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Nata

LumCAT: LM40L25060AU

Luminaire:

Report No: NATA0100

Voltage(V): 57.1700

Test No: GC20191016017

Current(A): 0.2950

LampCAT: LUMILES LUXEON 3030 2D

Power (W): 16.9000

Lamp flux(lm): 1967.0

PF: 1.0000

Number of Lamps: 1

Ballast type: DC

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1714.73

Efficiency(%): 87.18%

Lumens(lm)/Power(W): 101.46

Central intensity(cd): 585.731

Maximum intensity(cd): 1730.813

Angle of maximum intensity: C=270.0 γ =15.0

Beam Angle(50%Imax): [C0/180]Total=91.3

[C90/270]Total=55.7

Field angle(10%Imax): [C0/180]Total=137.7

[C90/270]Total=88.8

Maximum s/h(1/2): C0_180=1.26 C90_270=1.40

Maximum s/h(1/4): C0_180=1.29 C90_270=1.19

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 87.18%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 93.191%

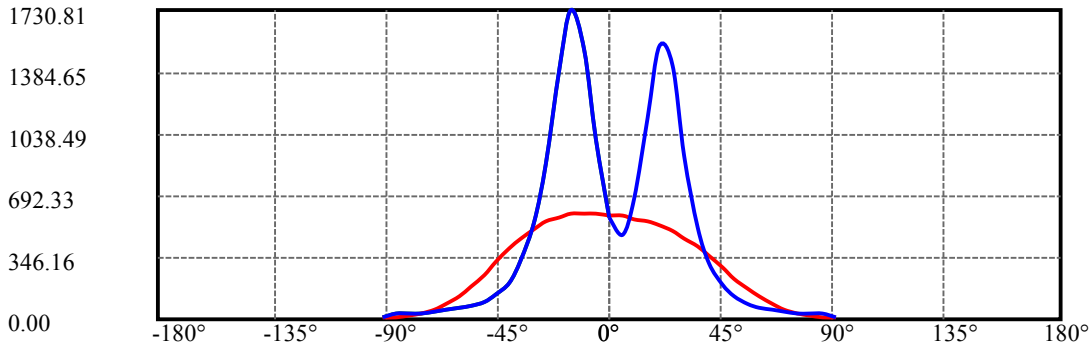
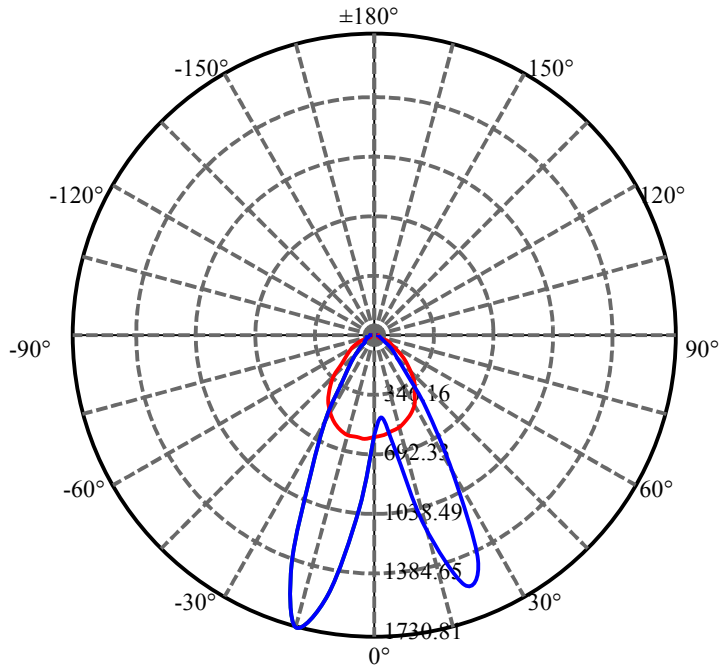
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	600.652	0.000	0	.000%	.000%
5.0	681.975	15.333	15.333	.780%	.894%
10.0	863.445	55.285	70.618	2.811%	4.118%
15.0	1047.572	113.360	183.978	5.763%	10.729%
20.0	1113.033	178.064	362.042	9.053%	21.114%
25.0	1021.310	223.853	585.896	11.380%	34.168%
30.0	839.173	235.446	821.341	11.970%	47.899%
35.0	628.748	216.162	1037.503	10.989%	60.505%
40.0	455.892	180.964	1218.467	9.200%	71.059%
45.0	311.442	142.078	1360.545	7.223%	79.344%
50.0	213.673	106.107	1466.652	5.394%	85.532%
55.0	140.948	77.106	1543.759	3.920%	90.029%
60.0	93.614	54.218	1597.977	2.756%	93.191%
65.0	62.670	37.993	1635.97	1.932%	95.407%
70.0	43.313	26.835	1662.805	1.364%	96.972%
75.0	29.876	19.130	1681.936	.973%	98.087%
80.0	22.184	13.930	1695.865	.708%	98.900%
85.0	20.095	11.488	1707.353	.584%	99.570%
90.0	6.863	7.381	1714.735	.375%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	821.34	41.76%	47.90%
0-40	1218.47	61.95%	71.06%
0-60	1597.98	81.24%	93.19%
0-90	1707.35	86.80%	99.57%
0-120	1707.35	86.80%	99.57%
0-180	1714.73	87.18%	100.00%
60-90	163.59	8.32%	9.54%
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%
0-45.53	1371.79	69.74%	80.00%

