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Nata

Client:

LumCAT: 1687-M2

Luminaire: 92.70.125.00+92.70.152.00

Report No: 200915-B015

Voltage(V): 35.1100

Test No: 200914-C015

Current(A): 0.3700

LampCAT: Vesta DW LES9 Gen2 PD

Power (W): 12.9900

Lamp flux(lm): 1286.0

PF: 0.0000

Number of Lamps: 1

Ballast type: DC

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1120.47, Efficiency(%): 87.13% , Luminous Efficacy(lm/W): 86.26

Central intensity(cd): 1767.516, Maximum intensity(cd): 1767.516

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=35.2

[C90/270]Total=35.2

Field angle(10%Imax): [C0/180]Total=88.2

[C90/270]Total=88.2

Maximum s/h(1/2): C0_180=0.57 C90_270=0.57

Maximum s/h(1/4): C0_180=0.64 C90_270=0.64

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 87.13%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 98.275%

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/9/14
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

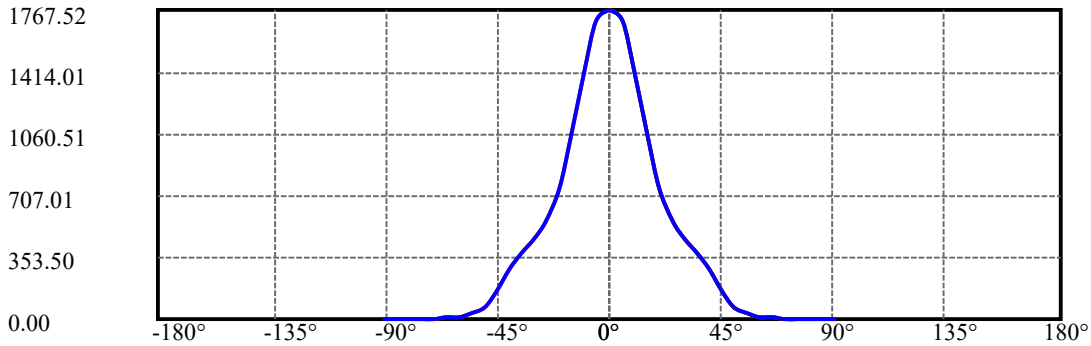
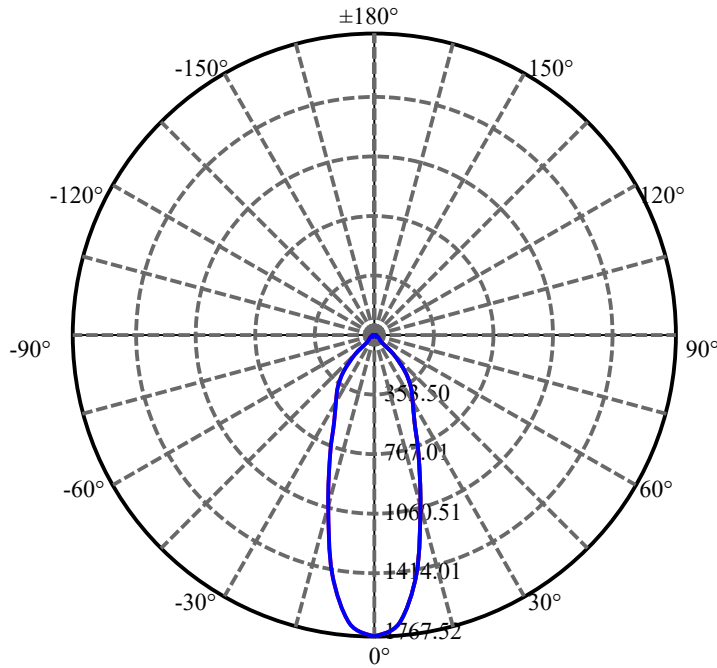
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1767.516	0.000	0	.000%	.000%
5.0	1700.156	41.455	41.455	3.224%	3.700%
10.0	1412.438	111.347	152.802	8.658%	13.637%
15.0	1040.520	145.508	298.31	11.315%	26.624%
20.0	743.513	147.029	445.339	11.433%	39.746%
25.0	565.249	137.265	582.604	10.674%	51.997%
30.0	460.948	129.866	712.47	10.098%	63.587%
35.0	375.272	123.139	835.61	9.575%	74.577%
40.0	286.207	110.363	945.972	8.582%	84.427%
45.0	152.135	81.163	1027.135	6.311%	91.670%
50.0	64.863	43.848	1070.983	3.410%	95.584%
55.0	28.617	20.326	1091.308	1.581%	97.398%
60.0	13.908	9.830	1101.138	.764%	98.275%
65.0	6.546	4.972	1106.11	.387%	98.719%
70.0	5.463	3.041	1109.151	.236%	98.990%
75.0	5.309	2.816	1111.967	.219%	99.241%
80.0	5.245	2.824	1114.791	.220%	99.494%
85.0	5.259	2.854	1117.645	.222%	99.748%
90.0	5.041	2.820	1120.465	.219%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	712.47	55.40%	63.59%
0-40	945.97	73.56%	84.43%
0-60	1101.14	85.63%	98.28%
0-90	1117.65	86.91%	99.75%
0-120	1117.65	86.91%	99.75%
0-180	1120.47	87.13%	100.00%
60-90	26.34	2.05%	2.35%
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%
0-37.75	896.37	69.70%	80.00%

