
Nata

LumCAT: 3-1700-N
Luminaire: 92.70.045.00+92.70.089.00
Report No: NT20171228903
Test No: nata-0100
LampCAT: NICHIA NVEWJ048Z-V1
Lamp flux(lm): 3051.0
Number of Lamps: 1
Length(mm): 77
Phm Type: C

Voltage(V): 43.4000
Current(A): 0.5000
Power (W): 21.7000
PF: 0.0000
Ballast type: DC
Width(mm): 77
Height(mm): 0

Photometric Results

Lumens(lm): 2453.26
Efficiency(%): 80.41%
Lumens(lm)/Power(W): 113.05
Central intensity(cd): 5141.030
Maximum intensity(cd): 5141.030
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=37.2
 [C90/270]Total=37.2
Field angle(10%Imax): [C0/180]Total=66.2
 [C90/270]Total=66.2
Maximum s/h(1/2): C0_180=0.61 C90_270=0.61
Maximum s/h(1/4): C0_180=0.60 C90_270=0.60
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 81.34%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 96.640%

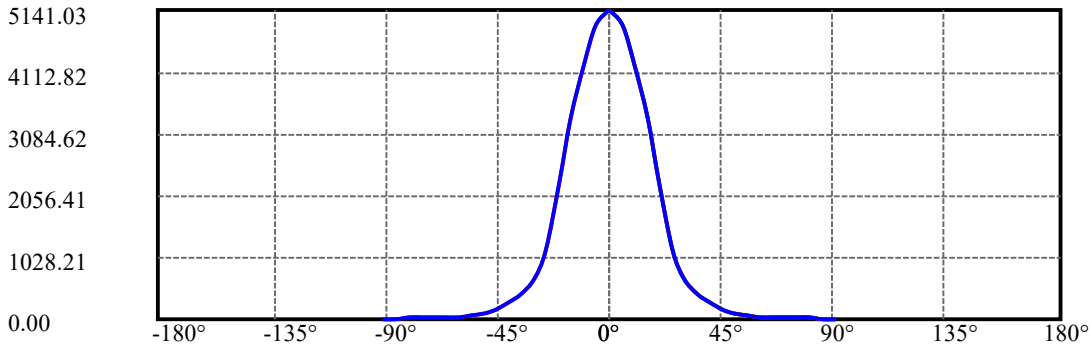
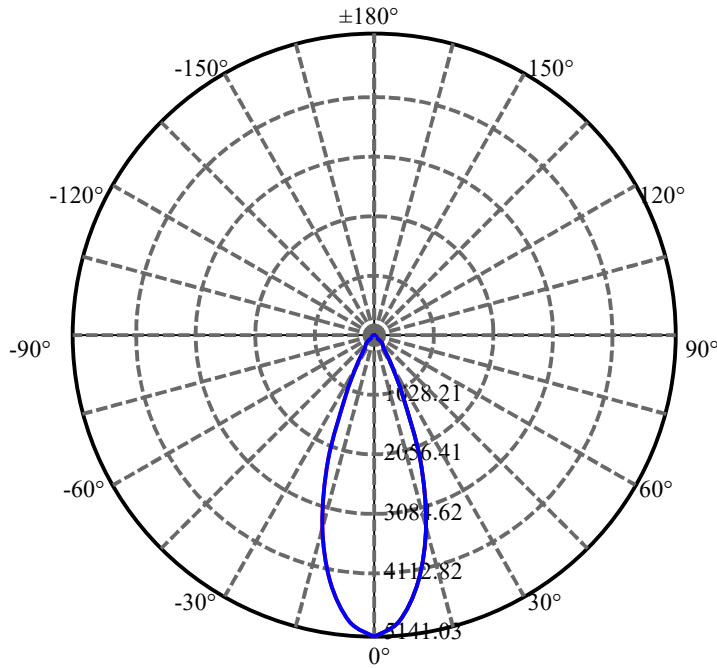
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5141.029	30.744	30.744	1.008%	1.253%
5.0	4884.810	233.364	264.108	7.649%	10.766%
10.0	4249.941	404.522	668.63	13.259%	27.255%
15.0	3360.161	476.701	1145.331	15.624%	46.686%
20.0	2264.263	424.491	1569.822	13.913%	63.989%
25.0	1146.852	265.672	1835.493	8.708%	74.819%
30.0	662.225	181.495	2016.988	5.949%	82.217%
35.0	423.535	133.159	2150.147	4.364%	87.645%
40.0	278.076	97.976	2248.124	3.211%	91.638%
45.0	165.768	64.250	2312.374	2.106%	94.257%
50.0	100.801	42.326	2354.7	1.387%	95.983%
55.0	59.041	26.510	2381.21	.869%	97.063%
60.0	35.986	17.083	2398.293	.560%	97.760%
65.0	27.053	13.440	2411.732	.440%	98.307%
70.0	22.718	11.701	2423.434	.384%	98.784%
75.0	19.222	10.177	2433.611	.334%	99.199%
80.0	16.455	8.883	2442.493	.291%	99.561%
85.0	13.867	7.572	2450.066	.248%	99.870%
90.0	11.644	3.191	2453.257	.105%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2016.99	66.11%	82.22%
0-40	2248.12	73.68%	91.64%
0-60	2398.29	78.61%	97.76%
0-90	2450.07	80.30%	99.87%
0-120	2450.07	80.30%	99.87%
0-180	2453.26	80.41%	100.00%
60-90	68.86	2.26%	2.81%
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%
0-28.50	1962.61	64.33%	80.00%