ZONAL LUMEN SUMMARY

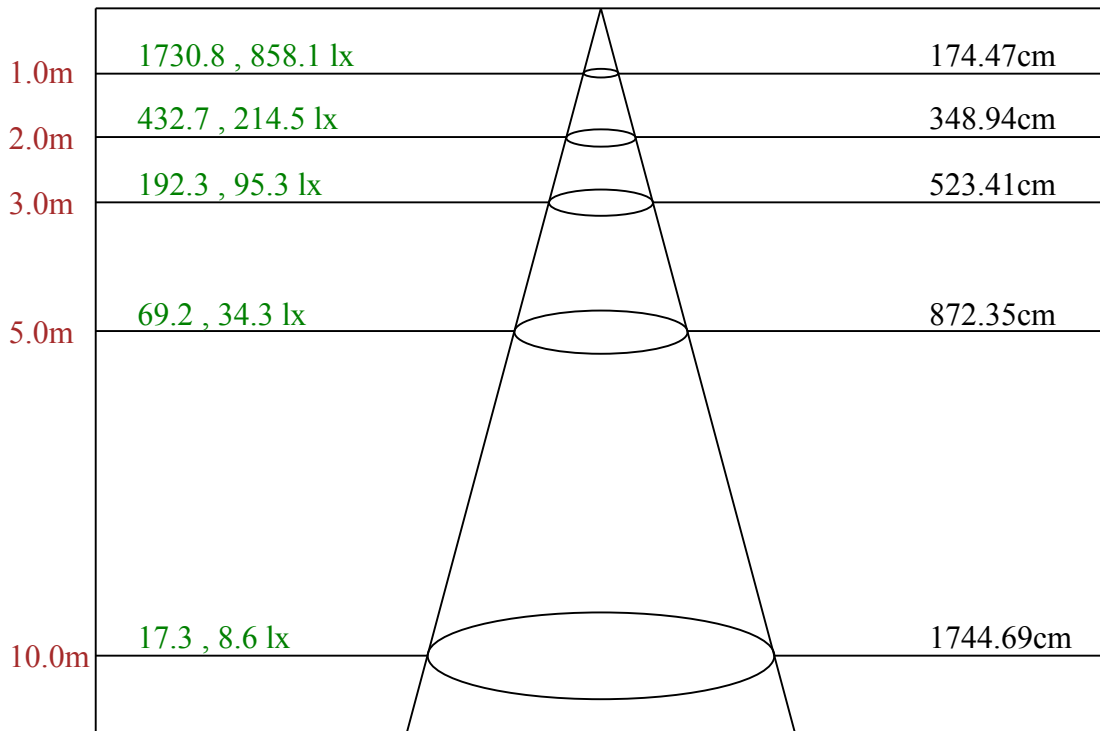
0-10	70.62
10-20	291.42
20-30	459.30
30-40	397.13
40-50	248.19
50-60	131.32
60-70	64.83
70-80	33.06
80-90	11.49
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



