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Nata

LumCAT: 3-1742-N
Luminaire: 92.70.045.00+92.70.061.00
Report No: NT2018041309
Test No: nata-0100
LampCAT: LUXEON COB 1208
Lamp flux(lm): 2587.5
Number of Lamps: 1
Length(mm): 86
Phm Type: C

Voltage(V): 34.8000
Current(A): 0.5900
Power (W): 20.5320
PF: 0.0000
Ballast type: DC
Width(mm): 86
Height(mm): 0

Photometric Results

Lumens(lm): 2067.29
Efficiency(%): 79.90%
Lumens(lm)/Power(W): 102.90
Central intensity(cd): 7920.551
Maximum intensity(cd): 7920.551
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=24.1
 [C90/270]Total=24.1
Field angle(10%Imax): [C0/180]Total=48.4
 [C90/270]Total=48.4
Maximum s/h(1/2): C0_180=0.41 C90_270=0.41
Maximum s/h(1/4): C0_180=0.42 C90_270=0.42
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 81.65%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 95.970%

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2018/4/13
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.42

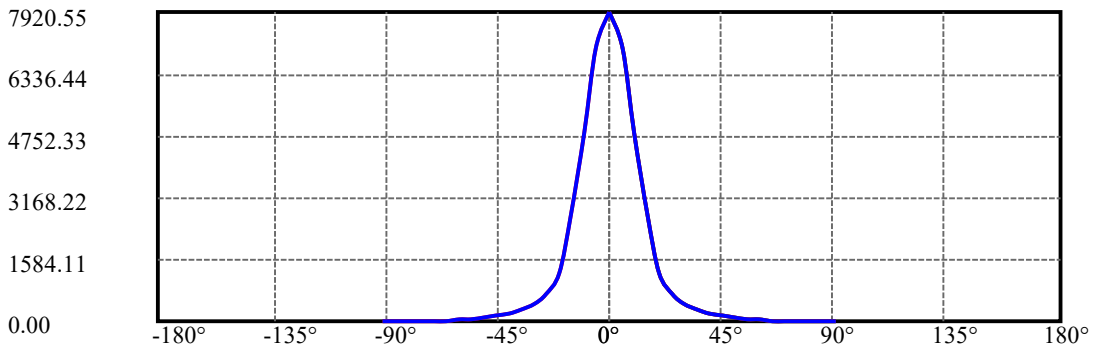
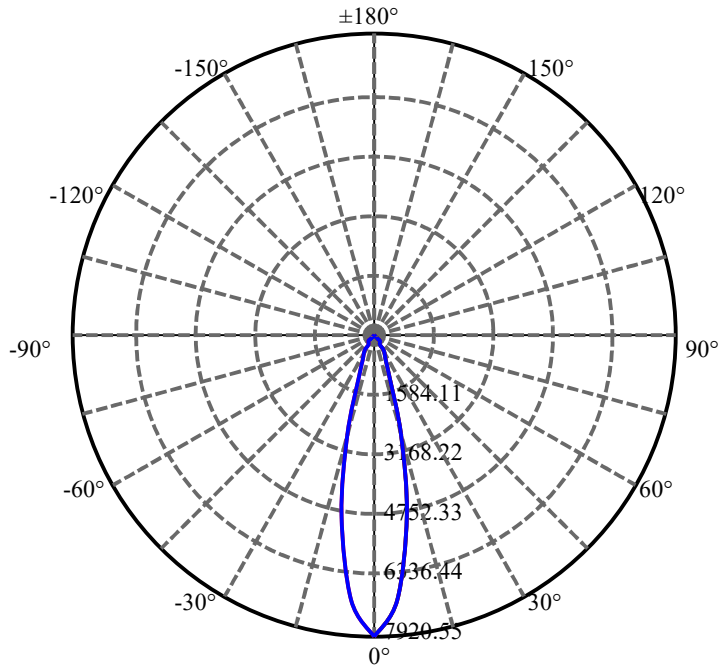
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	7920.551	47.366	47.366	1.831%	2.291%
5.0	6985.212	333.707	381.073	12.897%	18.433%
10.0	4839.113	460.602	841.675	17.801%	40.714%
15.0	2693.841	382.171	1223.846	14.770%	59.200%
20.0	1207.951	226.459	1450.305	8.752%	70.155%
25.0	710.998	164.705	1615.01	6.365%	78.122%
30.0	465.461	127.568	1742.578	4.930%	84.293%
35.0	304.021	95.584	1838.162	3.694%	88.916%
40.0	207.267	73.028	1911.19	2.822%	92.449%
45.0	129.541	50.209	1961.399	1.940%	94.878%
50.0	79.481	33.374	1994.772	1.290%	96.492%
55.0	44.809	20.120	2014.892	.778%	97.465%
60.0	26.661	12.656	2027.548	.489%	98.077%
65.0	19.139	9.508	2037.056	.367%	98.537%
70.0	16.565	8.532	2045.588	.330%	98.950%
75.0	14.383	7.615	2053.204	.294%	99.318%
80.0	12.167	6.568	2059.772	.254%	99.636%
85.0	9.669	5.280	2065.052	.204%	99.892%
90.0	8.183	2.243	2067.294	.087%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1742.58	67.35%	84.29%
0-40	1911.19	73.86%	92.45%
0-60	2027.55	78.36%	98.08%
0-90	2065.05	79.81%	99.89%
0-120	2065.05	79.81%	99.89%
0-180	2067.29	79.90%	100.00%
60-90	50.16	1.94%	2.43%
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%
0-26.52	1653.84	63.92%	80.00%

