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Nata

LumCAT: 4-2267-M
Luminaire: 92.70.135.00
Report No: NATA0100
Test No: GC2018062605
LampCAT: NICHIA NFCWJ120B-V3
Lamp flux(lm): 2280.0
Number of Lamps: 1
Length(mm): 100
Phm Type: C

Voltage(V): 33.5000
Current(A): 0.5000
Power (W): 16.7500
PF: 0.0000
Ballast type: DC
Width(mm): 100
Height(mm): 0

Photometric Results

Lumens(lm): 2035.65
Efficiency(%): 89.28%
Lumens(lm)/Power(W): 123.04
Central intensity(cd): 4539.125
Maximum intensity(cd): 4539.125
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=70.0
 [C90/270]Total=70.0
Maximum s/h(1/2): C0_180=0.57 C90_270=0.57
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(%): 90.39%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.401%

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2018/6/26
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.42

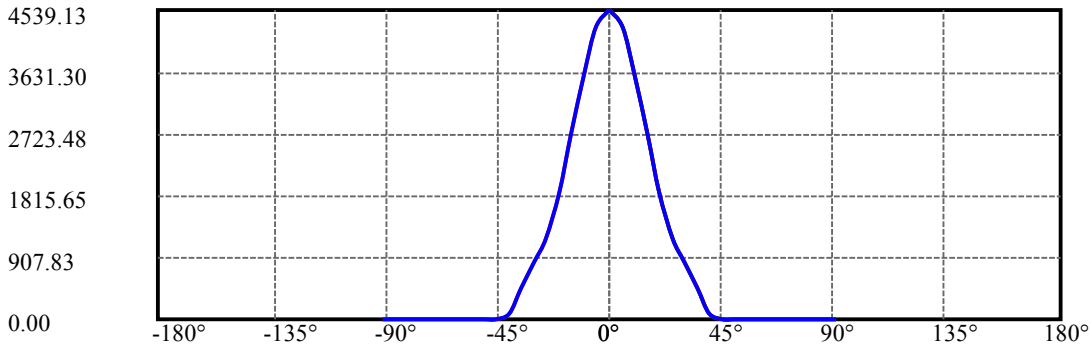
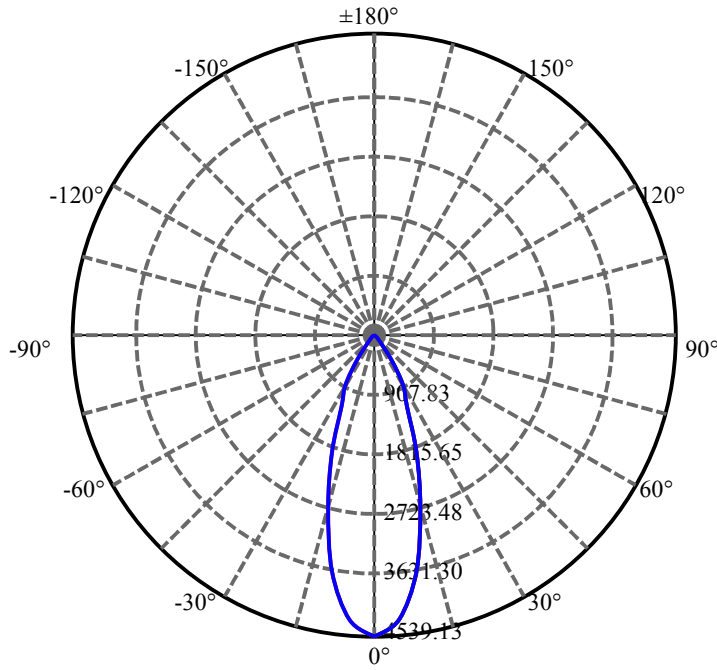
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4539.125	27.145	27.145	1.191%	1.333%
5.0	4282.700	204.599	231.744	8.974%	11.384%
10.0	3617.687	344.343	576.086	15.103%	28.300%
15.0	2706.779	384.006	960.093	16.842%	47.164%
20.0	1866.550	349.930	1310.022	15.348%	64.354%
25.0	1180.327	273.426	1583.448	11.992%	77.786%
30.0	856.877	234.843	1818.291	10.300%	89.322%
35.0	454.676	142.950	1961.241	6.270%	96.345%
40.0	82.048	28.908	1990.149	1.268%	97.765%
45.0	11.500	4.457	1994.607	.195%	97.984%
50.0	10.000	4.199	1998.806	.184%	98.190%
55.0	9.353	4.199	2003.005	.184%	98.396%
60.0	9.043	4.293	2007.298	.188%	98.607%
65.0	8.954	4.448	2011.746	.195%	98.826%
70.0	9.002	4.637	2016.382	.203%	99.053%
75.0	11.865	6.282	2022.664	.276%	99.362%
80.0	10.564	5.703	2028.367	.250%	99.642%
85.0	8.933	4.878	2033.245	.214%	99.882%
90.0	8.781	2.407	2035.651	.106%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1818.29	79.75%	89.32%
0-40	1990.15	87.29%	97.76%
0-60	2007.30	88.04%	98.61%
0-90	2033.24	89.18%	99.88%
0-120	2033.24	89.18%	99.88%
0-180	2035.65	89.28%	100.00%
60-90	30.24	1.33%	1.49%
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%
0-25.96	1628.52	71.43%	80.00%

