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Nata

LumCAT: 1437-N
Luminaire: 92.70.051.00+92.70.147.00
Report No: NATA0100 Voltage(V): 37.5000
Test No: GC2018080206 Current(A): 0.2000
LampCAT: BRIDGELUX V4 HD Power (W): 7.5000
Lamp flux(lm): 718.0 PF: 0.0000
Number of Lamps: 1 Ballast type: DC
Length(mm): 46 Width(mm): 46
Phm Type: C Height(mm): 0

Photometric Results

Lumens(lm): 575.42
Efficiency(%): 80.14%
Lumens(lm)/Power(W): 77.54
Central intensity(cd): 1122.531
Maximum intensity(cd): 1122.531
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=37.9
 [C90/270]Total=37.9
Field angle(10%Imax): [C0/180]Total=65.2
 [C90/270]Total=65.2
Maximum s/h(1/2): C0_180=0.64 C90_270=0.64
Maximum s/h(1/4): C0_180=0.60 C90_270=0.60
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 81.00%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 95.895%

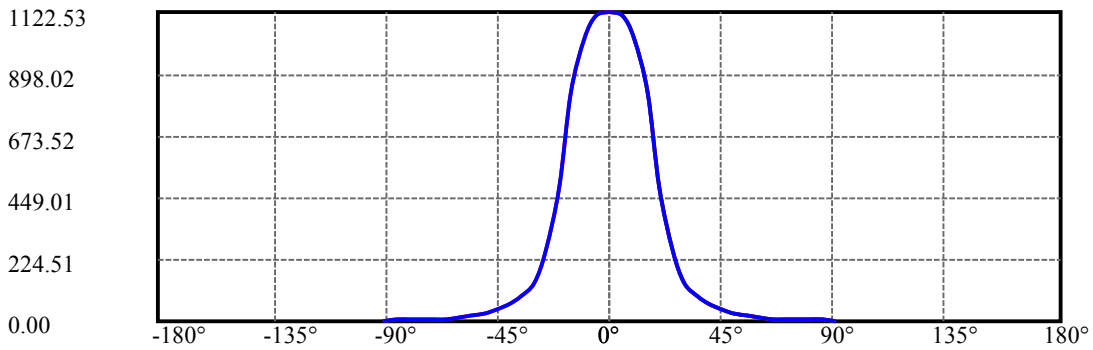
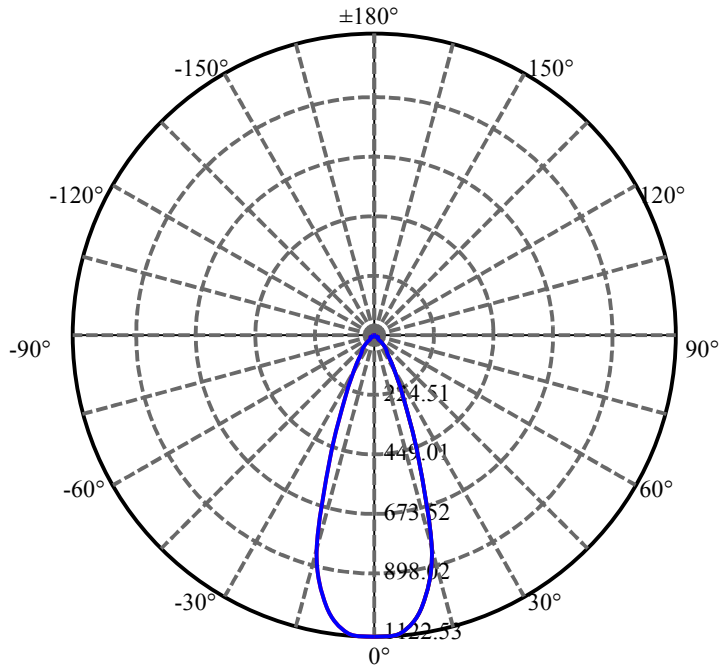
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1122.531	6.713	6.713	.935%	1.167%
5.0	1110.171	53.037	59.75	7.387%	10.384%
10.0	1021.565	97.236	156.985	13.543%	27.282%
15.0	831.689	117.990	274.976	16.433%	47.787%
20.0	490.663	91.987	366.962	12.811%	63.773%
25.0	254.691	59.000	425.962	8.217%	74.026%
30.0	137.035	37.557	463.519	5.231%	80.553%
35.0	89.370	28.098	491.617	3.913%	85.436%
40.0	62.269	21.940	513.556	3.056%	89.249%
45.0	42.428	16.445	530.001	2.290%	92.107%
50.0	29.916	12.562	542.563	1.750%	94.290%
55.0	19.820	8.899	551.462	1.239%	95.836%
60.0	13.165	6.250	557.712	.870%	96.922%
65.0	9.022	4.482	562.194	.624%	97.701%
70.0	7.433	3.828	566.023	.533%	98.367%
75.0	6.166	3.265	569.287	.455%	98.934%
80.0	5.279	2.849	572.137	.397%	99.429%
85.0	4.762	2.601	574.737	.362%	99.881%
90.0	2.498	0.685	575.422	.095%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	463.52	64.56%	80.55%
0-40	513.56	71.53%	89.25%
0-60	557.71	77.68%	96.92%
0-90	574.74	80.05%	99.88%
0-120	574.74	80.05%	99.88%
0-180	575.42	80.14%	100.00%
60-90	23.27	3.24%	4.04%
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%
0-29.58	460.34	64.11%	80.00%

