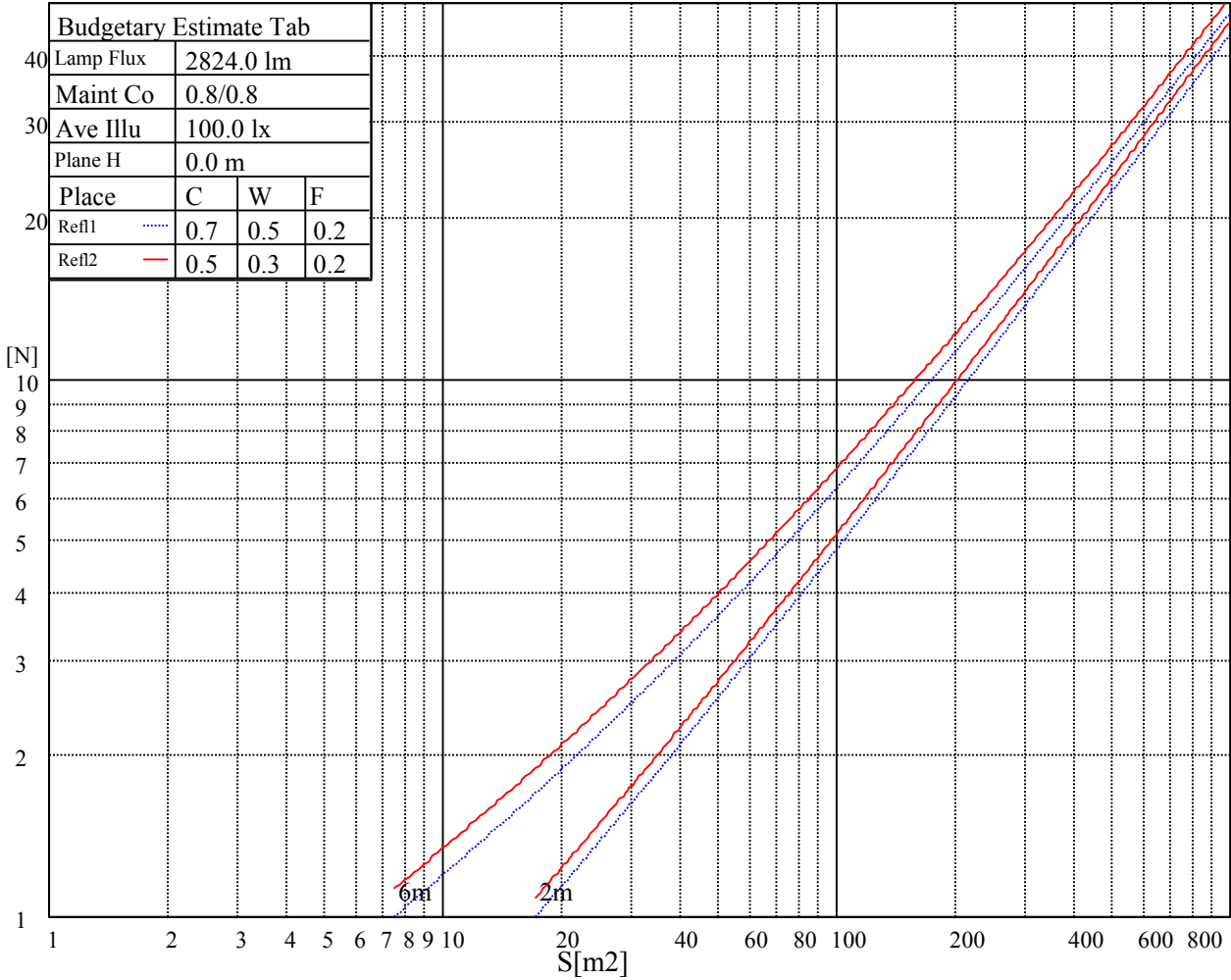
Glare Table

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

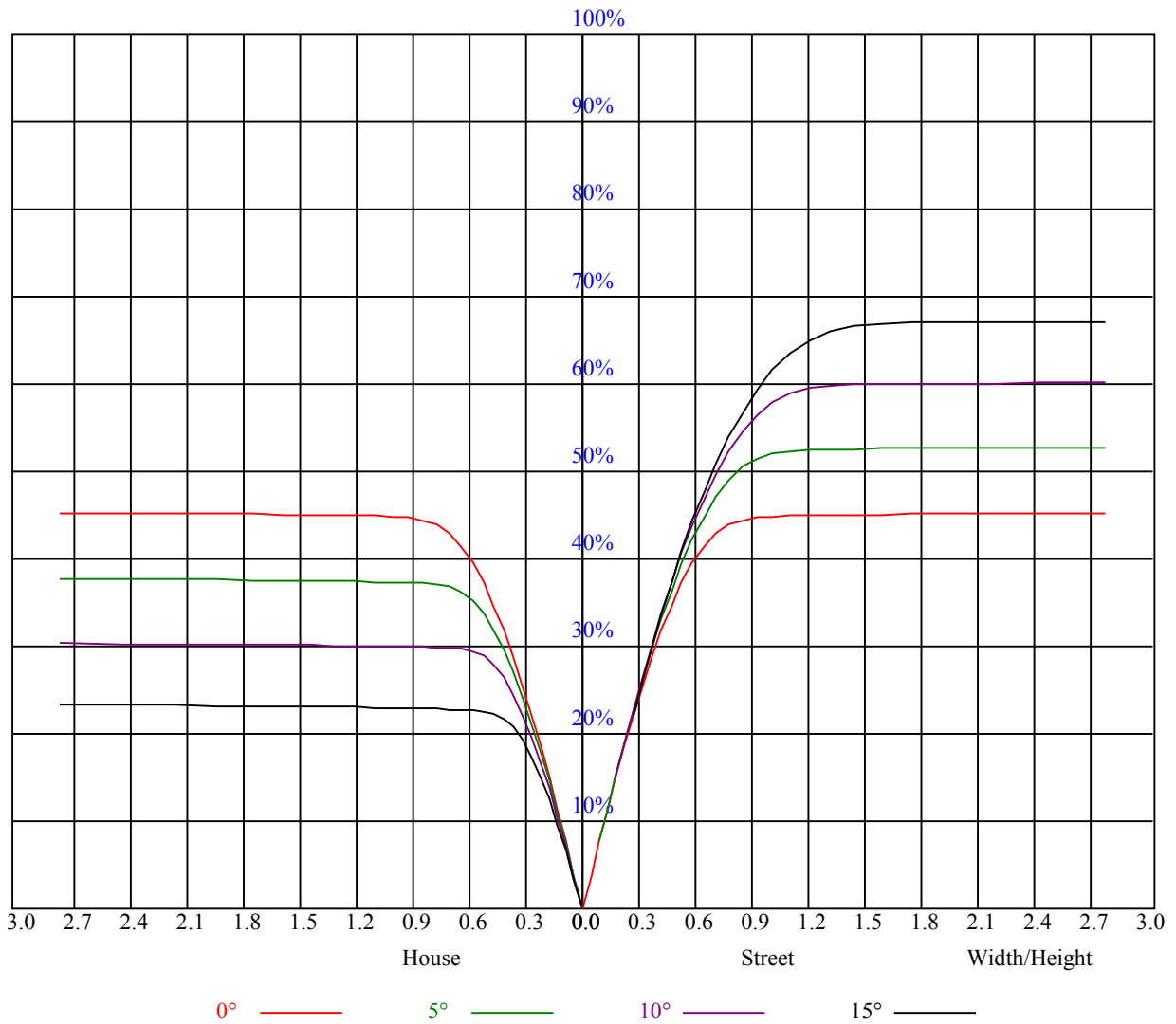
Luminance Limiting Curve



Illumination assessment according UGR											
Rf of Ceiling	70	70	50	50	30	70	70	50	50	30	
Rf of Wall	50	30	50	30	30	50	30	50	30	30	
Rf of Floor	20	20	20	20	20	20	20	20	20	20	
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	0.69	1.61	1.05	1.92	2.24	0.51	1.43	0.87	1.74	2.05
	3H	3.79	4.60	4.17	4.93	5.30	3.62	4.43	4.00	4.76	5.13
	4H	5.48	6.24	5.89	6.59	6.98	5.32	6.07	5.73	6.43	6.82
	6H	7.74	8.43	8.16	8.80	9.20	7.27	7.96	7.69	8.33	8.73
	8H	8.93	9.57	9.37	9.97	10.38	8.46	9.11	8.90	9.50	9.91
	12H	10.67	11.29	11.11	11.67	12.11	10.51	11.13	10.94	11.51	11.94
4H	2H	1.54	2.30	1.95	2.65	3.04	1.42	2.17	1.82	2.52	2.91
	3H	4.91	5.52	5.32	5.93	6.34	4.79	5.41	5.21	5.82	6.22
	4H	6.79	7.34	7.23	7.76	8.21	6.65	7.20	7.09	7.62	8.07
