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Nata

LumCAT: 3-1918-E	
Luminaire: 92.76.323.00	
Report No: NATA0100	Voltage(V): 218.0000
Test No: GC2019111517	Current(A): 0.0810
LampCAT: LUMENS EDC-57-20W	Power (W): 17.6000
Lamp flux(lm): 1515.0	PF: 0.9940
Number of Lamps: 1	Ballast type: DC
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1334.07
Efficiency(%): 88.06%
Lumens(lm)/Power(W): 75.80
Central intensity(cd): 3162.797
Maximum intensity(cd): 3162.797
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=33.5
 [C90/270]Total=33.5
Field angle(10%Imax): [C0/180]Total=68.0
 [C90/270]Total=68.0
Maximum s/h(1/2): C0_180=0.55 C90_270=0.55
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(%): 88.06%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.398%

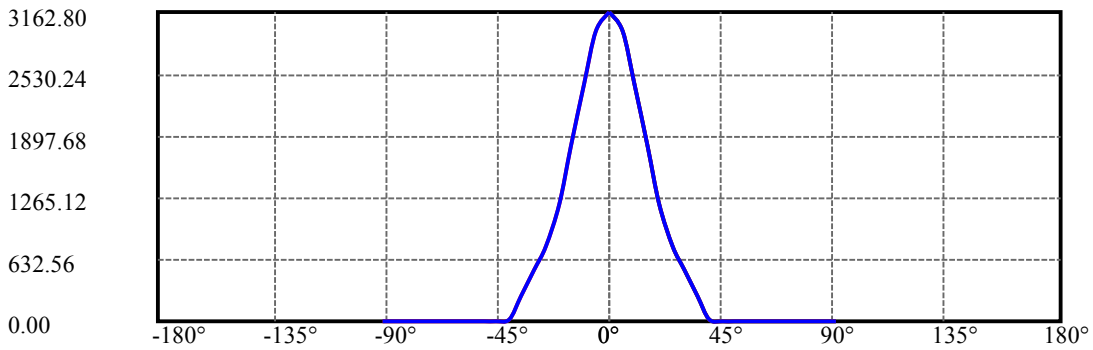
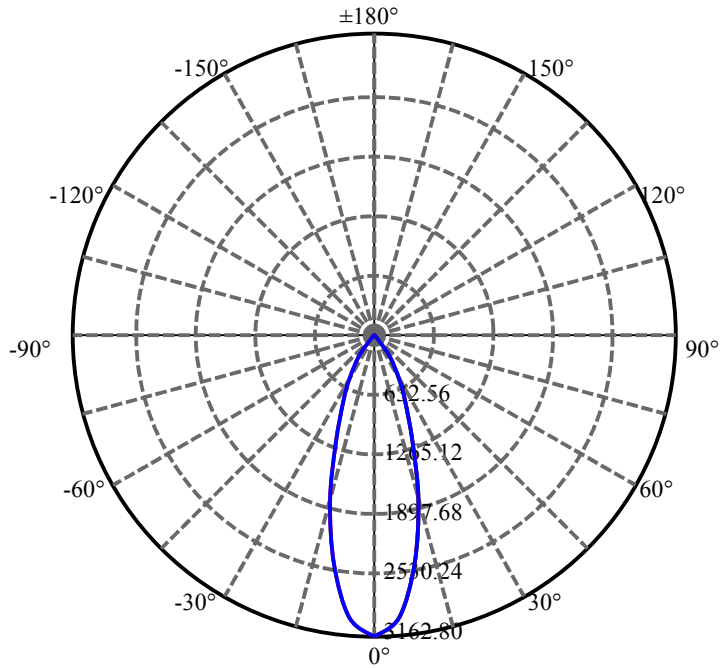
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3162.797	0.000	0	.000%	.000%
5.0	2973.727	73.360	73.36	4.842%	5.499%
10.0	2439.281	193.640	267.001	12.782%	20.014%
15.0	1796.133	251.242	518.243	16.584%	38.847%
20.0	1190.566	246.146	764.389	16.247%	57.297%
25.0	760.233	204.603	968.991	13.505%	72.634%
30.0	526.887	162.886	1131.878	10.752%	84.844%
35.0	263.742	116.426	1248.303	7.685%	93.571%
40.0	25.587	48.272	1296.575	3.186%	97.189%
45.0	9.450	6.487	1303.063	.428%	97.676%
50.0	7.362	3.397	1306.46	.224%	97.930%
55.0	6.912	3.104	1309.563	.205%	98.163%
60.0	6.652	3.135	1312.699	.207%	98.398%
65.0	6.469	3.190	1315.888	.211%	98.637%
70.0	6.398	3.258	1319.146	.215%	98.881%
75.0	8.986	4.021	1323.167	.265%	99.183%
80.0	6.448	4.130	1327.297	.273%	99.492%
85.0	6.202	3.437	1330.734	.227%	99.750%
90.0	5.984	3.336	1334.07	.220%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1131.88	74.71%	84.84%
0-40	1296.58	85.58%	97.19%
0-60	1312.70	86.65%	98.40%
0-90	1330.73	87.84%	99.75%
0-120	1330.73	87.84%	99.75%
0-180	1334.07	88.06%	100.00%
60-90	21.17	1.40%	1.59%
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%
0-28.02	1067.26	70.45%	80.00%