ZONAL LUMEN SUMMARY

0-10	668.63
10-20	901.19
20-30	447.17
30-40	231.14
40-50	106.58
50-60	43.59
60-70	25.14
70-80	19.06
80-90	7.57
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: —————

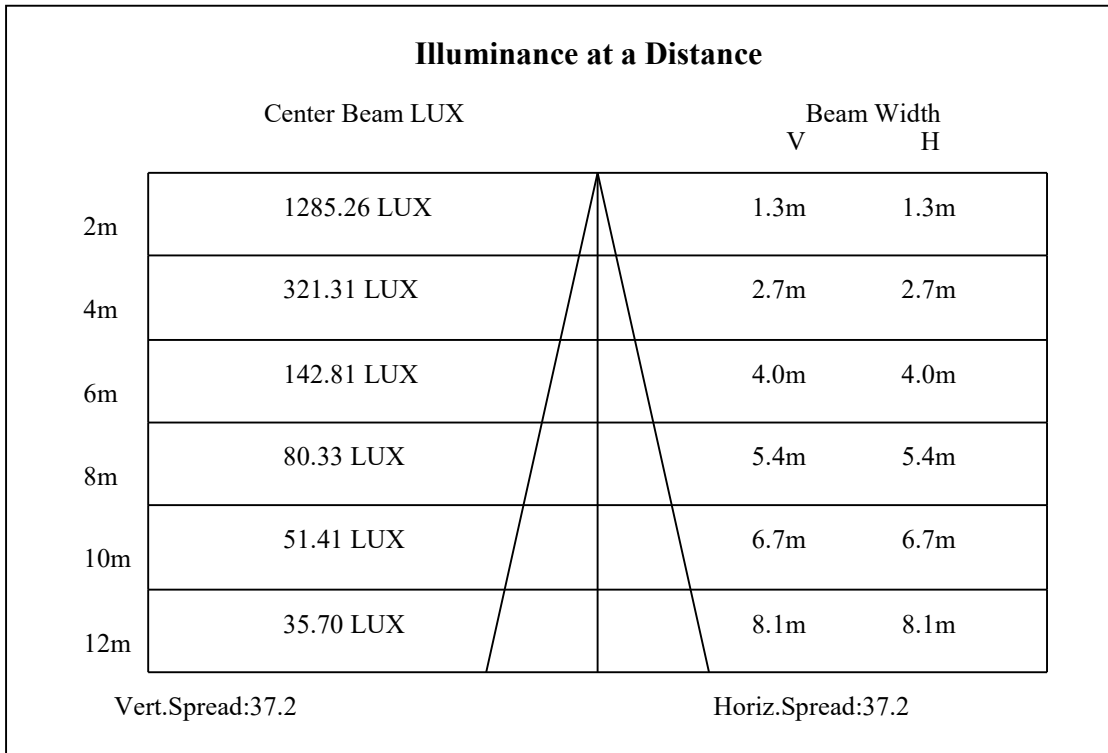