ZONAL LUMEN SUMMARY

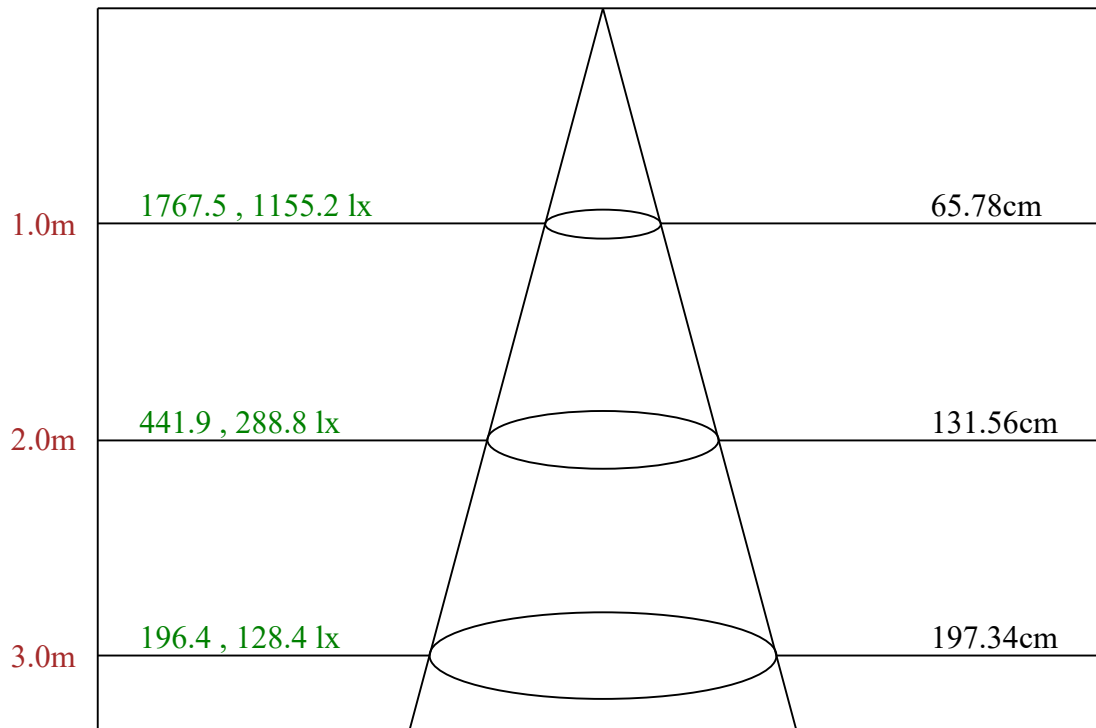
0-10	152.80
10-20	292.54
20-30	267.13
30-40	233.50
40-50	125.01
50-60	30.16
60-70	8.01
70-80	5.64
80-90	2.85
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