ZONAL LUMEN SUMMARY

0-10	267.00
10-20	497.39
20-30	367.49
30-40	164.70
40-50	9.88
50-60	6.24
60-70	6.45
70-80	8.15
80-90	3.44
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: ———

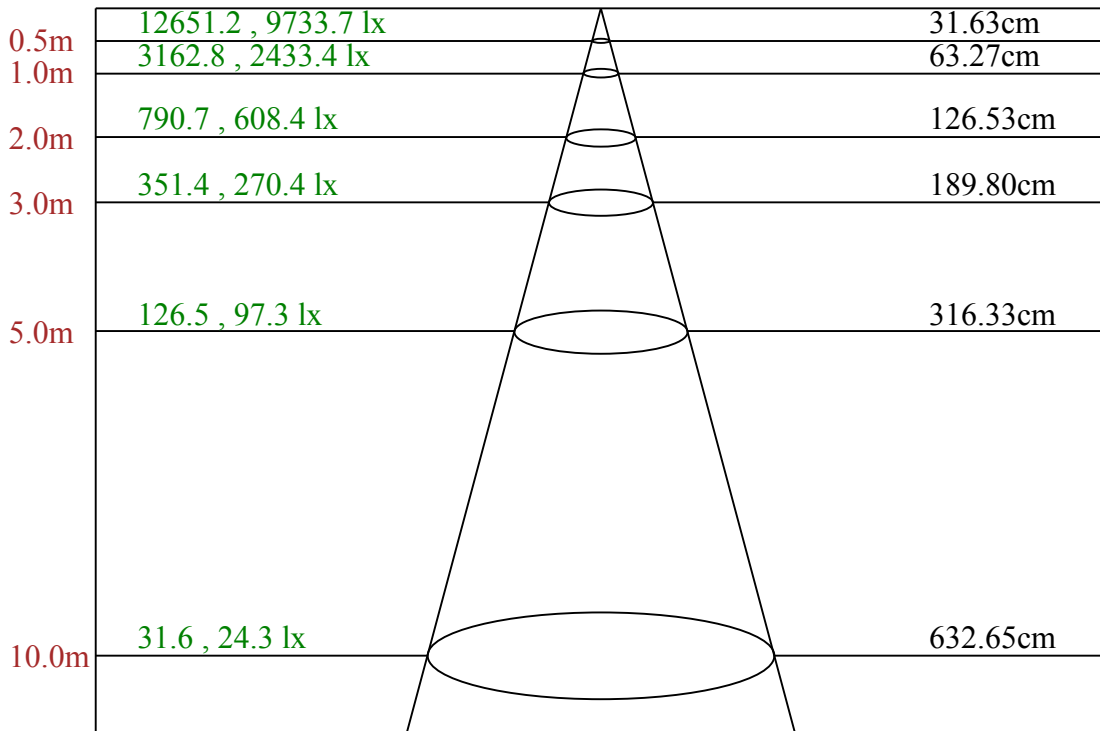
C90/C270: ———

Field angle(10%Imax):C0/180Left:34.0 Right:34.0

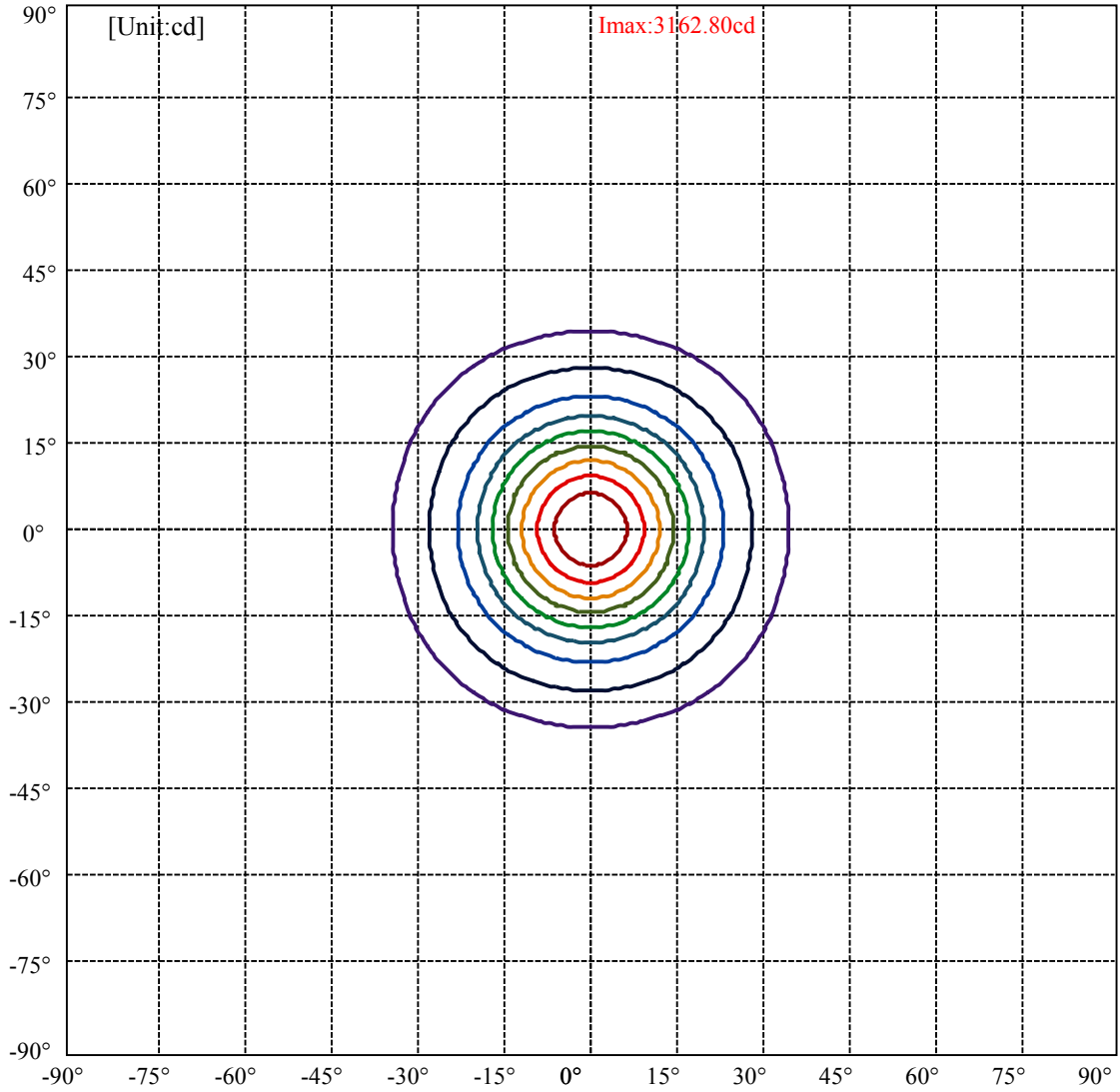
:C90/270Left:34.0 Right:34.0