ZONAL LUMEN SUMMARY

0-10	156.99
10-20	209.98
20-30	96.56
30-40	50.04
40-50	29.01
50-60	15.15
60-70	8.31
70-80	6.11
80-90	2.60
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: —————

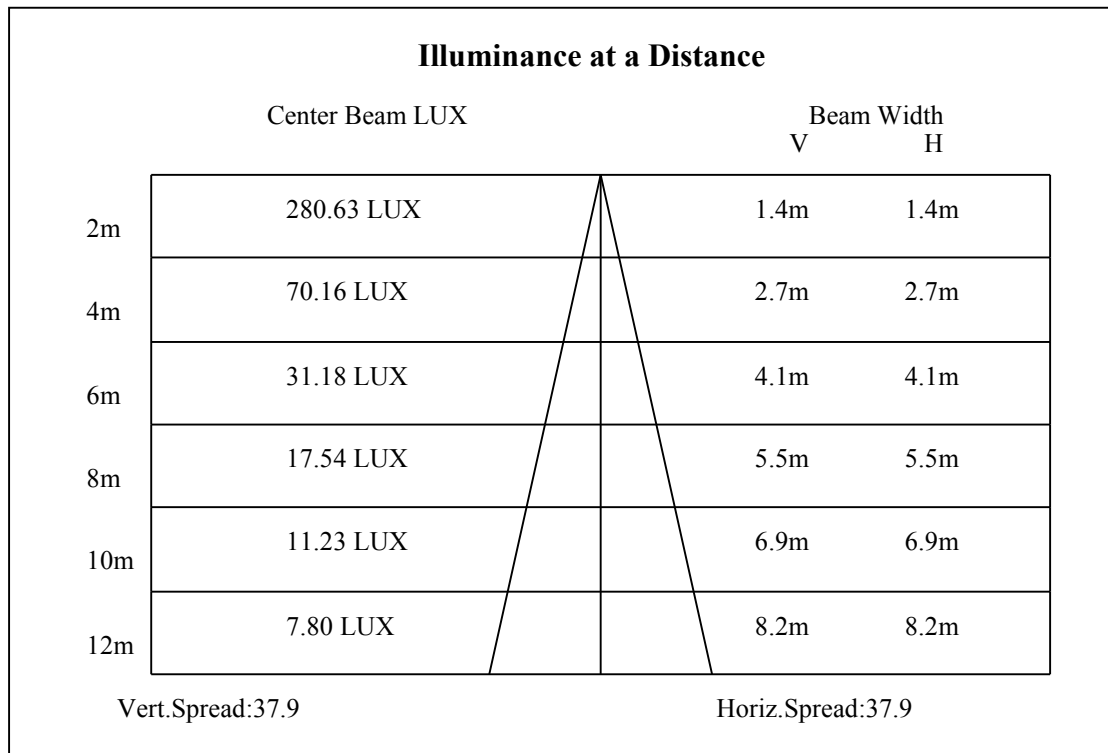
