



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: 4-2267-M	
Luminaire: 92.70.131.00	
Report No: NATA0100	Voltage(V): 36.2000
Test No: GC2018111306	Current(A): 0.5500
LampCAT: OSRAM SOLERIQ S15	Power (W): 19.9100
Lamp flux(lm): 2619.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 100	Width(mm): 100
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 2343.25
Efficiency(%): 89.47%
Lumens(lm)/Power(W): 119.25
Central intensity(cd): 5570.156
Maximum intensity(cd): 5570.156
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=33.1
 [C90/270]Total=33.1
Field angle(10%Imax): [C0/180]Total=69.2
 [C90/270]Total=69.2
Maximum s/h(1/2): C0_180=0.54 C90_270=0.54
Maximum s/h(1/4): C0_180=0.58 C90_270=0.58
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 90.66%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.341%

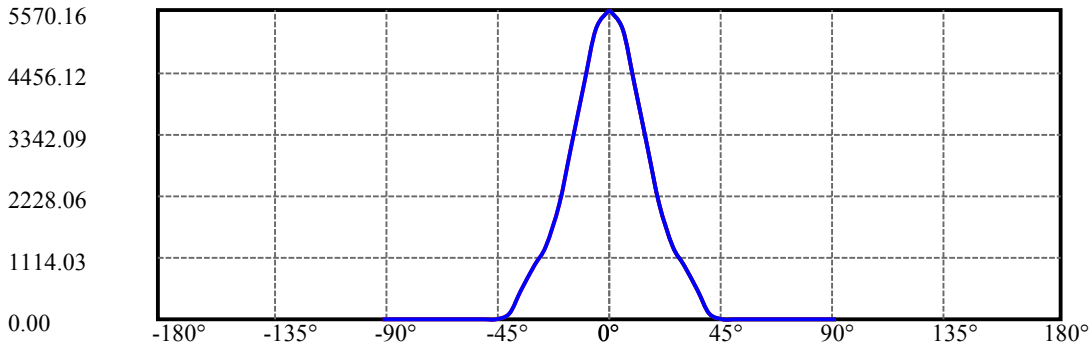
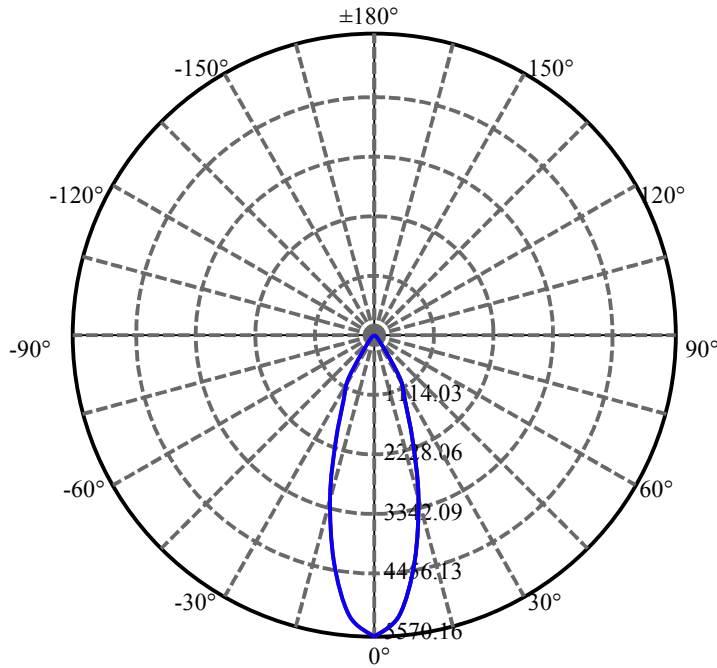
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5570.156	33.311	33.311	1.272%	1.422%
5.0	5208.539	248.829	282.14	9.501%	12.041%
10.0	4266.492	406.098	688.238	15.506%	29.371%
15.0	3095.367	439.135	1127.372	16.767%	48.111%
20.0	2078.648	389.693	1517.065	14.879%	64.742%
25.0	1324.716	306.874	1823.939	11.717%	77.838%
30.0	973.273	266.744	2090.683	10.185%	89.221%
35.0	519.427	163.307	2253.99	6.235%	96.191%
40.0	104.196	36.712	2290.702	1.402%	97.757%
45.0	14.365	5.568	2296.269	.213%	97.995%
50.0	12.143	5.099	2301.368	.195%	98.212%
55.0	10.983	4.931	2306.3	.188%	98.423%
60.0	10.336	4.906	2311.206	.187%	98.632%
65.0	10.069	5.002	2316.208	.191%	98.846%
70.0	10.111	5.208	2321.416	.199%	99.068%
75.0	13.718	7.263	2328.679	.277%	99.378%
80.0	11.939	6.445	2335.124	.246%	99.653%
85.0	9.977	5.448	2340.572	.208%	99.886%
90.0	9.788	2.682	2343.255	.102%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2090.68	79.83%	89.22%
0-40	2290.70	87.46%	97.76%
0-60	2311.21	88.25%	98.63%
0-90	2340.57	89.37%	99.89%
0-120	2340.57	89.37%	99.89%
0-180	2343.25	89.47%	100.00%
60-90	34.27	1.31%	1.46%
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%
0-25.95	1874.60	71.58%	80.00%

