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## Nata

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LumCAT: 3-1642-A	
Luminaire: 92.76.227.00	
Report No: NT2015051308	Voltage(V): 39.8000
Test No: GC2015051308	Current(A): 2.1000
LampCAT: BRIDGELUX VERO 29	Power (W): 83.5800
Lamp flux(lm): 8650.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 88	Width(mm): 88
Phm Type: C	Height(mm): 0

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## Photometric Results

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Lumens(lm): 7775.44  
Efficiency(%): 89.89%  
Lumens(lm)/Power(W): 93.03  
Central intensity(cd): 9129.287  
Maximum intensity(cd): 9129.287  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=55.8  
                                  [C90/270]Total=55.8  
Field angle(10%Imax): [C0/180]Total=86.8  
                                  [C90/270]Total=86.8  
Maximum s/h(1/2): C0\_180=0.83 C90\_270=0.83  
Maximum s/h(1/4): C0\_180=0.88 C90\_270=0.88  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 90.44%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 97.808%

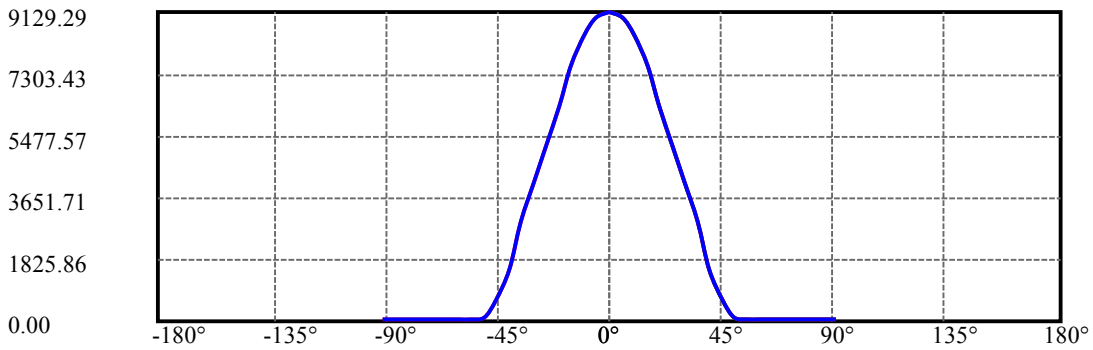
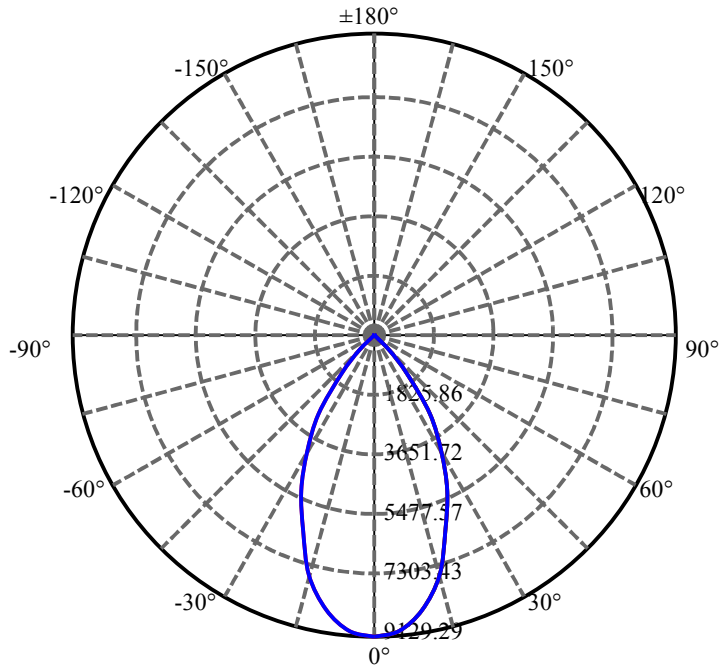
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	9129.287	54.595	54.595	.631%	.702%
5.0	8980.669	429.036	483.631	4.960%	6.220%
10.0	8450.748	804.368	1287.999	9.299%	16.565%
15.0	7532.742	1068.658	2356.657	12.354%	30.309%
20.0	6340.719	1188.720	3545.378	13.742%	45.597%
25.0	5167.019	1196.955	4742.332	13.838%	60.991%
30.0	4126.552	1130.959	5873.291	13.075%	75.536%
35.0	2945.089	925.932	6799.223	10.704%	87.445%
40.0	1524.858	537.262	7336.486	6.211%	94.355%
45.0	621.840	241.020	7577.506	2.786%	97.454%
50.0	100.865	42.353	7619.858	.490%	97.999%
55.0	34.619	15.544	7635.403	.180%	98.199%
60.0	33.235	15.776	7651.179	.182%	98.402%
65.0	32.696	16.243	7667.422	.188%	98.611%
70.0	35.452	18.260	7685.682	.211%	98.846%
75.0	50.369	26.669	7712.351	.308%	99.189%
80.0	49.180	26.548	7738.899	.307%	99.530%
85.0	52.027	28.409	7767.308	.328%	99.895%
90.0	29.661	8.129	7775.437	.094%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	5873.29	67.90%	75.54%
0-40	7336.49	84.81%	94.35%
0-60	7651.18	88.45%	98.40%
0-90	7767.31	89.80%	99.90%
0-120	7767.31	89.80%	99.90%
0-180	7775.44	89.89%	100.00%
60-90	131.91	1.52%	1.70%
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%
0-31.87	6220.35	71.91%	80.00%