C90/C270: —————

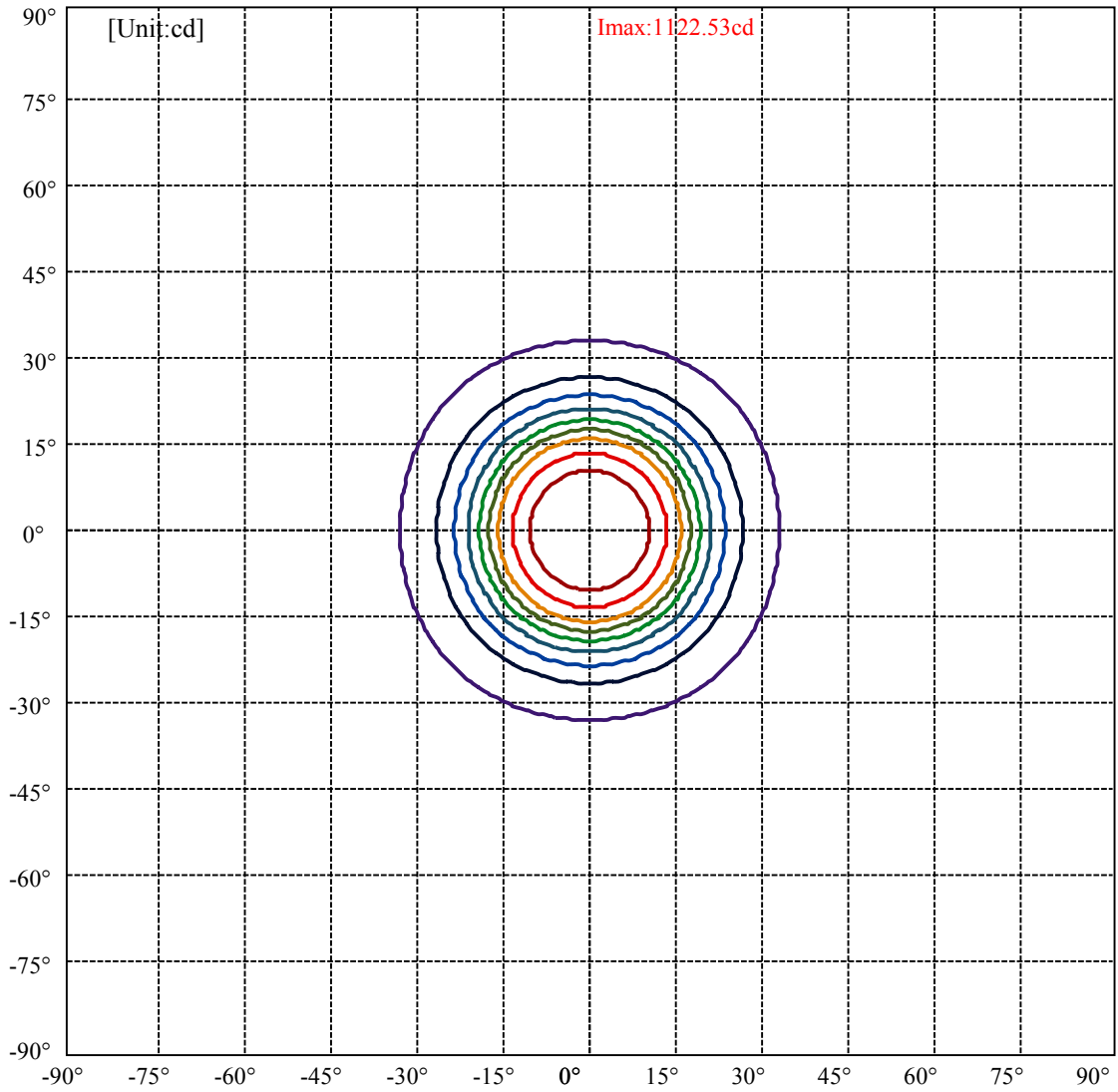
Field angle(10%Imax):C0/180Left:32.6 Right:32.6

:C90/270Left:32.6 Right:32.6

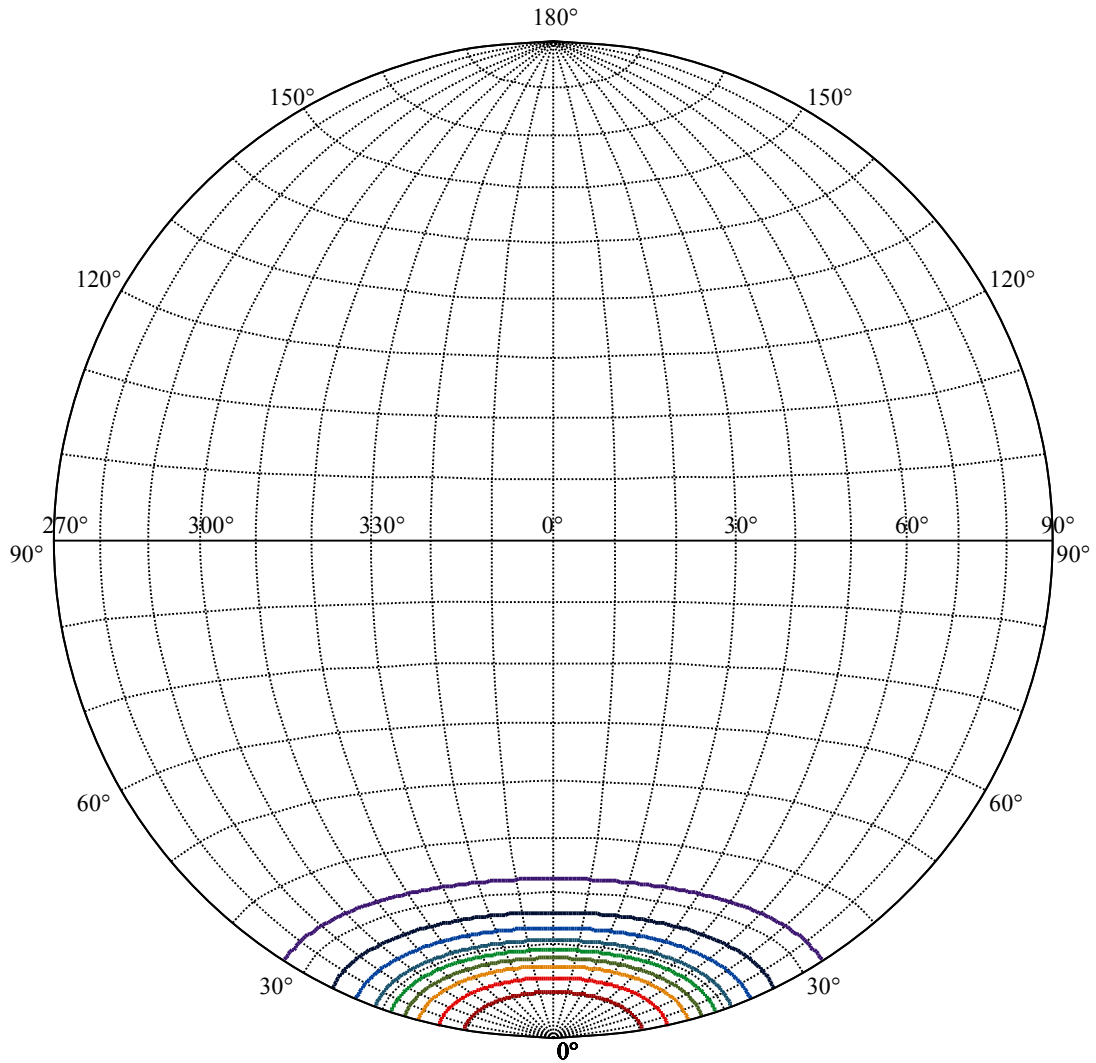
Beam Angle(50%Imax):C0/180Left:19.0 Right:19.0