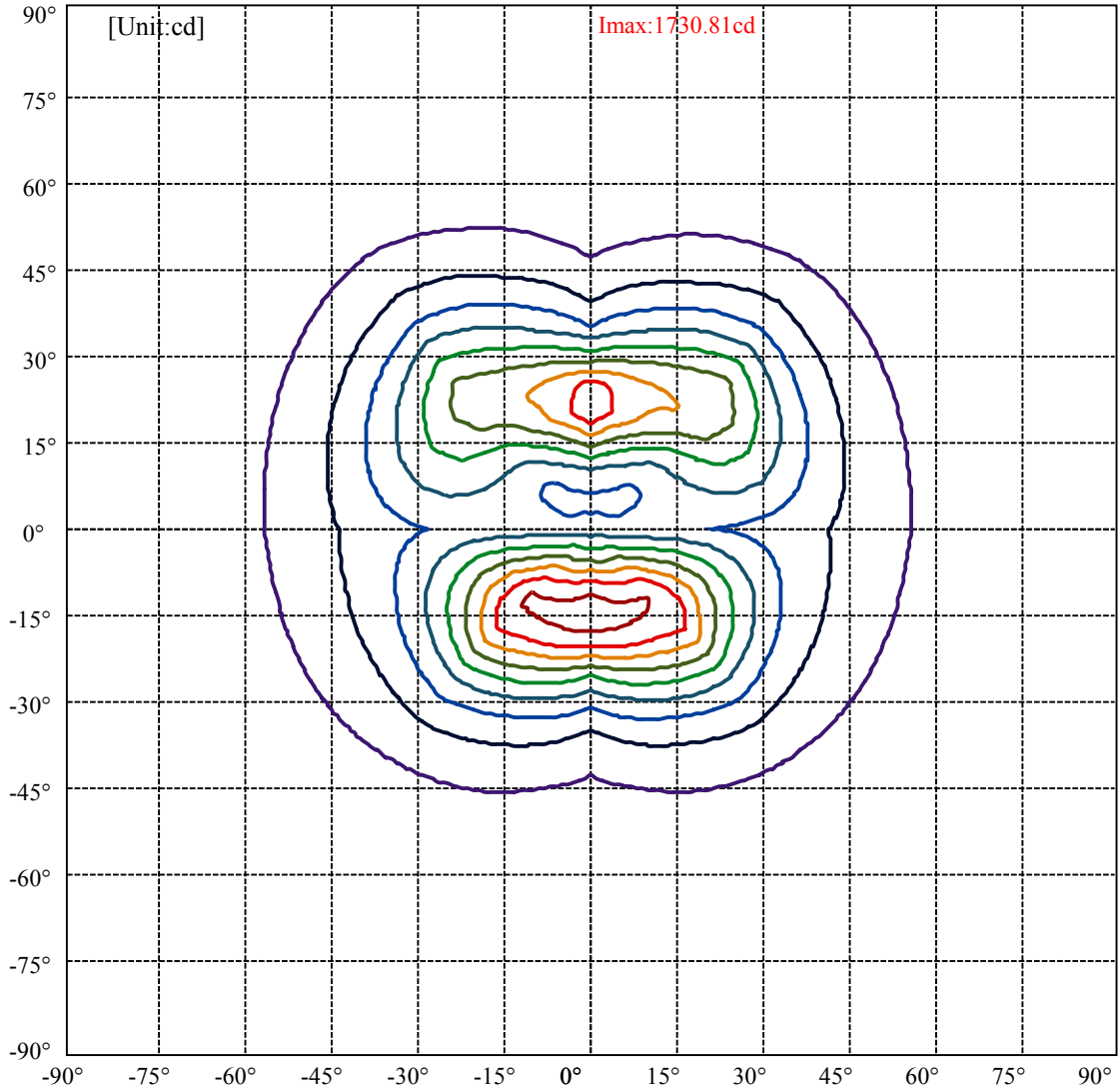
C270(Max): ———
 C0/C180: ———
 C90/C270: ———

