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## Nata

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LumCAT: 1-0937-N	
Luminaire: 92.361.000	
Report No: 220518-B007	Voltage(V): 36.3300
Test No: 220518-C007	Current(A): 0.3610
LampCAT: CREE CXA1520	Power (W): 13.1150
Lamp flux(lm): 1029.7	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 43	Width(mm): 43
Phm Type: C	Height(mm): 0

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## Photometric Results

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Lumens(lm): 850.05  
Efficiency(%): 82.55%  
Lumens(lm)/Power(W): 64.82  
Central intensity(cd): 2219.521  
Maximum intensity(cd): 2219.521  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=34.9  
                                  [C90/270]Total=34.9  
Field angle(10%Imax): [C0/180]Total=57.6  
                                  [C90/270]Total=57.6  
Maximum s/h(1/2): C0\_180=0.58 C90\_270=0.58  
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(%): 82.55%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 98.100%

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Equipment: GMS1980  
Temperature(°C): 25.0

Date: 2022/5/18  
Humidity(%): 65.0%

Operator: NT07  
Distance(m): 7.73

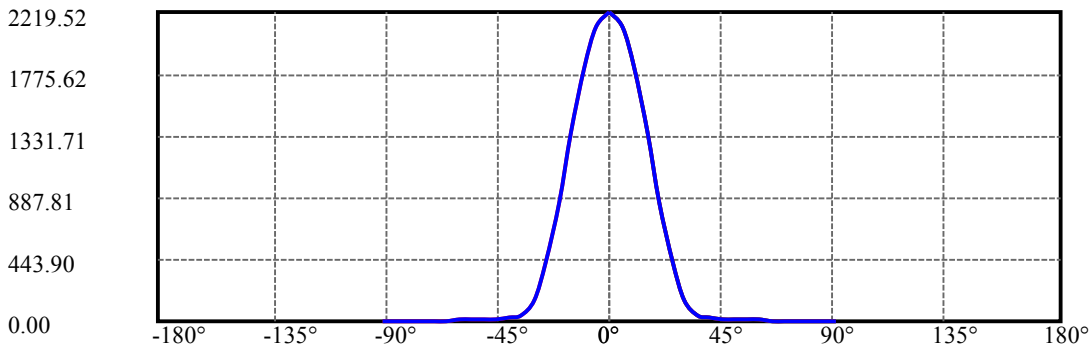
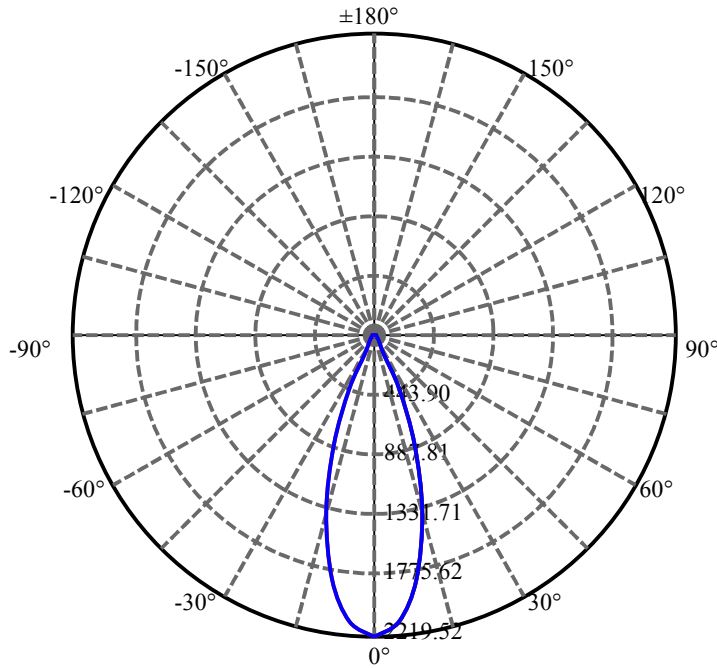
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2219.521	0.000	0	.000%	.000%
5.0	2112.190	51.784	51.784	5.029%	6.092%
10.0	1825.825	140.875	192.66	13.681%	22.665%
15.0	1352.074	188.511	381.17	18.307%	44.841%
20.0	855.475	181.933	563.103	17.668%	66.244%
25.0	429.130	134.731	697.835	13.084%	82.093%
30.0	155.246	73.953	771.788	7.182%	90.793%
35.0	38.473	28.526	800.314	2.770%	94.149%
40.0	24.969	10.585	810.899	1.028%	95.394%
45.0	17.567	7.876	818.775	.765%	96.321%
50.0	12.944	6.165	824.941	.599%	97.046%
55.0	9.687	4.921	829.861	.478%	97.625%
60.0	7.775	4.036	833.898	.392%	98.100%
65.0	6.476	3.464	837.362	.336%	98.508%
70.0	5.647	3.069	840.432	.298%	98.869%
75.0	4.937	2.766	843.198	.269%	99.194%
80.0	4.437	2.508	845.706	.244%	99.489%
85.0	3.966	2.283	847.99	.222%	99.758%
90.0	3.555	2.059	850.049	.200%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	771.79	74.95%	90.79%
0-40	810.90	78.75%	95.39%
0-60	833.90	80.98%	98.10%
0-90	847.99	82.35%	99.76%
0-120	847.99	82.35%	99.76%
0-180	850.05	82.55%	100.00%
60-90	18.13	1.76%	2.13%
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%
0-24.34	680.04	66.04%	80.00%