C90/C270: —————

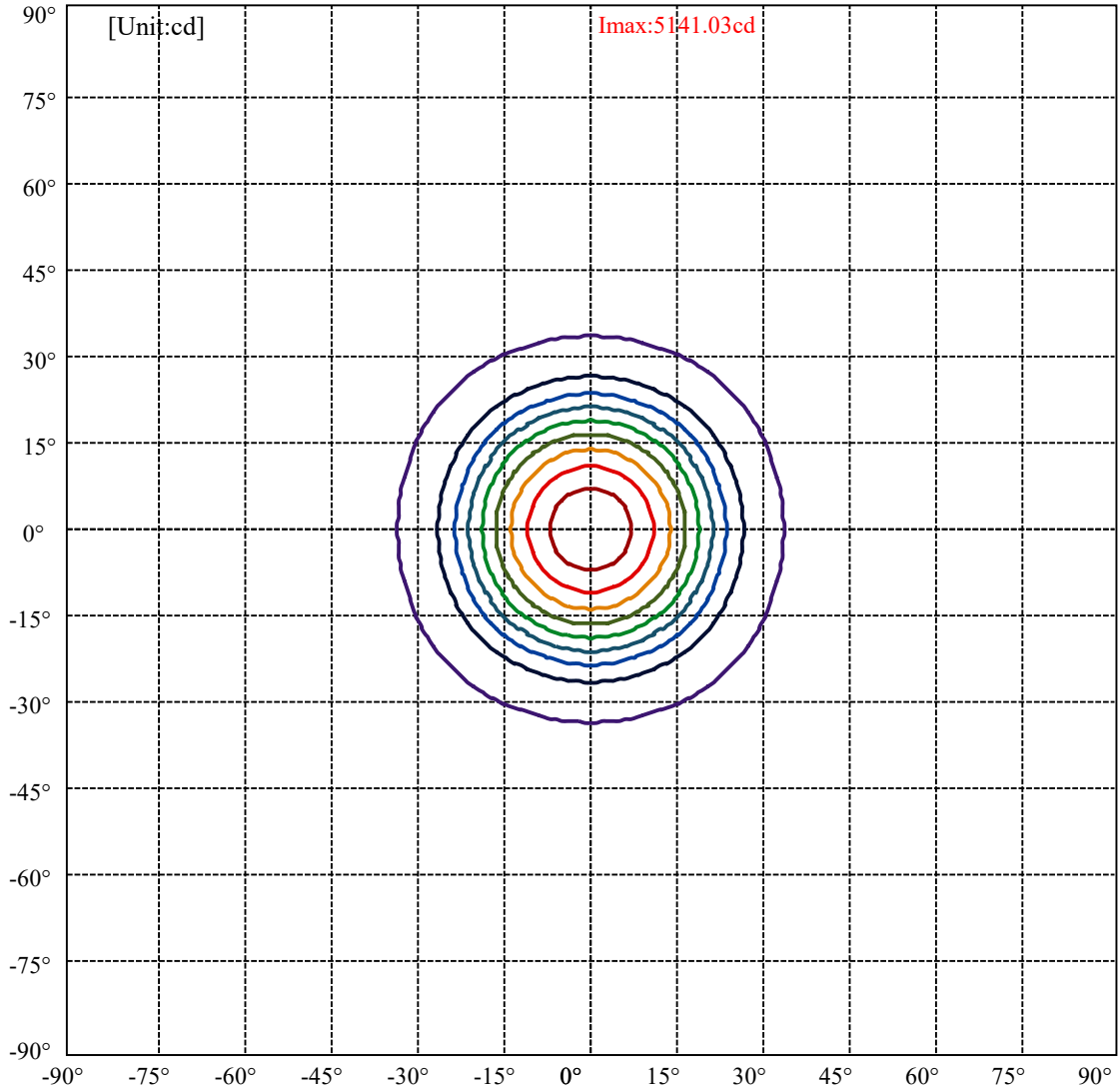
Field angle(10%Imax):C0/180Left:33.1 Right:33.1

:C90/270Left:33.1 Right:33.1

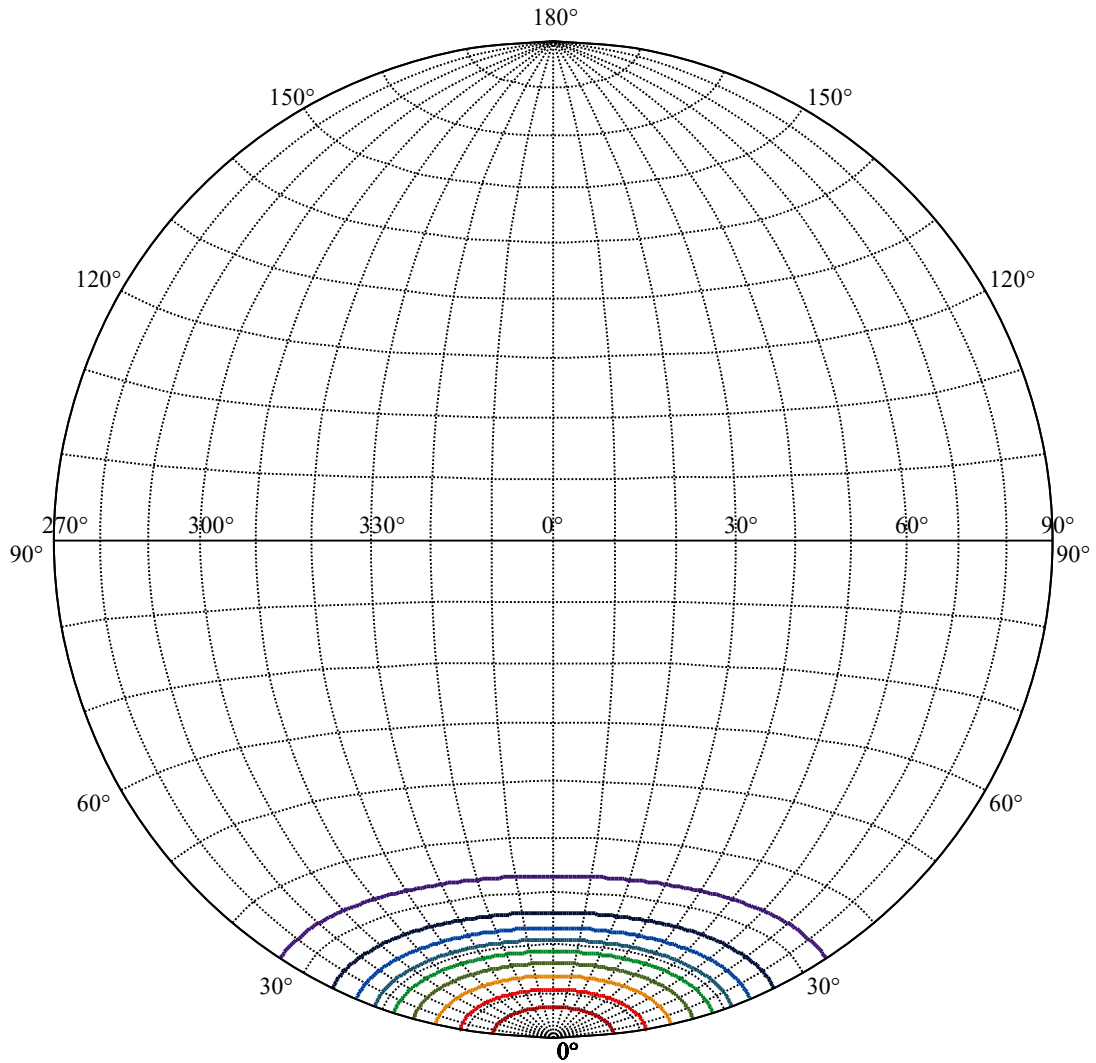
Beam Angle(50%Imax):C0/180Left:18.6 Right:18.6