Beam Angle(50%Imax):C0/180Left:16.8 Right:16.8

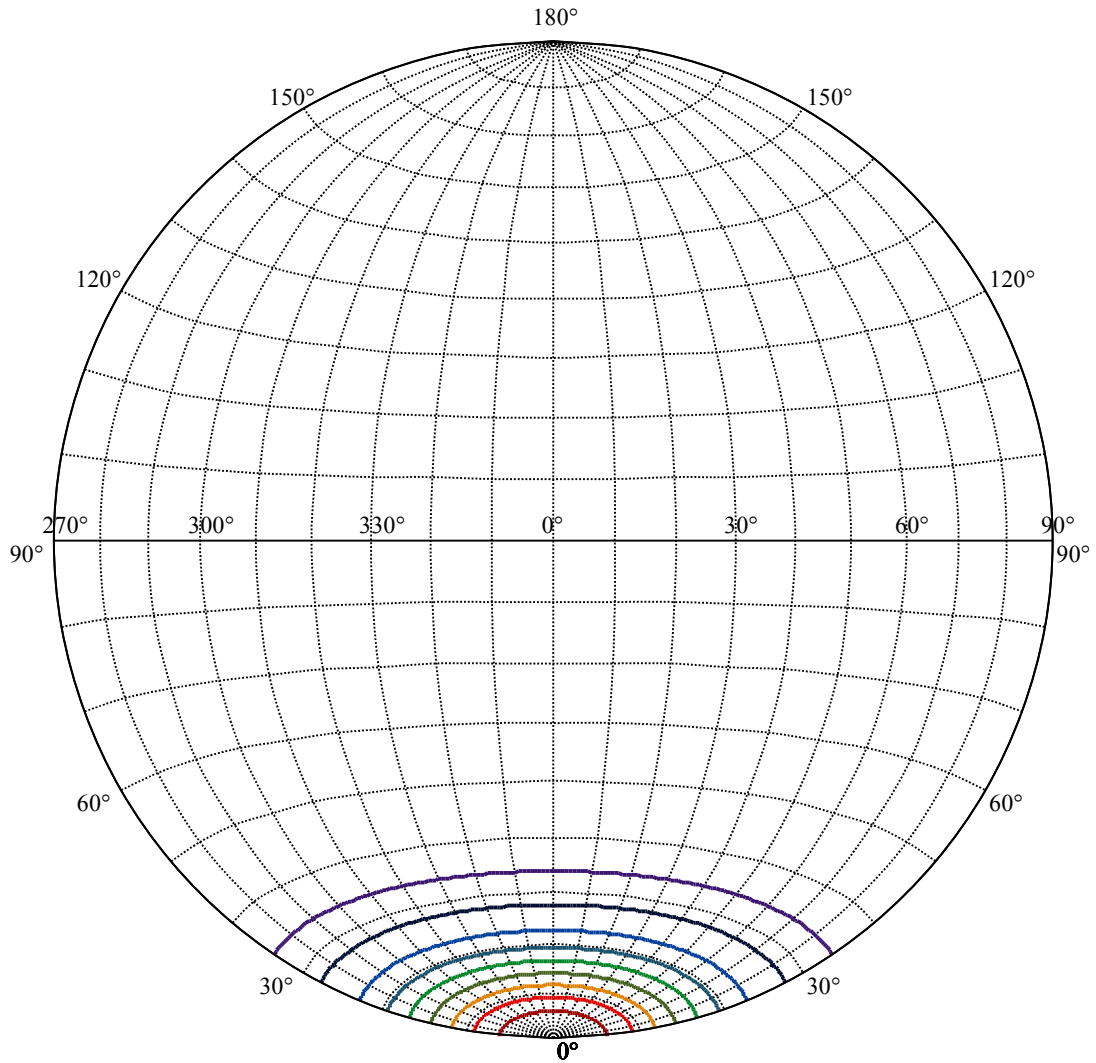
:C90/270Left:16.8 Right:16.8



Max , Ave Beam angle of C0 plane 35.11



(10%Imax) 316.28	—
(20%Imax) 632.559	—
(30%Imax) 948.839	—
(40%Imax) 1265.12	—
(50%Imax) 1581.4	—
(60%Imax) 1897.68	—
(70%Imax) 2213.96	—
(80%Imax) 2530.24	—
(90%Imax) 2846.52	—