ZONAL LUMEN SUMMARY

0-10	841.67
10-20	608.63
20-30	292.27
30-40	168.61
40-50	83.58
50-60	32.78
60-70	18.04
70-80	14.18
80-90	5.28
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: —————

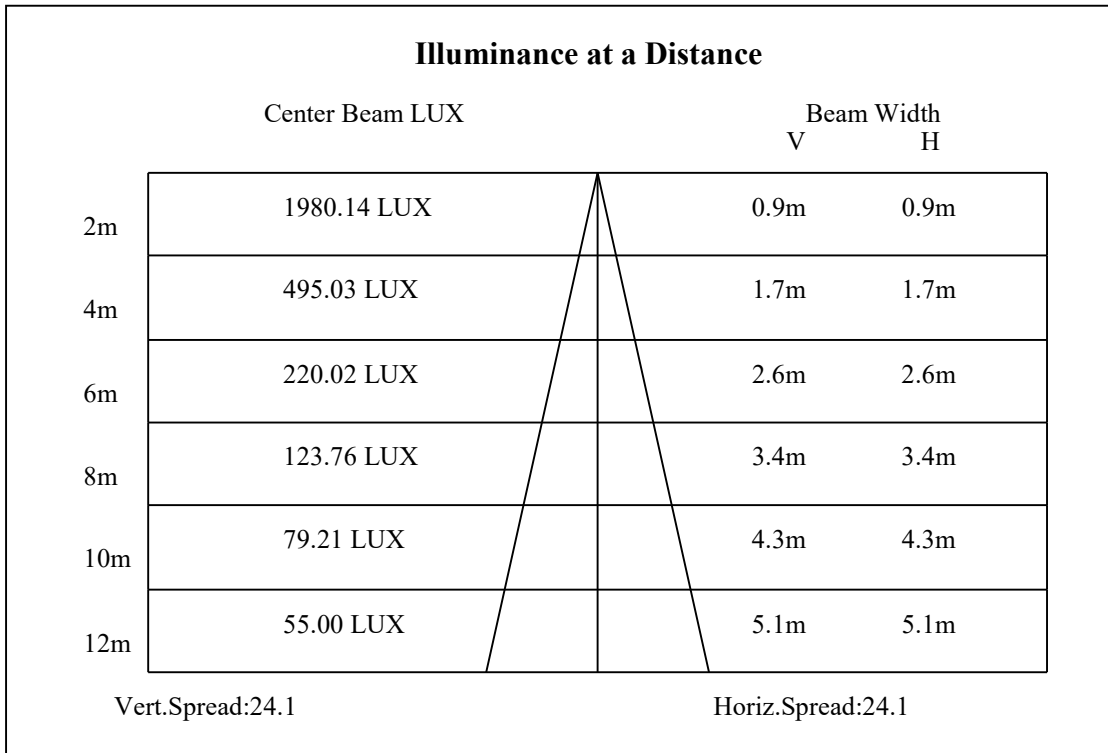