:C90/270Left:19.0 Right:19.0





(10%Imax) 112.253	—
(20%Imax) 224.506	—
(30%Imax) 336.759	—
(40%Imax) 449.012	—
(50%Imax) 561.266	—
(60%Imax) 673.519	—
(70%Imax) 785.772	—
(80%Imax) 898.025	—
(90%Imax) 1010.28	—



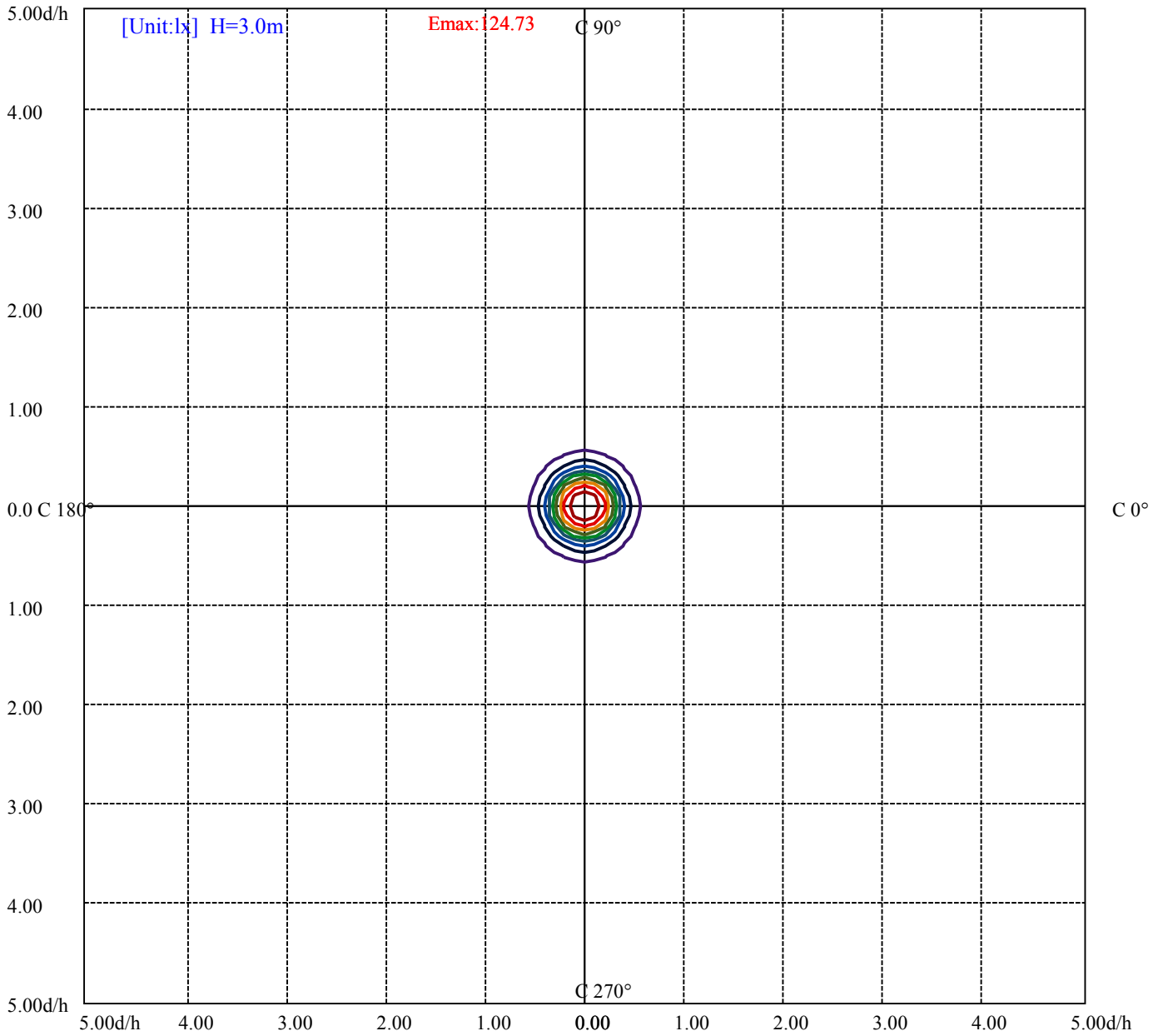