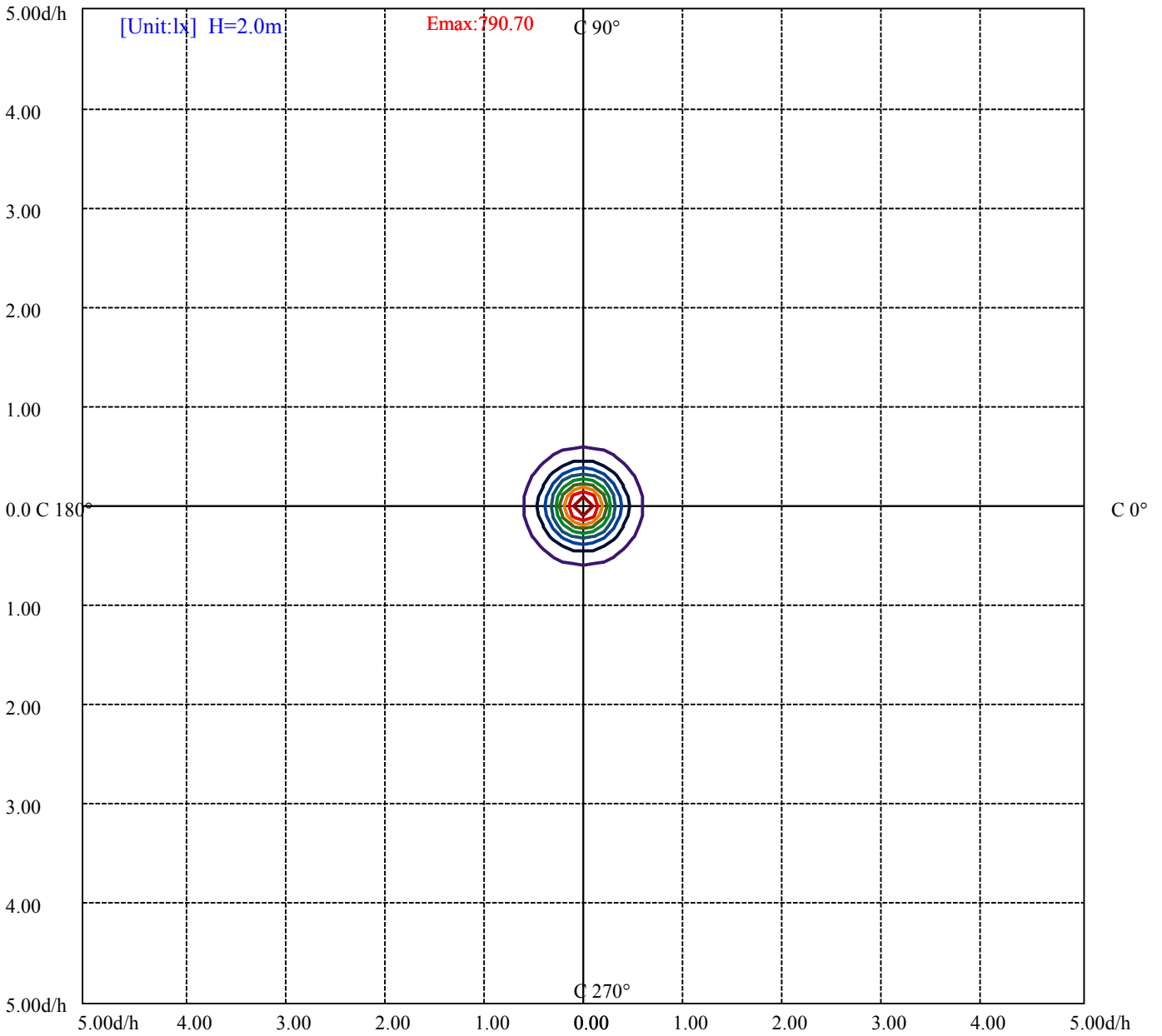
House

[Unit:cd]

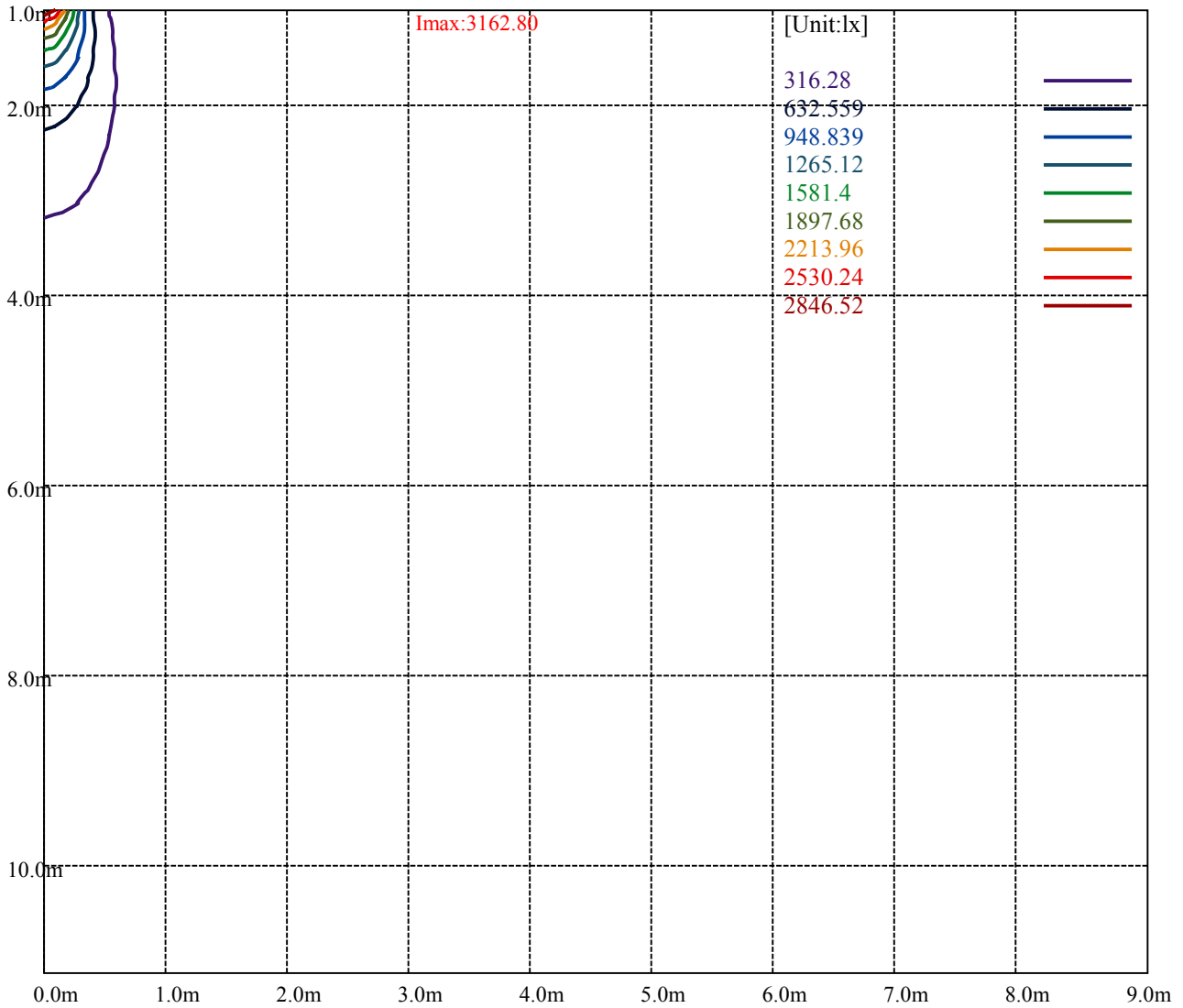
Road

Imax:3162.80

(10%Imax)	316.28	—
(20%Imax)	632.559	—
(30%Imax)	948.839	—
(40%Imax)	1265.12	—
(50%Imax)	1581.4	—
(60%Imax)	1897.68	—
(70%Imax)	2213.96	—
(80%Imax)	2530.24	—
(90%Imax)	2846.52	—