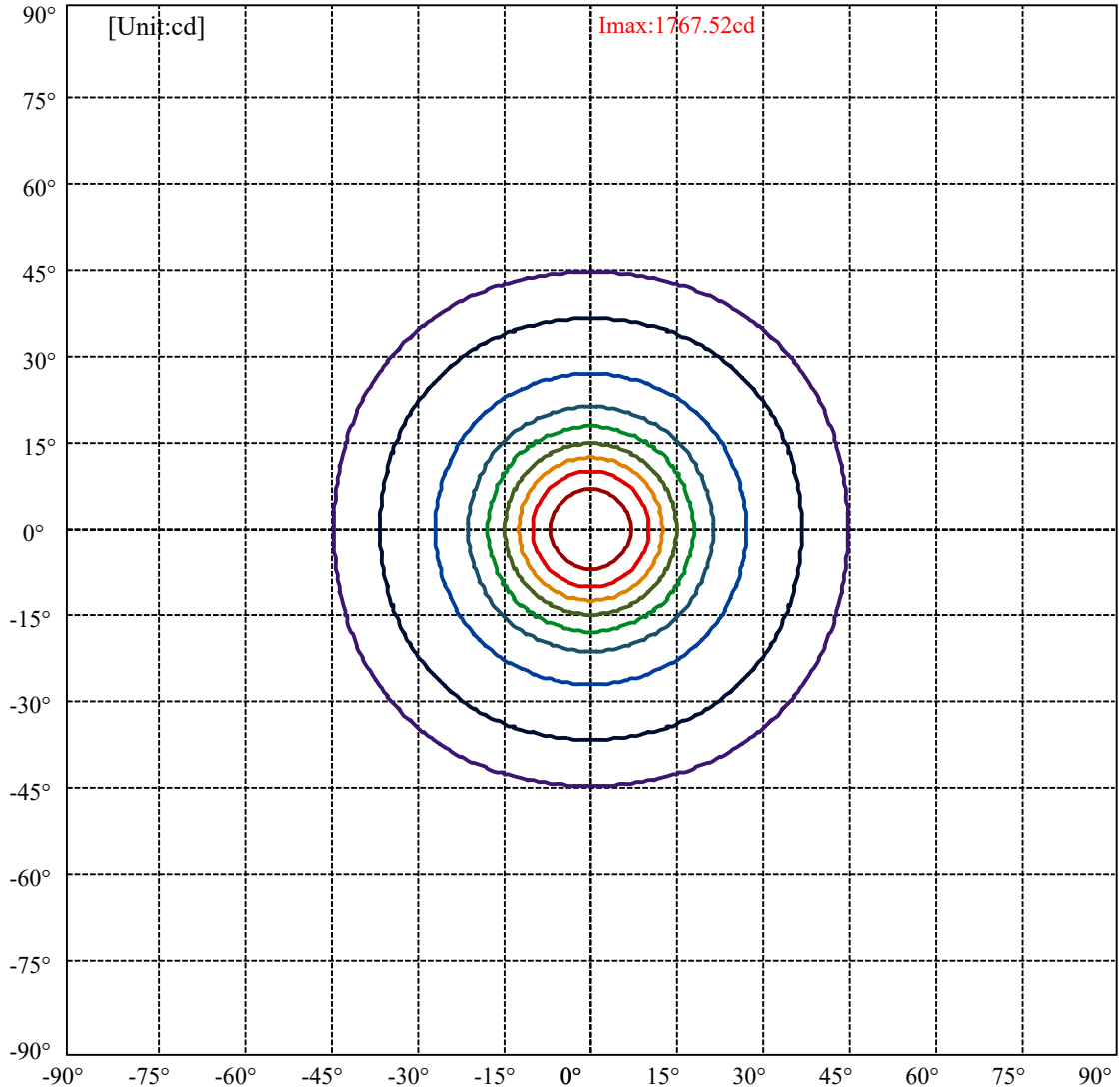
C0(Max): ———
C0/C180: ———
C90/C270: ———

Field angle(10%Imax):C0/180Left:44.1 Right:44.1