Field angle(10%Imax):C0/180Left:58.7 Right:79.0
 :C90/270Left:27.3 Right:61.6

Beam Angle(50%Imax):C0/180Left:36.6 Right:54.7
 :C90/270Left:10.1 Right:45.6

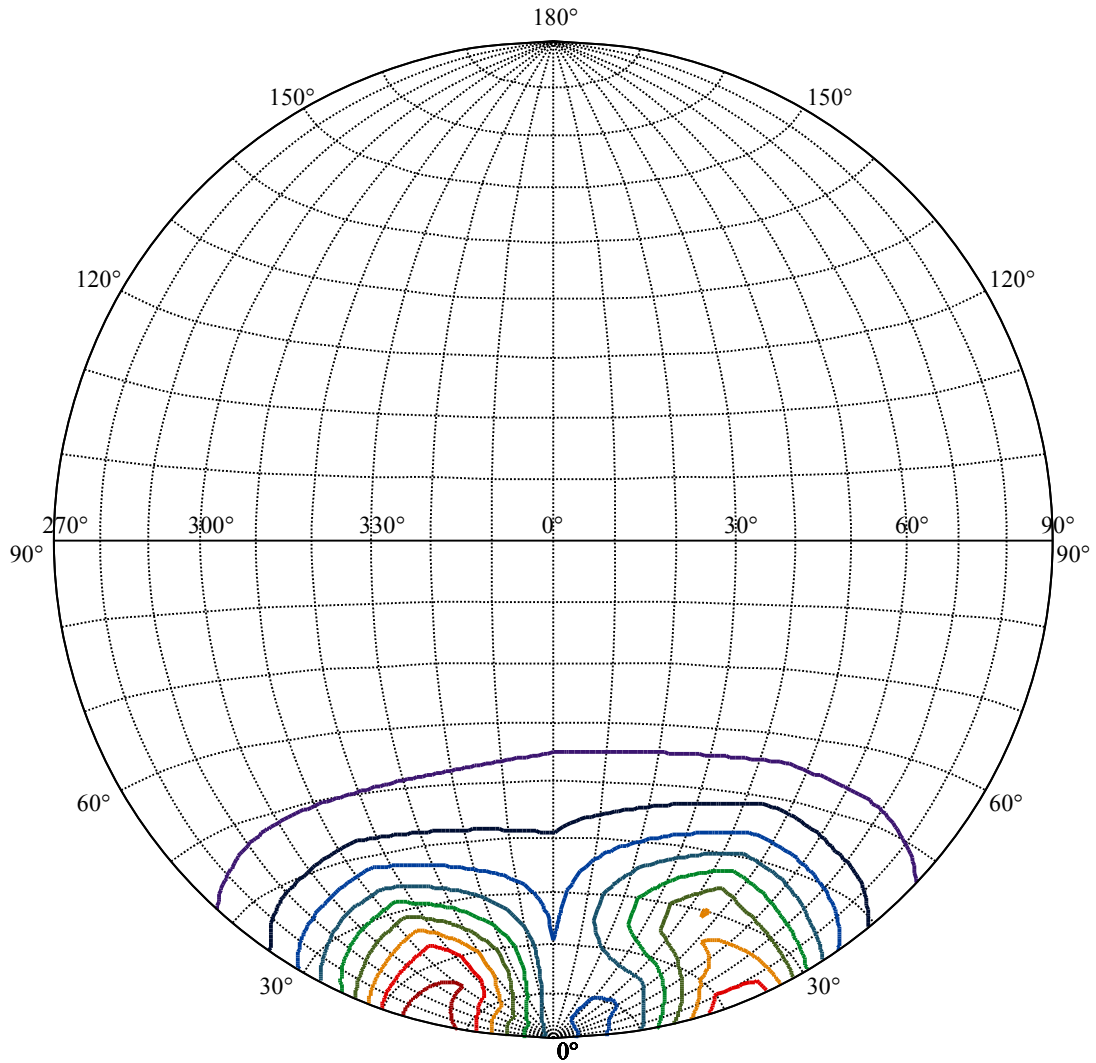


Max , Ave Beam angle of C270 plane 82.04



(10%Imax) 173.081
(20%Imax) 346.163
(30%Imax) 519.244
(40%Imax) 692.325
(50%Imax) 865.406
(60%Imax) 1038.49
(70%Imax) 1211.57
(80%Imax) 1384.65
(90%Imax) 1557.73





