
Nata

Client:

LumCAT: 1689-M2

Luminaire: 92.70.125.00+92.70.152.00

Report No: 200915-B004

Test No: 200915-C004

LampCAT: Vesta DW LES6 Gen2 PD

Lamp flux(lm): 573.0

Number of Lamps: 1

Length(mm): 0

Phm Type: C

Voltage(V): 17.4800

Current(A): 0.3430

Power (W): 5.9950

PF: 0.0000

Ballast type: DC

Width(mm): 0

Height(mm): 0

Photometric Results

Lumens(lm): 495.25, Efficiency(%): 86.43% , Luminous Efficacy(lm/W): 82.61

Central intensity(cd): 372.881, Maximum intensity(cd): 372.881

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=74.0

[C90/270]Total=74.0

Field angle(10%Imax): [C0/180]Total=102.2

[C90/270]Total=102.2

Maximum s/h(1/2): C0_180=1.06 C90_270=1.06

Maximum s/h(1/4): C0_180=1.08 C90_270=1.08

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 86.43%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.707%

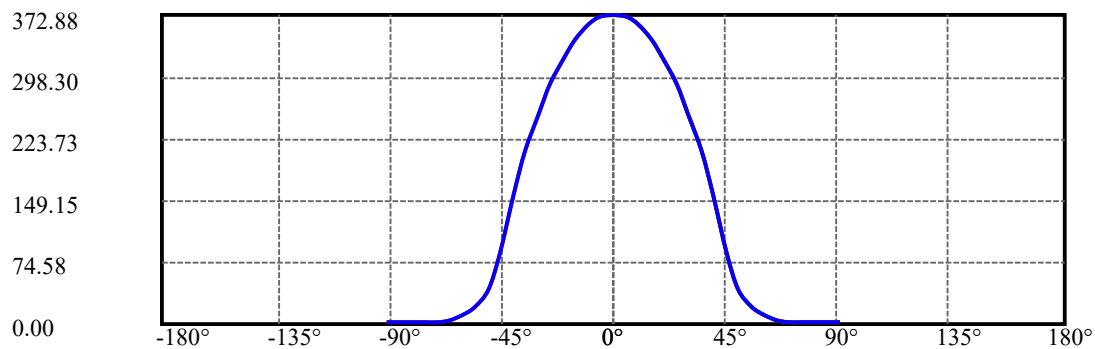
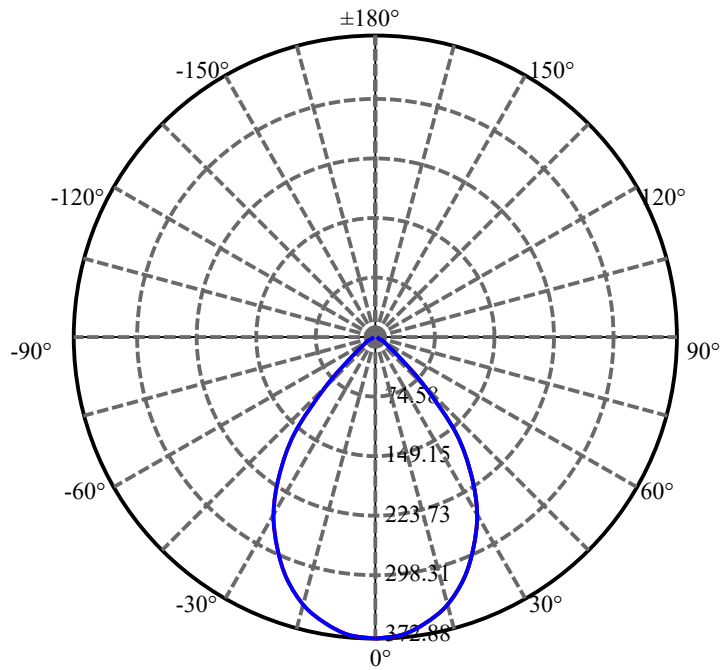
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	372.881	0.000	0	.000%	.000%
5.0	369.865	8.879	8.879	1.550%	1.793%
10.0	360.464	26.126	35.005	4.560%	7.068%
15.0	343.371	41.751	76.757	7.286%	15.498%
20.0	319.008	54.589	131.346	9.527%	26.521%
25.0	288.654	63.733	195.078	11.123%	39.390%
30.0	253.153	68.566	263.644	11.966%	53.234%
35.0	208.610	67.998	331.642	11.867%	66.964%
40.0	154.470	60.577	392.219	10.572%	79.196%
45.0	86.259	44.573	436.792	7.779%	88.196%
50.0	41.597	25.835	462.628	4.509%	93.412%
55.0	21.305	13.677	476.304	2.387%	96.174%
60.0	11.538	7.592	483.896	1.325%	97.707%
65.0	5.562	4.157	488.053	.725%	98.546%
70.0	3.206	2.220	490.273	.387%	98.994%
75.0	2.384	1.461	491.734	.255%	99.289%
80.0	2.138	1.210	492.944	.211%	99.534%
85.0	2.130	1.160	494.104	.202%	99.768%
90.0	2.067	1.149	495.253	.201%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	263.64	46.01%	53.23%
0-40	392.22	68.45%	79.20%
0-60	483.90	84.45%	97.71%
0-90	494.10	86.23%	99.77%
0-120	494.10	86.23%	99.77%
0-180	495.25	86.43%	100.00%
60-90	17.80	3.11%	3.59%
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%
0-40.45	396.20	69.15%	80.00%