C90/C270: —————

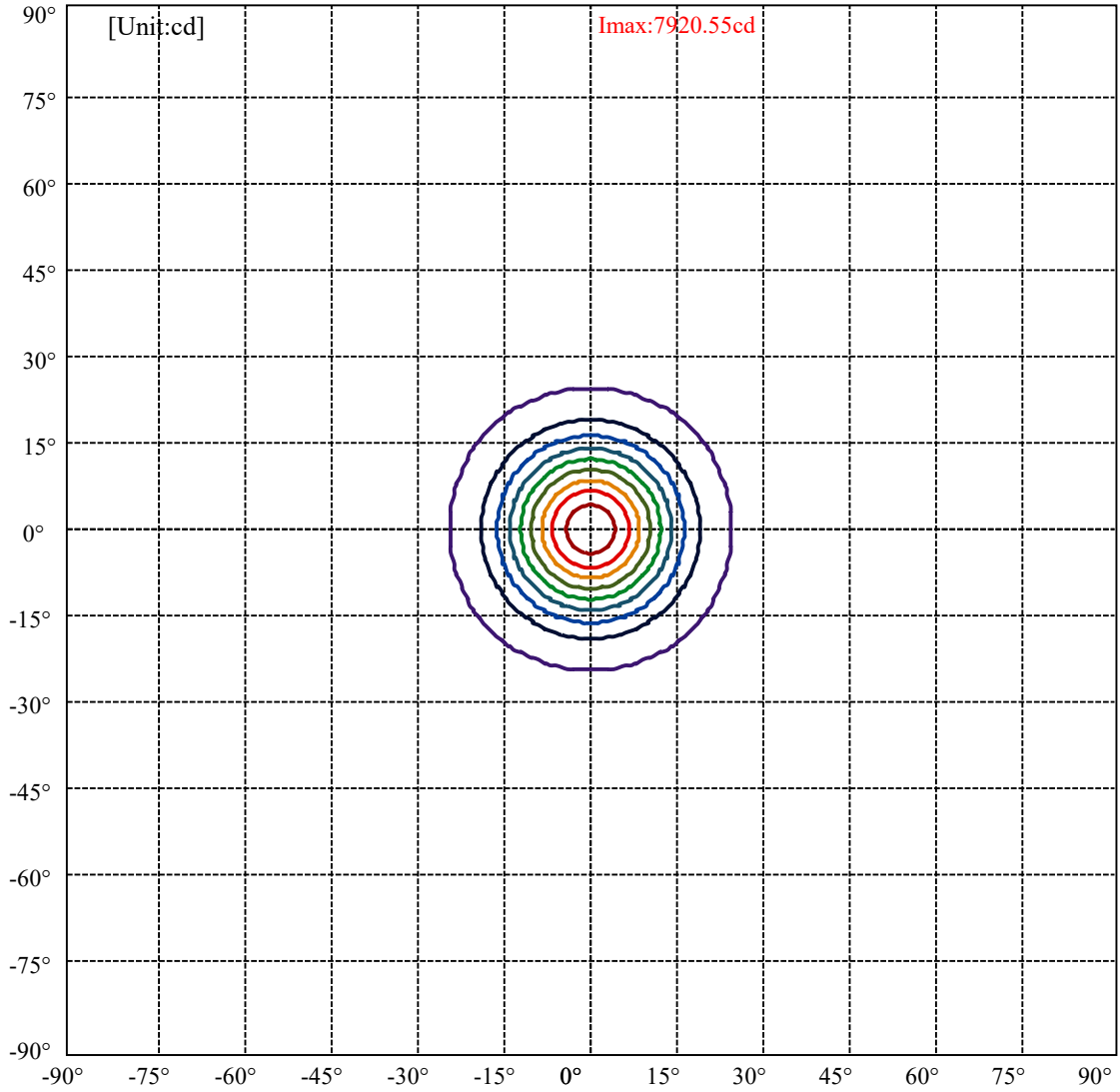
Field angle(10%Imax):C0/180Left:24.2 Right:24.2

:C90/270Left:24.2 Right:24.2

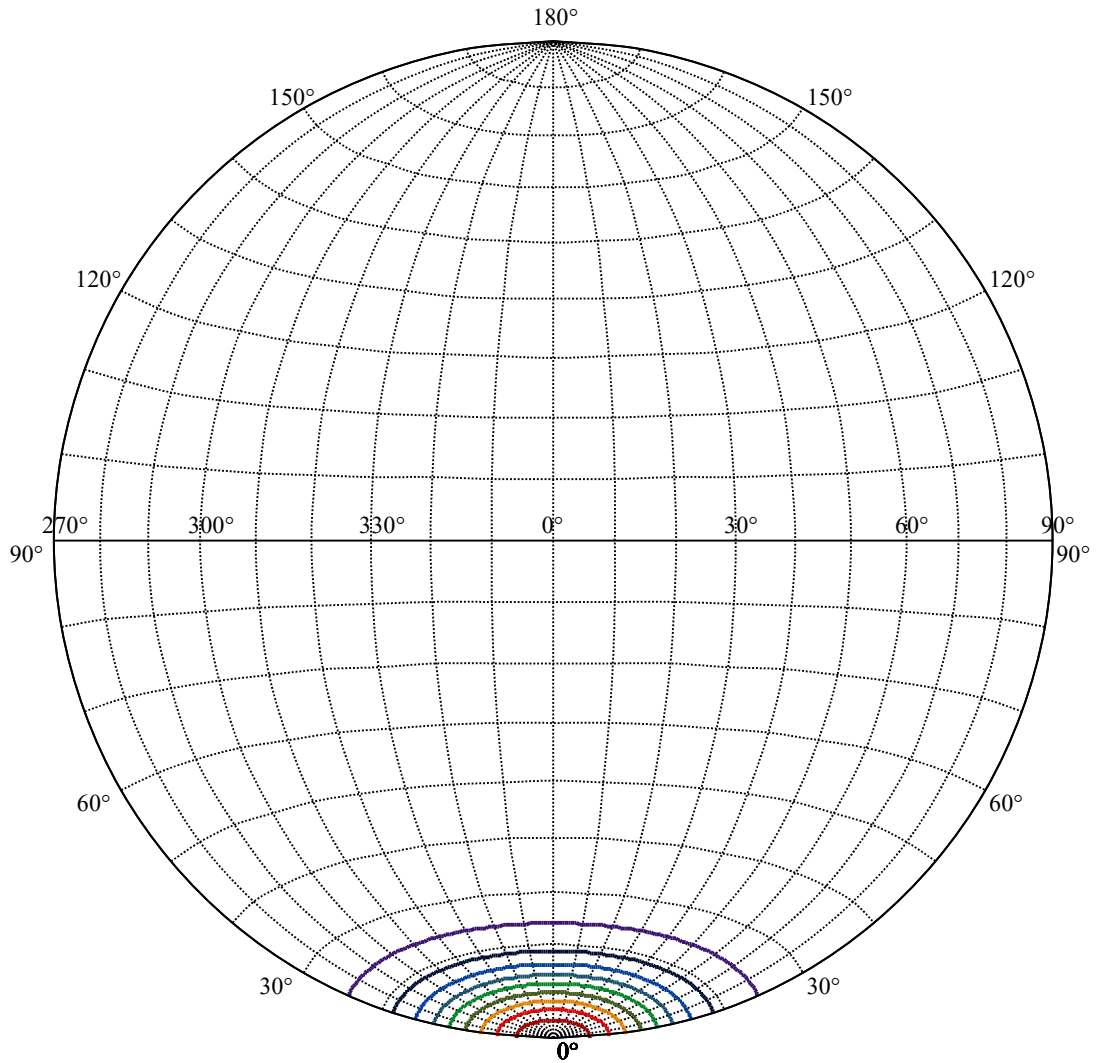
Beam Angle(50%Imax):C0/180Left:12.0 Right:12.0