:C90/270Left:44.1 Right:44.1

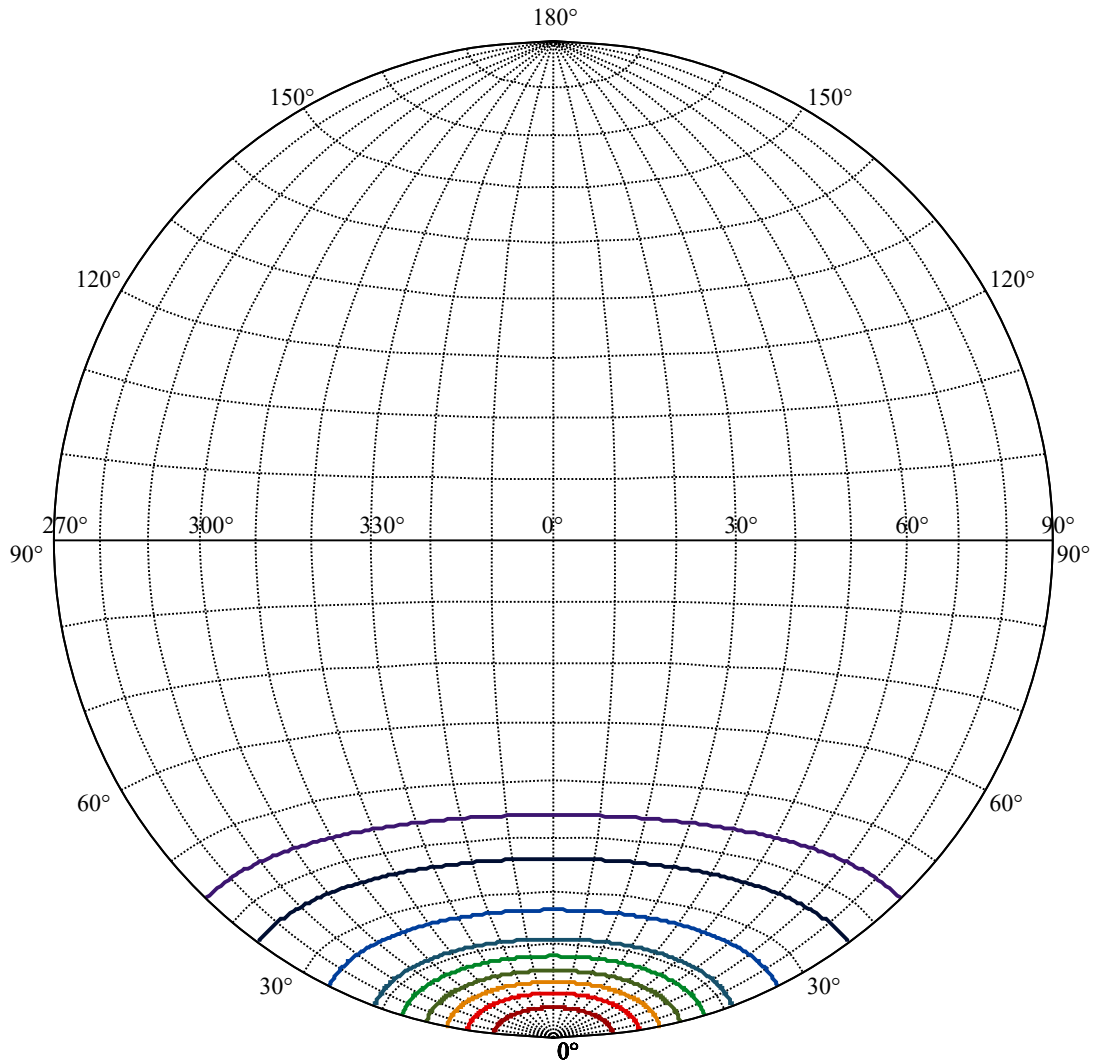
Beam Angle(50%Imax):C0/180Left:17.6 Right:17.6
:C90/270Left:17.6 Right:17.6