ZONAL LUMEN SUMMARY

0-10	192.66
10-20	370.44
20-30	208.68
30-40	39.11
40-50	14.04
50-60	8.96
60-70	6.53
70-80	5.27
80-90	2.28
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: —————

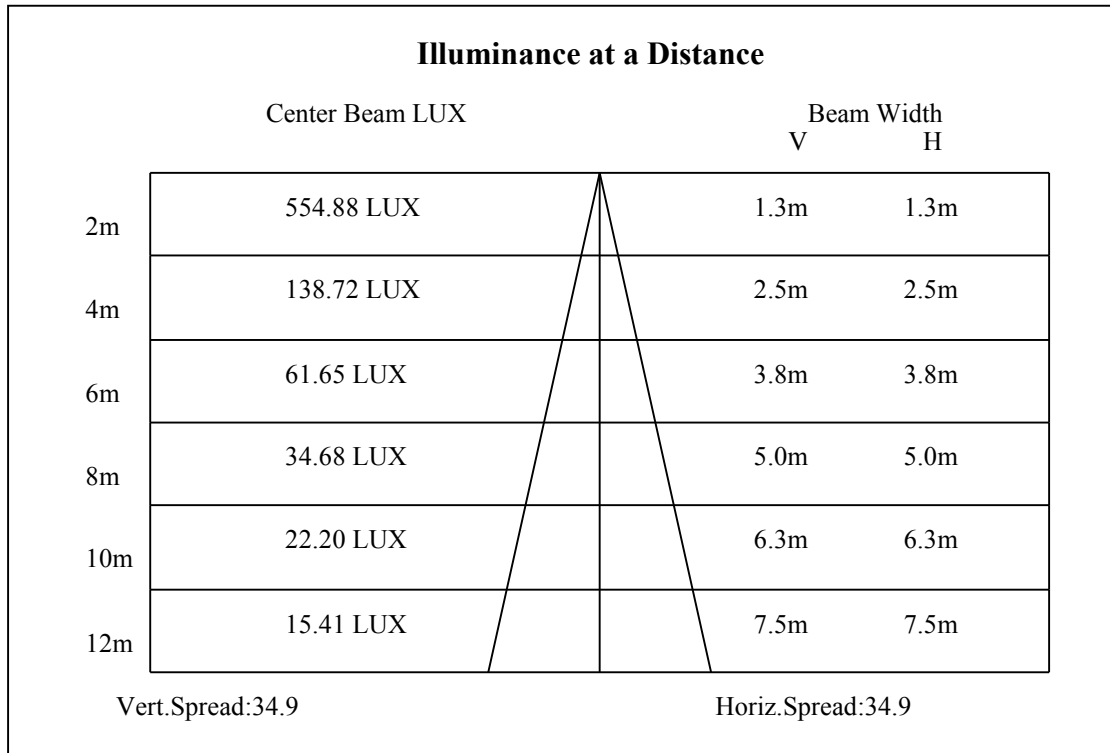