ZONAL LUMEN SUMMARY

0-10	35.01
10-20	96.34
20-30	132.30
30-40	128.57
40-50	70.41
50-60	21.27
60-70	6.38
70-80	2.67
80-90	1.16
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:

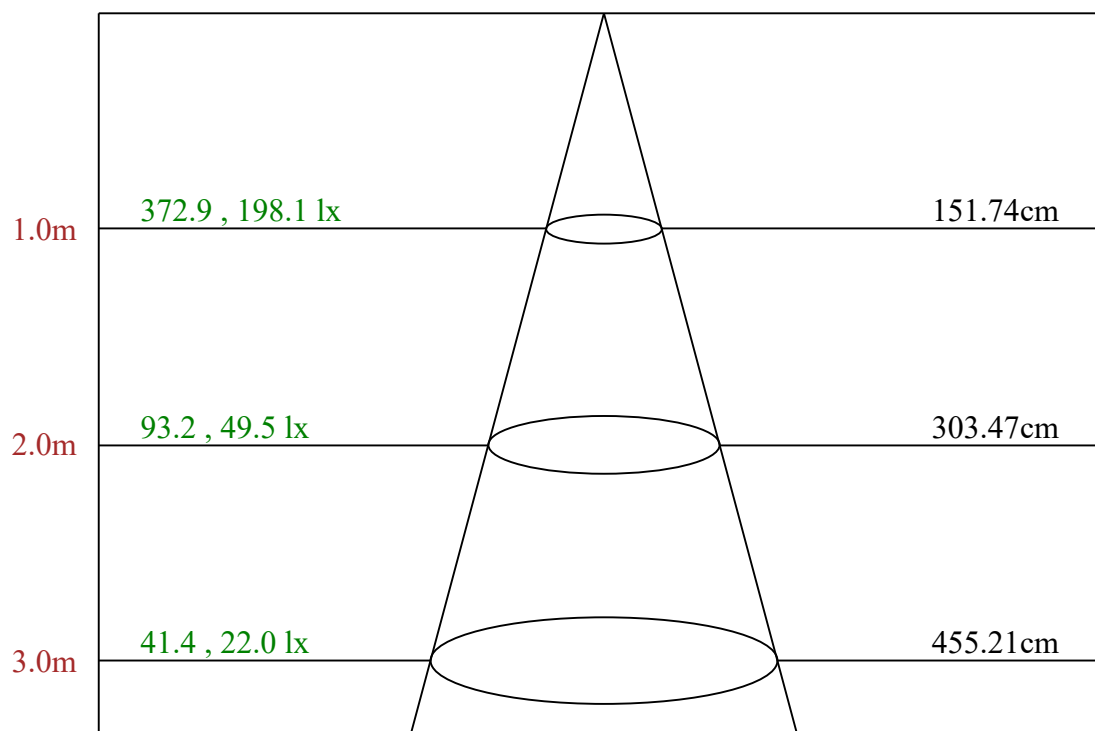
C90/C270:

Field angle(10%Imax):C0/180Left:51.1 Right:51.1

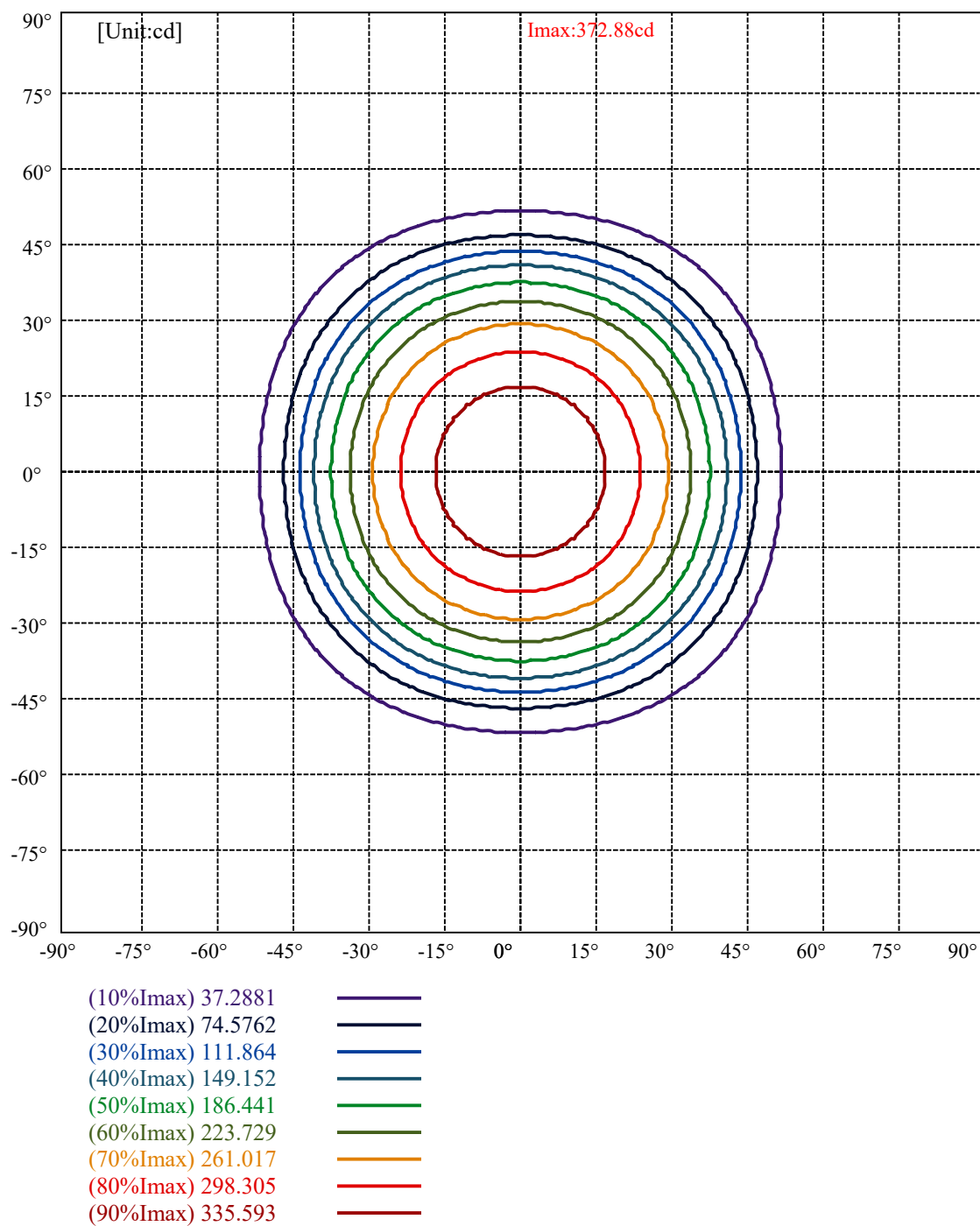