ZONAL LUMEN SUMMARY

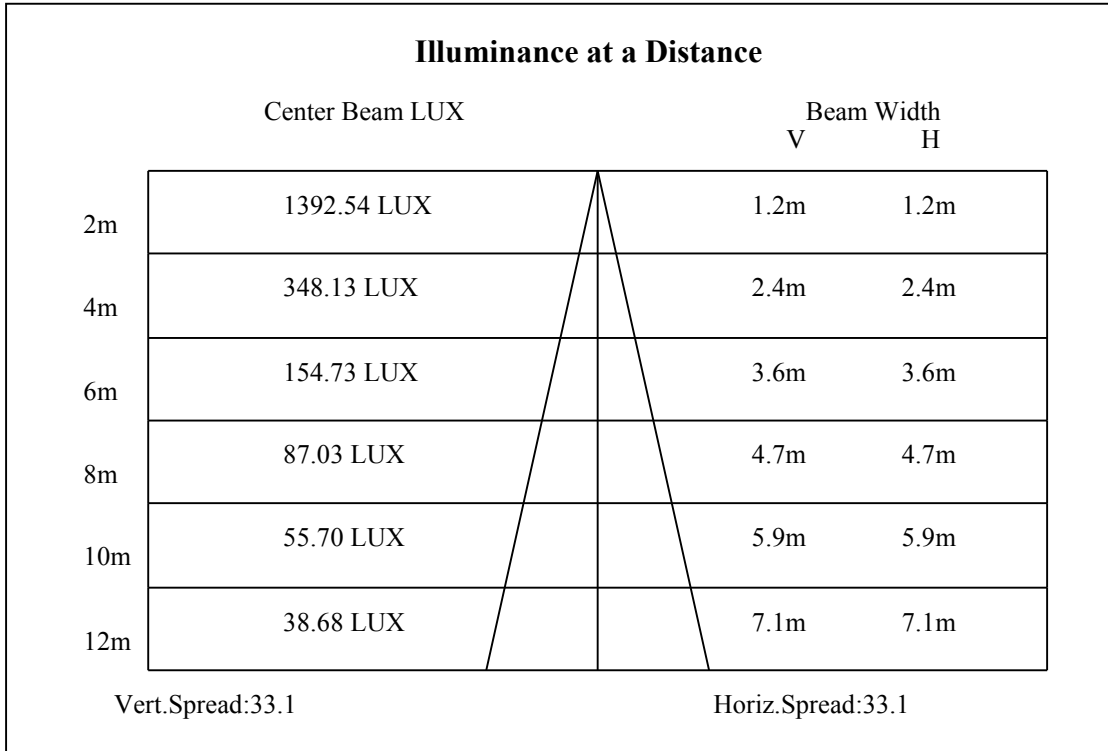
0-10	688.24
10-20	828.83
20-30	573.62
30-40	200.02
40-50	10.67
50-60	9.84
60-70	10.21
70-80	13.71
80-90	5.45
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