C90/C270: —————

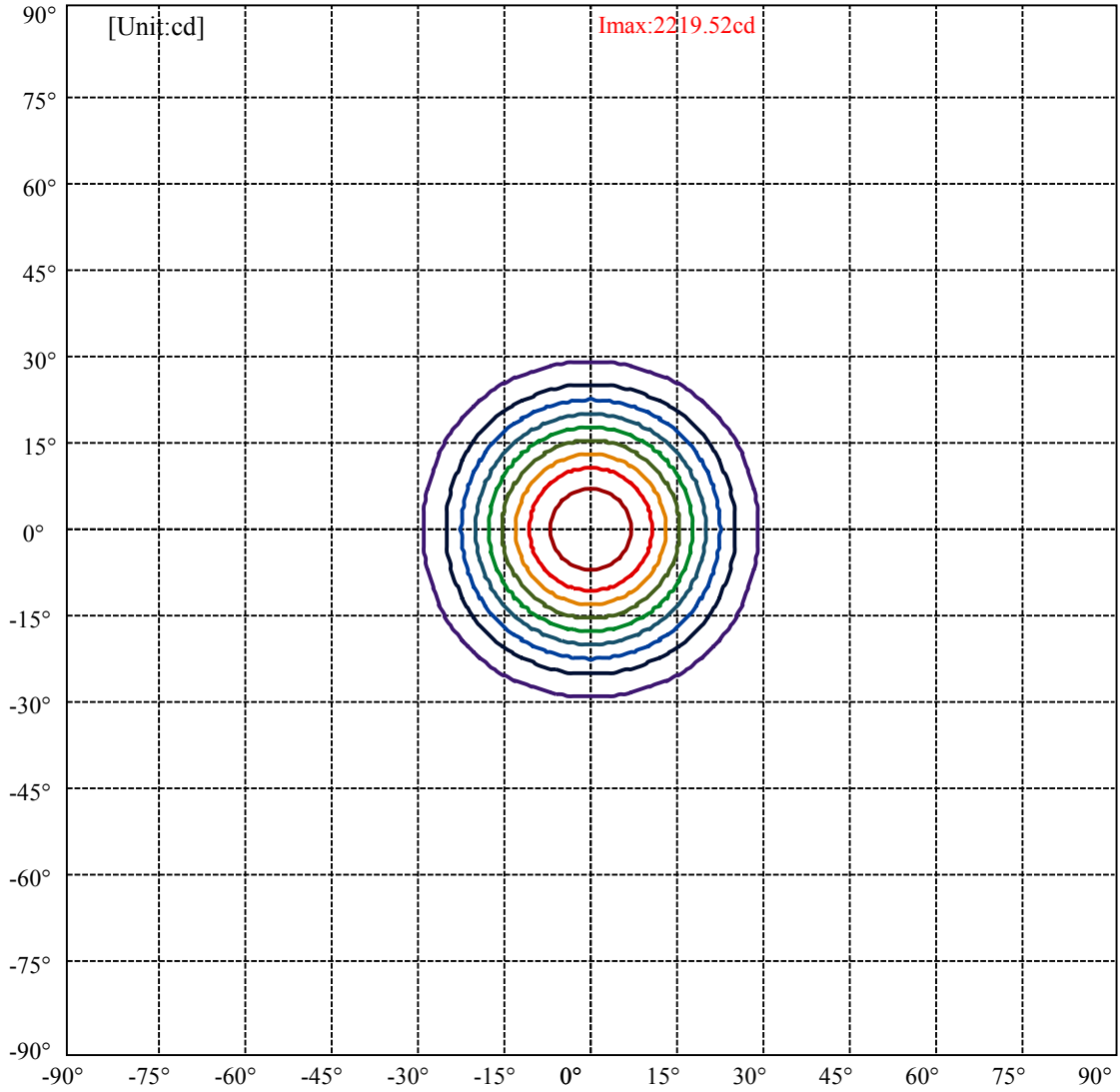
Field angle(10%Imax):C0/180Left:28.8 Right:28.8

:C90/270Left:28.8 Right:28.8

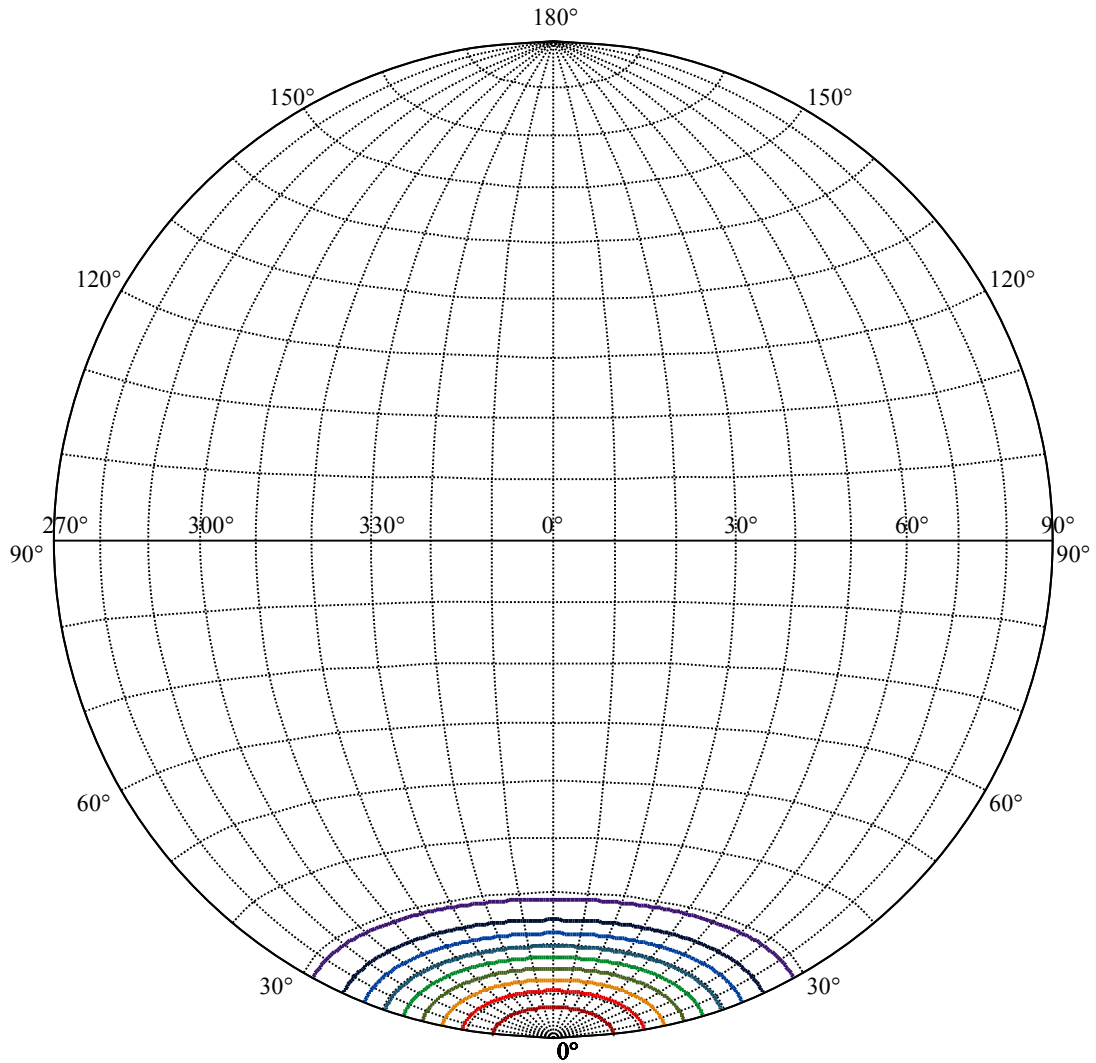
Beam Angle(50%Imax):C0/180Left:17.4 Right:17.4