	6H	9.10	9.57	9.57	10.02	10.50	8.73	9.20	9.20	9.66	10.13
	8H	10.42	10.86	10.90	11.31	11.79	10.05	10.49	10.52	10.94	11.41
	12H	12.09	12.47	12.59	12.96	13.44	11.99	12.37	12.48	12.86	13.33
8H	4H	7.50	7.94	7.98	8.39	8.87	7.38	7.82	7.86	8.28	8.75
	6H	10.09	10.44	10.61	10.94	11.43	9.76	10.11	10.28	10.62	11.10
	8H	11.60	11.91	12.13	12.43	12.93	11.28	11.59	11.82	12.11	12.61
	12H	13.42	13.68	13.94	14.18	14.76	13.35	13.61	13.87	14.11	14.69
12H	4H	7.70	8.08	8.19	8.57	9.05	7.62	8.00	8.12	8.49	8.97
	6H	10.62	10.71	10.94	11.19	11.74	10.33	10.43	10.66	10.91	11.46
	8H	12.05	12.31	12.57	12.81	13.39	11.78	12.04	12.30	12.54	13.12
Variation with the observer position at spacings:											
S = 1.0H	5.2/-11.9					5.2/-11.9					
S = 1.5H	7.9/-9.6					7.9/-9.6					
S = 2.0H	9.6/-7.8					9.6/-7.8					
Standard tables:	BK1					BK1					
Uncorrected UGR	3.3					3.3					



