



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

Nata

LumCAT: 1-0937-N
Luminaire: 92.70.246.00
Report No: 210708-B018
Test No: 210708-C018
LampCAT: Fortimo LED SLM 1204 G7N
Lamp flux(lm): 2446.6
Number of Lamps: 1
Length(mm): 570
Phm Type: C

Voltage(V): 36.1200
Current(A): 0.5100
Power (W): 18.4210
PF: 0.0000
Ballast type: DC
Width(mm): 45
Height(mm): 20

Photometric Results

Lumens(lm): 1904.03
Efficiency(%): 77.82%
Lumens(lm)/Power(W): 103.36
Central intensity(cd): 5048.578
Maximum intensity(cd): 5048.578
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=34.8
[C90/270]Total=34.8
Field angle(10%Imax): [C0/180]Total=56.9
[C90/270]Total=56.9
Maximum s/h(1/2): C0_180=0.57 C90_270=0.57
Maximum s/h(1/4): C0_180=0.57 C90_270=0.57
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 77.82%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.072%

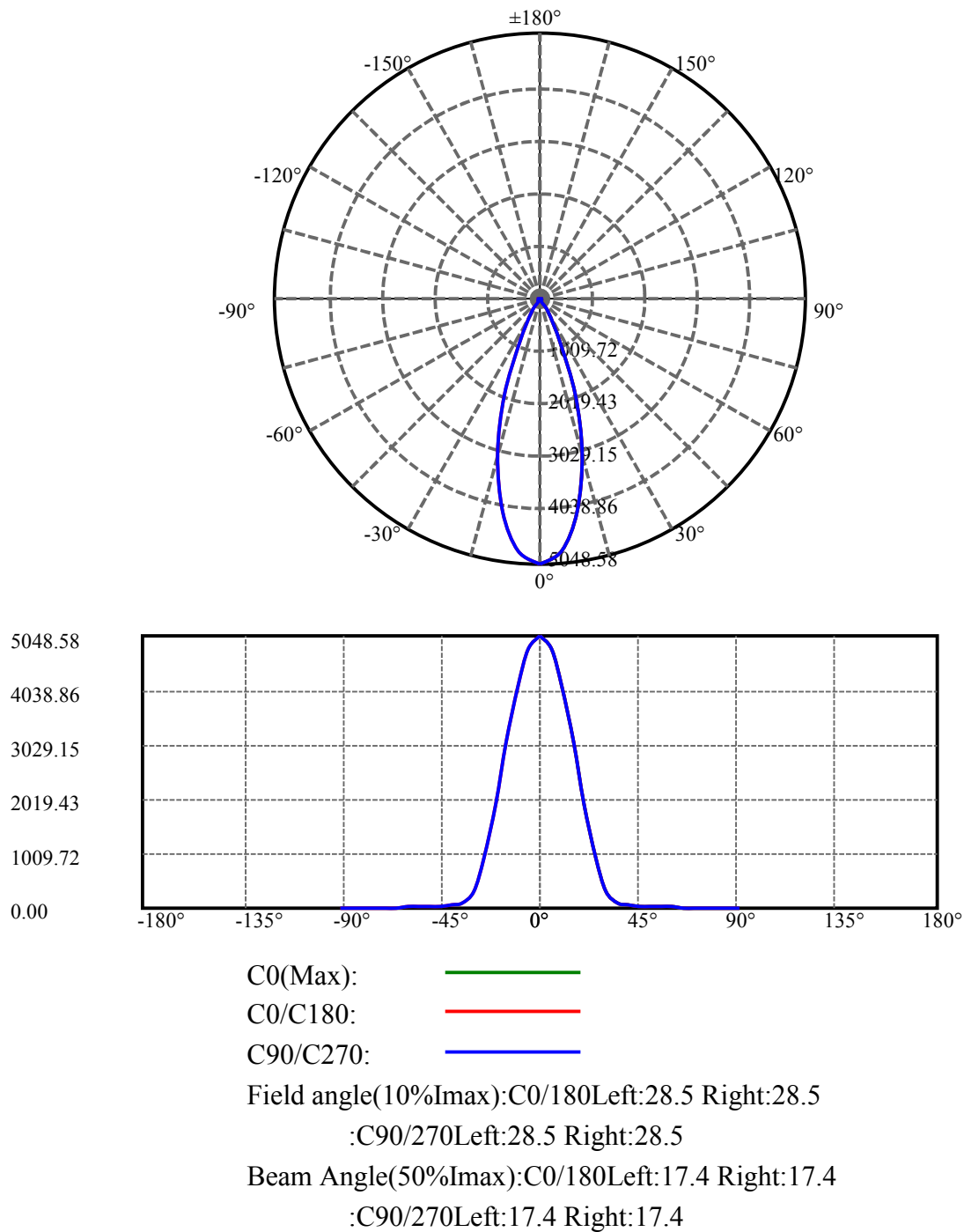
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5048.578	0.000	0	.000%	.000%
5.0	4795.242	117.680	117.68	4.810%	6.181%
10.0	4118.063	318.857	436.537	13.033%	22.927%
15.0	3063.867	426.027	862.564	17.413%	45.302%
20.0	1942.523	412.597	1275.161	16.864%	66.972%
25.0	937.041	302.013	1577.174	12.344%	82.833%
30.0	311.105	157.954	1735.128	6.456%	91.129%
35.0	83.658	58.132	1793.26	2.376%	94.182%
40.0	55.688	23.249	1816.508	.950%	95.403%
45.0	38.981	17.529	1834.037	.716%	96.324%
50.0	28.427	13.621	1847.658	.557%	97.039%
55.0	21.220	10.795	1858.453	.441%	97.606%
60.0	17.142	8.867	1867.32	.362%	98.072%
65.0	14.323	7.649	1874.97	.313%	98.474%
70.0	12.565	6.808	1881.778	.278%	98.831%
75.0	11.187	6.208	1887.986	.254%	99.157%
80.0	10.434	5.785	1893.771	.236%	99.461%
85.0	9.471	5.409	1899.18	.221%	99.745%
90.0	8.248	4.852	1904.032	.198%	100.000%