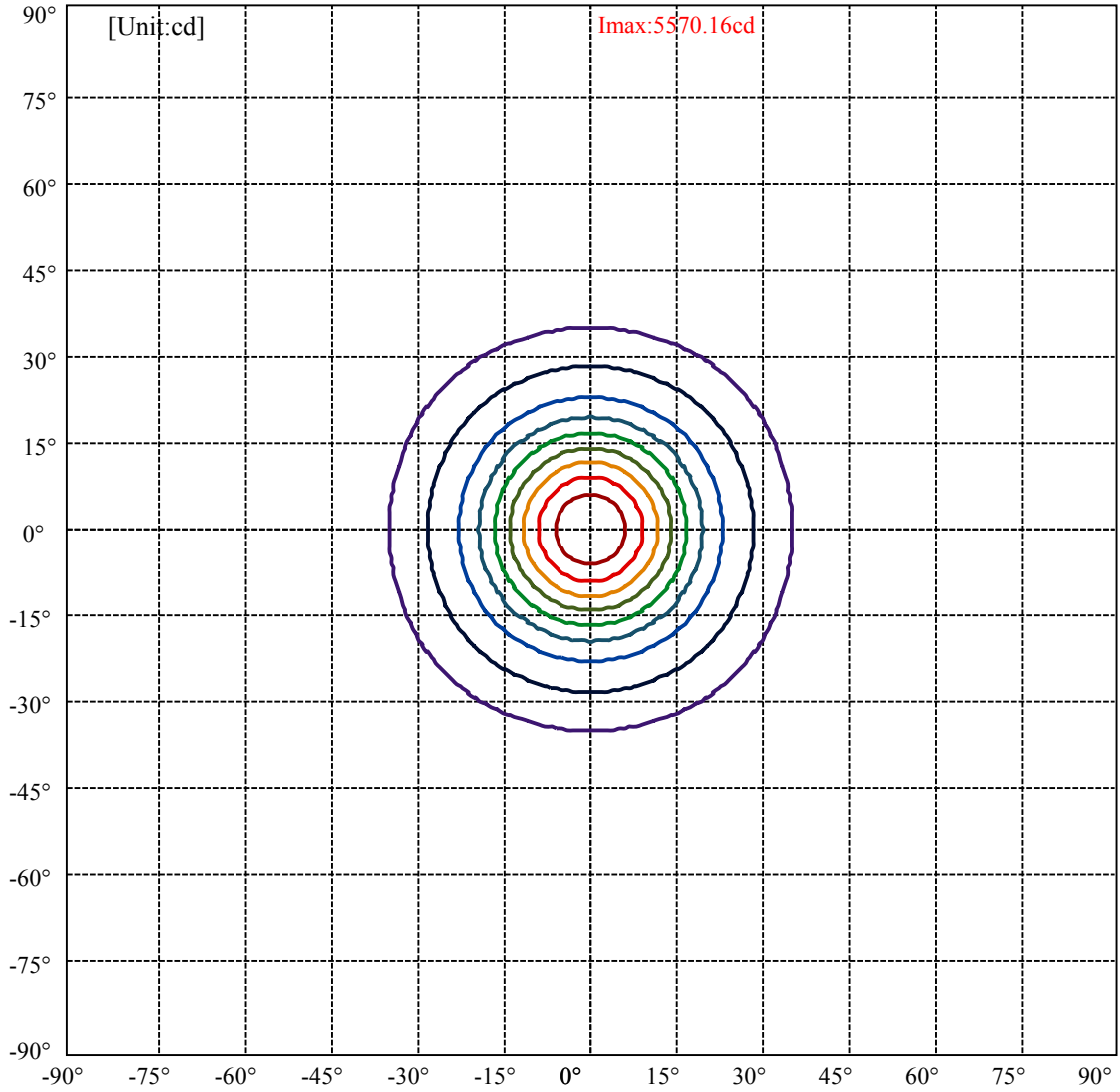


C0(Max): —————
C0/C180: —————
C90/C270: —————

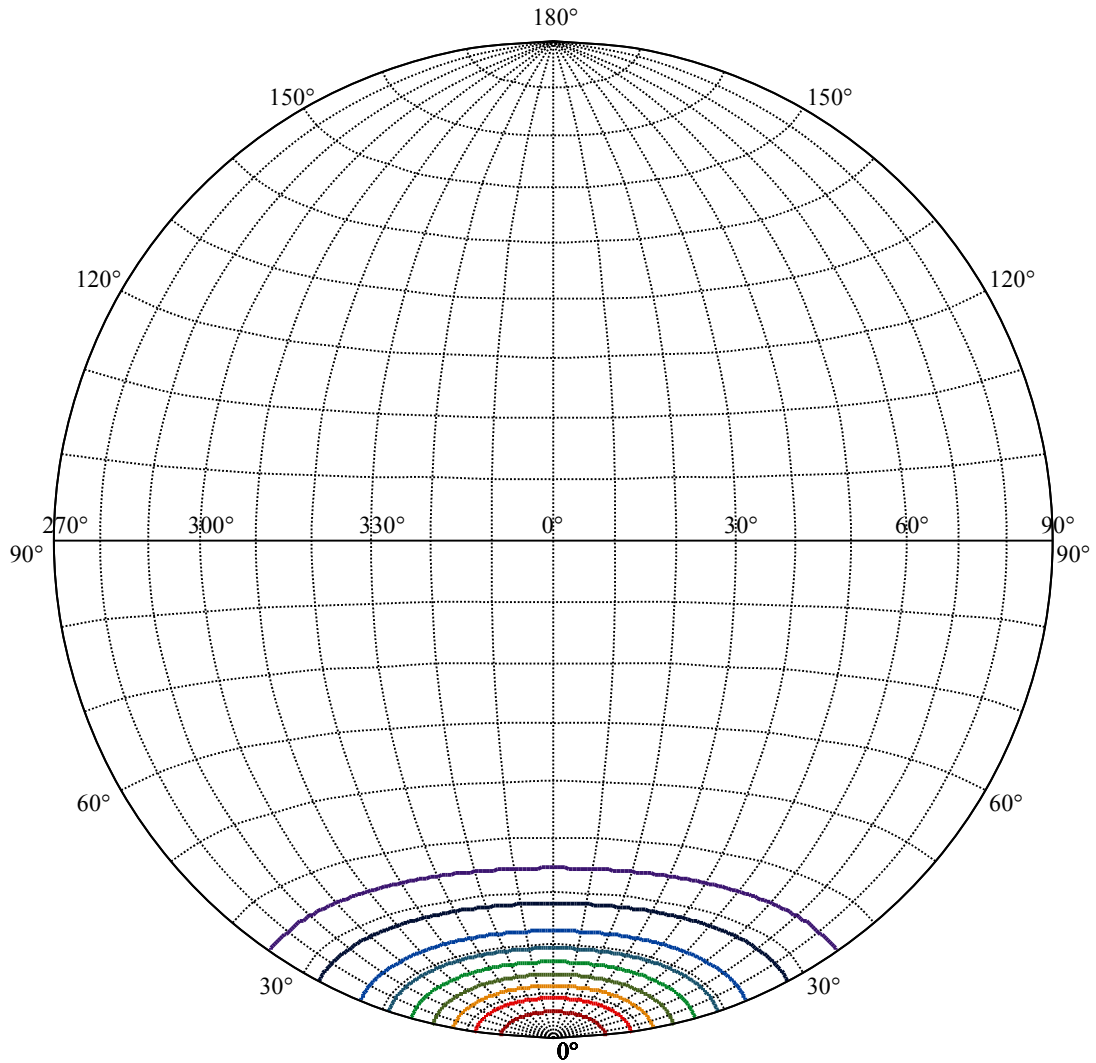
Field angle(10%Imax):C0/180Left:34.6 Right:34.6
:C90/270Left:34.6 Right:34.6