:C90/270Left:51.1 Right:51.1

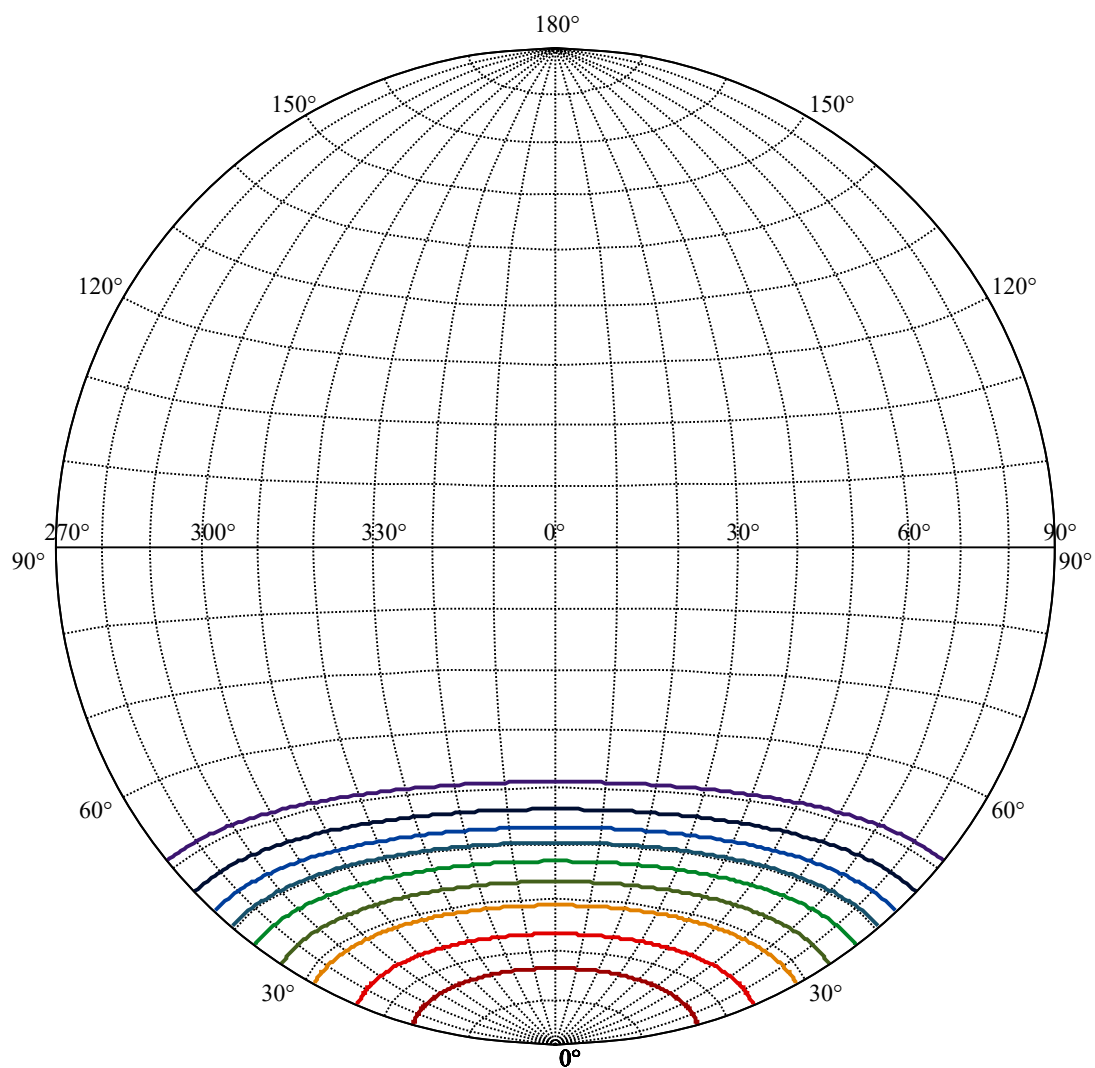
Beam Angle(50%Imax):C0/180Left:37.0 Right:37.0