(10%Emax) 79.06975	—
(20%Emax) 158.1395	—
(30%Emax) 237.2092	—
(40%Emax) 316.28	—
(50%Emax) 395.35	—
(60%Emax) 474.4175	—
(70%Emax) 553.4875	—
(80%Emax) 632.5575	—
(90%Emax) 711.6275	—



Luminance Table

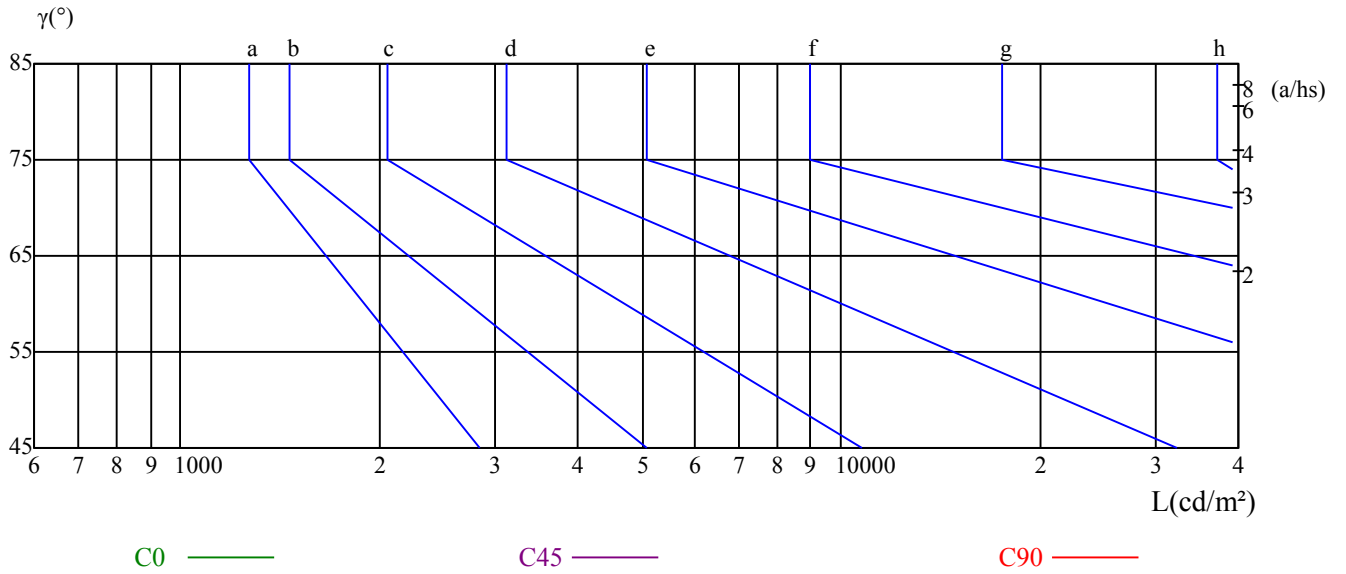
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