Beam Angle(50%Imax):C0/180Left:16.5 Right:16.5
:C90/270Left:16.5 Right:16.5





(10%Imax) 557.016	—
(20%Imax) 1114.03	—
(30%Imax) 1671.05	—
(40%Imax) 2228.06	—
(50%Imax) 2785.08	—
(60%Imax) 3342.09	—
(70%Imax) 3899.11	—
(80%Imax) 4456.12	—
(90%Imax) 5013.14	—



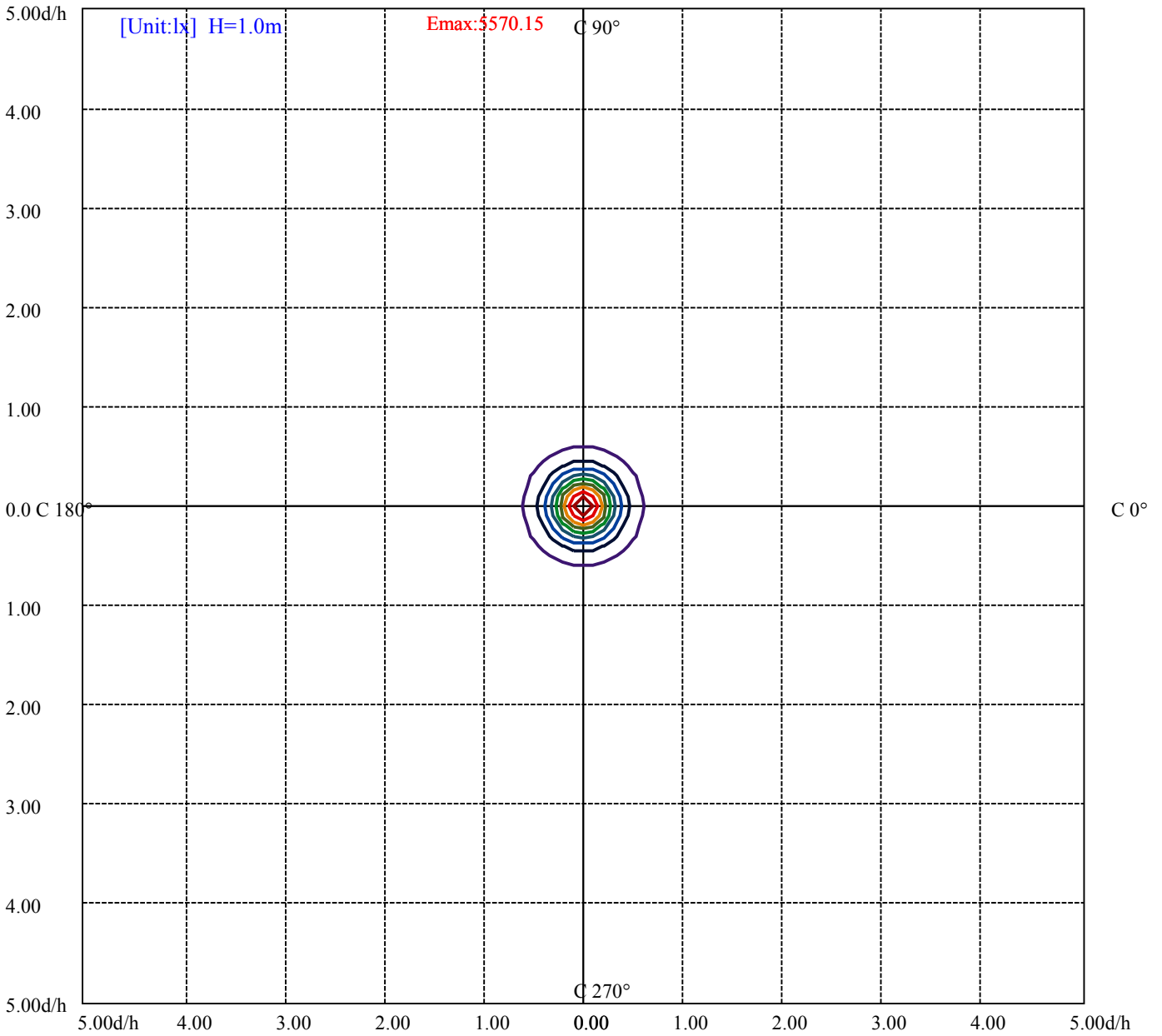
House

[Unit:cd]