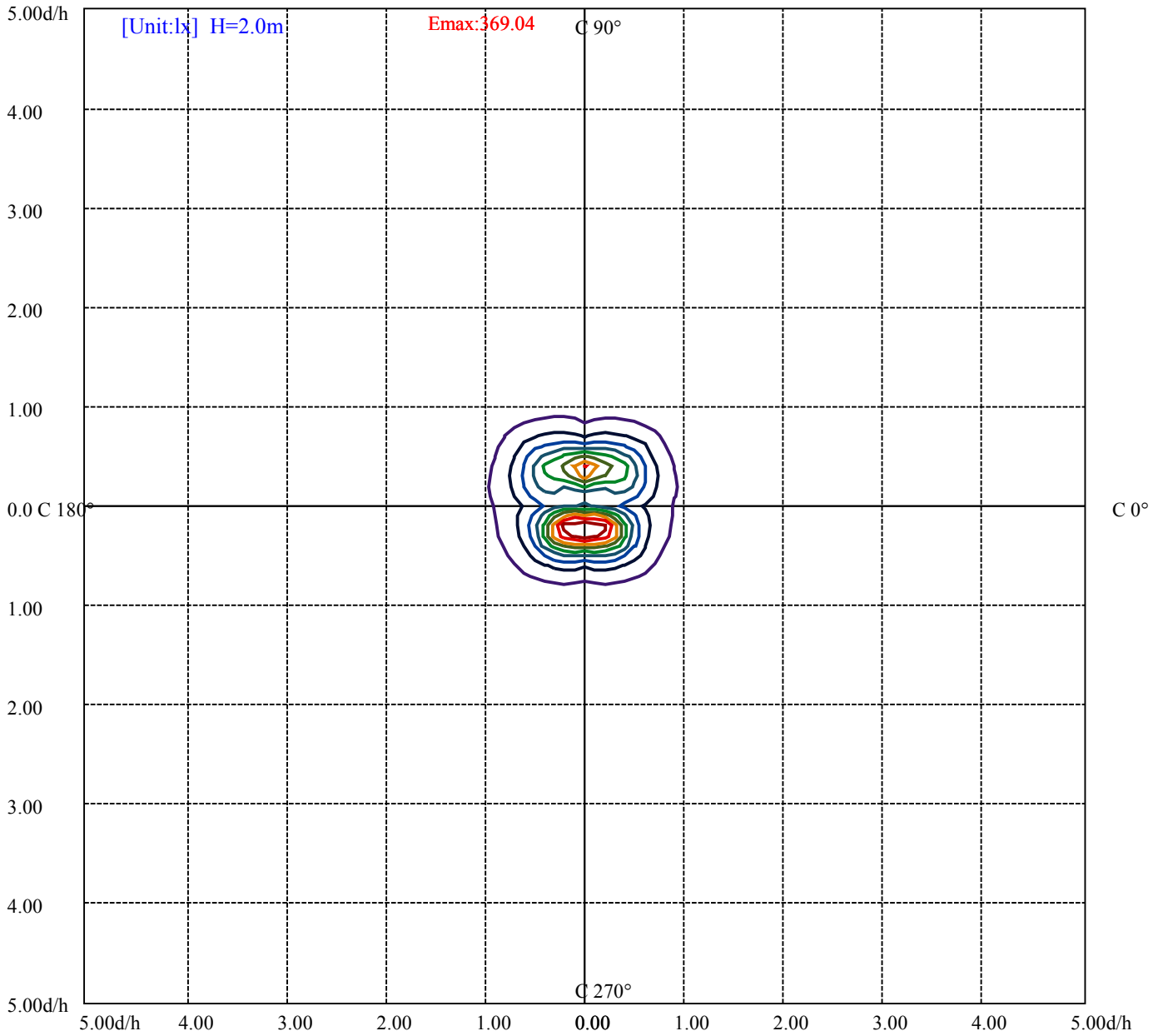
House

[Unit:cd]