:C90/270Left:17.4 Right:17.4





(10%Imax) 221.952	—
(20%Imax) 443.904	—
(30%Imax) 665.856	—
(40%Imax) 887.809	—
(50%Imax) 1109.76	—
(60%Imax) 1331.71	—
(70%Imax) 1553.67	—
(80%Imax) 1775.62	—
(90%Imax) 1997.57	—



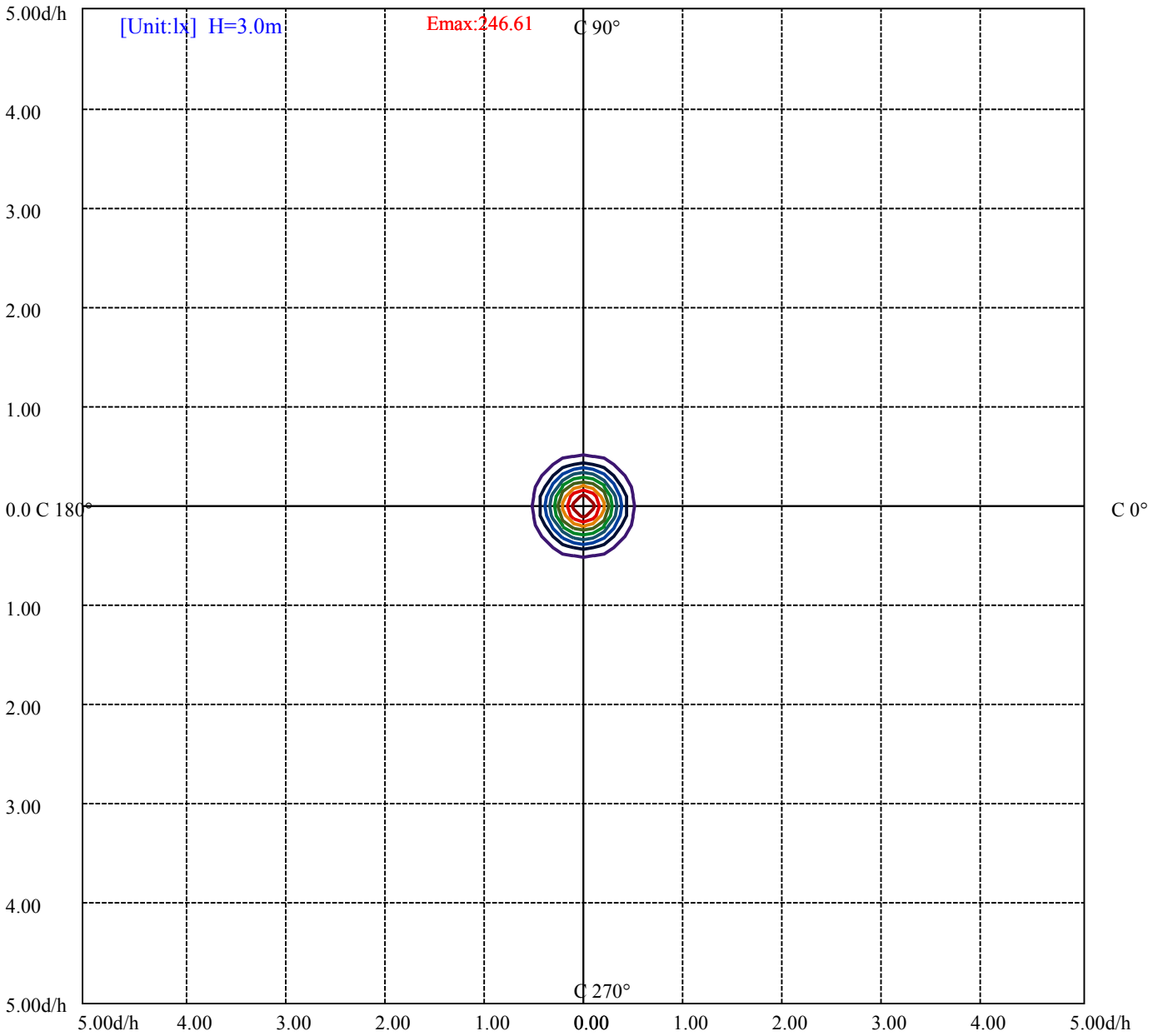
House