House

[Unit:cd]

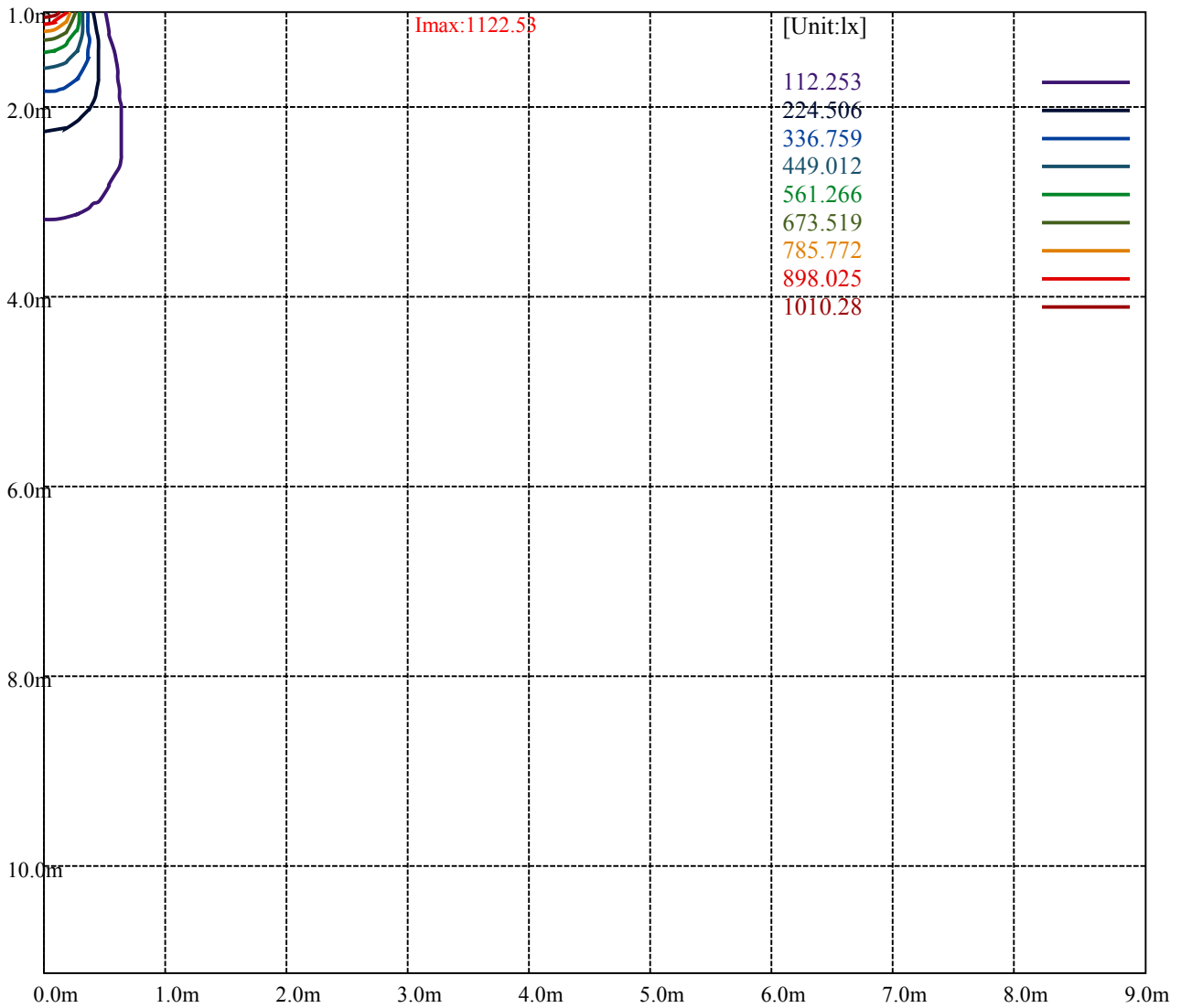
Road

Imax:1122.53

(10%Imax)	112.253	—
(20%Imax)	224.506	—
(30%Imax)	336.759	—
(40%Imax)	449.012	—
(50%Imax)	561.266	—
(60%Imax)	673.519	—
(70%Imax)	785.772	—
(80%Imax)	898.025	—
(90%Imax)	1010.28	—