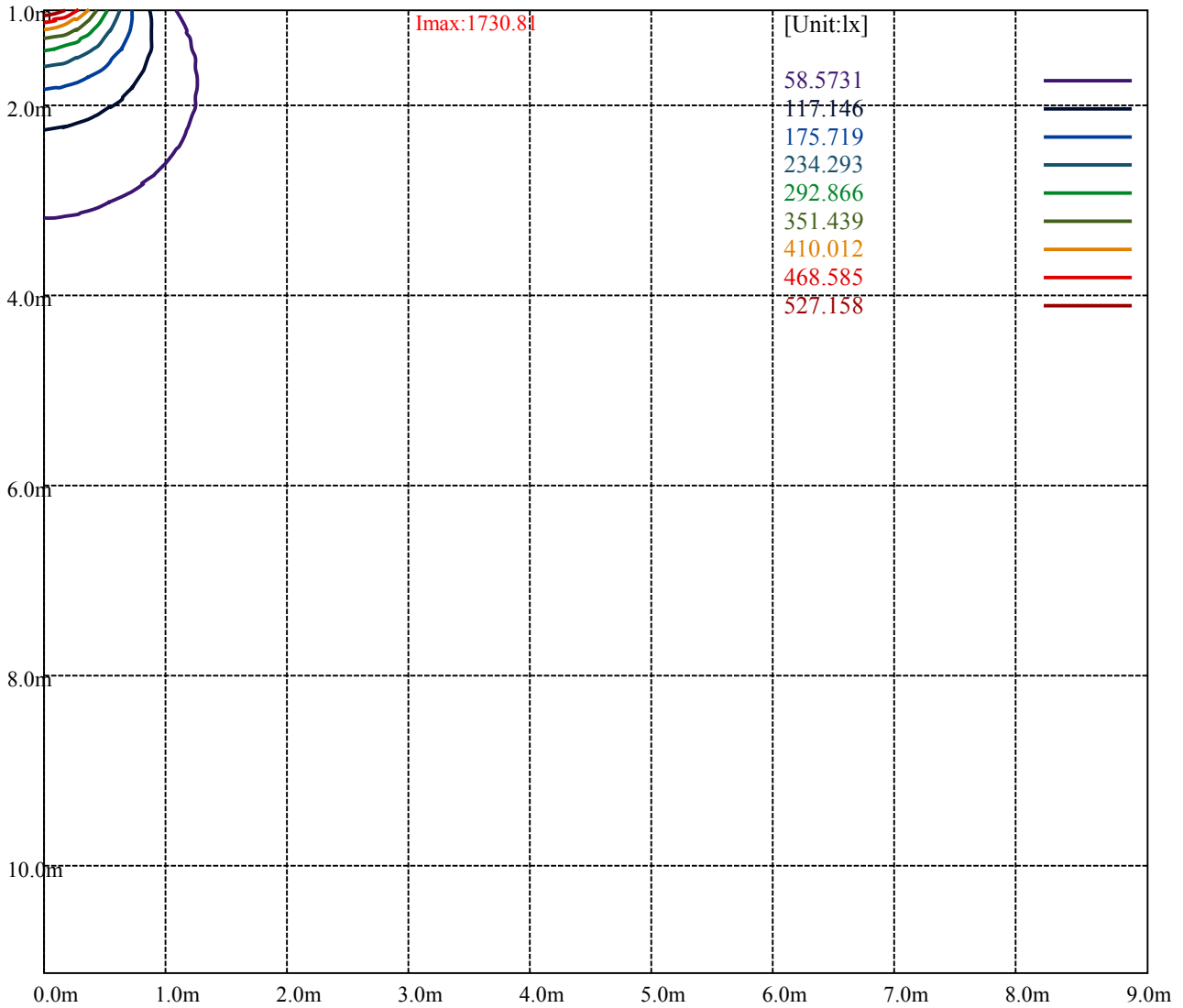
Road

Imax:1730.81

(10%Imax) 173.081	—
(20%Imax) 346.163	—
(30%Imax) 519.244	—
(40%Imax) 692.325	—
(50%Imax) 865.406	—
(60%Imax) 1038.49	—
(70%Imax) 1211.57	—
(80%Imax) 1384.65	—
(90%Imax) 1557.73	—



- (10%Emax) 36.904
- (20%Emax) 73.808
- (30%Emax) 110.712
- (40%Emax) 147.6158
- (50%Emax) 184.5197
- (60%Emax) 221.4238
- (70%Emax) 258.3275
- (80%Emax) 295.2325
- (90%Emax) 332.135



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

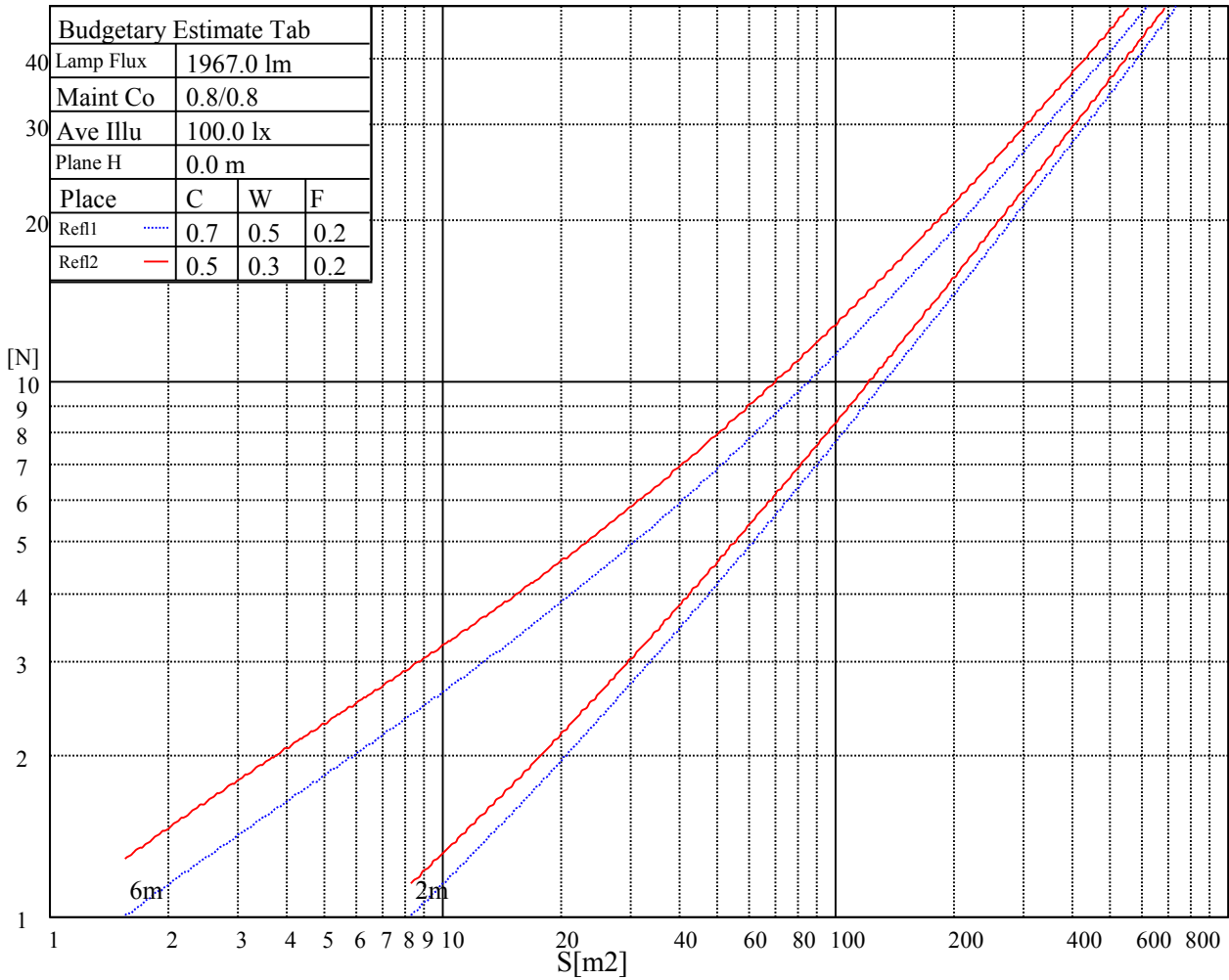
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