[Unit:cd]

Road

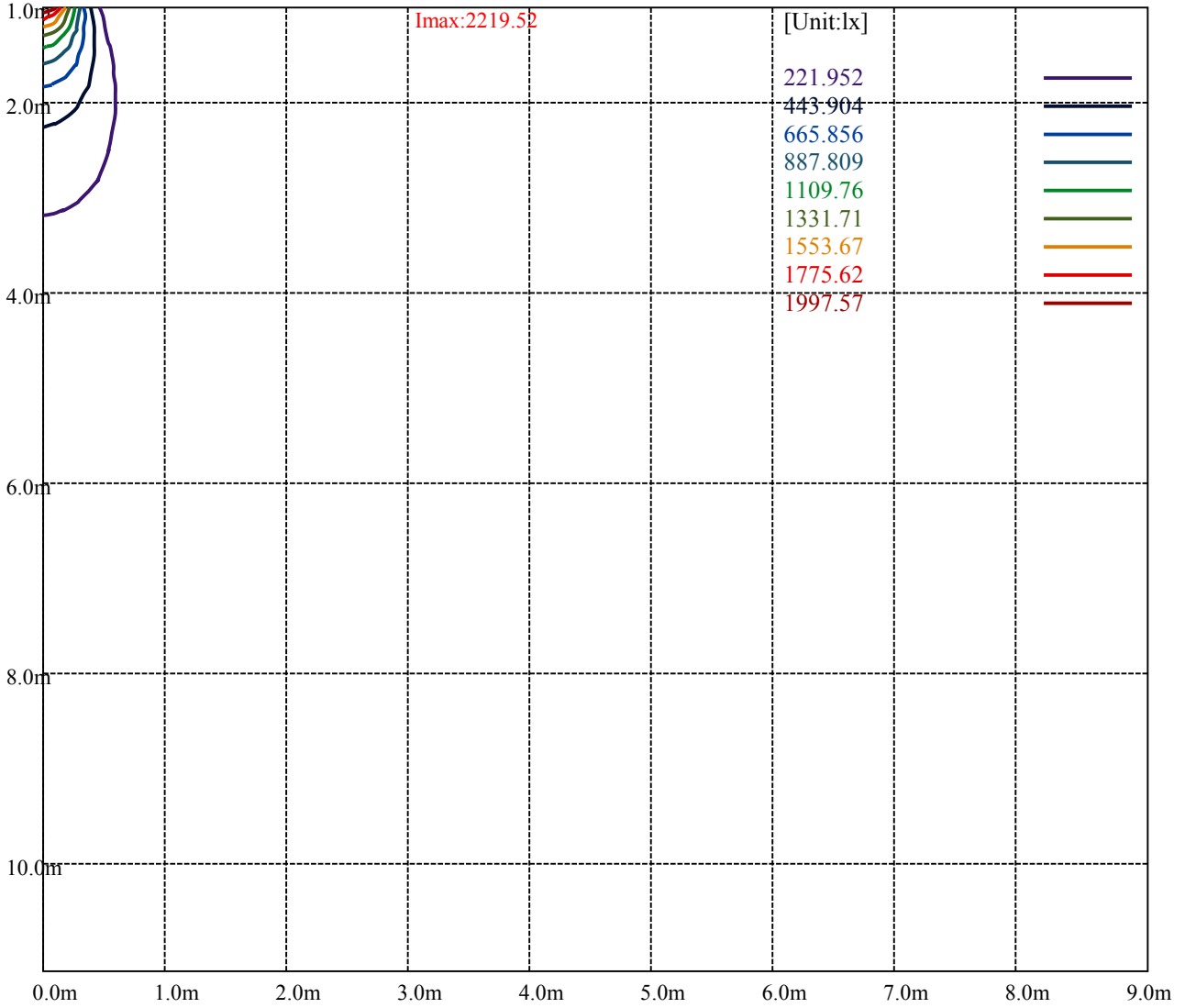
**Imax:2219.52**

(10%Imax) 221.952	—
(20%Imax) 443.904	—
(30%Imax) 665.856	—
(40%Imax) 887.809	—
(50%Imax) 1109.76	—
(60%Imax) 1331.71	—
(70%Imax) 1553.67	—
(80%Imax) 1775.62	—
(90%Imax) 1997.57	—