Max , Ave Beam angle of C0 plane 36.41



(10%Imax) 176.752	—
(20%Imax) 353.503	—
(30%Imax) 530.255	—
(40%Imax) 707.006	—
(50%Imax) 883.758	—
(60%Imax) 1060.51	—
(70%Imax) 1237.26	—
(80%Imax) 1414.01	—
(90%Imax) 1590.76	—



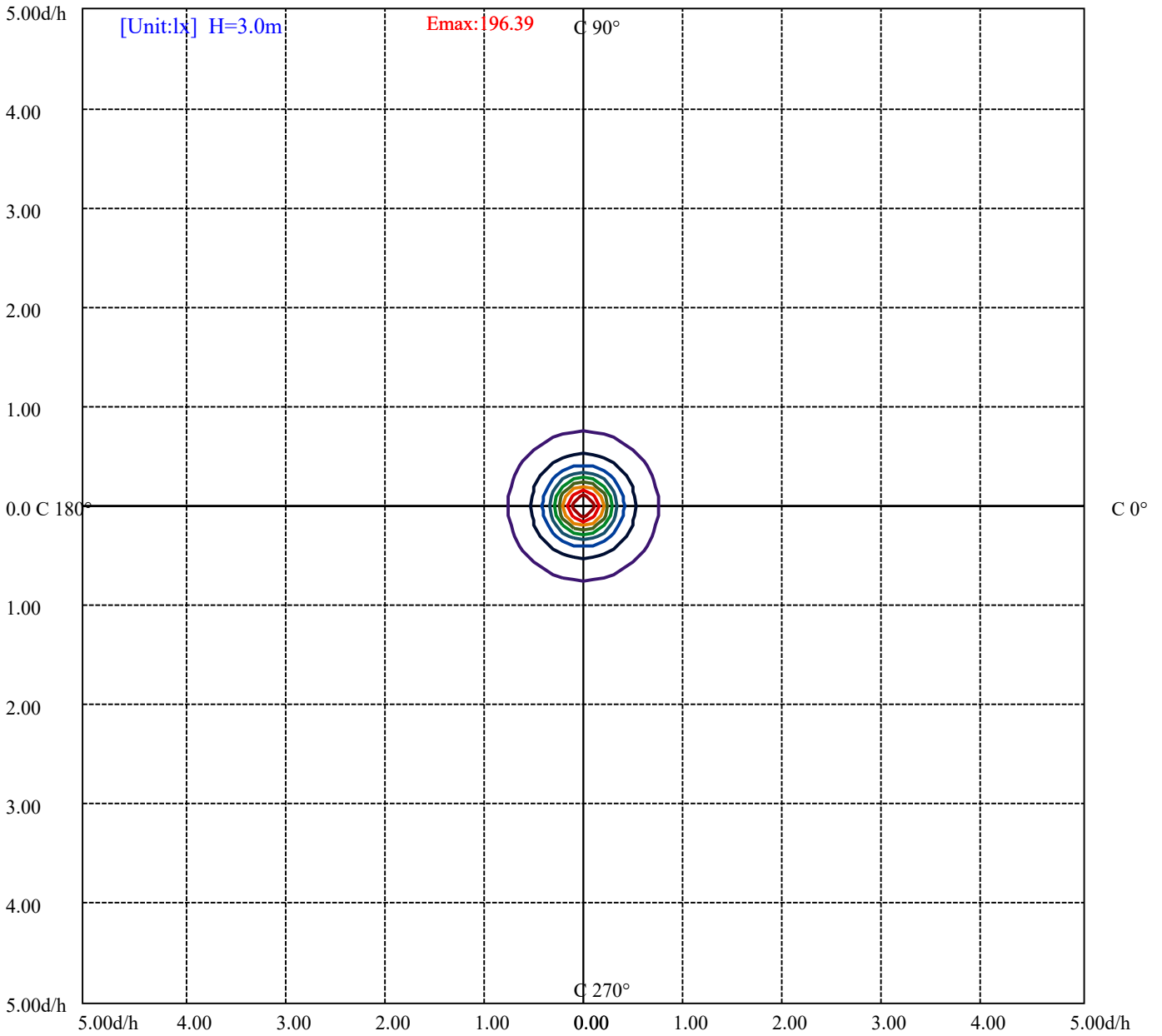
House

[Unit:cd]

Road

Imax:1767.52

(10%Imax)	176.752	—
(20%Imax)	353.503	—
(30%Imax)	530.255	—
(40%Imax)	707.006	—