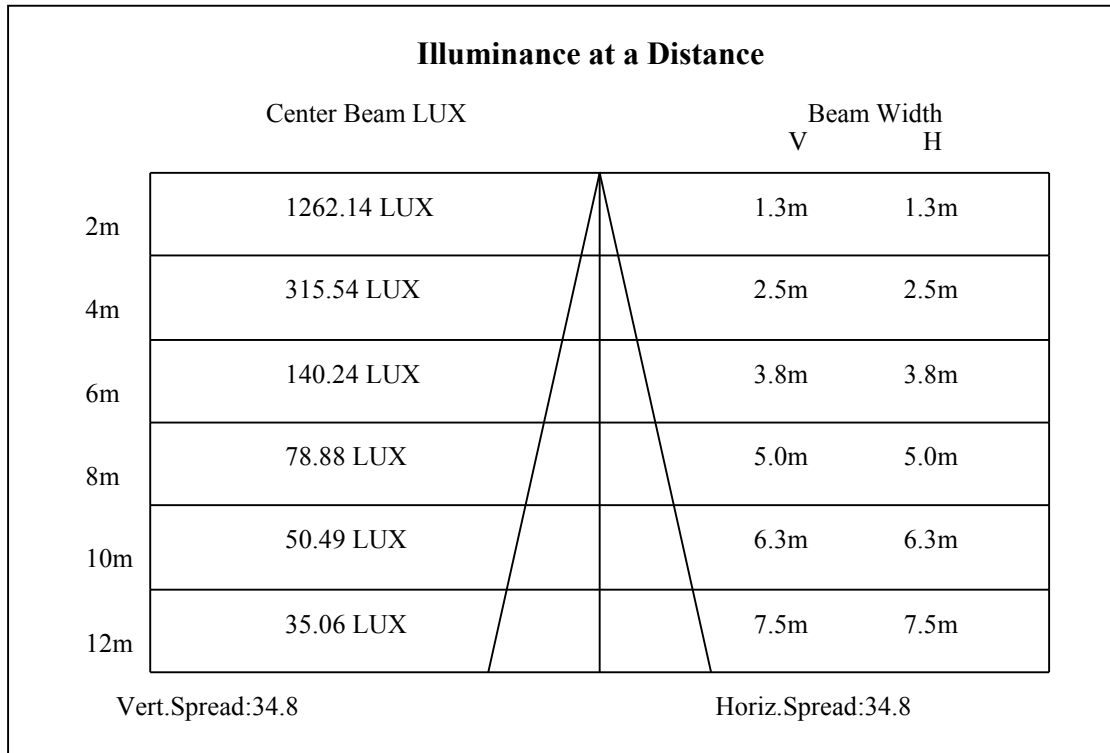
ZONAL LUMEN SUMMARY

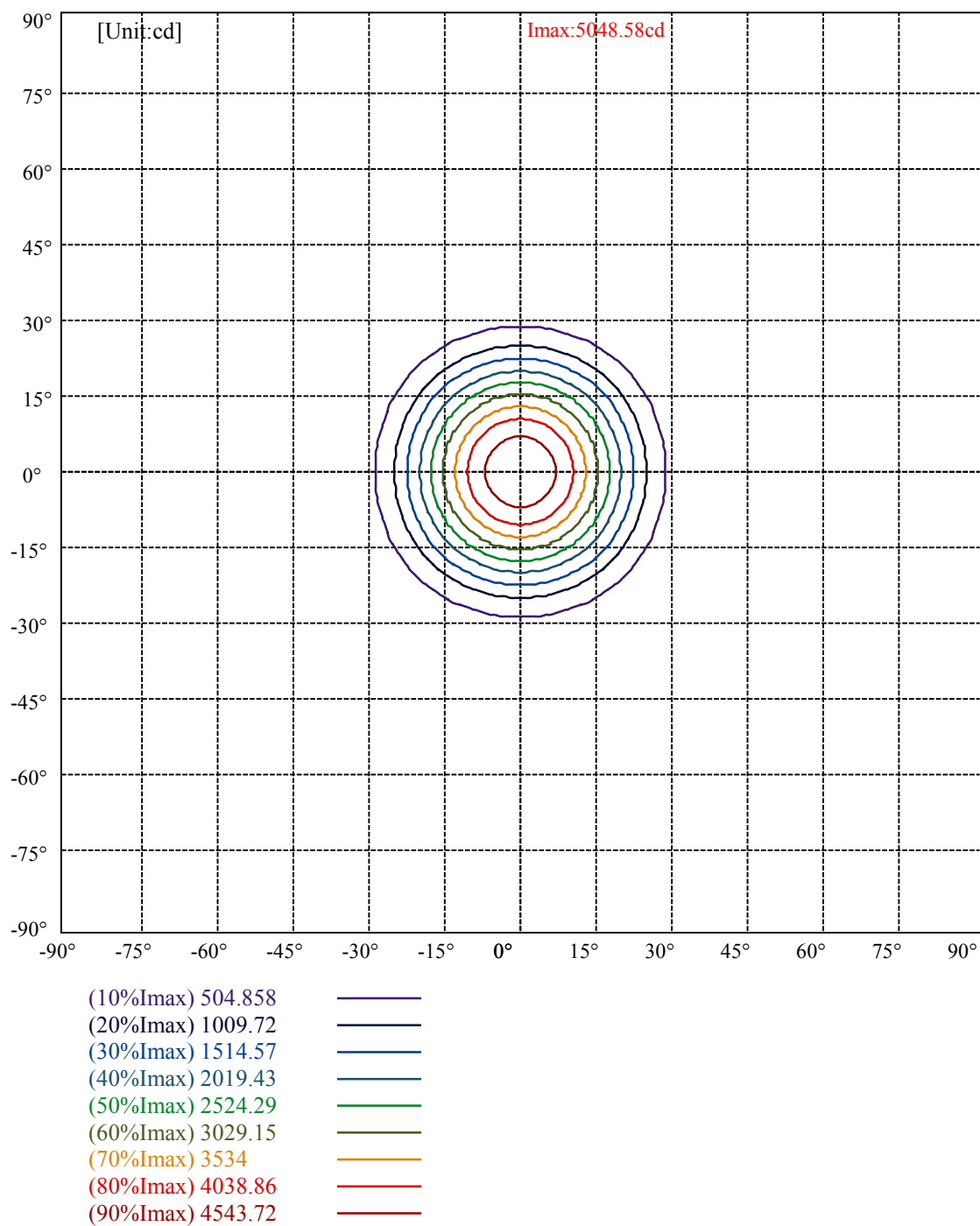
Zone	Lumens	%Lamp	%Fixt
0-30	1735.13	70.92%	91.13%
0-40	1816.51	74.25%	95.40%
0-60	1867.32	76.32%	98.07%
0-90	1899.18	77.62%	99.75%
0-120	1899.18	77.62%	99.75%
0-180	1904.03	77.82%	100.00%
60-90	40.73	1.66%	2.14%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-24.11	1523.23	62.26%	80.00%