- (10%Emax) 12.47256
- (20%Emax) 24.94511
- (30%Emax) 37.41767
- (40%Emax) 49.89022
- (50%Emax) 62.36278
- (60%Emax) 74.83533
- (70%Emax) 87.308
- (80%Emax) 99.78056
- (90%Emax) 112.2533



Luminance Table

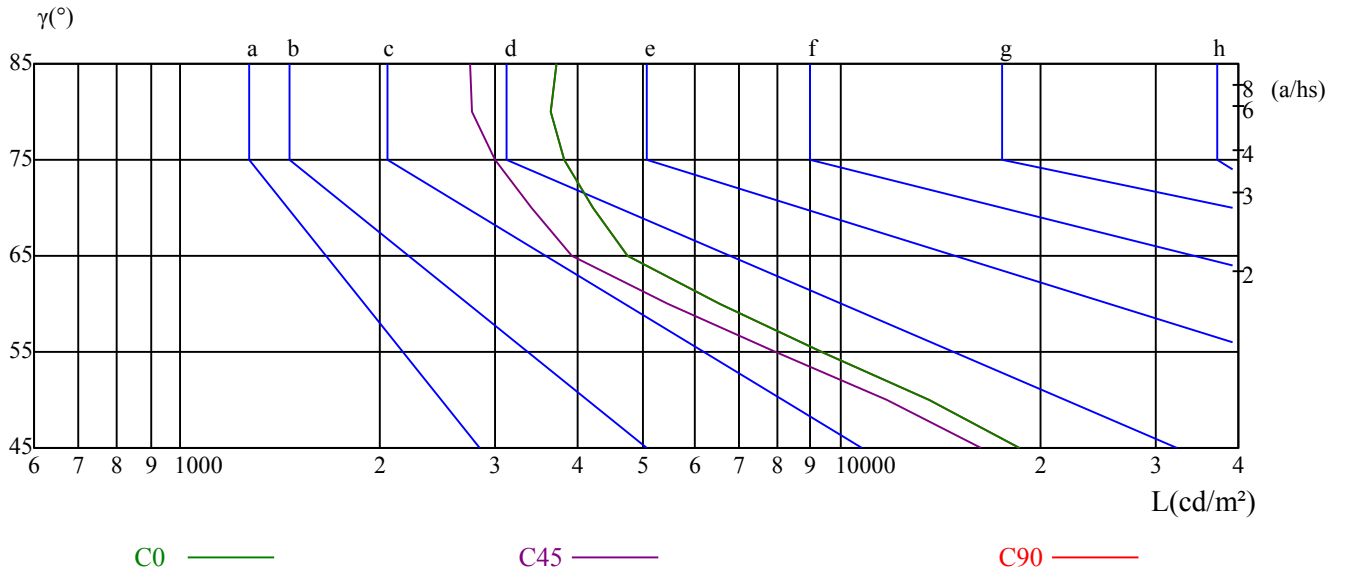
γ	45	50	55	60	65	70	75	80	85
C0	18634	13562	9358	6537	4762	4220	3820	3629	3708
C45	16317	11704	7952	5463	3907	3393	3000	2771	2737
C90	18634	13562	9358	6537	4762	4220	3820	3629	3708