ZONAL LUMEN SUMMARY

0-10	576.09
10-20	733.94
20-30	508.27
30-40	171.86
40-50	8.66
50-60	8.49
60-70	9.08
70-80	11.98
80-90	4.88
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: —————

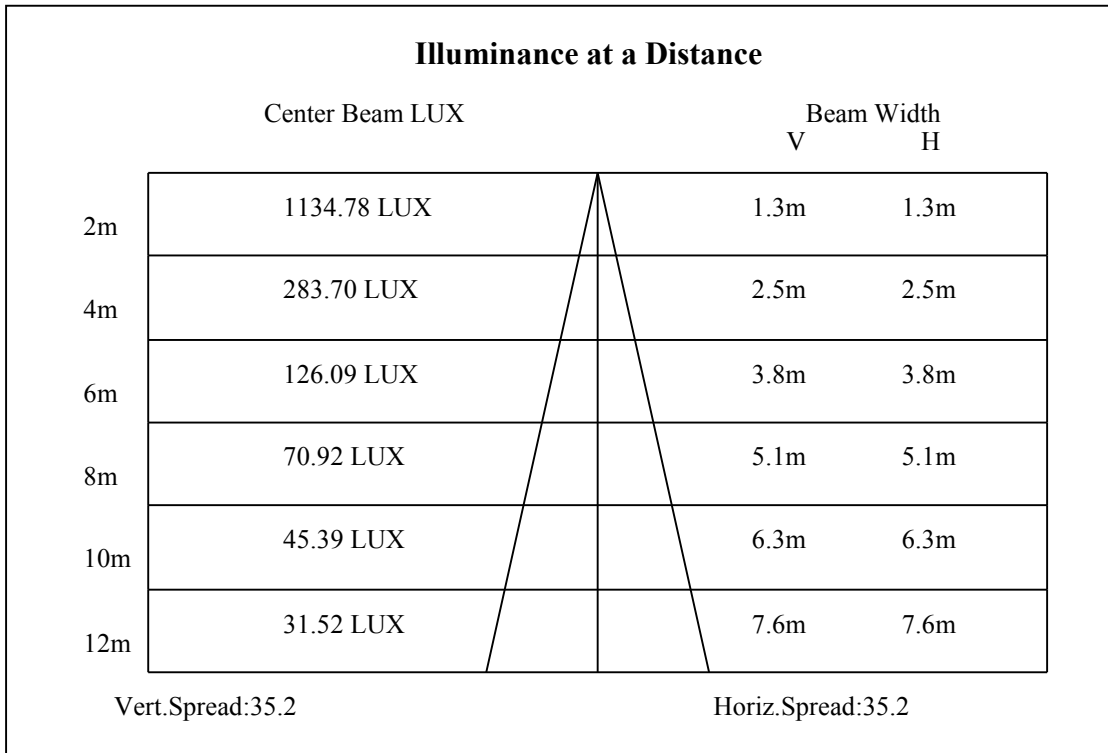
C90/C270: —————

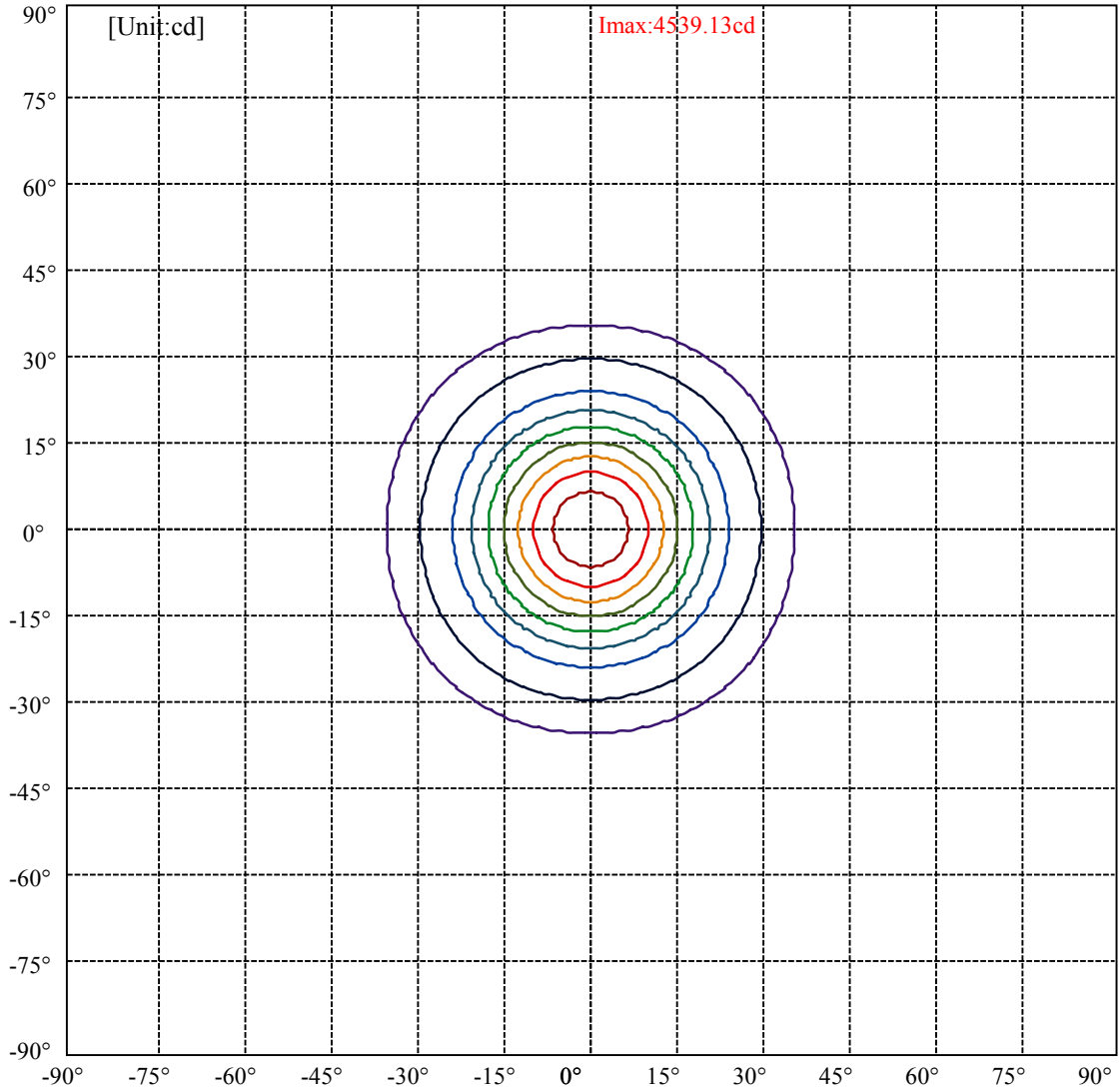
Field angle(10%Imax):C0/180Left:35.0 Right:35.0