:C90/270Left:12.0 Right:12.0





(10%Imax) 792.055	—
(20%Imax) 1584.11	—
(30%Imax) 2376.17	—
(40%Imax) 3168.22	—
(50%Imax) 3960.28	—
(60%Imax) 4752.33	—
(70%Imax) 5544.39	—
(80%Imax) 6336.44	—
(90%Imax) 7128.5	—



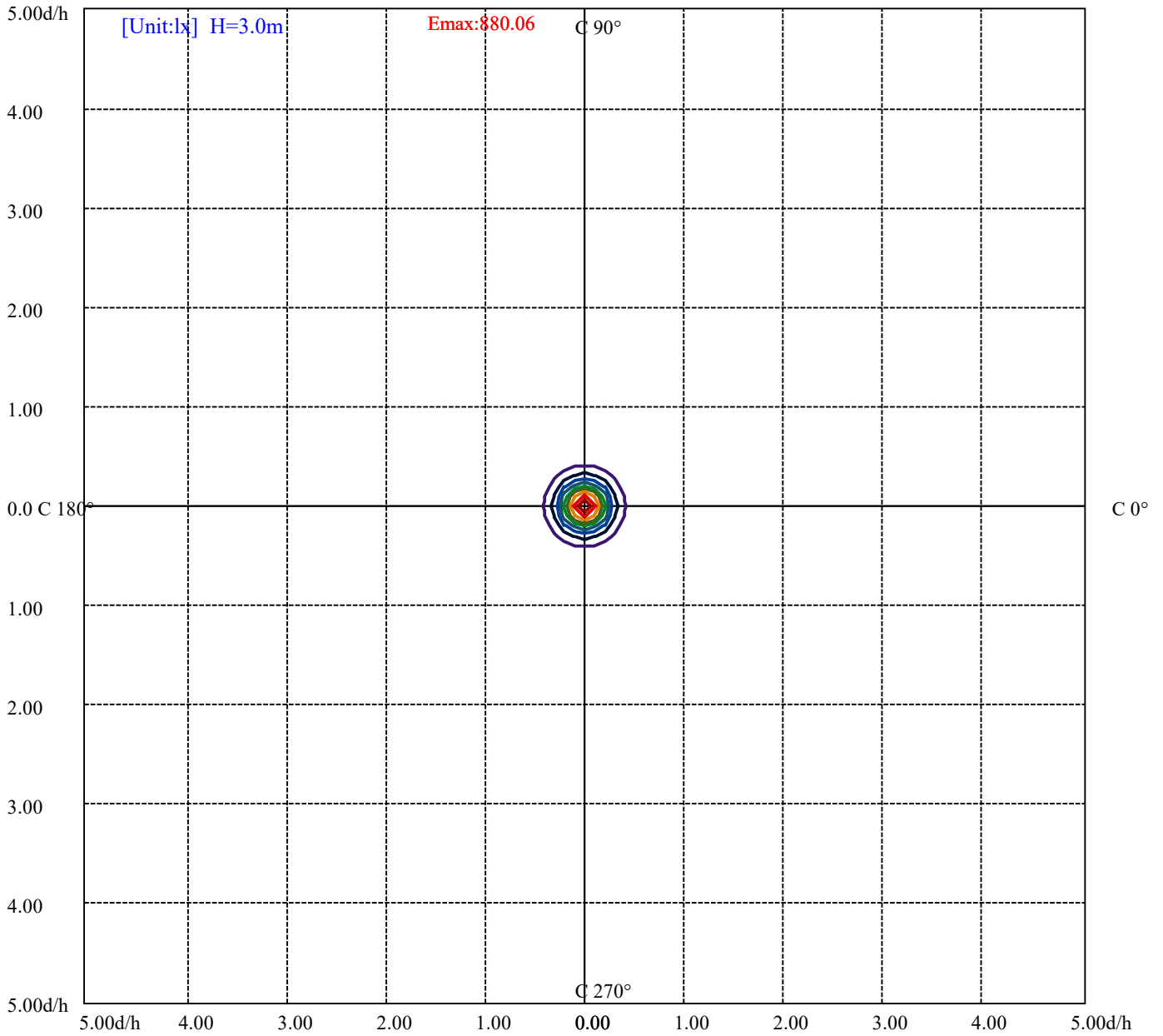