(10%Emax) 24.66133	—
(20%Emax) 49.32267	—
(30%Emax) 73.98389	—
(40%Emax) 98.64523	—
(50%Emax) 123.3067	—
(60%Emax) 147.9678	—
(70%Emax) 172.6289	—
(80%Emax) 197.29	—
(90%Emax) 221.9522	—





Luminance Table

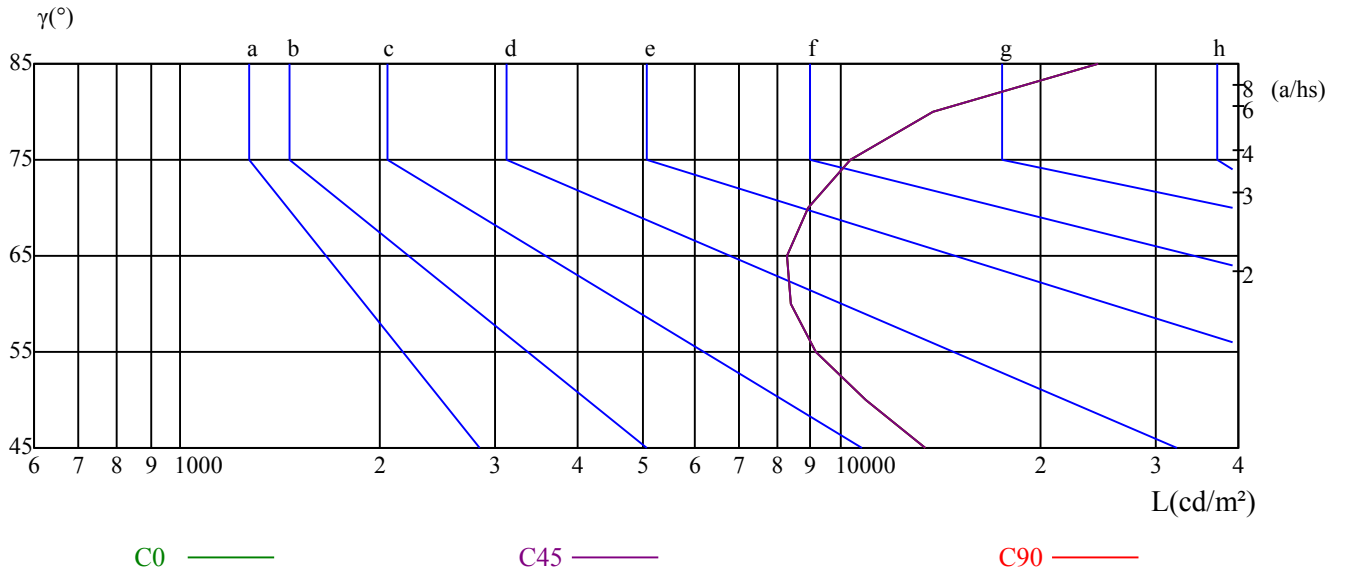
$\gamma$	45	50	55	60	65	70	75	80	85
C0	13436	10891	9134	8410	8287	8929	10317	13818	24611
C45	13436	10891	9134	8410	8287	8929	10317	13818	24611
C90	13436	10891	9134	8410	8287	8929	10317	13818	24611