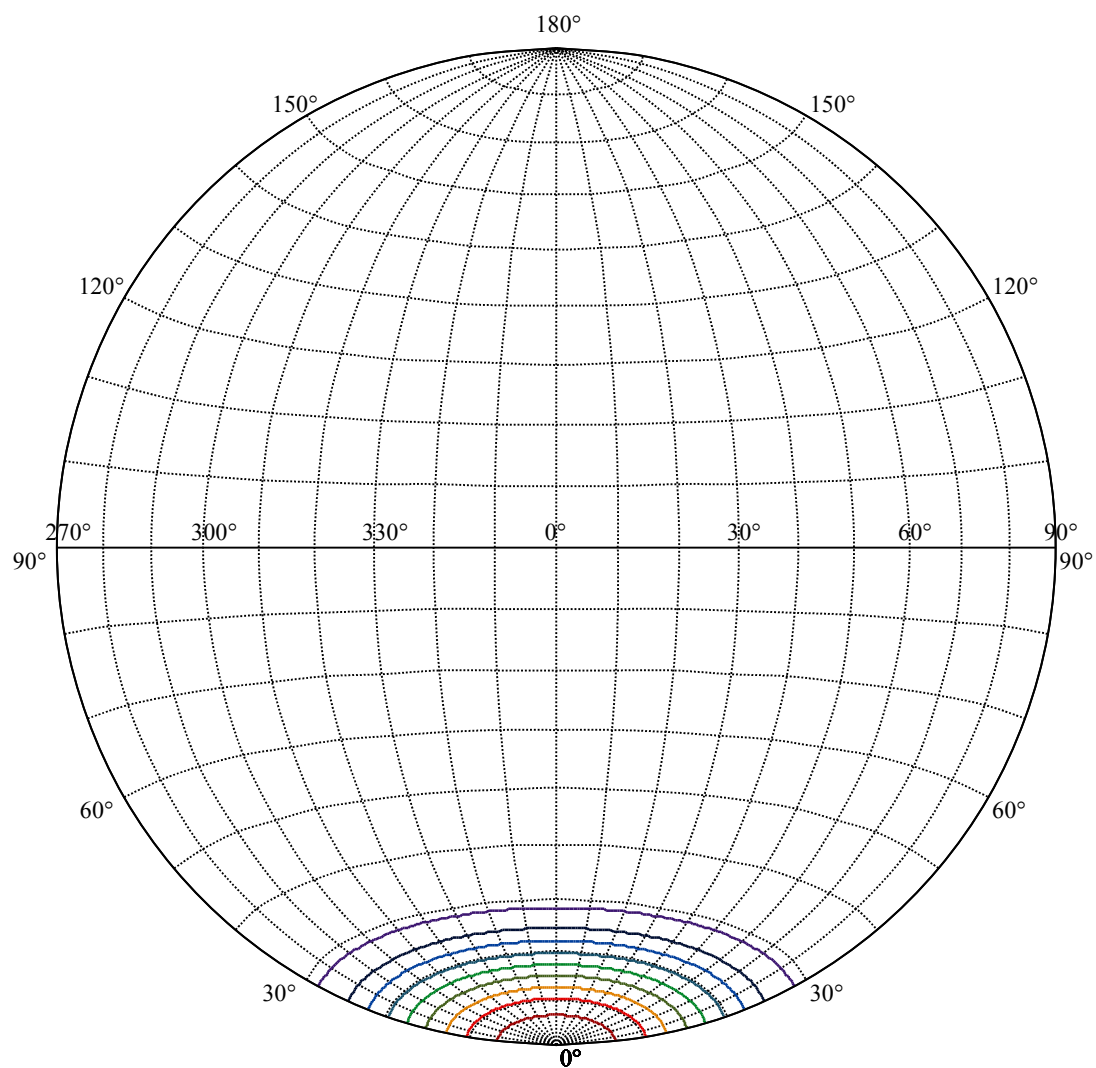
ZONAL LUMEN SUMMARY

0-10	436.54
10-20	838.62
20-30	459.97
30-40	81.38
40-50	31.15
50-60	19.66
60-70	14.46
70-80	11.99
80-90	5.41
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









House

[Unit:cd]