ZONAL LUMEN SUMMARY

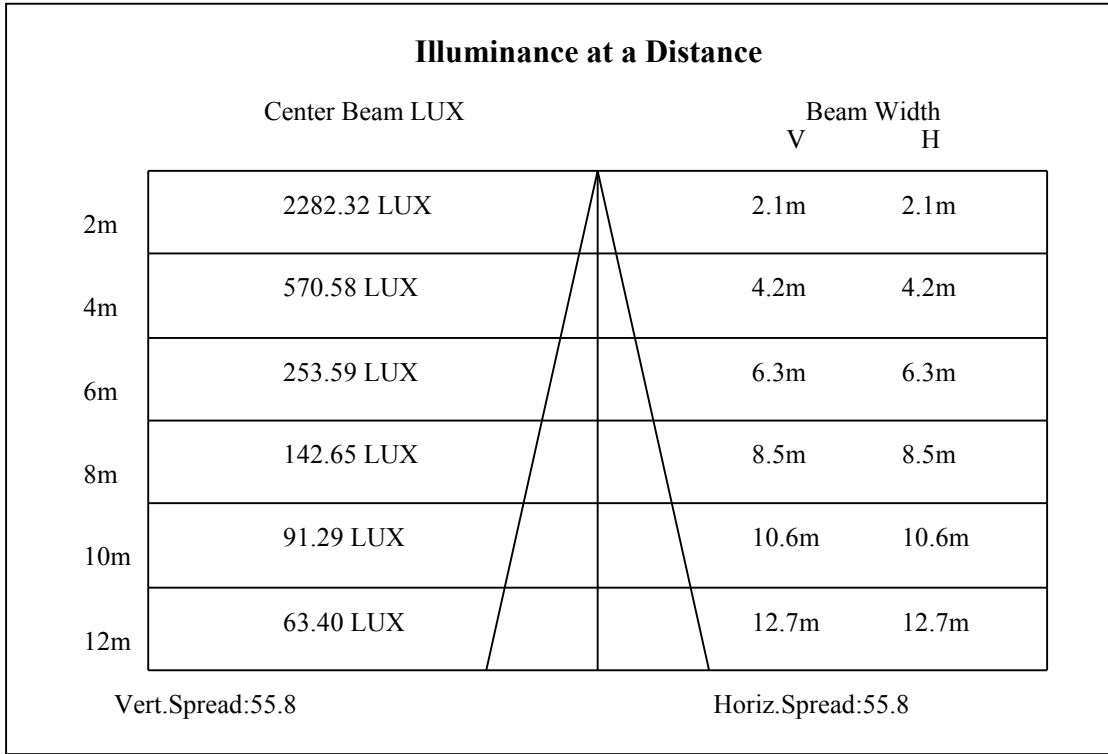
0-10	1288.00
10-20	2257.38
20-30	2327.91
30-40	1463.19
40-50	283.37
50-60	31.32
60-70	34.50
70-80	53.22
80-90	28.41
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