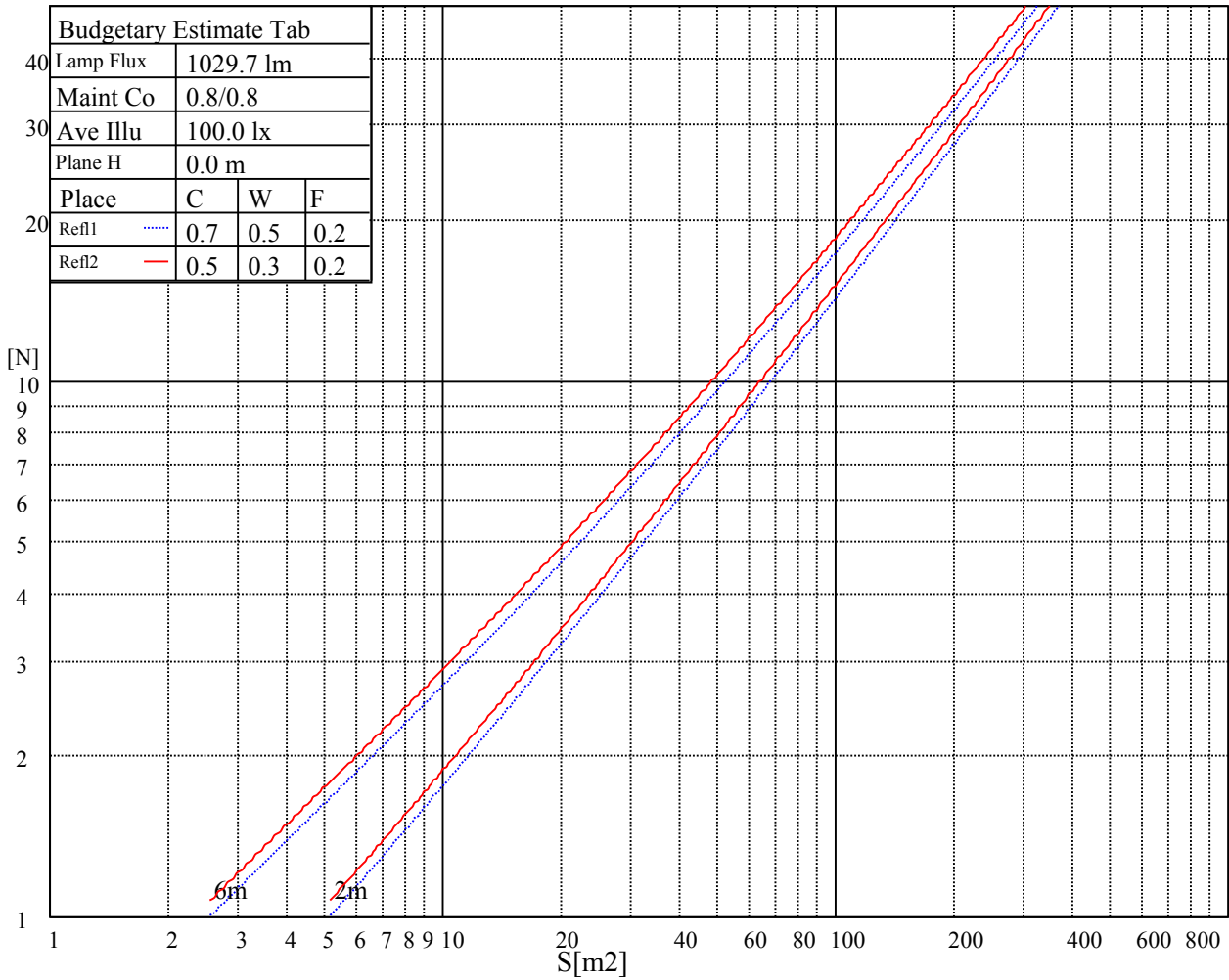
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
8287	8287	8287	10317	10317	10317	24611	24611	24611