:C90/270Left:37.0 Right:37.0



Max , Ave Beam angle of C0 plane 74.37





House

[Unit:cd]

Road

Imax:372.88

(10%Imax) 37.2881

(20%Imax) 74.5762

(30%Imax) 111.864

(40%Imax) 149.152

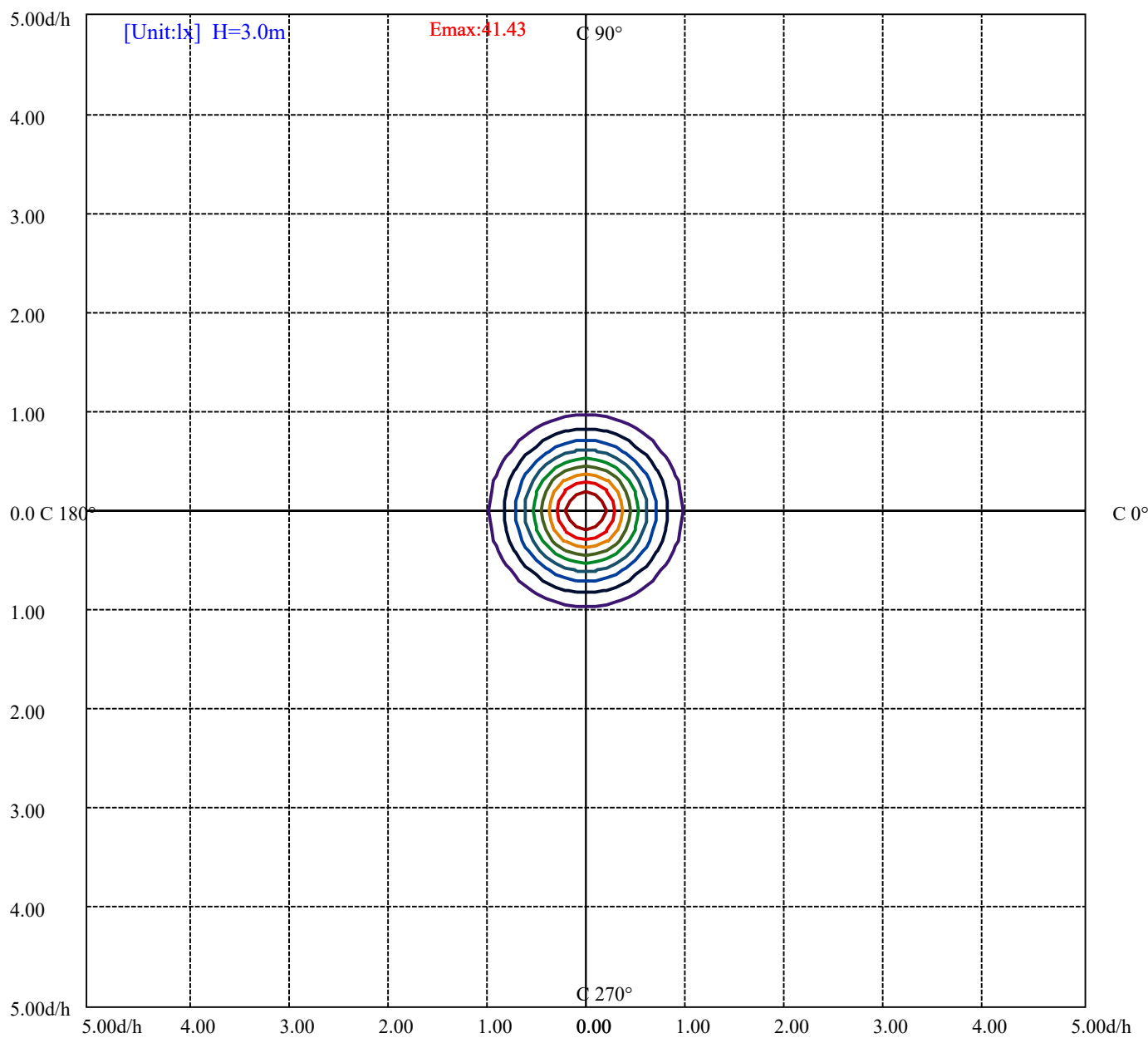
(50%Imax) 186.441

(60%Imax) 223.729

(70%Imax) 261.017

(80%Imax) 298.305