Road

Imax:5048.58

(10%Imax) 504.858

(20%Imax) 1009.72

(30%Imax) 1514.57

(40%Imax) 2019.43

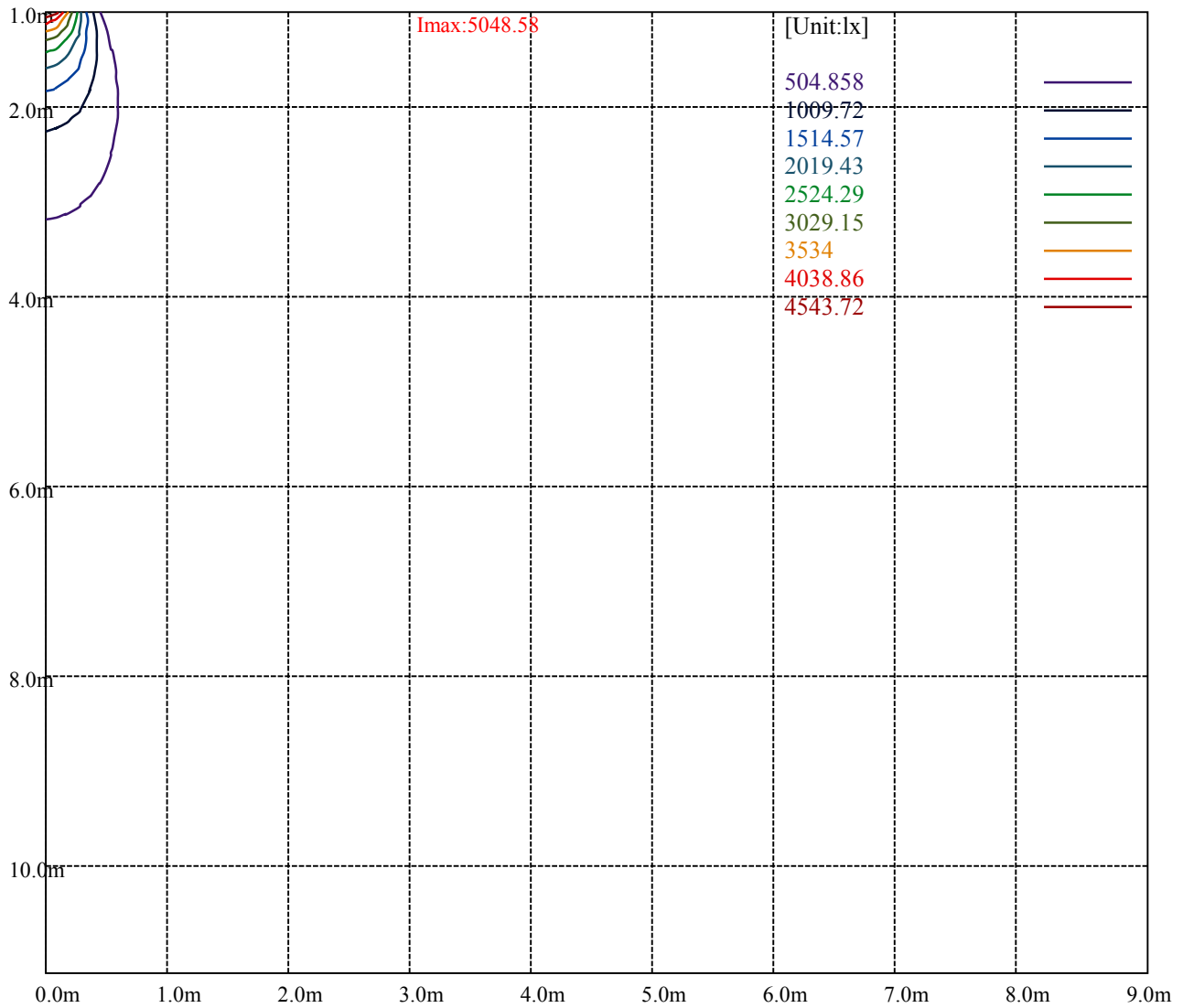
(50%Imax) 2524.29

(60%Imax) 3029.15

(70%Imax) 3534

(80%Imax) 4038.86

(90%Imax) 4543.72



Luminance Table

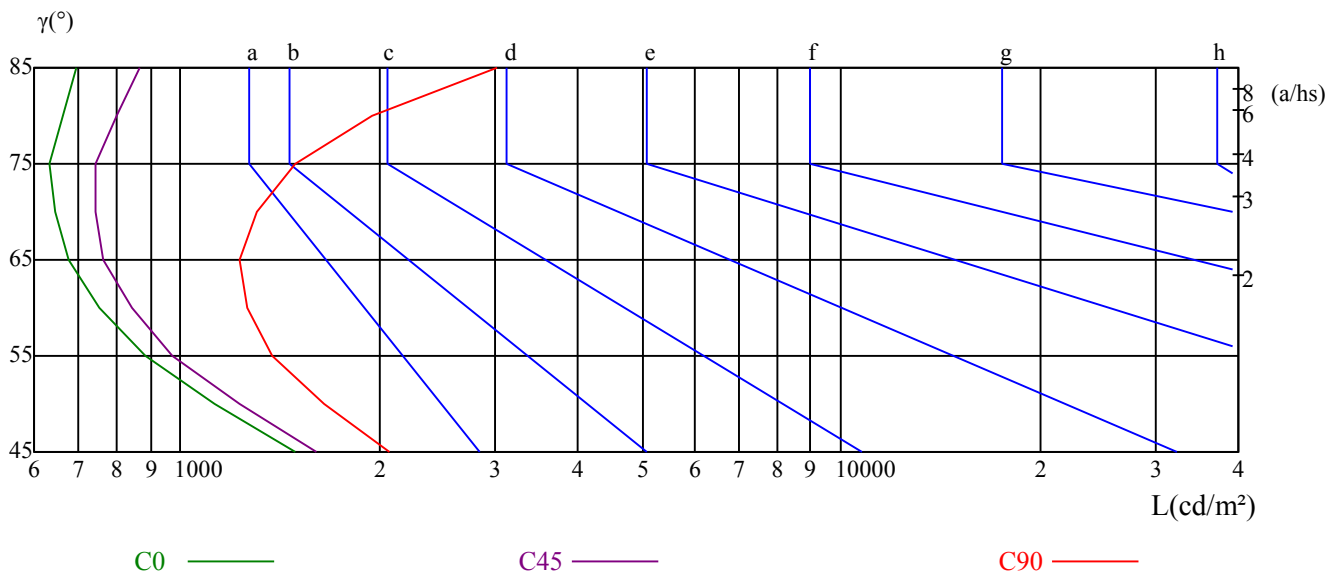