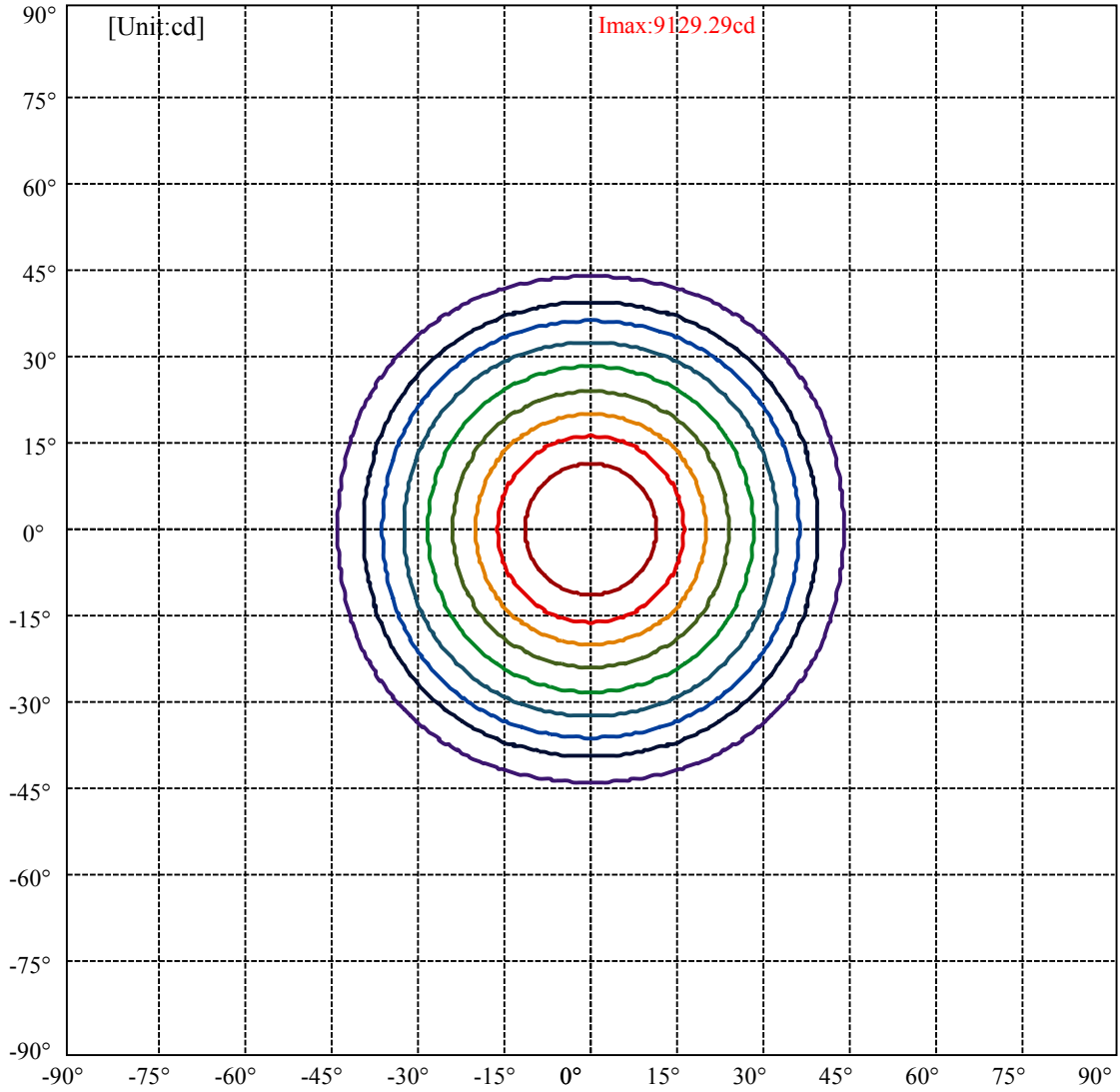


C0(Max): —————  
C0/C180: —————  
C90/C270: —————

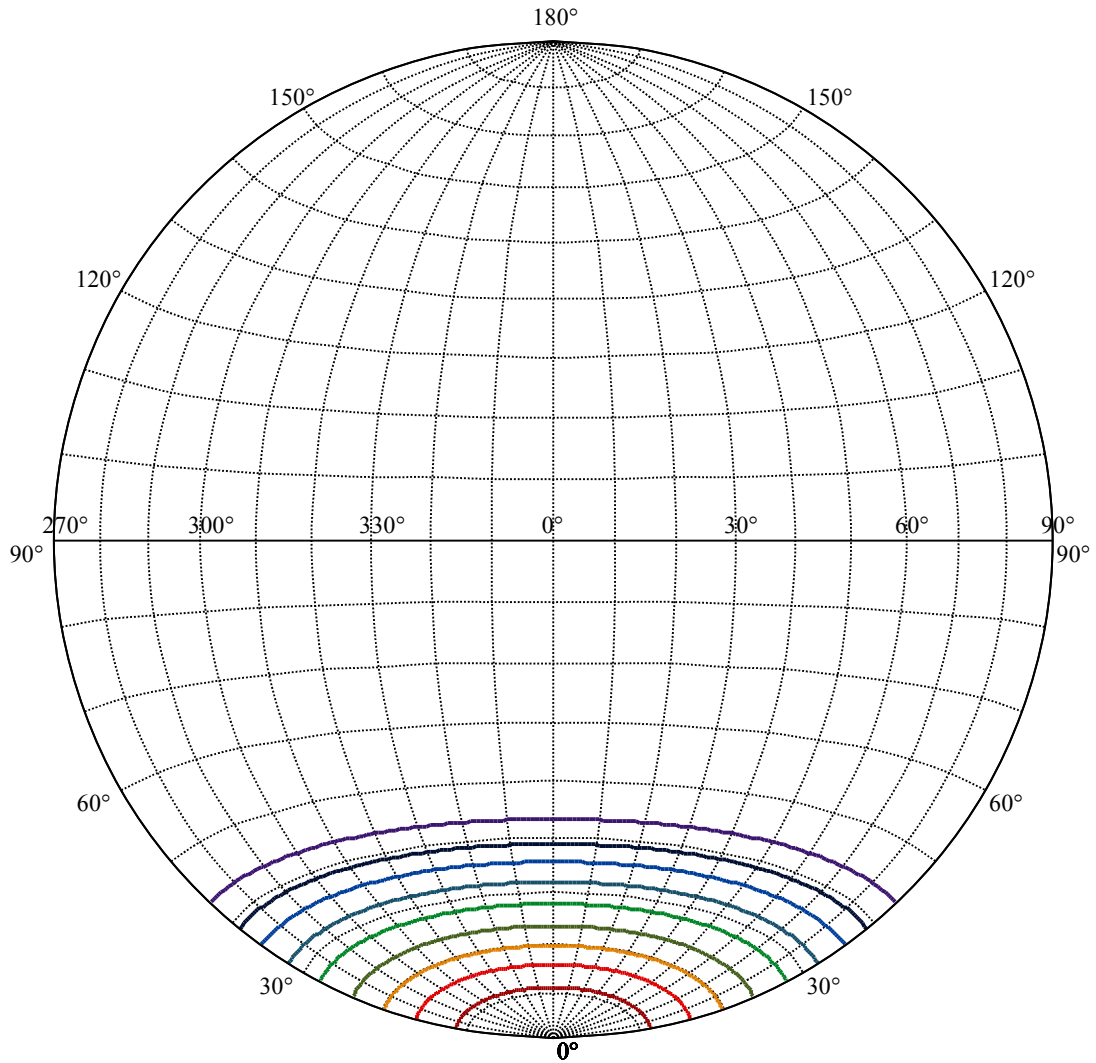
Field angle(10%Imax):C0/180Left:43.4 Right:43.4  
:C90/270Left:43.4 Right:43.4