House

[Unit:cd]

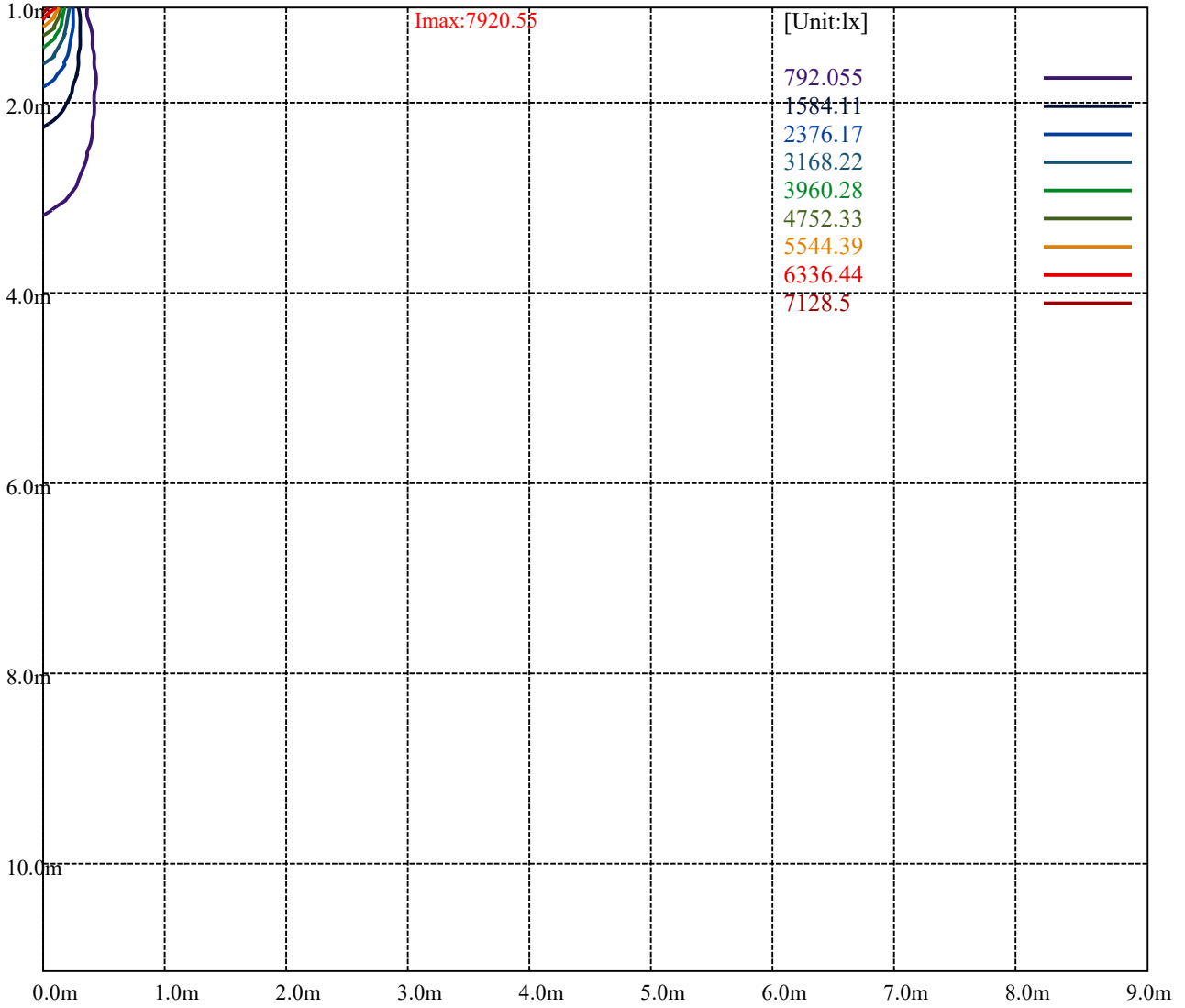
Road

Imax:7920.55

(10%Imax)	792.055	—
(20%Imax)	1584.11	—
(30%Imax)	2376.17	—
(40%Imax)	3168.22	—
(50%Imax)	3960.28	—
(60%Imax)	4752.33	—
(70%Imax)	5544.39	—
(80%Imax)	6336.44	—
(90%Imax)	7128.5	—