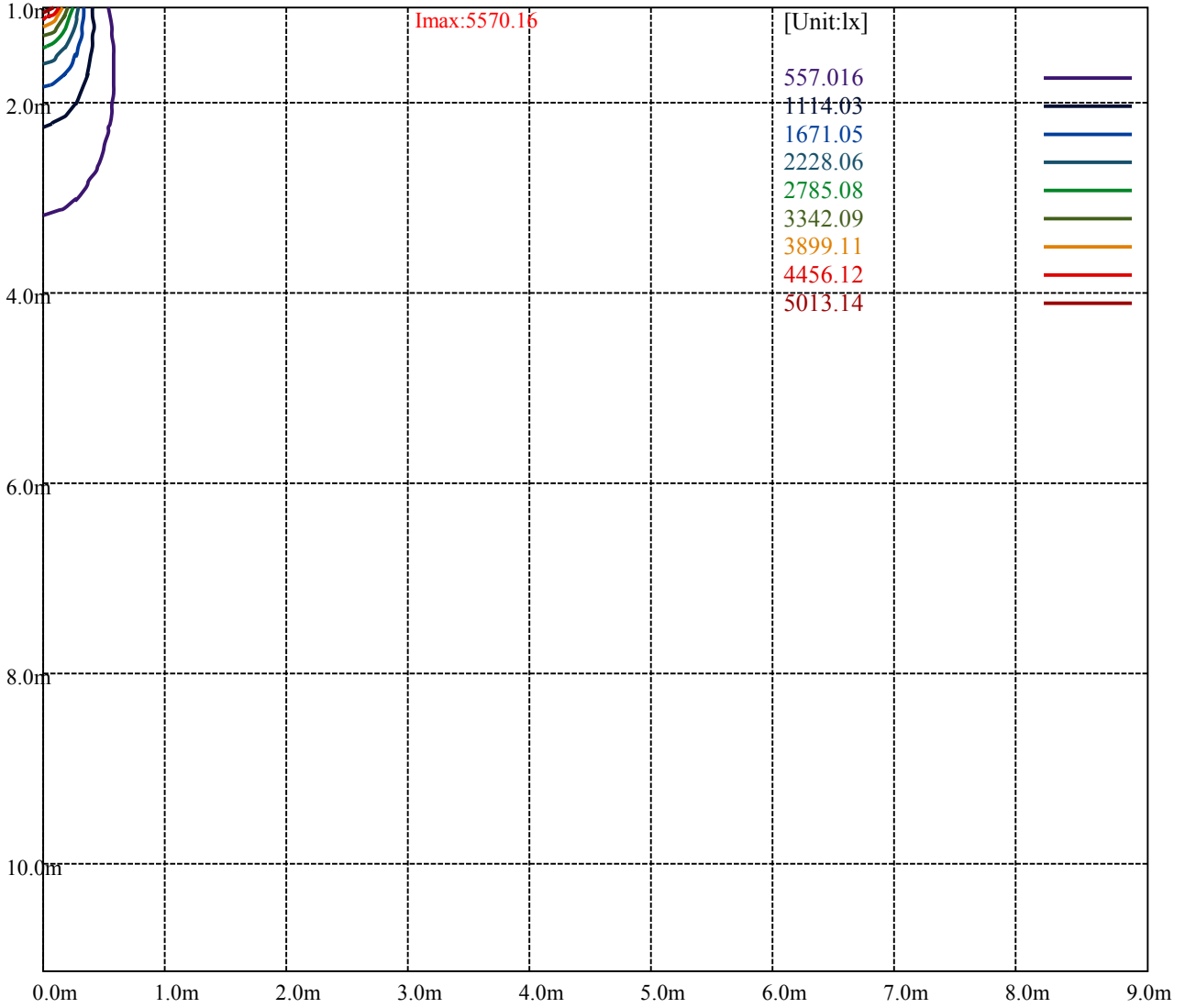
Road

Imax:5570.16

(10%Imax) 557.016	—
(20%Imax) 1114.03	—
(30%Imax) 1671.05	—
(40%Imax) 2228.06	—
(50%Imax) 2785.08	—
(60%Imax) 3342.09	—
(70%Imax) 3899.11	—
(80%Imax) 4456.12	—
(90%Imax) 5013.14	—