:C90/270Left:18.6 Right:18.6





(10%Imax) 514.103	—
(20%Imax) 1028.21	—
(30%Imax) 1542.31	—
(40%Imax) 2056.41	—
(50%Imax) 2570.51	—
(60%Imax) 3084.62	—
(70%Imax) 3598.72	—
(80%Imax) 4112.82	—
(90%Imax) 4626.93	—



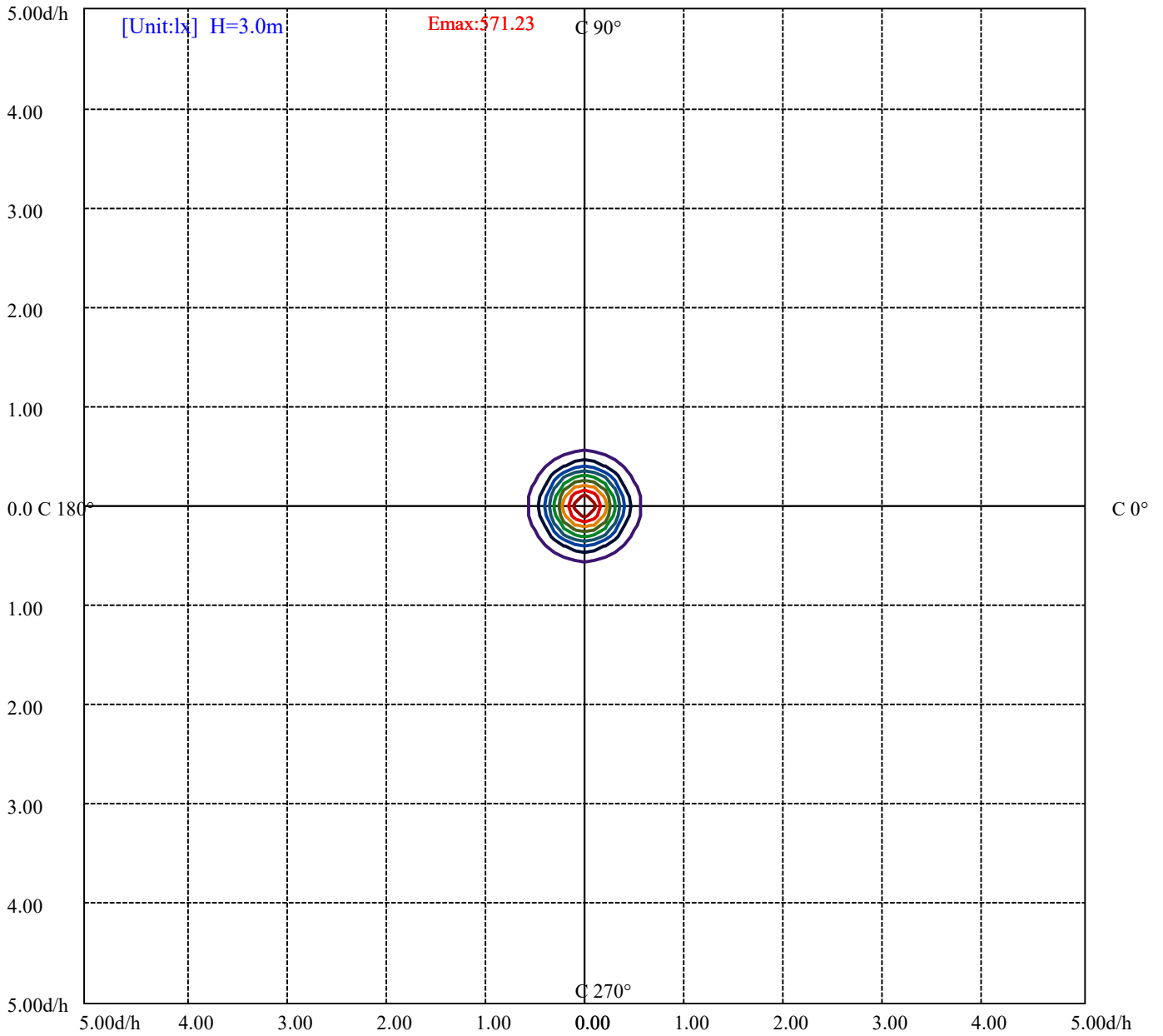