γ	45	50	55	60	65	70	75	80	85
C0	1488	1127	882	755	676	645	634	665	697
C45	1605	1228	972	842	765	741	744	801	869
C90	2076	1655	1374	1260	1229	1306	1490	1954	3024

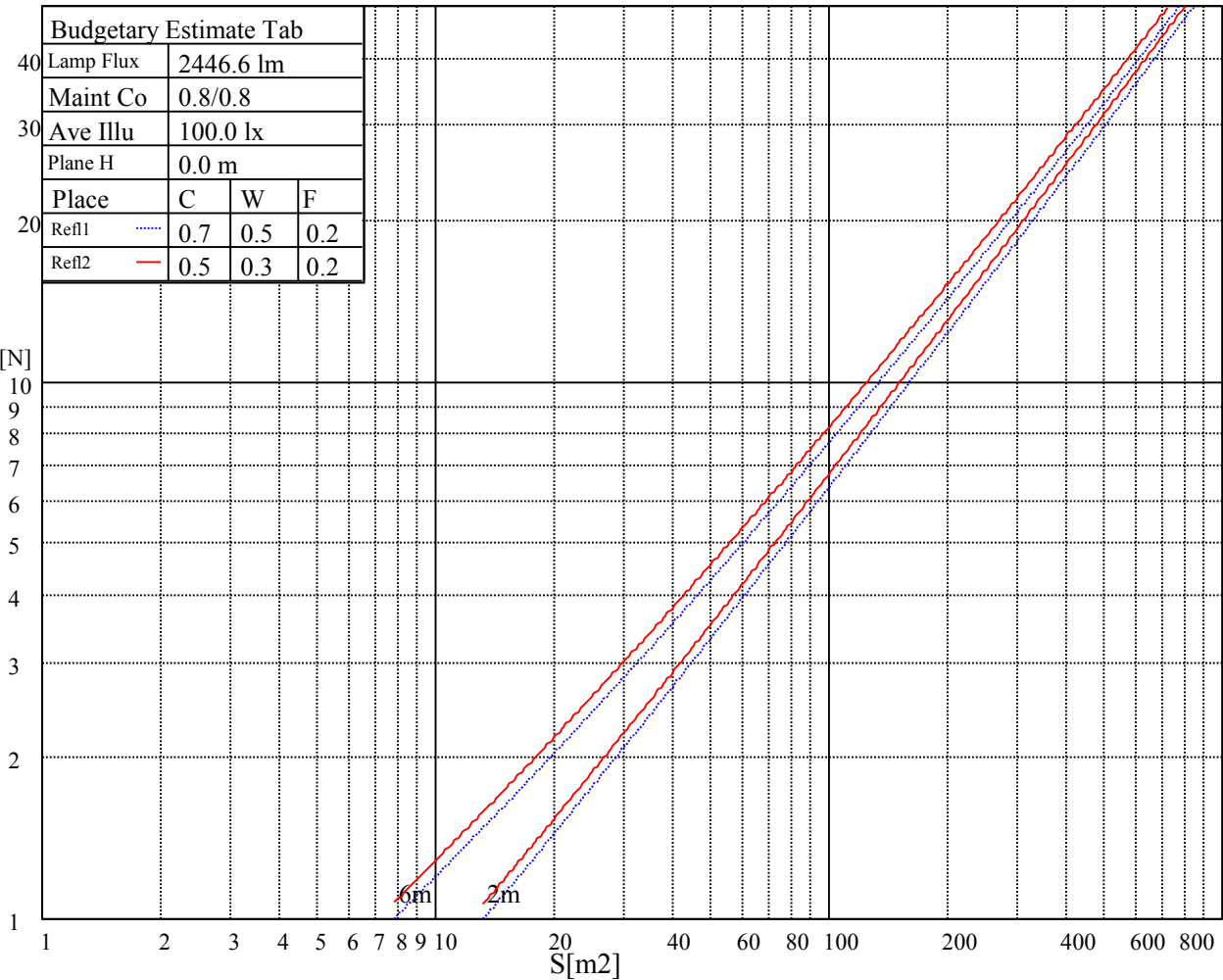
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
1321	1321	1321	1685	1685	1685	4237	4237	4237