(10%E _{max}) 557.015	—
(20%E _{max}) 1114.03	—
(30%E _{max}) 1671.04	—
(40%E _{max}) 2228.06	—
(50%E _{max}) 2785.07	—
(60%E _{max}) 3342.09	—
(70%E _{max}) 3899.1	—
(80%E _{max}) 4456.12	—
(90%E _{max}) 5013.13	—



Luminance Table

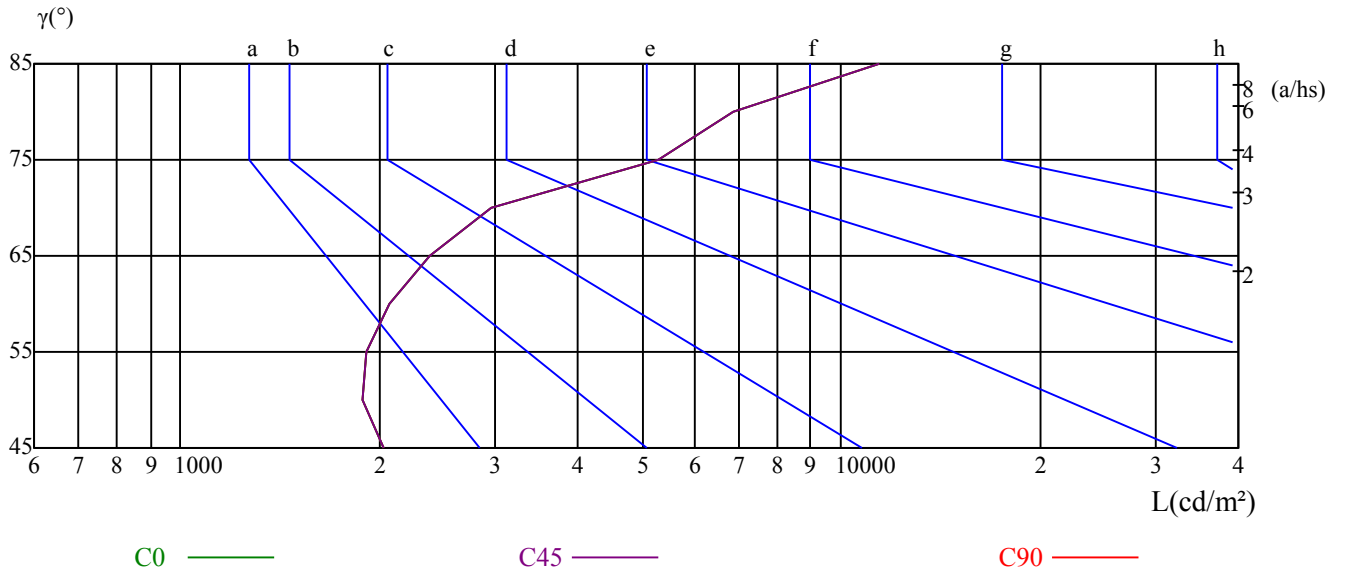
γ	45	50	55	60	65	70	75	80	85
C0	2031	1889	1915	2067	2382	2956	5300	6875	11448
C45	2031	1889	1915	2067	2382	2956	5300	6875	11448
C90	2031	1889	1915	2067	2382	2956	5300	6875	11448