House

[Unit:cd]

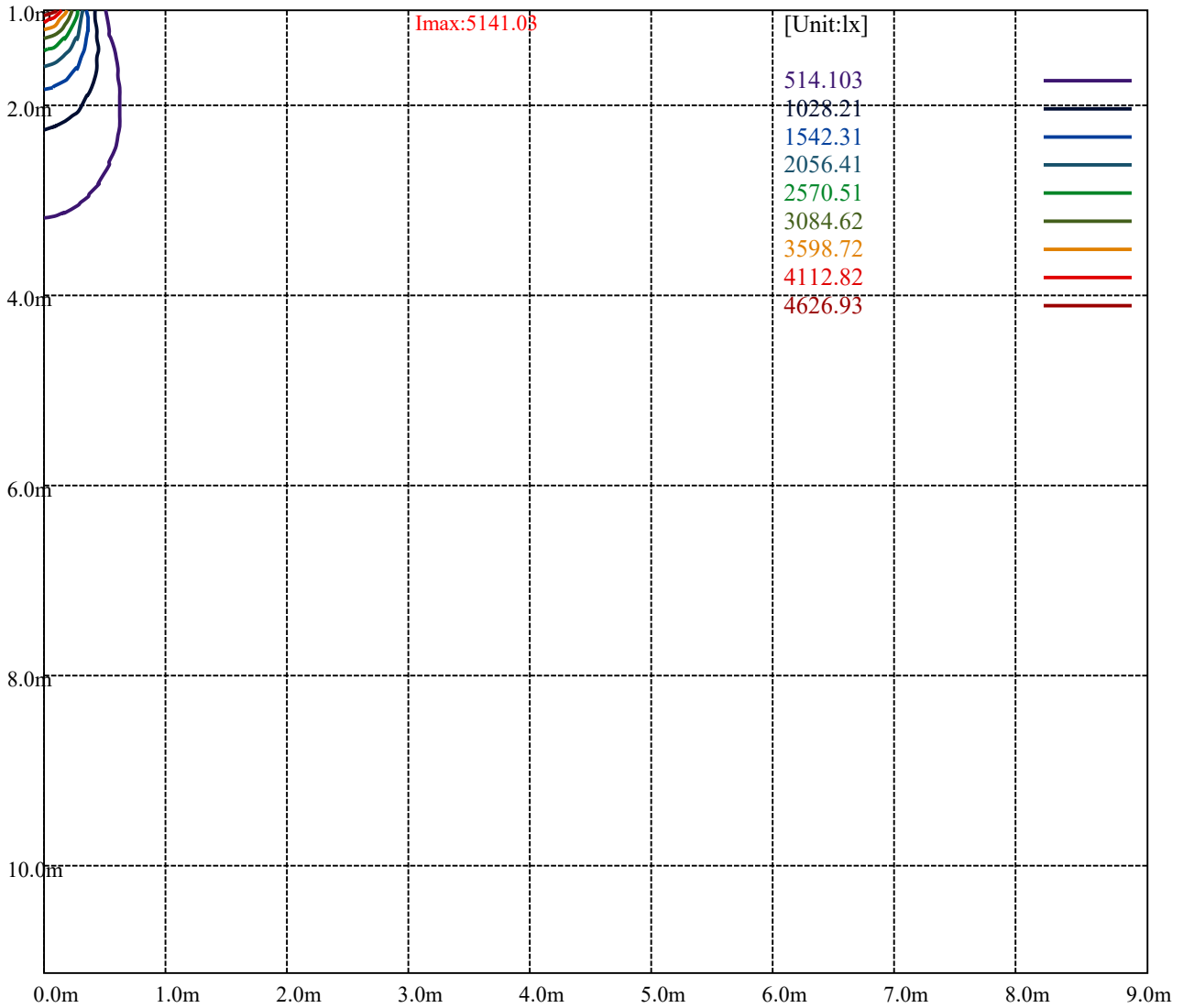
Road

Imax:5141.03

(10%Imax) 514.103	—
(20%Imax) 1028.21	—
(30%Imax) 1542.31	—
(40%Imax) 2056.41	—
(50%Imax) 2570.51	—
(60%Imax) 3084.62	—
(70%Imax) 3598.72	—
(80%Imax) 4112.82	—
(90%Imax) 4626.93	—