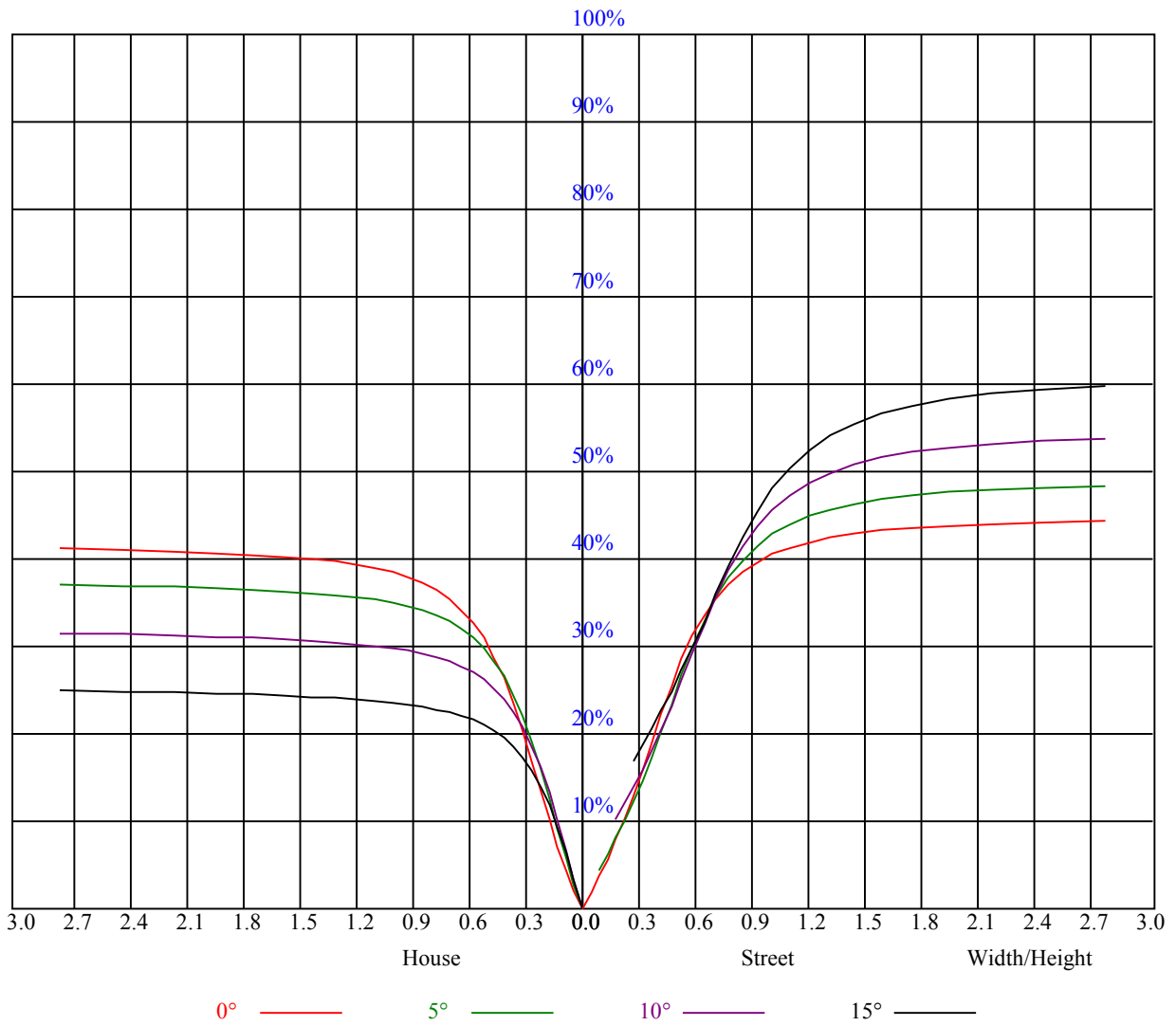
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.04	1.04	1.04	1.01	1.01	1.01	0.97	0.97	0.97	0.93	0.93	0.93	0.89	0.89	0.89	0.87
1	0.94	0.91	0.89	0.92	0.89	0.87	0.88	0.86	0.84	0.85	0.83	0.82	0.82	0.81	0.79	0.78
2	0.85	0.80	0.77	0.83	0.79	0.76	0.81	0.77	0.74	0.78	0.75	0.72	0.75	0.73	0.71	0.69
3	0.77	0.72	0.67	0.76	0.71	0.67	0.74	0.69	0.65	0.71	0.68	0.64	0.69	0.66	0.63	0.62
4	0.70	0.64	0.60	0.69	0.64	0.59	0.67	0.62	0.58	0.65	0.61	0.58	0.64	0.60	0.57	0.55
5	0.64	0.58	0.53	0.64	0.57	0.53	0.62	0.57	0.52	0.60	0.56	0.52	0.59	0.55	0.51	0.50
6	0.59	0.53	0.48	0.58	0.52	0.48	0.57	0.51	0.47	0.56	0.51	0.47	0.54	0.50	0.47	0.45
7	0.55	0.48	0.43	0.54	0.48	0.43	0.53	0.47	0.43	0.51	0.47	0.43	0.50	0.46	0.43	0.41
8	0.50	0.44	0.40	0.50	0.44	0.40	0.49	0.43	0.39	0.48	0.43	0.39	0.47	0.42	0.39	0.38
9	0.47	0.41	0.36	0.46	0.40	0.36	0.45	0.40	0.36	0.45	0.40	0.36	0.44	0.39	0.36	0.34
10	0.44	0.37	0.33	0.43	0.37	0.33	0.42	0.37	0.33	0.42	0.37	0.33	0.41	0.36	0.33	0.32