Beam Angle(50%Imax):C0/180Left:27.9 Right:27.9  
:C90/270Left:27.9 Right:27.9





(10%Imax) 912.929	—
(20%Imax) 1825.86	—
(30%Imax) 2738.79	—
(40%Imax) 3651.71	—
(50%Imax) 4564.64	—
(60%Imax) 5477.57	—
(70%Imax) 6390.5	—
(80%Imax) 7303.43	—
(90%Imax) 8216.36	—



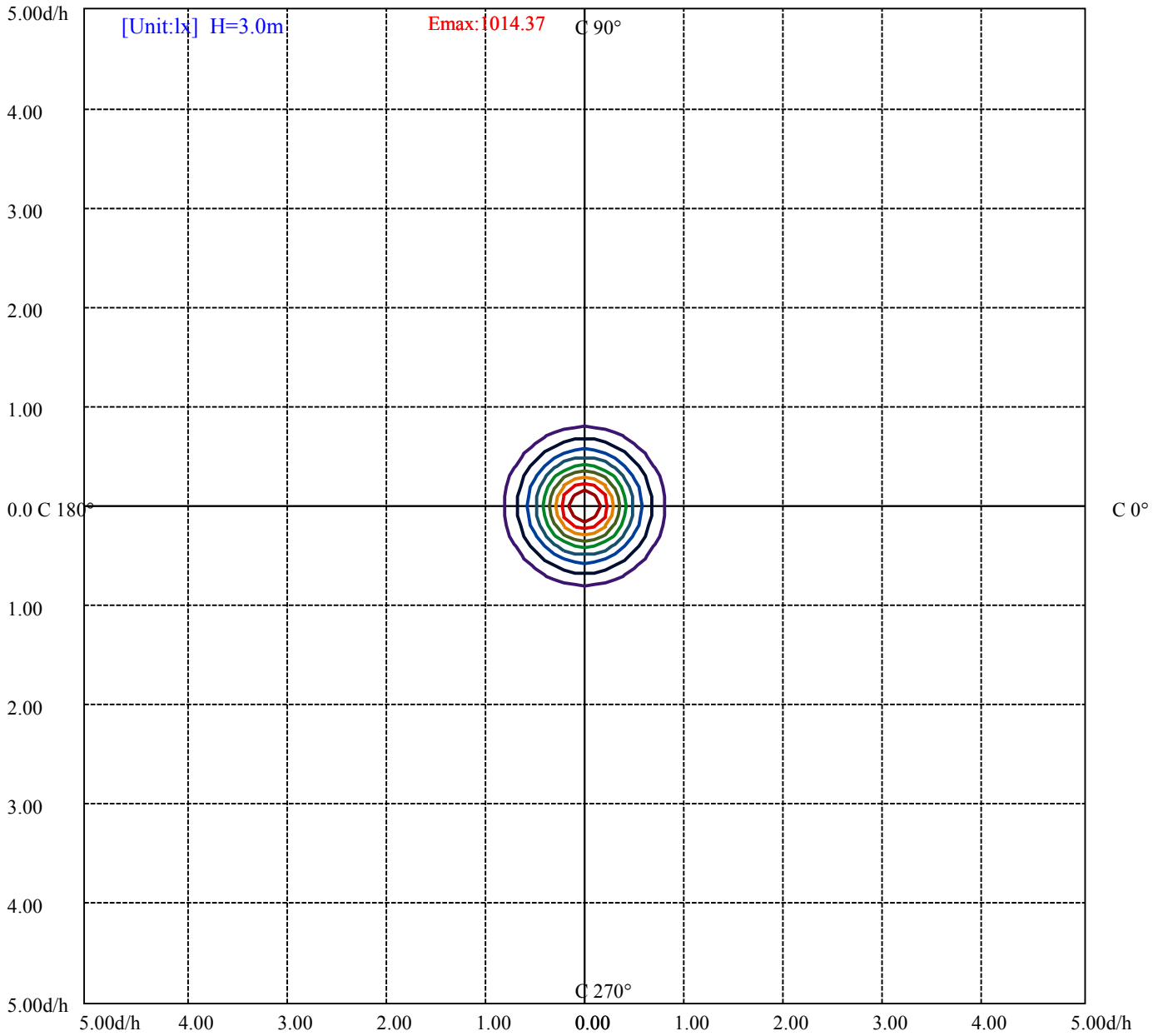
House

[Unit:cd]

Road

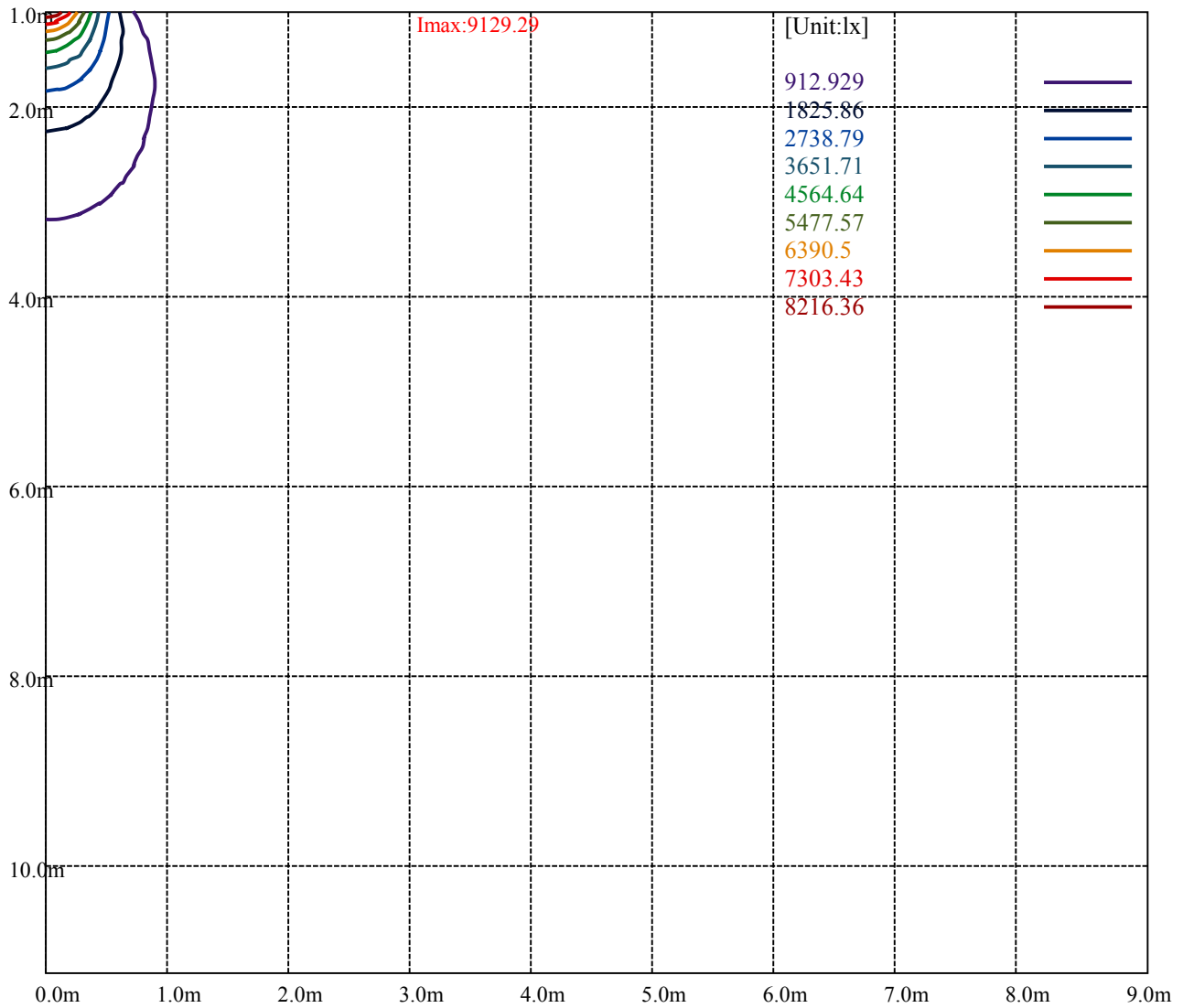
Imax:9129.29

(10%Imax) 912.929	—
(20%Imax) 1825.86	—
(30%Imax) 2738.79	—
(40%Imax) 3651.71	—
(50%Imax) 4564.64	—
(60%Imax) 5477.57	—
(70%Imax) 6390.5	—
(80%Imax) 7303.43	—
(90%Imax) 8216.36	—