- (10%Emax) 88.00578
- (20%Emax) 176.0111
- (30%Emax) 264.0178
- (40%Emax) 352.0233
- (50%Emax) 440.0289
- (60%Emax) 528.0344
- (70%Emax) 616.0411
- (80%Emax) 704.0466
- (90%Emax) 792.0522



Luminance Table

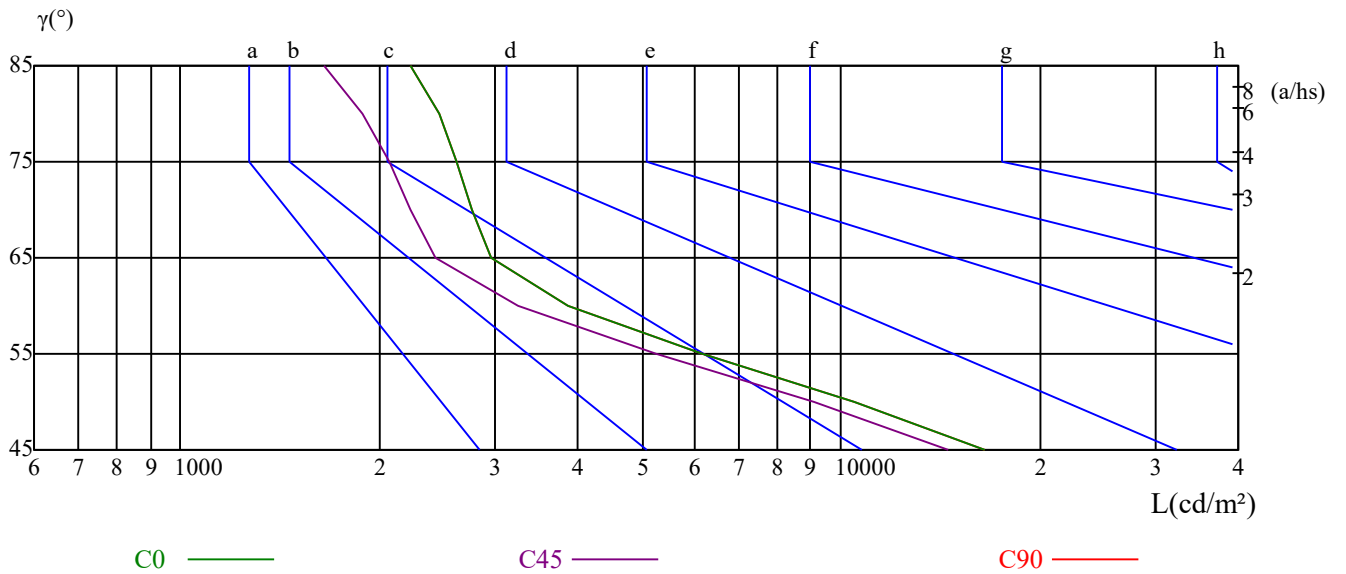
γ	45	50	55	60	65	70	75	80	85
C0	16513	10476	6162	3864	2955	2759	2622	2470	2234
C45	14510	9073	5255	3241	2433	2225	2065	1891	1652
C90	16513	10476	6162	3864	2955	2759	2622	2470	2234