(50%Imax)	883.758	—
(60%Imax)	1060.51	—
(70%Imax)	1237.26	—
(80%Imax)	1414.01	—
(90%Imax)	1590.76	—



(10%Emax) 19.639	—
(20%Emax) 39.27811	—
(30%Emax) 58.91711	—
(40%Emax) 78.55611	—
(50%Emax) 98.19522	—
(60%Emax) 117.8344	—
(70%Emax) 137.4733	—
(80%Emax) 157.1122	—
(90%Emax) 176.7511	—

Luminance Table

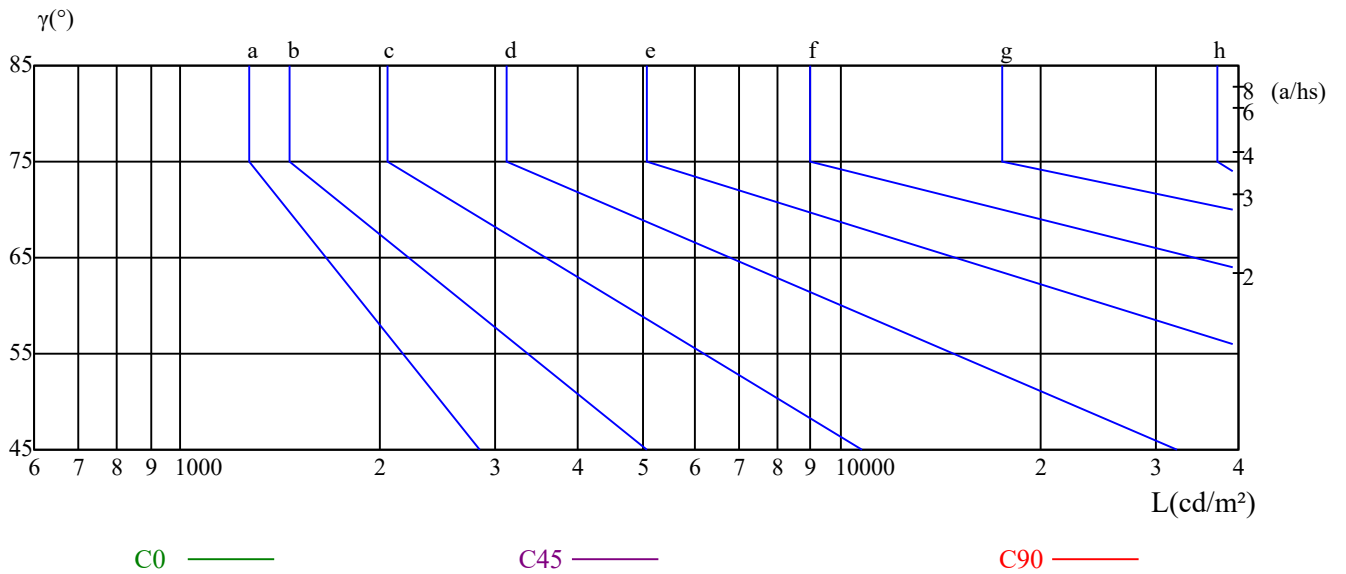
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