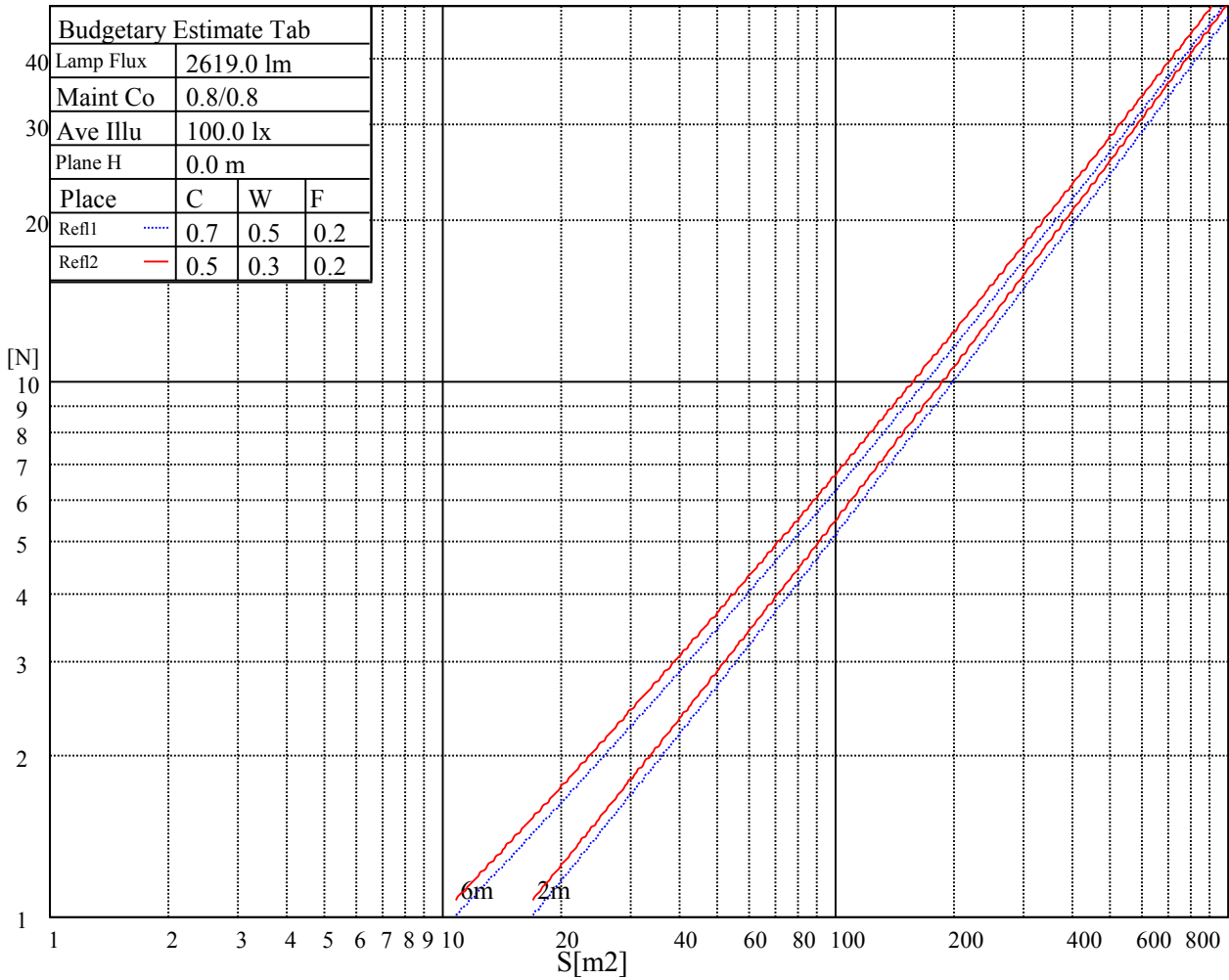
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2382	2382	2382	5300	5300	5300	11448	11448	11448