- (10%Emax) 101.4364
- (20%Emax) 202.8733
- (30%Emax) 304.3089
- (40%Emax) 405.7455
- (50%Emax) 507.1823
- (60%Emax) 608.6189
- (70%Emax) 710.0555
- (80%Emax) 811.4922
- (90%Emax) 912.9277





Luminance Table

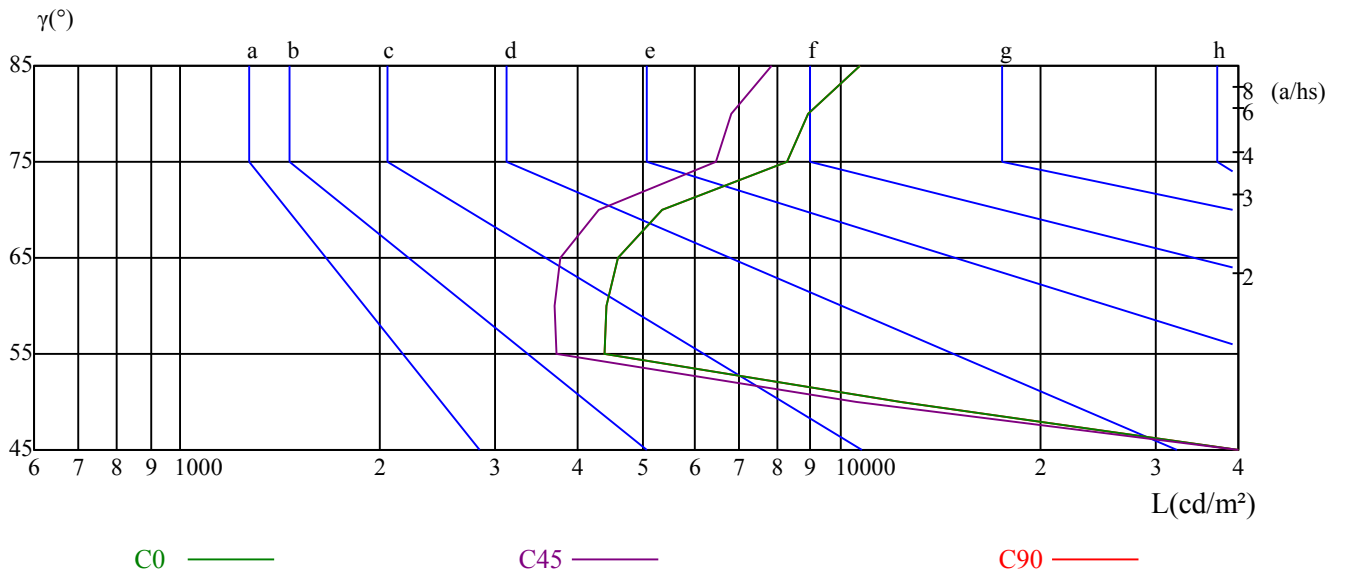
$\gamma$	45	50	55	60	65	70	75	80	85
C0	73480	12280	4381	4414	4604	5357	8278	8934	10655
C45	64108	10558	3709	3674	3764	4291	6479	6805	7852
C90	73480	12280	4381	4414	4604	5357	8278	8934	10655