(90%Imax) 335.593



(10%Emax) 4.143122	—
(20%Emax) 8.286244	—
(30%Emax) 12.42933	—
(40%Emax) 16.57244	—
(50%Emax) 20.71567	—
(60%Emax) 24.85878	—
(70%Emax) 29.00189	—
(80%Emax) 33.145	—
(90%Emax) 37.28811	—

Luminance Table

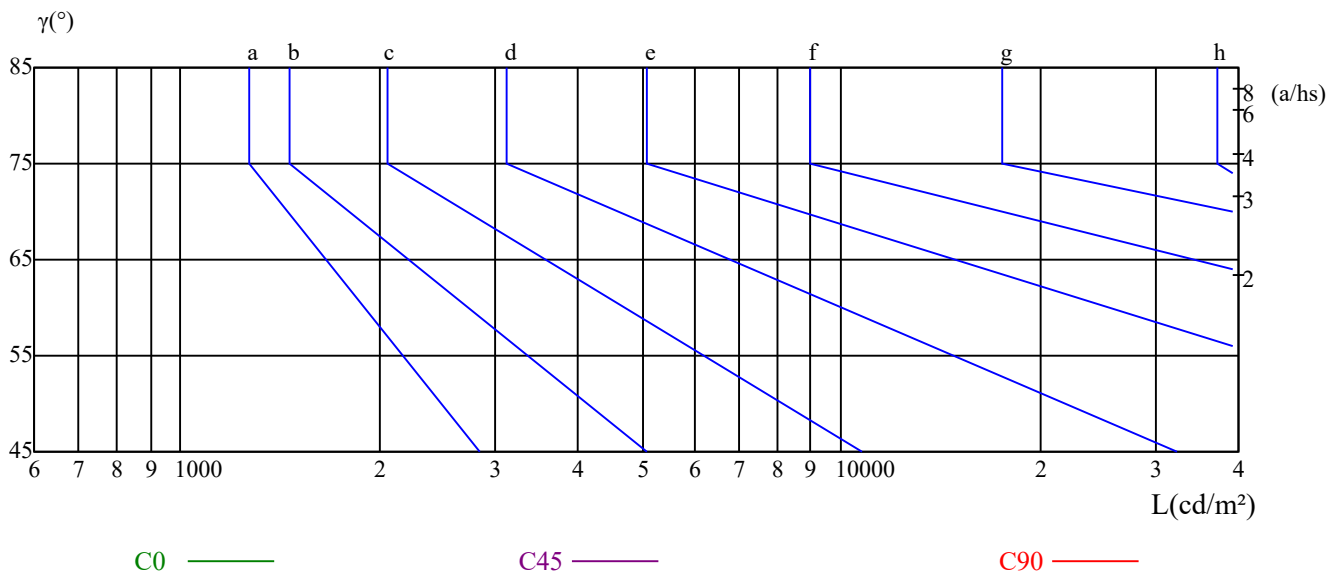
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