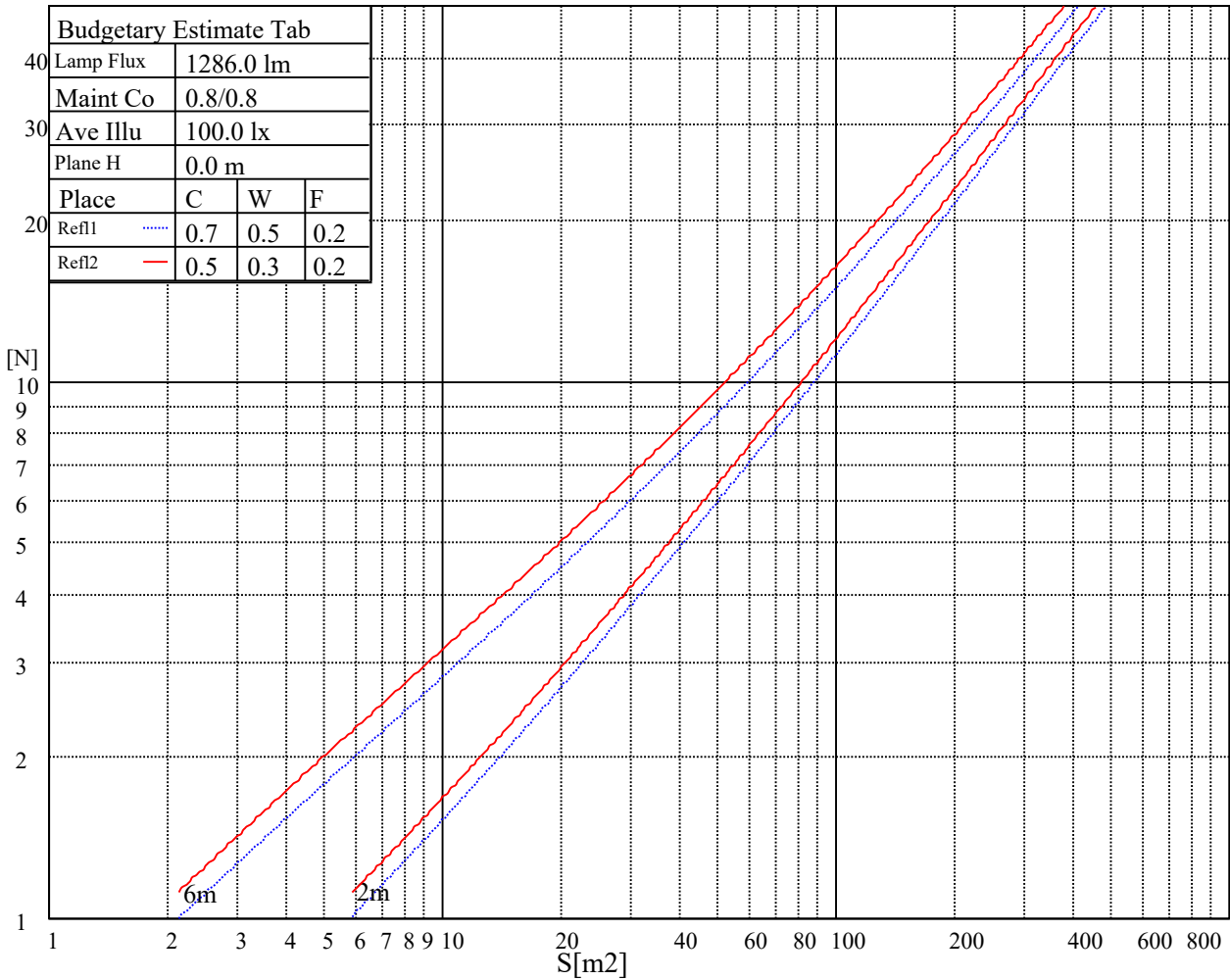
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