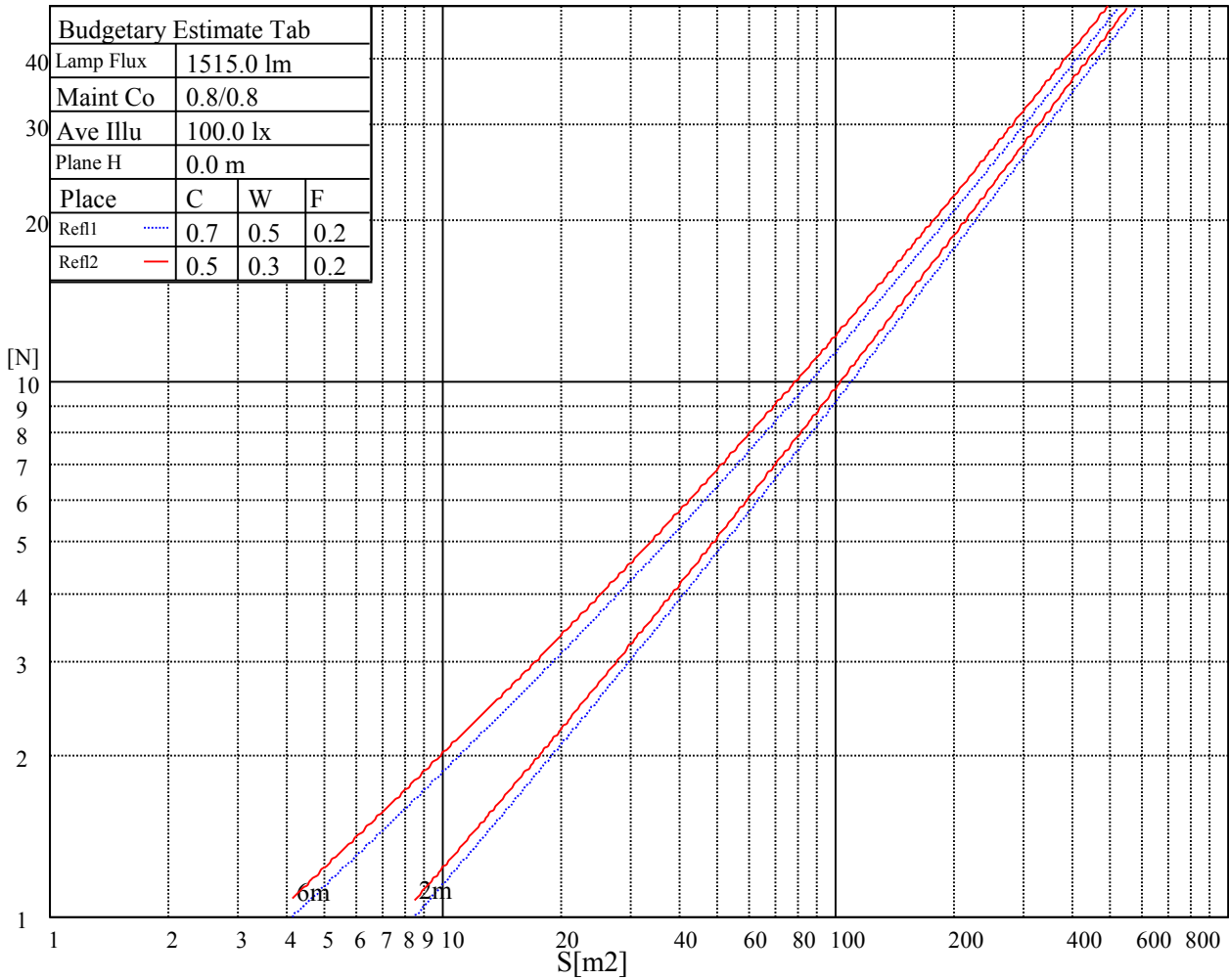
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