- (10%Emax) 57.12244
- (20%Emax) 114.2444
- (30%Emax) 171.3678
- (40%Emax) 228.49
- (50%Emax) 285.6122
- (60%Emax) 342.7345
- (70%Emax) 399.8578
- (80%Emax) 456.98
- (90%Emax) 514.1022



Luminance Table

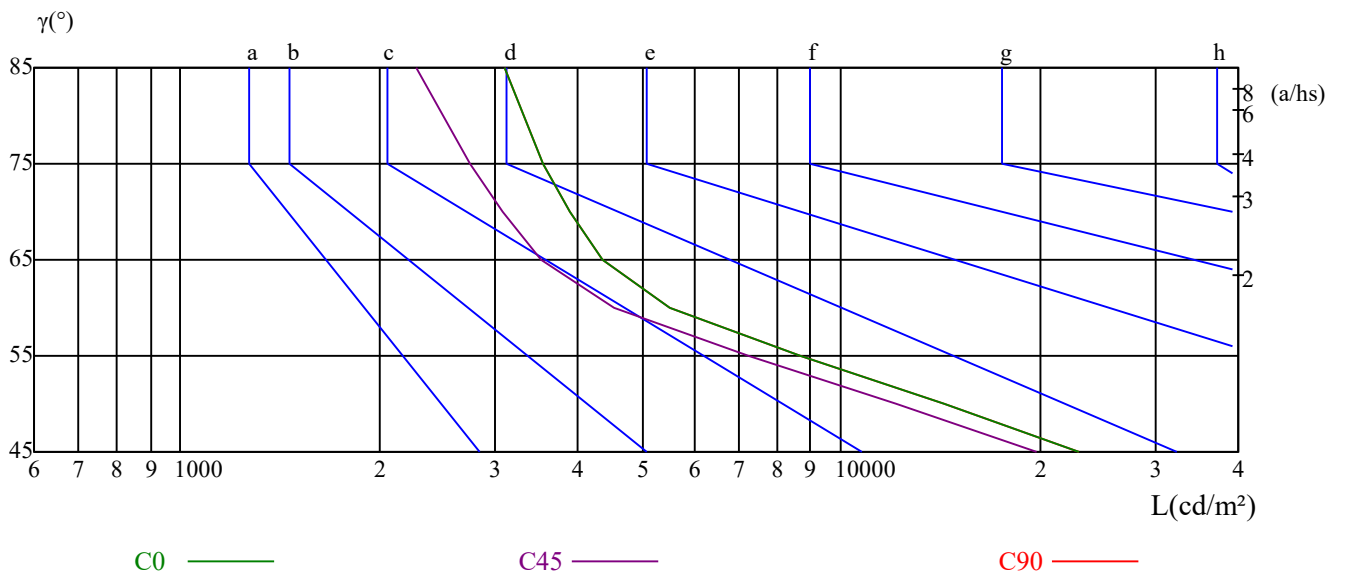
γ	45	50	55	60	65	70	75	80	85
C0	23004	14323	8663	5501	4351	3886	3539	3308	3096
C45	19821	12158	7239	4522	3513	3077	2742	2499	2270
C90	23004	14323	8663	5501	4351	3886	3539	3308	3096