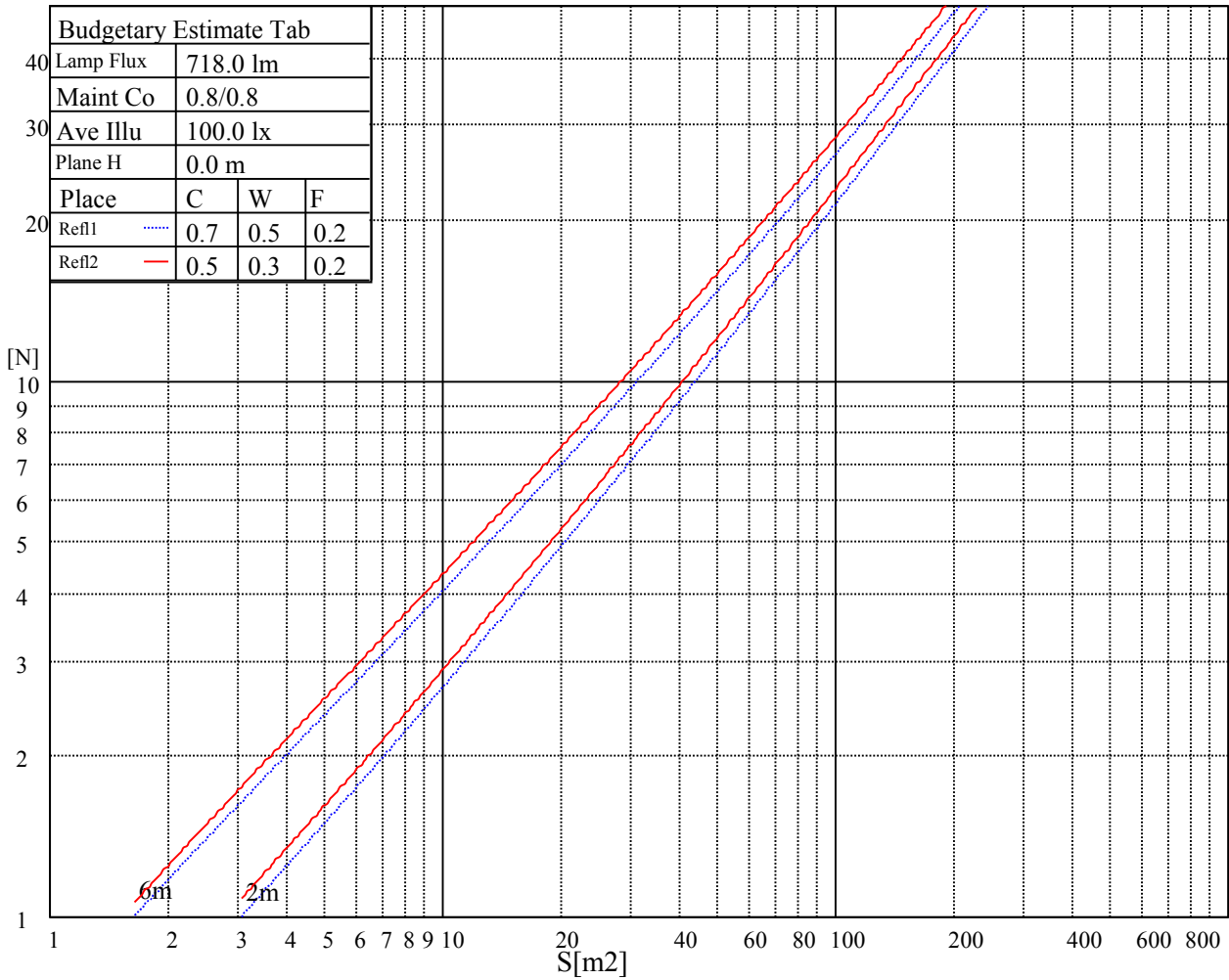
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
10089	10089	10089	11259	11259	11259	25823	25823	25823