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	1.09	1.09	1.09	1.06	1.06	1.06	1.02	1.02	1.02	0.97	0.97	0.97	0.93	0.93	0.93	0.91
1	1.01	0.98	0.96	0.99	0.96	0.95	0.95	0.93	0.92	0.92	0.90	0.89	0.88	0.87	0.86	0.85
2	0.94	0.90	0.87	0.92	0.89	0.86	0.89	0.87	0.84	0.87	0.84	0.82	0.84	0.82	0.81	0.79
3	0.88	0.83	0.80	0.87	0.82	0.79	0.84	0.81	0.78	0.82	0.79	0.77	0.80	0.77	0.75	0.74
4	0.82	0.77	0.73	0.81	0.77	0.73	0.79	0.75	0.72	0.77	0.74	0.71	0.76	0.73	0.71	0.69
5	0.77	0.72	0.68	0.76	0.72	0.68	0.75	0.71	0.67	0.73	0.70	0.67	0.72	0.69	0.66	0.65
6	0.73	0.67	0.64	0.72	0.67	0.63	0.71	0.66	0.63	0.69	0.66	0.63	0.68	0.65	0.62	0.61
7	0.69	0.63	0.60	0.68	0.63	0.59	0.67	0.62	0.59	0.66	0.62	0.59	0.65	0.61	0.58	0.57
8	0.65	0.60	0.56	0.64	0.59	0.56	0.63	0.59	0.55	0.62	0.58	0.55	0.62	0.58	0.55	0.54
9	0.61	0.56	0.53	0.61	0.56	0.52	0.60	0.55	0.52	0.59	0.55	0.52	0.59	0.55	0.52	0.51
10	0.58	0.53	0.50	0.58	0.53	0.49	0.57	0.52	0.49	0.56	0.52	0.49	0.56	0.52	0.49	0.48



## 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	2253.46	2212.72	2173.35	2089.39	1997.45	1926.97	1843.84	1313.59	364.69
45.0	2272.73	2226.21	2185.19	2112.95	2024.04	1905.50	1800.23	1305.28	419.20
90.0	2254.01	2228.96	2184.36	2124.63	2015.89	1904.95	1802.27	1351.41	453.44
135.0	2255.11	2226.21	2185.19	2112.95	2024.04	1905.50	1800.23	1305.28	419.20
180.0	2253.46	2212.72	2173.35	2089.39	1997.45	1926.97	1843.84	1313.59	364.69
225.0	2272.73	2226.21	2185.19	2112.95	2024.04	1905.50	1800.23	1305.28	419.20
270.0	2254.01	2228.96	2184.36	2124.63	2015.89	1904.95	1802.27	1351.41	453.44
315.0	2255.11	2226.21	2185.19	2112.95	2024.04	1905.50	1800.23	1305.28	419.20
360.0	2253.46	2212.72	2173.35	2089.39	1997.45	1926.97	1843.84	1313.59	364.69

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	25.22	14.09	12.66	12.11	11.62	11.34	11.07	10.96	12.55
45.0	38.15	15.42	12.94	12.28	11.84	11.51	11.23	11.12	12.28
90.0	38.48	14.92	13.16	12.55	11.95	11.62	11.29	13.05	11.40
135.0	38.15	15.42	12.94	12.28	11.84	11.51	11.23	11.12	12.28
180.0	25.22	14.09	12.66	12.11	11.62	11.34	11.07	10.96	12.55
225.0	38.15	15.42	12.94	12.28	11.84	11.51	11.23	11.12	12.28
270.0	38.48	14.92	13.16	12.55	11.95	11.62	11.29	13.05	11.40
315.0	38.15	15.42	12.94	12.28	11.84	11.51	11.23	11.12	12.28
360.0	25.22	14.09	12.66	12.11	11.62	11.34	11.07	10.96	12.55

C/γ(°)	90.0
0.0	10.57
45.0	10.68
90.0	10.68
135.0	10.68
180.0	10.57
225.0	10.68
270.0	10.68
315.0	10.68
360.0	10.57