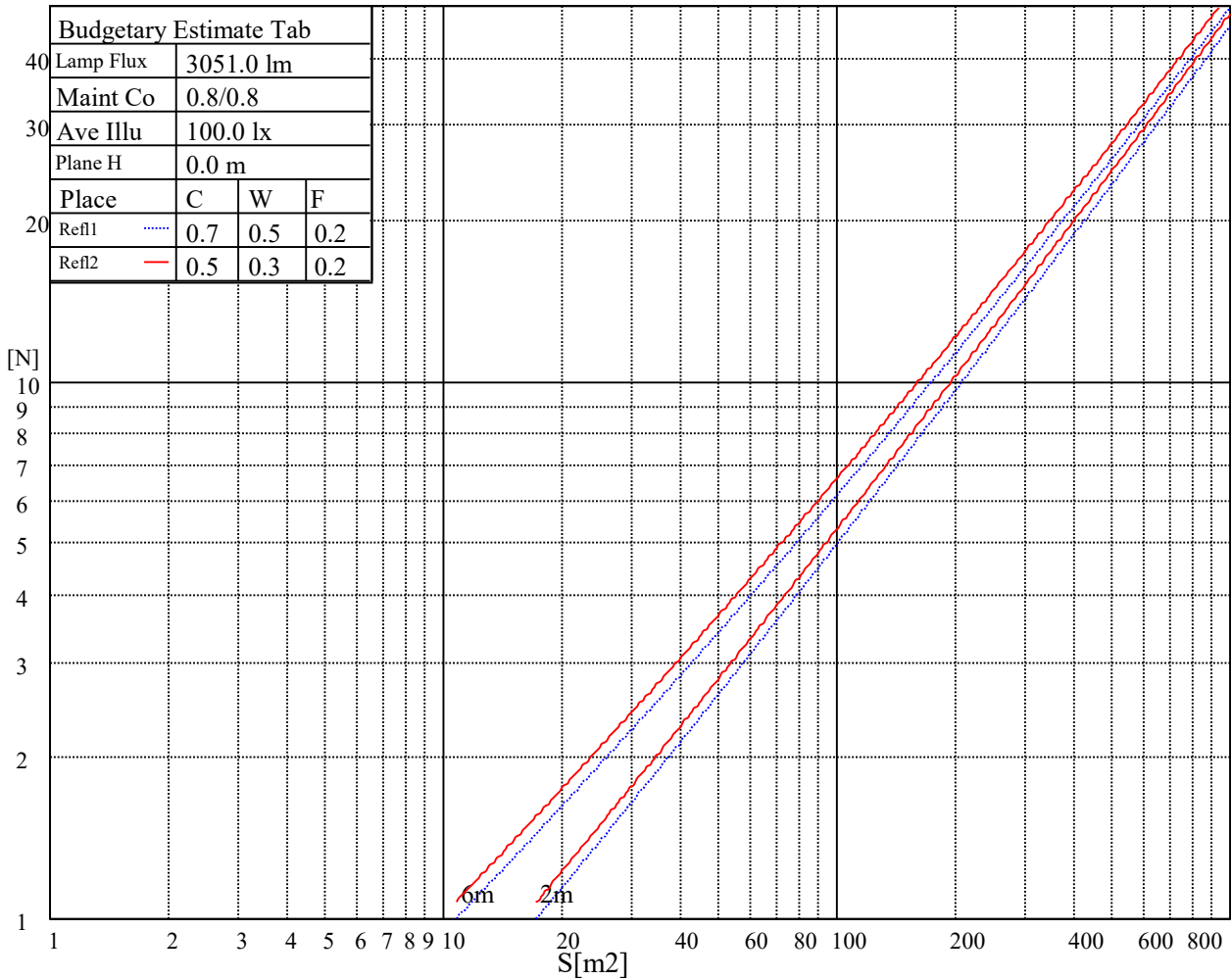
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
10257	10257	10257	11900	11900	11900	25494	25494	25494