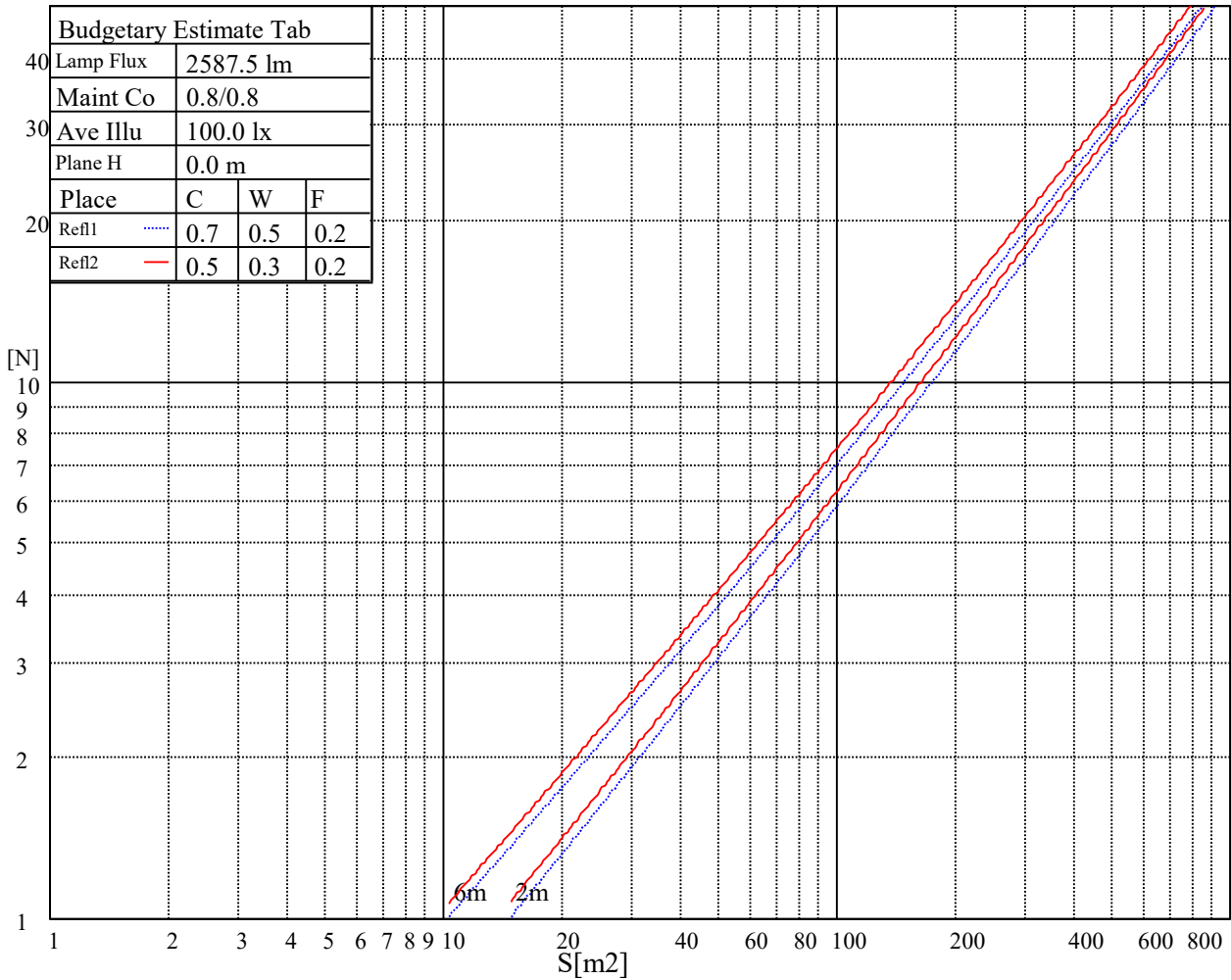
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6123	6123	6123	7514	7514	7514	15000	15000	15000