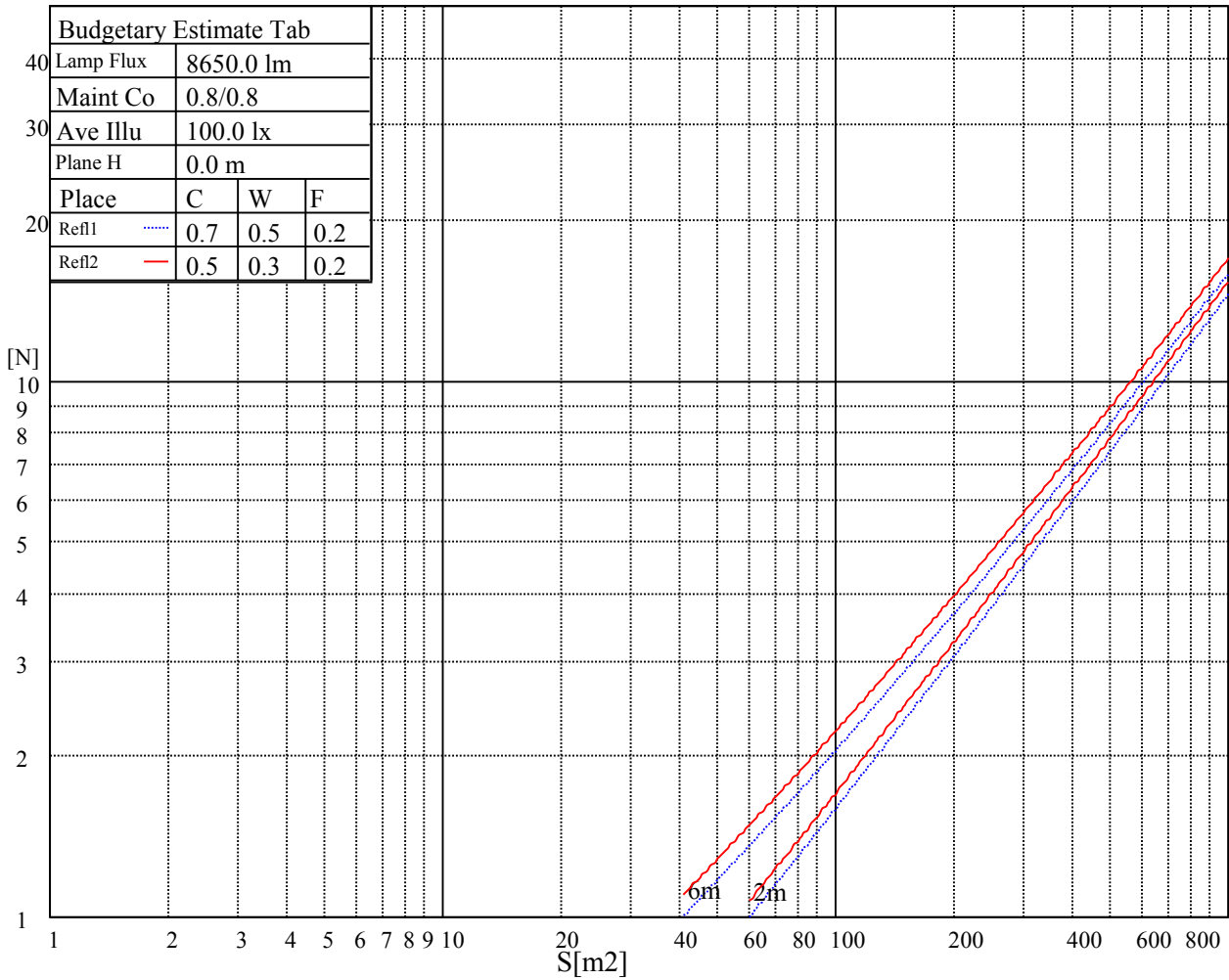
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
9990	9990	9990	25131	25131	25131	77084	77084	77084