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	585.73	576.45	563.06	545.18	523.80	492.69	456.36	410.74	356.91
45.0	625.50	473.63	497.25	651.38	918.00	1172.81	1221.19	1017.00	726.19
90.0	571.50	471.94	673.31	1128.38	1528.88	1421.44	910.63	512.94	316.35
135.0	619.88	476.44	485.44	635.06	861.75	1084.50	1162.69	1017.00	781.31
180.0	585.73	592.54	594.62	588.71	573.53	543.60	503.72	453.38	393.41
225.0	625.50	939.94	1300.50	1561.50	1552.50	1285.88	940.73	634.89	436.16
270.0	571.50	1008.56	1506.94	1730.81	1395.00	870.75	547.31	331.31	204.24
315.0	619.88	916.31	1286.44	1539.56	1550.81	1298.81	970.76	652.73	432.56
360.0	585.73	576.45	563.06	545.18	523.80	492.69	456.36	410.74	356.91
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	293.40	227.98	172.29	127.63	86.01	52.65	28.46	18.79	10.80
45.0	468.56	311.06	186.02	105.64	61.59	40.33	28.74	20.59	18.00
90.0	194.23	127.24	83.87	61.88	49.44	40.67	31.84	27.17	27.56
135.0	529.88	352.13	221.68	126.90	69.47	45.28	31.73	22.73	22.95
180.0	319.67	249.13	182.81	133.88	87.24	50.12	27.73	18.73	11.25
225.0	275.40	174.66	107.21	67.56	47.76	36.79	27.96	20.42	19.46
270.0	135.45	94.95	70.82	59.51	52.31	44.33	34.59	28.01	30.60
315.0	274.95	172.24	102.88	65.93	47.53	36.34	27.96	21.04	20.14
360.0	293.40	227.98	172.29	127.63	86.01	52.65	28.46	18.79	10.80
C/γ(°)	90.0								
0.0	6.58								
45.0	6.41								
90.0	6.86								
135.0	7.48								
180.0	6.58								
225.0	6.47								
270.0	7.09								
315.0	7.43								
360.0	6.58								