Glare Table

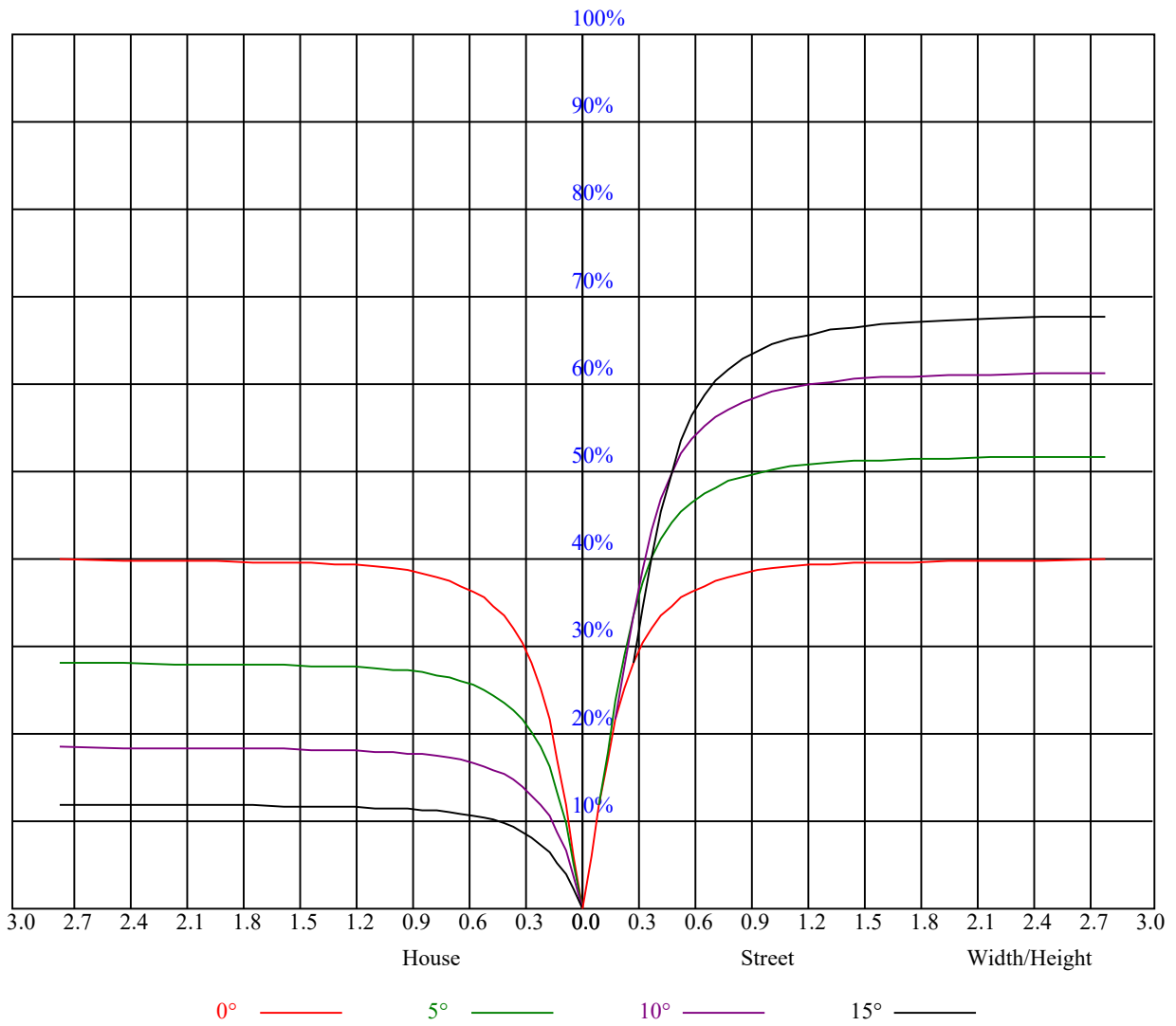
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.97	0.97	0.97	0.95	0.95	0.95	0.91	0.91	0.91	0.87	0.87	0.87	0.83	0.83	0.83	0.82
1	0.89	0.87	0.85	0.87	0.85	0.83	0.84	0.82	0.81	0.81	0.79	0.78	0.78	0.77	0.76	0.74
2	0.84	0.81	0.78	0.83	0.80	0.77	0.80	0.78	0.76	0.78	0.76	0.74	0.75	0.74	0.72	0.71
3	0.80	0.76	0.73	0.79	0.75	0.73	0.77	0.74	0.71	0.75	0.72	0.70	0.73	0.71	0.69	0.68
4	0.76	0.72	0.69	0.75	0.72	0.69	0.74	0.71	0.68	0.72	0.69	0.67	0.71	0.68	0.67	0.65
5	0.73	0.69	0.66	0.72	0.69	0.66	0.71	0.68	0.65	0.70	0.67	0.65	0.68	0.66	0.64	0.63
6	0.70	0.66	0.63	0.70	0.66	0.63	0.68	0.65	0.63	0.67	0.64	0.62	0.66	0.64	0.62	0.61
7	0.68	0.64	0.61	0.67	0.63	0.61	0.66	0.63	0.60	0.65	0.62	0.60	0.65	0.62	0.60	0.59
8	0.65	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.58	0.63	0.60	0.58	0.63	0.60	0.58	0.57
9	0.63	0.60	0.57	0.63	0.59	0.57	0.62	0.59	0.57	0.62	0.59	0.57	0.61	0.58	0.56	0.55
10	0.62	0.58	0.55	0.61	0.58	0.55	0.61	0.57	0.55	0.60	0.57	0.55	0.60	0.57	0.55	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	7958.40	6631.54	4277.33	2282.64	1084.06	642.51	408.52	281.34	185.37
45.0	7951.25	7069.79	4852.67	2867.89	1329.61	710.23	478.44	308.32	204.75
90.0	7936.93	7016.39	5027.20	2795.21	1076.79	734.18	476.62	305.73	205.25
135.0	7835.63	7613.20	5748.44	3403.59	1694.64	859.98	556.62	364.47	281.34
180.0	7958.40	7350.03	5257.34	2953.23	1286.12	769.19	484.99	328.80	218.68
225.0	7951.25	7004.28	4869.74	2601.97	1029.55	711.93	466.33	296.70	199.69
270.0	7936.93	6964.63	4829.00	2672.44	1210.69	679.40	455.32	290.70	192.04
315.0	7835.63	6231.83	3851.20	1973.77	952.15	580.57	396.85	256.12	171.01
360.0	7958.40	6631.54	4277.33	2282.64	1084.06	642.51	408.52	281.34	185.37

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	117.99	72.51	40.25	23.89	18.66	16.19	14.15	11.89	9.19
45.0	128.01	80.00	44.21	25.99	19.38	16.74	14.59	12.44	9.80
90.0	134.06	82.09	46.80	28.63	19.38	16.63	14.42	12.22	9.86
135.0	153.50	95.47	55.44	32.70	20.15	17.34	14.76	12.61	10.13
180.0	139.29	87.93	49.00	28.30	19.21	16.74	14.48	12.28	9.97
225.0	125.86	76.03	43.77	25.82	19.05	16.52	14.37	12.22	9.86
270.0	129.93	76.86	43.27	26.37	19.10	16.57	14.65	12.22	9.63
315.0	107.69	64.97	35.73	21.58	18.17	15.80	13.65	11.45	8.92
360.0	117.99	72.51	40.25	23.89	18.66	16.19	14.15	11.89	9.19

C/γ(°)	90.0
0.0	8.04
45.0	8.20
90.0	8.20
135.0	8.31
180.0	8.15
225.0	8.26
270.0	8.20
315.0	8.09
360.0	8.04