Glare Table

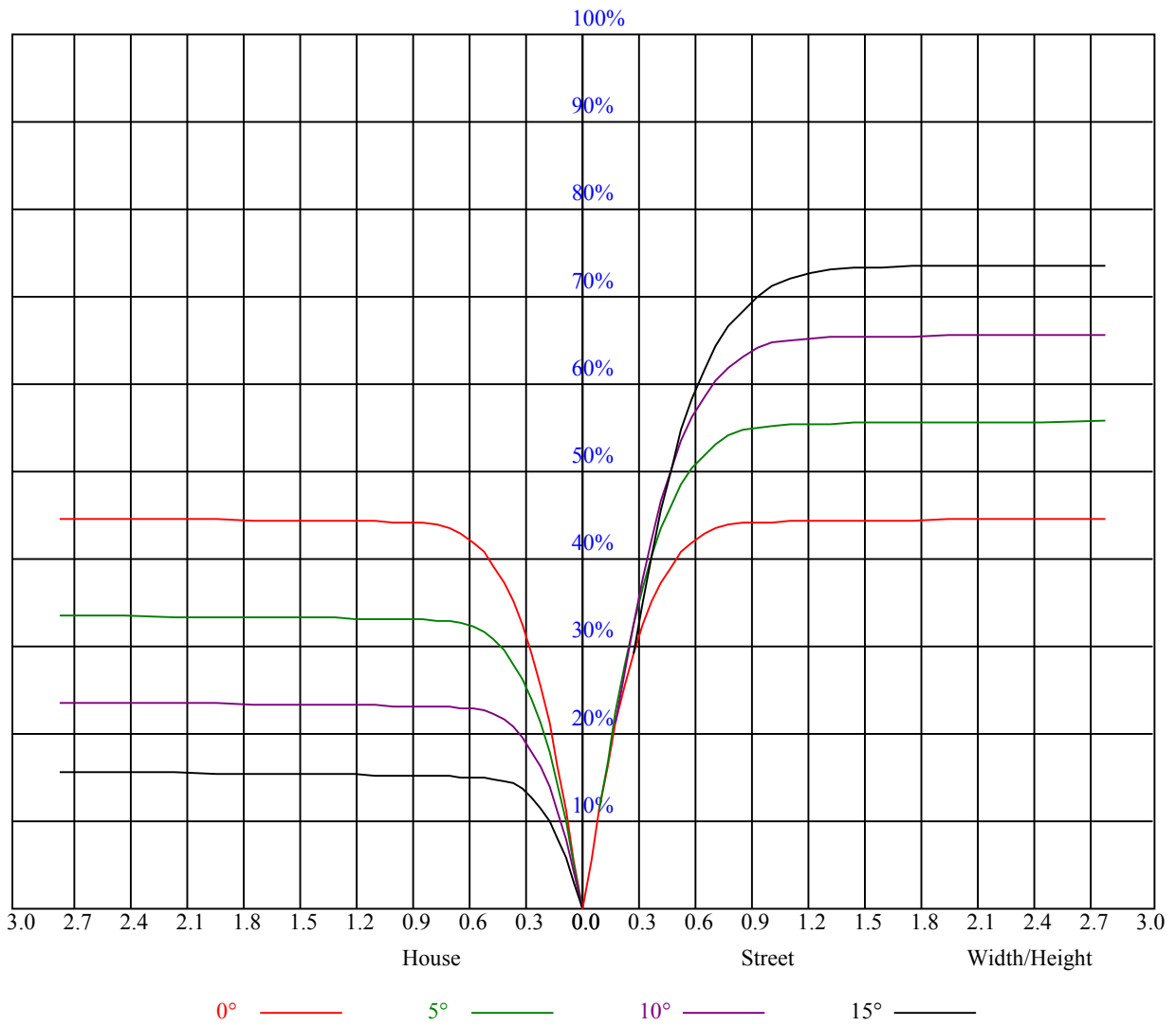
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.08	1.08	1.08	1.05	1.05	1.05	1.01	1.01	1.01	0.96	0.96	0.96	0.93	0.93	0.93	0.91
1	1.00	0.97	0.95	0.98	0.96	0.94	0.94	0.92	0.91	0.91	0.89	0.88	0.88	0.87	0.86	0.84
2	0.94	0.91	0.88	0.93	0.90	0.87	0.90	0.87	0.85	0.87	0.85	0.83	0.85	0.83	0.82	0.80
3	0.90	0.86	0.82	0.88	0.85	0.82	0.86	0.83	0.80	0.84	0.81	0.79	0.82	0.80	0.78	0.77
4	0.85	0.81	0.78	0.84	0.80	0.77	0.82	0.79	0.76	0.81	0.78	0.75	0.79	0.77	0.75	0.73
5	0.82	0.77	0.74	0.81	0.77	0.73	0.79	0.76	0.73	0.78	0.75	0.72	0.76	0.74	0.72	0.70
6	0.78	0.74	0.70	0.77	0.73	0.70	0.76	0.72	0.70	0.75	0.72	0.69	0.74	0.71	0.69	0.68
7	0.75	0.70	0.67	0.74	0.70	0.67	0.73	0.70	0.67	0.72	0.69	0.66	0.71	0.68	0.66	0.65
8	0.72	0.68	0.65	0.72	0.67	0.65	0.71	0.67	0.64	0.70	0.66	0.64	0.69	0.66	0.64	0.63
9	0.69	0.65	0.62	0.69	0.65	0.62	0.68	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.62	0.61
10	0.67	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.60	0.65	0.62	0.59	0.59



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	5562.56	5324.06	4459.50	3340.69	2286.00	1465.88	1061.44	669.94	304.31
45.0	5585.06	5079.94	4103.44	2891.81	1908.00	1276.88	930.38	425.81	30.99
90.0	5549.63	4947.75	3857.06	2714.63	1757.81	1119.09	869.51	334.52	24.69
135.0	5583.38	5179.50	4197.38	2966.06	1987.88	1290.94	941.63	476.44	28.07
180.0	5562.56	5063.06	4039.88	2901.94	1835.44	1119.88	894.60	369.17	25.31
225.0	5585.06	5351.63	4506.19	3321.56	2239.31	1404.00	1018.58	600.13	57.71
270.0	5549.63	5443.88	4638.94	3492.00	2455.88	1547.44	1073.25	698.06	316.13
315.0	5583.38	5278.50	4329.56	3134.25	2158.88	1373.63	996.81	581.34	46.35
360.0	5562.56	5324.06	4459.50	3340.69	2286.00	1465.88	1061.44	669.94	304.31
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	15.86	12.54	11.19	10.52	10.13	10.24	14.12	14.96	10.07
45.0	13.78	11.98	10.91	10.35	10.18	10.41	16.03	11.19	9.96
90.0	13.28	11.81	10.80	10.29	10.18	10.29	15.41	10.24	9.90
135.0	13.89	12.04	10.91	10.24	10.01	9.96	10.97	10.18	9.96
180.0	13.50	11.76	10.80	10.18	9.96	10.01	15.64	9.96	9.90
225.0	14.57	12.32	11.03	10.35	10.01	9.96	11.64	13.67	9.90
270.0	15.69	12.43	11.19	10.41	10.01	9.96	10.52	14.12	10.18
315.0	14.34	12.26	11.03	10.35	10.07	10.07	15.41	11.19	9.96
360.0	15.86	12.54	11.19	10.52	10.13	10.24	14.12	14.96	10.07
C/γ(°)	90.0								
0.0	9.79								
45.0	9.79								
90.0	9.79								
135.0	9.79								
180.0	9.79								
225.0	9.79								
270.0	9.79								
315.0	9.79								
360.0	9.79								