Glare Table

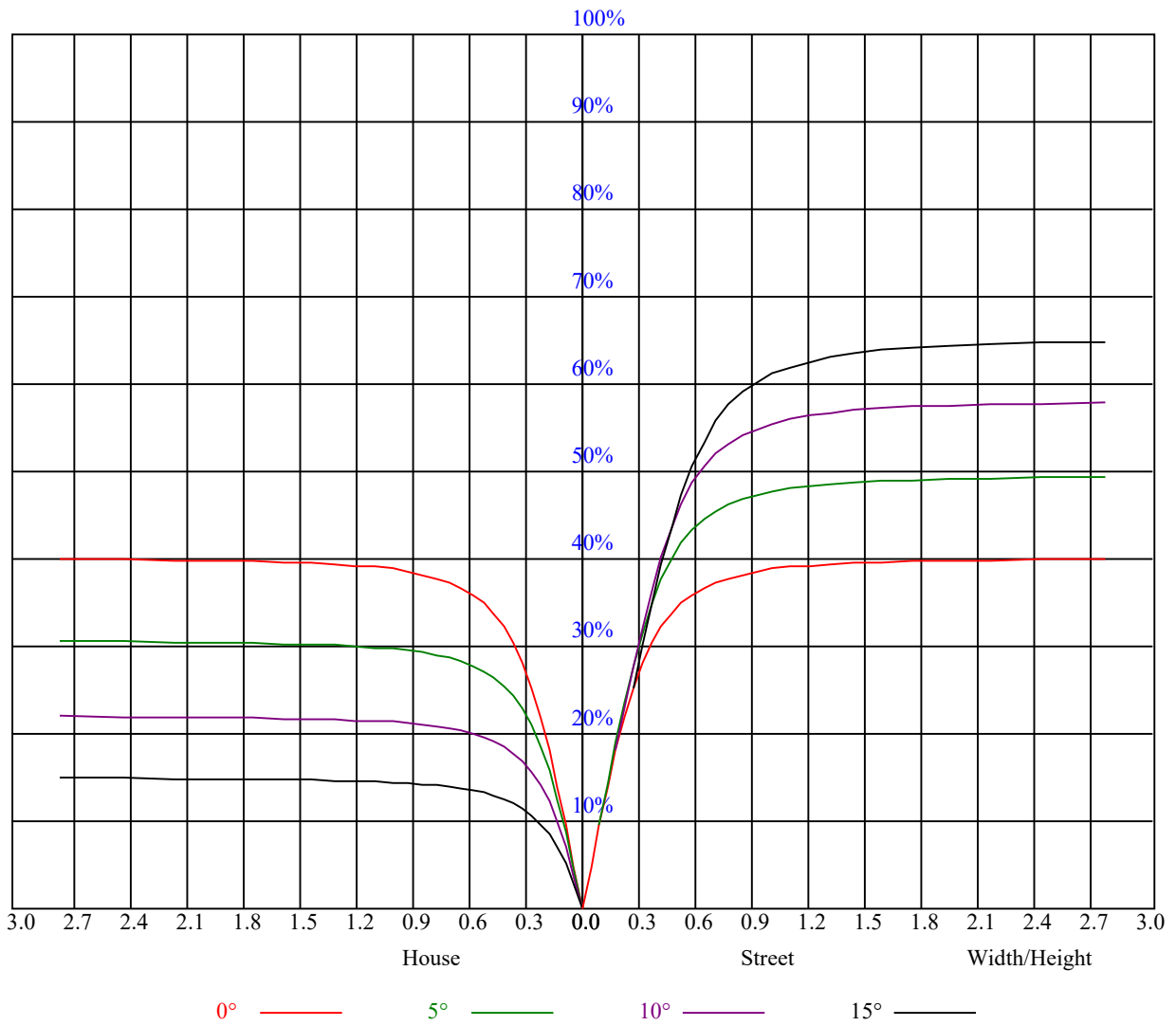
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.97	0.97	0.97	0.95	0.95	0.95	0.90	0.90	0.90	0.87	0.87	0.87	0.83	0.83	0.83	0.81
1	0.89	0.87	0.85	0.88	0.86	0.84	0.84	0.83	0.81	0.81	0.80	0.79	0.78	0.77	0.76	0.75
2	0.84	0.81	0.78	0.83	0.80	0.77	0.80	0.78	0.75	0.78	0.76	0.74	0.75	0.74	0.72	0.71
3	0.79	0.75	0.72	0.78	0.75	0.72	0.76	0.73	0.71	0.74	0.72	0.70	0.72	0.70	0.69	0.67
4	0.75	0.71	0.68	0.74	0.70	0.68	0.73	0.69	0.67	0.71	0.68	0.66	0.70	0.67	0.65	0.64
5	0.72	0.67	0.64	0.71	0.67	0.64	0.69	0.66	0.63	0.68	0.65	0.63	0.67	0.64	0.62	0.61
6	0.68	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.60	0.65	0.62	0.60	0.64	0.62	0.60	0.59
7	0.65	0.61	0.58	0.65	0.61	0.58	0.64	0.60	0.58	0.63	0.60	0.57	0.62	0.59	0.57	0.56
8	0.63	0.59	0.56	0.62	0.58	0.56	0.61	0.58	0.55	0.61	0.57	0.55	0.60	0.57	0.55	0.54
9	0.60	0.56	0.53	0.60	0.56	0.53	0.59	0.56	0.53	0.59	0.55	0.53	0.58	0.55	0.53	0.52
10	0.58	0.54	0.51	0.58	0.54	0.51	0.57	0.54	0.51	0.57	0.53	0.51	0.56	0.53	0.51	0.50



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	5138.96	4979.30	4428.74	3568.21	2565.08	1363.20	737.76	473.49	305.56
45.0	5137.31	4966.64	4400.66	3595.73	2600.31	1383.02	747.67	476.79	308.32
90.0	5142.82	4857.63	4254.76	3401.93	2265.02	1082.13	658.25	416.39	279.03
135.0	5145.02	4938.56	4331.29	3457.54	2334.39	1231.06	691.51	434.39	296.20
180.0	5138.96	4790.46	4095.10	3045.17	1969.92	959.14	578.75	377.69	246.60
225.0	5137.31	4829.55	4116.02	3120.05	1986.99	966.79	581.45	382.42	245.83
270.0	5142.82	4891.76	4255.31	3399.18	2245.20	1120.95	654.07	417.33	278.59
315.0	5145.02	4824.59	4117.67	3293.47	2147.20	1068.53	648.34	409.78	264.49
360.0	5138.96	4979.30	4428.74	3568.21	2565.08	1363.20	737.76	473.49	305.56

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	184.77	113.86	66.12	38.87	27.86	23.45	19.77	17.01	14.20
45.0	185.26	115.84	66.56	39.20	28.68	23.95	20.21	17.51	14.81
90.0	168.75	101.47	58.52	35.84	27.25	23.01	19.71	17.07	14.42
135.0	171.01	103.29	61.72	37.38	27.69	23.18	19.77	16.90	14.09
180.0	146.06	91.17	53.57	33.36	26.48	22.24	18.72	15.75	13.32
225.0	145.62	87.76	52.91	32.65	25.60	21.69	18.22	15.47	13.16
270.0	164.95	98.55	58.03	36.78	26.65	22.24	18.77	16.02	13.43
315.0	159.72	94.48	54.89	33.80	26.21	21.97	18.61	15.91	13.49
360.0	184.77	113.86	66.12	38.87	27.86	23.45	19.77	17.01	14.20

C/γ(°)	90.0
0.0	11.62
45.0	11.73
90.0	11.62
135.0	11.62
180.0	11.62
225.0	11.73
270.0	11.62
315.0	11.62
360.0	11.62