Glare Table

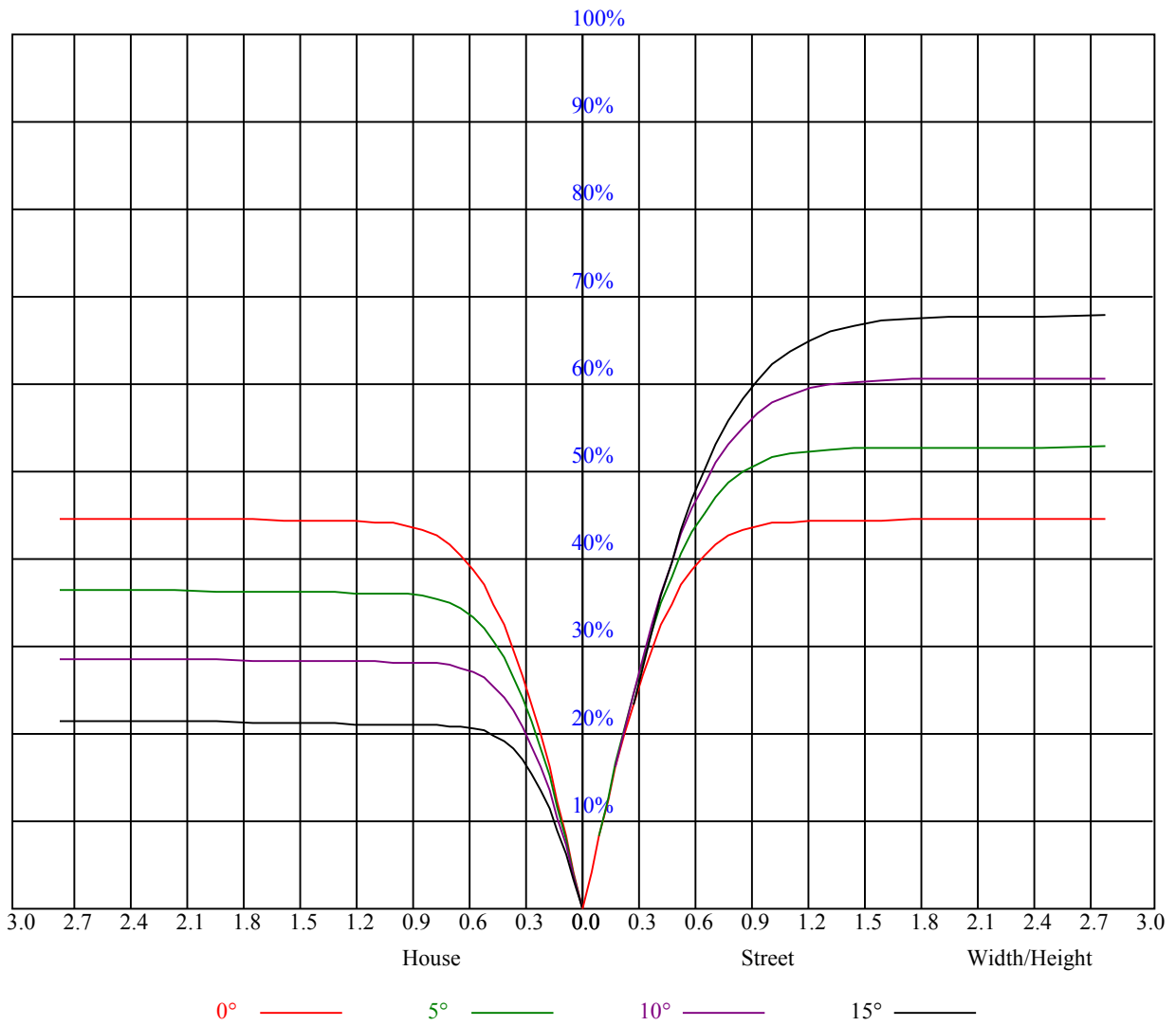
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.00	1.00	1.00	0.96	0.96	0.96	0.92	0.92	0.92	0.90
1	0.99	0.97	0.95	0.97	0.95	0.93	0.94	0.92	0.90	0.90	0.89	0.88	0.87	0.86	0.85	0.84
2	0.93	0.89	0.86	0.91	0.88	0.85	0.88	0.86	0.83	0.86	0.83	0.81	0.83	0.81	0.80	0.78
3	0.87	0.83	0.79	0.86	0.82	0.78	0.83	0.80	0.77	0.81	0.78	0.76	0.79	0.77	0.75	0.73
4	0.82	0.77	0.73	0.81	0.76	0.73	0.79	0.75	0.72	0.77	0.74	0.71	0.75	0.73	0.70	0.69
5	0.77	0.72	0.68	0.76	0.71	0.68	0.75	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.66	0.65
6	0.73	0.68	0.64	0.72	0.67	0.64	0.71	0.66	0.63	0.69	0.66	0.63	0.68	0.65	0.62	0.61
7	0.69	0.64	0.60	0.68	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.59	0.65	0.62	0.59	0.58
8	0.65	0.60	0.57	0.65	0.60	0.56	0.64	0.59	0.56	0.63	0.59	0.56	0.62	0.58	0.56	0.55
9	0.62	0.57	0.54	0.62	0.57	0.53	0.61	0.56	0.53	0.60	0.56	0.53	0.59	0.56	0.53	0.52
10	0.59	0.54	0.51	0.59	0.54	0.51	0.58	0.54	0.51	0.57	0.53	0.50	0.57	0.53	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	9004.10	8881.57	8369.62	7513.02	6392.33	5239.20	4199.08	3060.49	1864.27
45.0	9466.81	9373.93	8881.57	8026.64	6845.53	5555.87	4455.33	3477.88	2093.10
90.0	9024.24	8858.07	8304.72	7326.15	6131.60	5029.38	4053.61	2902.15	1608.01
135.0	9022.00	8912.90	8475.93	7546.03	6414.71	5263.81	4250.55	3006.77	1728.87
180.0	9004.10	8838.48	8273.95	7409.51	6143.35	4986.30	3901.98	2719.75	1076.93
225.0	9466.81	9232.38	8549.22	7429.09	6170.21	5045.05	3938.91	2652.05	1088.46
270.0	9024.24	8900.03	8427.25	7514.14	6346.45	5114.43	4138.09	2908.30	1652.22
315.0	9022.00	8848.00	8323.74	7497.35	6281.55	5102.12	4074.87	2833.33	1087.00
360.0	9004.10	8881.57	8369.62	7513.02	6392.33	5239.20	4199.08	3060.49	1864.27

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	740.78	128.97	33.96	32.51	31.72	31.50	38.55	47.50	48.79
45.0	888.49	321.16	36.98	34.97	33.63	32.95	42.97	41.07	42.80
90.0	638.17	70.55	34.24	32.84	32.17	32.06	45.32	45.49	51.47
135.0	741.34	74.69	34.63	33.40	33.23	39.72	62.10	58.52	53.43
180.0	468.53	47.56	33.91	33.01	32.56	32.90	52.43	51.81	55.84
225.0	410.00	52.26	35.30	34.35	34.13	42.91	51.75	46.22	55.28
270.0	574.05	56.68	34.19	32.40	31.72	31.72	50.13	48.96	52.37
315.0	513.34	55.06	33.74	32.40	32.40	39.84	59.70	53.88	56.23
360.0	740.78	128.97	33.96	32.51	31.72	31.50	38.55	47.50	48.79

C/γ(°)	90.0
0.0	29.04
45.0	29.43
90.0	29.43
135.0	29.77
180.0	29.60
225.0	31.50
270.0	29.26
315.0	29.26
360.0	29.04