Glare Table

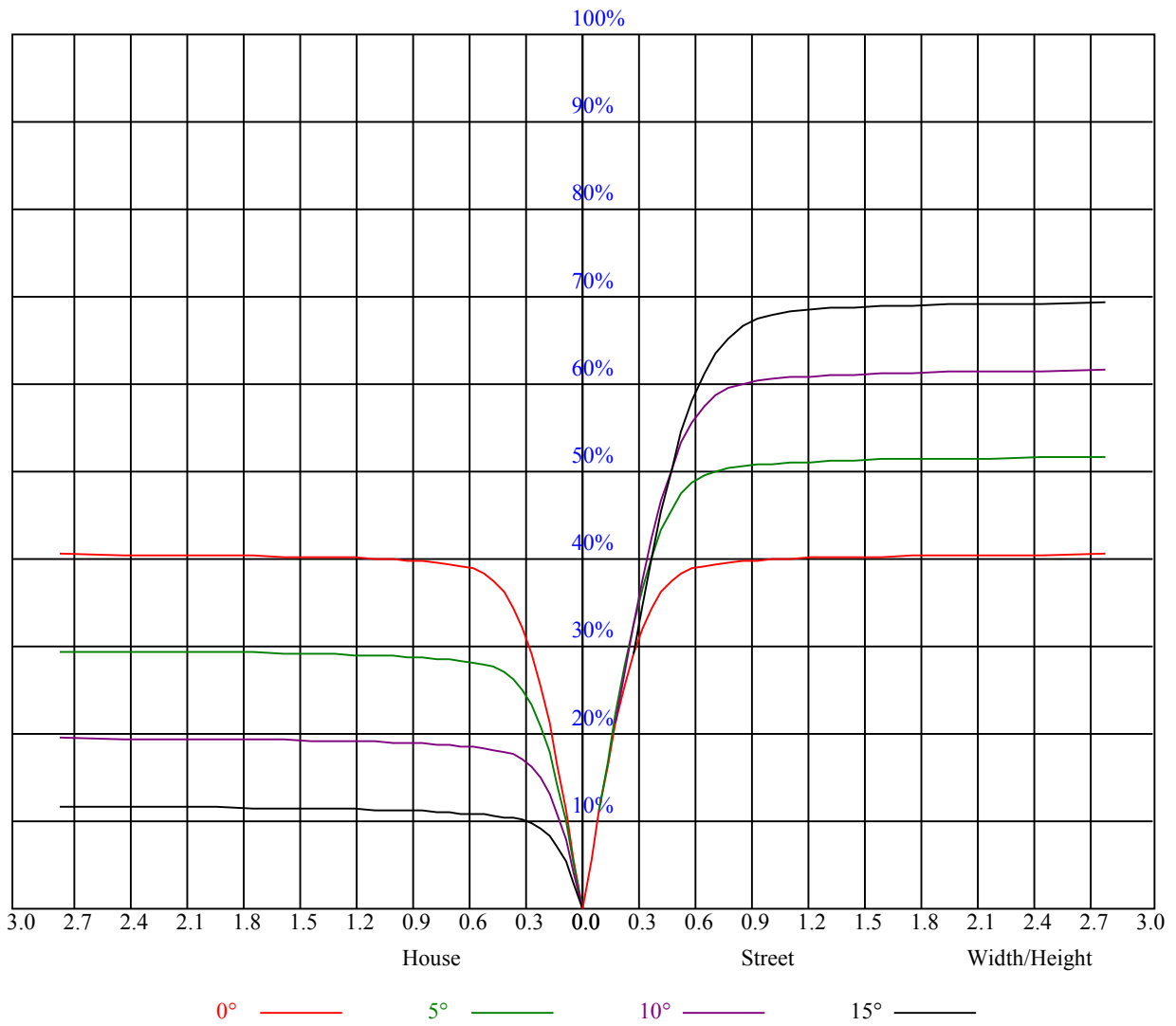
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.98	0.98	0.98	0.96	0.96	0.96	0.92	0.92	0.92	0.88	0.88	0.88	0.84	0.84	0.84	0.83
1	0.92	0.90	0.89	0.90	0.89	0.87	0.87	0.86	0.85	0.84	0.83	0.82	0.81	0.80	0.80	0.78
2	0.87	0.84	0.82	0.86	0.83	0.81	0.83	0.81	0.79	0.81	0.79	0.77	0.78	0.77	0.76	0.74
3	0.82	0.79	0.76	0.81	0.78	0.76	0.79	0.77	0.74	0.77	0.75	0.73	0.76	0.74	0.72	0.71
4	0.78	0.75	0.72	0.78	0.74	0.71	0.76	0.73	0.71	0.74	0.72	0.70	0.73	0.71	0.69	0.68
5	0.75	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.70	0.68	0.66	0.65
6	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.64	0.69	0.66	0.64	0.68	0.65	0.63	0.62
7	0.69	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.61	0.66	0.63	0.61	0.66	0.63	0.61	0.60
8	0.66	0.62	0.59	0.66	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.59	0.63	0.61	0.59	0.58
9	0.64	0.60	0.57	0.63	0.59	0.57	0.63	0.59	0.57	0.62	0.59	0.57	0.61	0.58	0.56	0.55
10	0.61	0.57	0.55	0.61	0.57	0.55	0.60	0.57	0.55	0.60	0.57	0.55	0.59	0.56	0.54	0.54



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	2210.26	2209.66	2008.89	1641.41	1113.20	620.24	318.48	56.29	30.59
45.0	2226.39	2105.09	1832.62	1342.65	796.51	406.92	112.28	34.12	23.96
90.0	2211.45	2023.23	1632.45	1101.96	621.25	244.99	52.16	27.31	19.42
135.0	2229.98	2042.35	1682.04	1132.32	663.85	312.51	53.84	27.73	19.90
180.0	2210.26	1997.54	1620.50	1101.84	622.68	237.88	46.73	27.90	20.14
225.0	2226.39	2129.59	1855.93	1332.49	856.80	420.48	127.51	36.09	24.50
270.0	2211.45	2196.52	1997.54	1605.56	1115.59	618.44	315.50	49.30	30.59
315.0	2229.98	2193.53	1976.63	1558.36	1053.92	571.60	215.47	49.06	30.65
360.0	2210.26	2209.66	2008.89	1641.41	1113.20	620.24	318.48	56.29	30.59
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	21.21	15.48	11.29	8.72	7.11	6.15	5.32	4.78	4.18
45.0	16.73	12.25	9.26	7.65	6.27	5.50	4.78	4.30	3.88
90.0	14.04	10.82	8.43	6.99	6.04	5.26	4.66	4.24	3.76
135.0	14.34	10.99	8.54	7.11	6.15	5.44	4.72	4.30	3.88
180.0	14.46	11.05	8.54	7.11	6.15	5.44	4.72	4.30	3.88
225.0	17.87	12.97	9.56	7.77	6.39	5.56	4.96	4.30	3.94
270.0	20.97	14.88	10.93	8.43	6.81	5.92	5.14	4.60	4.06
315.0	20.91	15.12	10.93	8.43	6.87	5.92	5.20	4.66	4.12
360.0	21.21	15.48	11.29	8.72	7.11	6.15	5.32	4.78	4.18
C/γ(°)	90.0								
0.0	3.70								
45.0	3.41								
90.0	3.47								
135.0	3.53								
180.0	3.59								
225.0	3.47								
270.0	3.64								
315.0	3.64								
360.0	3.70								