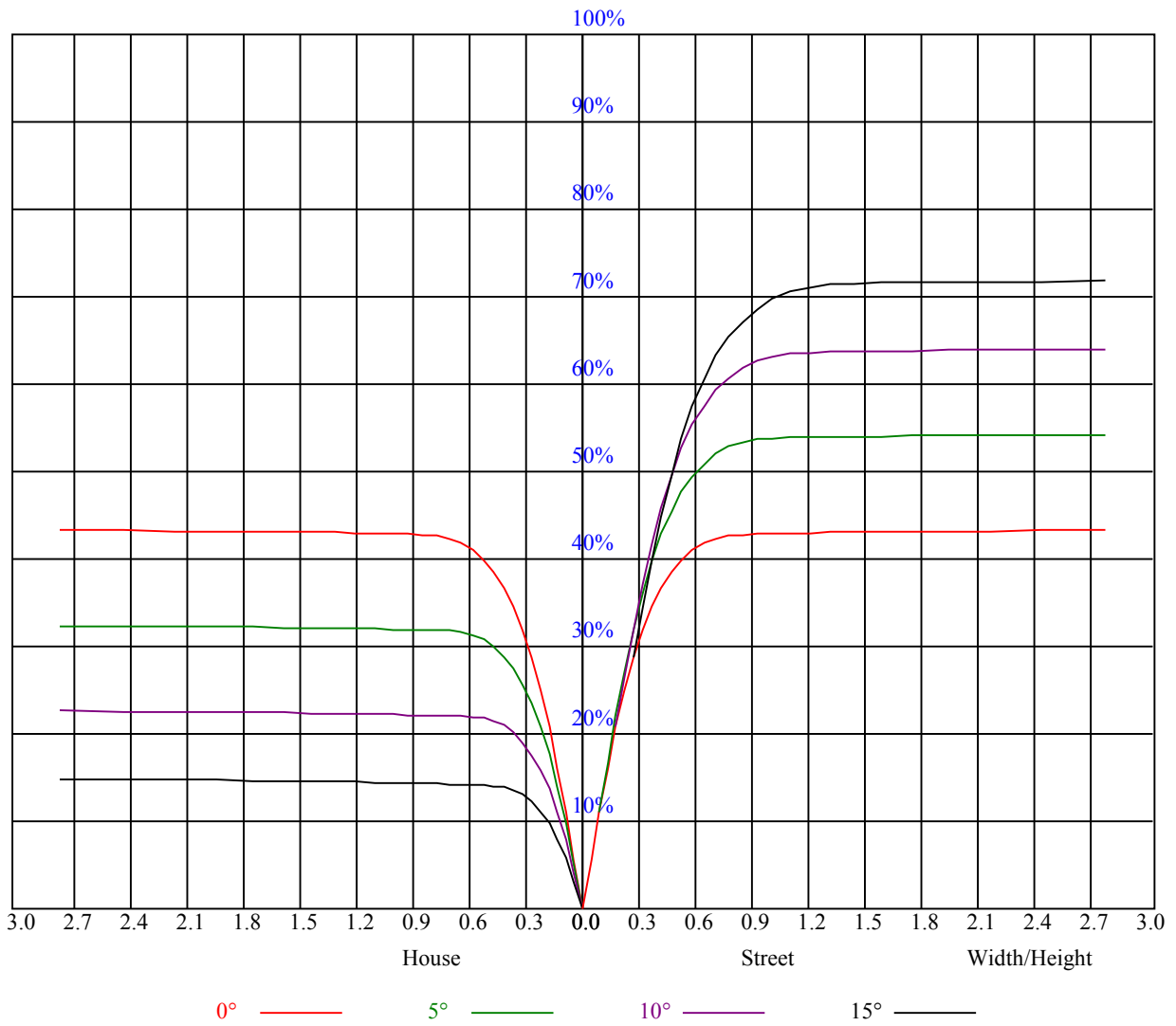
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.05	1.05	1.05	1.02	1.02	1.02	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.88
1	0.98	0.96	0.94	0.96	0.94	0.93	0.93	0.91	0.90	0.89	0.88	0.87	0.86	0.86	0.85	0.83
2	0.92	0.89	0.86	0.91	0.88	0.85	0.88	0.86	0.84	0.85	0.83	0.82	0.83	0.81	0.80	0.79
3	0.87	0.83	0.80	0.86	0.82	0.80	0.84	0.81	0.78	0.82	0.79	0.77	0.80	0.78	0.76	0.75
4	0.83	0.78	0.75	0.82	0.78	0.75	0.80	0.76	0.74	0.78	0.75	0.73	0.77	0.74	0.72	0.71
5	0.78	0.74	0.71	0.78	0.74	0.70	0.76	0.73	0.70	0.75	0.72	0.69	0.73	0.71	0.69	0.67
6	0.75	0.70	0.67	0.74	0.70	0.67	0.73	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.65	0.64
7	0.71	0.67	0.64	0.71	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.63	0.68	0.65	0.62	0.61
8	0.68	0.64	0.61	0.68	0.63	0.60	0.67	0.63	0.60	0.66	0.63	0.60	0.65	0.62	0.60	0.59
9	0.65	0.61	0.58	0.65	0.61	0.58	0.64	0.60	0.58	0.63	0.60	0.57	0.63	0.60	0.57	0.56
10	0.63	0.58	0.55	0.62	0.58	0.55	0.62	0.58	0.55	0.61	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	3159.00	3060.00	2577.38	1936.69	1294.88	817.31	551.25	321.75	31.39
45.0	3157.88	3044.81	2545.31	1882.13	1267.88	794.81	543.94	296.44	27.11
90.0	3159.00	2906.44	2323.13	1701.00	1104.53	717.08	508.84	224.49	22.78
135.0	3175.31	2958.75	2435.63	1817.44	1249.31	766.69	542.81	293.06	25.20
180.0	3159.00	2863.13	2331.56	1692.56	1109.31	713.81	504.06	200.14	23.34
225.0	3157.88	2917.13	2346.75	1715.06	1115.33	730.01	507.83	216.11	23.23
270.0	3159.00	3015.00	2502.56	1864.13	1302.19	805.50	542.81	325.13	27.34
315.0	3175.31	3024.56	2451.94	1760.06	1081.13	736.65	513.56	232.82	24.30
360.0	3159.00	3060.00	2577.38	1936.69	1294.88	817.31	551.25	321.75	31.39
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	11.03	7.54	6.98	6.69	6.47	6.36	7.99	6.98	6.19
45.0	10.80	7.43	6.98	6.69	6.47	6.41	9.34	6.30	6.24
90.0	8.27	7.26	6.86	6.58	6.41	6.36	6.64	6.41	6.19
135.0	9.68	7.37	6.92	6.69	6.58	6.58	15.64	6.47	6.36
180.0	8.61	7.37	6.98	6.75	6.53	6.58	8.94	6.58	6.24
225.0	8.44	7.37	6.92	6.64	6.47	6.36	6.86	6.30	6.13
270.0	10.18	7.37	6.86	6.58	6.41	6.30	10.07	6.24	6.13
315.0	8.61	7.20	6.81	6.58	6.41	6.24	6.41	6.30	6.13
360.0	11.03	7.54	6.98	6.69	6.47	6.36	7.99	6.98	6.19
C/γ(°)	90.0								
0.0	6.02								
45.0	6.02								
90.0	5.96								
135.0	6.02								
180.0	5.96								
225.0	5.96								
270.0	5.96								
315.0	5.96								
360.0	6.02								