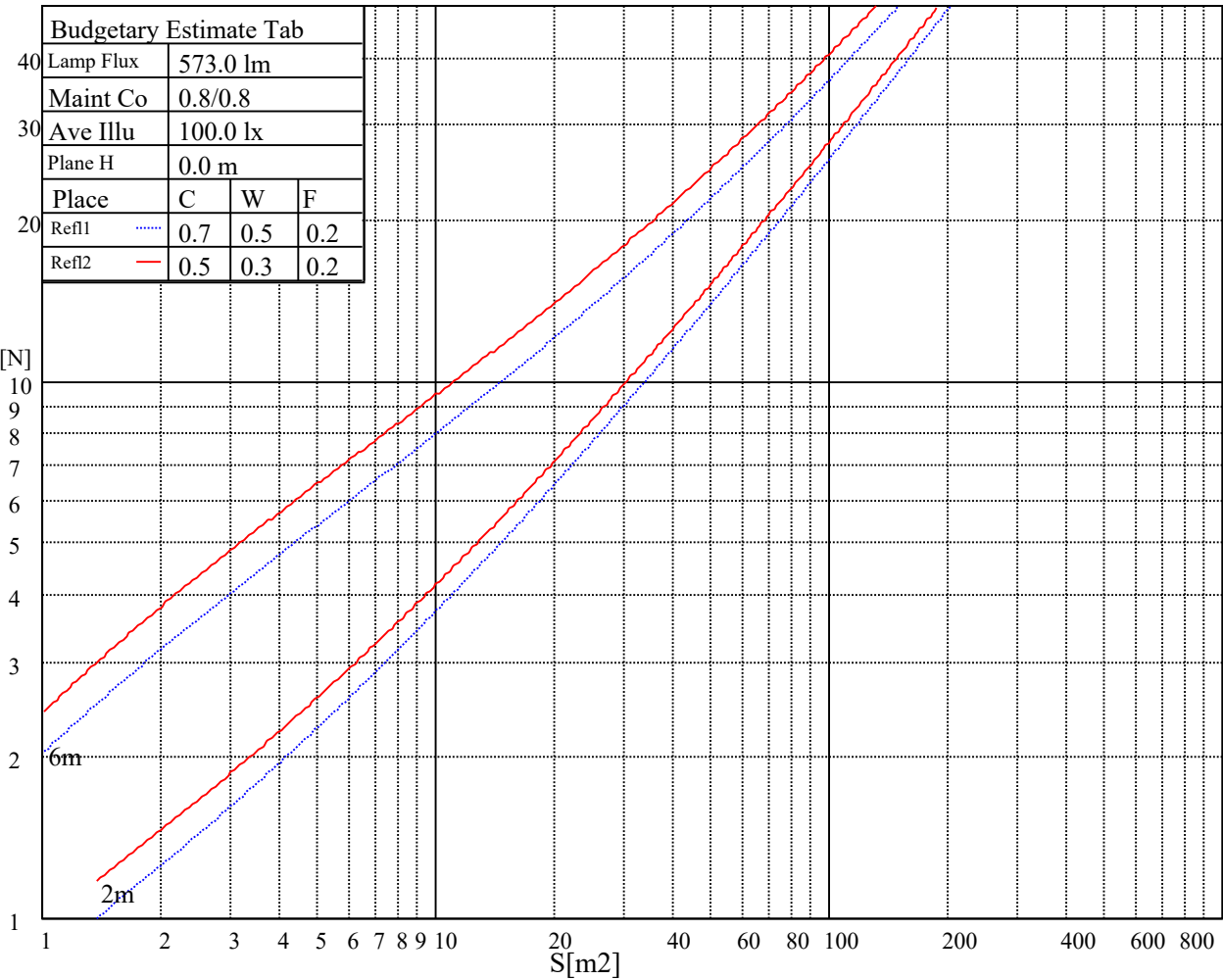
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