Glare Table

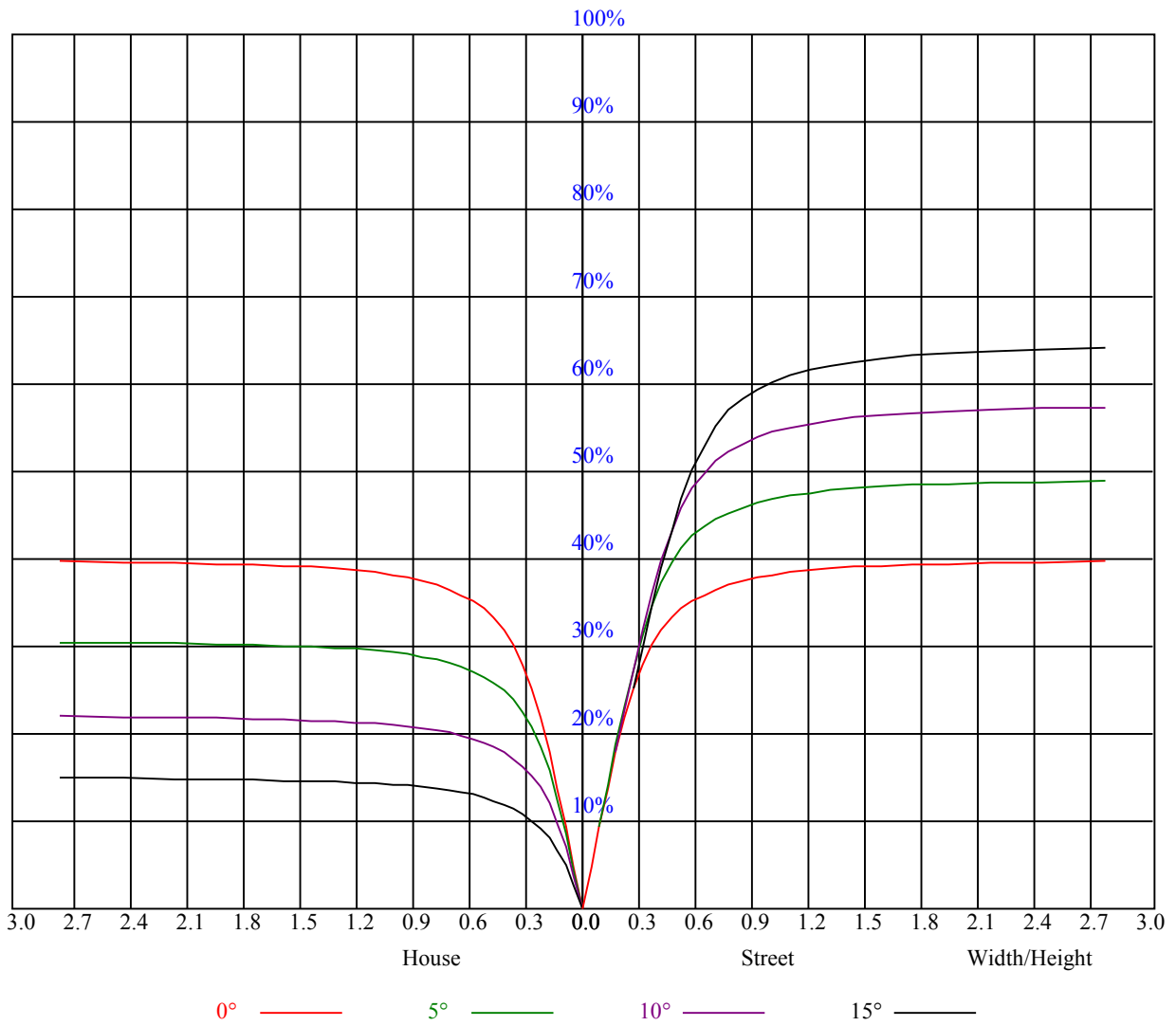
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.96	0.96	0.96	0.94	0.94	0.94	0.90	0.90	0.90	0.86	0.86	0.86	0.83	0.83	0.83	0.81
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	0.83	0.80	0.77	0.82	0.79	0.76	0.79	0.77	0.75	0.77	0.75	0.73	0.75	0.73	0.72	0.70
3	0.79	0.75	0.72	0.77	0.74	0.71	0.75	0.72	0.70	0.73	0.71	0.69	0.72	0.69	0.68	0.66
4	0.74	0.70	0.67	0.73	0.70	0.67	0.72	0.68	0.66	0.70	0.67	0.65	0.69	0.66	0.64	0.63
5	0.71	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.62	0.67	0.64	0.62	0.66	0.63	0.61	0.60
6	0.67	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.59	0.58
7	0.65	0.60	0.57	0.64	0.60	0.57	0.63	0.59	0.57	0.62	0.59	0.57	0.61	0.58	0.56	0.55
8	0.62	0.58	0.55	0.62	0.57	0.55	0.61	0.57	0.54	0.60	0.57	0.54	0.59	0.56	0.54	0.53
9	0.60	0.55	0.53	0.59	0.55	0.53	0.58	0.55	0.52	0.58	0.55	0.52	0.57	0.54	0.52	0.51
10	0.57	0.53	0.51	0.57	0.53	0.51	0.56	0.53	0.50	0.56	0.53	0.50	0.55	0.52	0.50	0.49



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	1124.25	1100.58	1008.08	824.19	498.81	282.99	141.33	92.44	63.54
45.0	1122.05	1089.57	983.86	766.94	439.90	285.74	130.32	85.39	59.74
90.0	1122.05	1088.80	961.01	768.04	411.82	191.76	119.53	78.13	54.07
135.0	1123.15	1126.45	1071.95	884.76	548.36	282.99	148.87	97.23	67.44
180.0	1124.25	1145.17	1072.00	892.90	528.10	239.11	145.07	93.76	65.35
225.0	1122.05	1126.45	1053.34	887.01	527.99	248.63	145.51	93.76	66.95
270.0	1122.05	1107.73	1035.06	862.18	529.64	287.94	136.21	86.82	61.06
315.0	1120.40	1096.61	987.22	767.49	440.67	218.35	129.44	87.43	60.01
360.0	1124.25	1100.58	1008.08	824.19	498.81	282.99	141.33	92.44	63.54
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	43.33	30.39	20.48	13.43	9.14	7.27	5.84	4.84	4.46
45.0	41.79	29.51	19.32	12.94	8.81	7.43	6.39	5.62	4.90
90.0	37.49	26.04	17.29	11.62	8.59	7.38	6.33	5.51	4.46
135.0	44.32	31.44	20.76	13.71	9.03	7.43	6.11	5.07	4.51
180.0	43.27	30.01	19.99	12.99	8.75	7.21	5.78	4.68	4.40
225.0	46.25	32.54	20.65	13.87	9.25	7.54	6.39	5.73	5.67
270.0	42.34	30.17	20.65	13.87	9.80	7.98	6.77	6.00	5.29
315.0	40.63	29.23	19.43	12.88	8.81	7.21	5.73	4.79	4.40
360.0	43.33	30.39	20.48	13.43	9.14	7.27	5.84	4.84	4.46
C/ γ (°)	90.0								
0.0	2.42								
45.0	2.53								
90.0	2.53								
135.0	2.48								
180.0	2.42								
225.0	2.59								
270.0	2.53								
315.0	2.48								
360.0	2.42								