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 RHOF=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	0.96	0.94	0.92	0.94	0.92	0.90	0.91	0.89	0.87	0.87	0.86	0.85	0.84	0.83	0.82	0.81
2	0.89	0.85	0.82	0.87	0.84	0.81	0.85	0.82	0.79	0.82	0.80	0.78	0.79	0.78	0.76	0.75
3	0.83	0.78	0.74	0.81	0.77	0.74	0.79	0.75	0.73	0.77	0.74	0.71	0.75	0.72	0.70	0.69
4	0.77	0.72	0.68	0.76	0.71	0.68	0.74	0.70	0.67	0.72	0.69	0.66	0.71	0.68	0.65	0.64
5	0.72	0.66	0.63	0.71	0.66	0.62	0.69	0.65	0.62	0.68	0.64	0.61	0.67	0.63	0.61	0.59
6	0.67	0.62	0.58	0.67	0.61	0.58	0.65	0.61	0.57	0.64	0.60	0.57	0.63	0.59	0.57	0.55
7	0.63	0.58	0.54	0.63	0.57	0.54	0.61	0.57	0.54	0.60	0.56	0.53	0.59	0.56	0.53	0.52
8	0.59	0.54	0.50	0.59	0.54	0.50	0.58	0.53	0.50	0.57	0.53	0.50	0.56	0.53	0.50	0.48
9	0.56	0.51	0.47	0.56	0.51	0.47	0.55	0.50	0.47	0.54	0.50	0.47	0.53	0.50	0.47	0.46
10	0.53	0.48	0.45	0.53	0.48	0.45	0.52	0.48	0.44	0.51	0.47	0.44	0.51	0.47	0.44	0.43

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	1771.88	1663.88	1338.19	1001.81	709.88	550.13	457.31	376.88	284.63
45.0	1769.06	1656.56	1396.69	1029.94	730.13	558.00	460.13	371.25	289.69
90.0	1761.19	1665.56	1333.69	997.88	715.28	545.63	445.89	353.53	243.79
135.0	1767.94	1733.06	1448.44	1055.81	774.00	582.75	471.38	387.56	309.94
180.0	1771.88	1715.63	1423.13	1023.19	736.76	555.98	453.60	373.73	289.07
225.0	1769.06	1741.50	1524.94	1107.90	795.21	601.37	486.62	397.80	305.78
270.0	1761.19	1762.88	1526.63	1161.00	803.81	600.19	484.88	393.19	308.25
315.0	1767.94	1662.19	1307.81	946.63	683.04	527.96	427.78	348.24	258.53
360.0	1771.88	1663.88	1338.19	1001.81	709.88	550.13	457.31	376.88	284.63
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	146.19	64.74	28.52	13.95	7.37	6.08	5.96	5.96	6.08
45.0	133.54	55.74	24.30	11.93	5.74	5.23	5.18	5.23	5.40
90.0	124.54	52.14	23.23	11.70	5.63	5.23	5.23	5.23	5.01
135.0	174.32	76.73	33.58	16.88	7.59	5.96	5.85	5.85	5.85
180.0	162.28	66.26	29.31	13.84	6.13	4.67	4.61	4.61	4.50
225.0	170.33	70.31	30.09	14.40	6.47	5.06	5.12	5.06	4.89
270.0	172.58	74.03	33.19	15.47	6.92	5.34	5.23	5.12	5.12
315.0	133.31	58.95	26.72	13.11	6.53	6.13	5.29	4.89	5.23
360.0	146.19	64.74	28.52	13.95	7.37	6.08	5.96	5.96	6.08
C/γ(°)	90.0								
0.0	5.79								
45.0	4.84								
90.0	4.84								
135.0	5.57								
180.0	4.50								
225.0	4.89								
270.0	4.95								
315.0	4.95								
360.0	5.79								