Glare Table

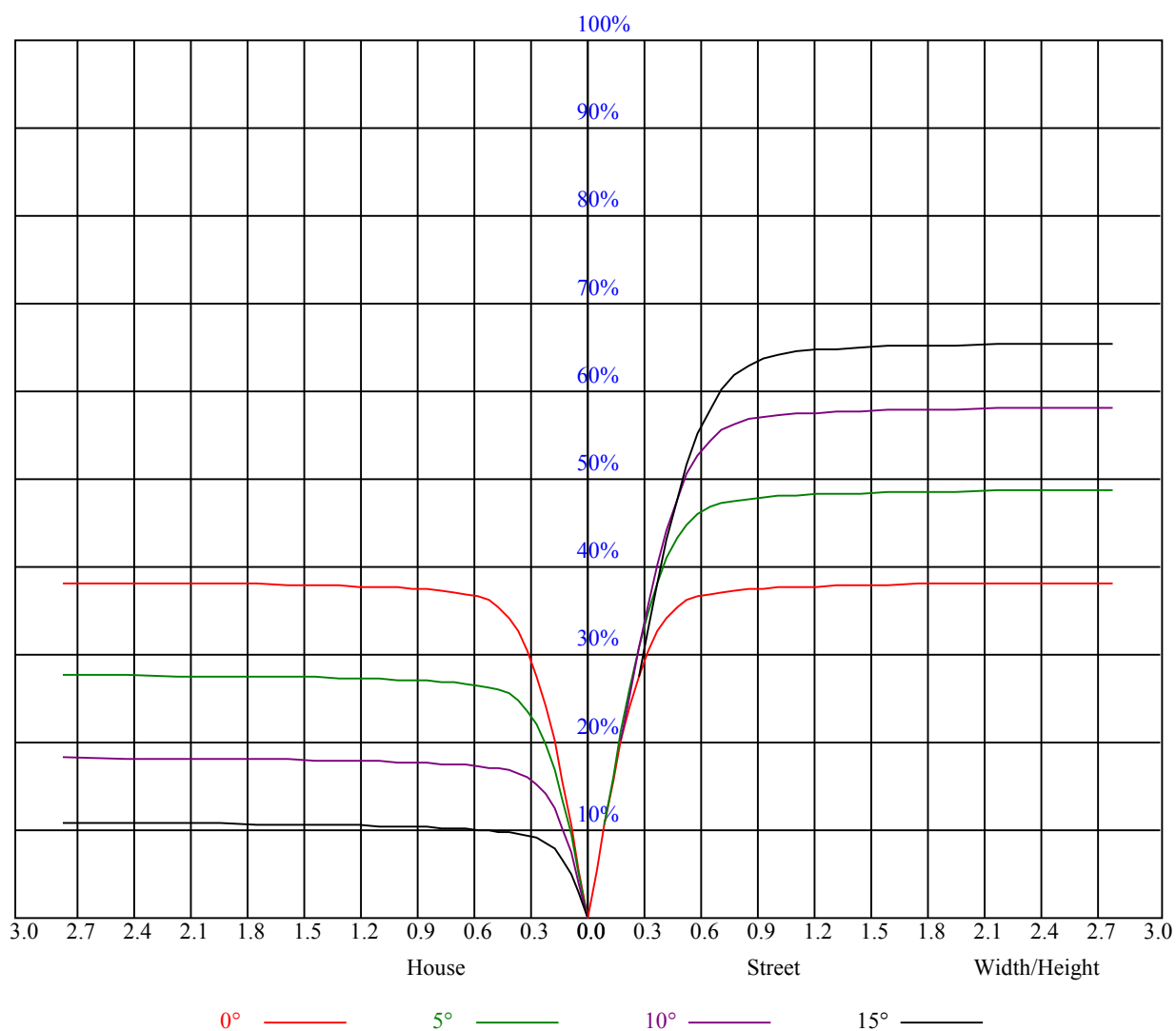
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve





RHOC	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	0.93	0.93	0.93	0.90	0.90	0.90	0.86	0.86	0.86	0.83	0.83	0.83	0.79	0.79	0.79	0.78
1	0.87	0.85	0.84	0.85	0.84	0.82	0.82	0.81	0.80	0.79	0.78	0.77	0.77	0.76	0.75	0.74
2	0.82	0.79	0.77	0.81	0.78	0.76	0.78	0.76	0.75	0.76	0.74	0.73	0.74	0.73	0.71	0.70
3	0.78	0.75	0.72	0.77	0.74	0.71	0.75	0.72	0.70	0.73	0.71	0.69	0.71	0.70	0.68	0.67
4	0.74	0.71	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.70	0.68	0.66	0.69	0.67	0.65	0.64
5	0.71	0.67	0.64	0.70	0.67	0.64	0.69	0.66	0.63	0.68	0.65	0.63	0.66	0.64	0.62	0.61
6	0.68	0.64	0.61	0.67	0.64	0.61	0.66	0.63	0.61	0.65	0.62	0.60	0.64	0.62	0.60	0.59
7	0.65	0.61	0.59	0.64	0.61	0.58	0.64	0.60	0.58	0.63	0.60	0.58	0.62	0.59	0.58	0.57
8	0.62	0.59	0.56	0.62	0.58	0.56	0.61	0.58	0.56	0.61	0.58	0.56	0.60	0.57	0.55	0.55
9	0.60	0.56	0.54	0.60	0.56	0.54	0.59	0.56	0.54	0.59	0.56	0.54	0.58	0.55	0.53	0.53
10	0.58	0.54	0.52	0.58	0.54	0.52	0.57	0.54	0.52	0.57	0.54	0.52	0.56	0.53	0.51	0.51



Intensity data(cd)										Appendix Page: 14 Total:14	
C/ γ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0		
0.0	5032.69	4950.56	4376.81	3382.88	2266.31	1188.00	419.06	97.93	61.43		
45.0	5063.06	4813.31	4093.88	3005.44	1907.44	907.31	290.81	76.78	53.21		
90.0	5039.44	4601.25	3854.25	2705.06	1589.06	705.38	172.63	69.81	49.78		
135.0	5059.13	4712.63	4025.25	2904.75	1759.50	829.69	301.50	76.89	53.44		
180.0	5032.69	4632.19	3862.13	2711.25	1648.13	718.20	180.28	72.56	50.23		
225.0	5063.06	4808.25	4158.00	3089.81	1997.44	964.80	301.89	83.87	55.35		
270.0	5039.44	4950.00	4372.88	3454.88	2290.50	1203.19	464.06	100.69	62.38		
315.0	5059.13	4893.75	4201.31	3256.88	2081.81	979.76	358.59	90.73	59.68		
360.0	5032.69	4950.56	4376.81	3382.88	2266.31	1188.00	419.06	97.93	61.43		
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	42.58	31.05	22.67	17.83	14.74	12.94	11.48	10.29	9.45		
45.0	37.46	27.96	20.81	16.88	14.34	12.43	10.86	9.79	9.00		
90.0	35.04	25.76	19.63	16.26	13.78	12.09	10.97	11.70	8.89		
135.0	37.01	26.89	20.48	16.65	14.01	12.38	11.08	10.07	9.00		
180.0	35.21	26.21	19.86	16.20	13.84	12.26	10.97	10.07	9.00		
225.0	38.42	27.90	21.15	16.99	14.18	12.49	11.08	10.01	9.28		
270.0	43.99	31.44	23.01	18.56	15.02	13.05	11.70	11.03	11.42		
315.0	42.13	30.21	22.16	17.78	14.68	12.88	11.36	10.52	9.73		
360.0	42.58	31.05	22.67	17.83	14.74	12.94	11.48	10.29	9.45		
C/ γ (°)	90.0										
0.0	8.38										
45.0	8.16										
90.0	8.16										
135.0	8.21										
180.0	8.33										
225.0	8.16										
270.0	8.27										
315.0	8.33										
360.0	8.38										