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





RHOC	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	1.03	1.03	1.03	1.01	1.01	1.01	0.96	0.96	0.96	0.92	0.92	0.92	0.88	0.88	0.88	0.86
1	0.94	0.92	0.90	0.93	0.90	0.88	0.89	0.87	0.86	0.86	0.84	0.83	0.83	0.82	0.81	0.79
2	0.87	0.83	0.79	0.85	0.81	0.78	0.82	0.79	0.76	0.80	0.77	0.75	0.77	0.75	0.73	0.72
3	0.79	0.74	0.71	0.78	0.74	0.70	0.76	0.72	0.69	0.74	0.70	0.68	0.72	0.69	0.67	0.65
4	0.73	0.68	0.63	0.72	0.67	0.63	0.70	0.66	0.62	0.68	0.65	0.61	0.67	0.63	0.61	0.59
5	0.67	0.62	0.57	0.67	0.61	0.57	0.65	0.60	0.57	0.63	0.59	0.56	0.62	0.58	0.55	0.54
6	0.62	0.56	0.52	0.62	0.56	0.52	0.60	0.55	0.52	0.59	0.55	0.51	0.58	0.54	0.51	0.49
7	0.58	0.52	0.48	0.57	0.52	0.48	0.56	0.51	0.47	0.55	0.50	0.47	0.54	0.50	0.47	0.45
8	0.54	0.48	0.44	0.53	0.48	0.44	0.52	0.47	0.44	0.51	0.47	0.43	0.50	0.46	0.43	0.42
9	0.50	0.44	0.41	0.50	0.44	0.40	0.49	0.44	0.40	0.48	0.43	0.40	0.47	0.43	0.40	0.39
10	0.47	0.41	0.38	0.47	0.41	0.37	0.46	0.41	0.37	0.45	0.40	0.37	0.44	0.40	0.37	0.36

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	371.31	370.41	363.04	347.23	324.11	299.53	266.01	224.10	178.09
45.0	375.47	371.81	361.86	346.67	322.26	293.74	261.68	217.46	163.69
90.0	372.43	365.79	355.11	340.26	317.14	285.02	247.05	198.68	136.07
135.0	372.32	366.81	356.18	339.98	317.08	287.61	251.83	205.31	145.91
180.0	371.31	367.14	351.90	331.20	305.94	274.11	237.32	190.69	131.12
225.0	375.47	371.48	361.07	339.24	311.12	280.41	242.83	197.94	147.54
270.0	372.43	374.01	369.34	353.98	330.08	296.83	261.28	220.50	169.59
315.0	372.32	371.48	365.23	348.41	324.34	291.99	257.23	214.20	163.74
360.0	371.31	370.41	363.04	347.23	324.11	299.53	266.01	224.10	178.09
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	106.59	50.29	25.31	14.01	6.69	3.54	2.48	2.08	2.03
45.0	90.23	42.24	21.83	11.14	5.40	3.15	2.42	2.19	2.08
90.0	67.39	32.46	16.43	8.72	4.11	2.70	2.25	2.19	2.25
135.0	75.26	35.49	18.06	9.84	4.78	2.98	2.31	2.14	2.25
180.0	67.84	33.53	17.49	9.34	4.72	2.98	2.25	2.08	2.25
225.0	79.37	38.93	20.31	11.25	5.51	3.26	2.42	2.19	2.08
270.0	105.41	51.92	26.44	14.63	6.97	3.60	2.53	2.14	2.08
315.0	97.99	47.93	24.58	13.39	6.30	3.43	2.42	2.08	2.03
360.0	106.59	50.29	25.31	14.01	6.69	3.54	2.48	2.08	2.03
C/γ(°)	90.0								
0.0	1.97								
45.0	2.03								
90.0	2.03								
135.0	2.03								
180.0	2.48								
225.0	2.03								
270.0	2.03								
315.0	1.97								
360.0	1.97								