:C90/270Left:35.0 Right:35.0

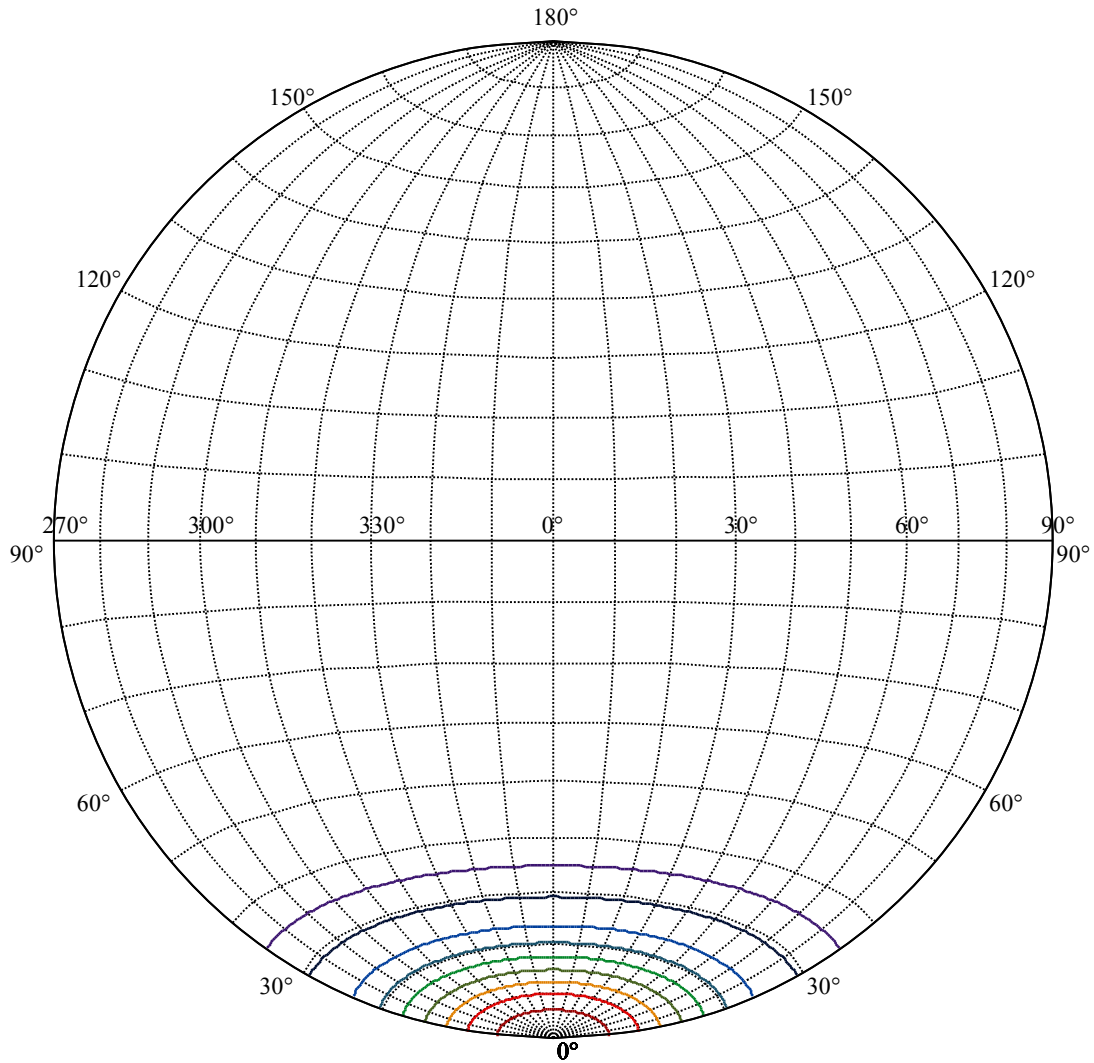
Beam Angle(50%Imax):C0/180Left:17.6 Right:17.6

:C90/270Left:17.6 Right:17.6





(10%Imax) 453.913	—
(20%Imax) 907.825	—
(30%Imax) 1361.74	—
(40%Imax) 1815.65	—
(50%Imax) 2269.56	—
(60%Imax) 2723.48	—
(70%Imax) 3177.39	—
(80%Imax) 3631.3	—
(90%Imax) 4085.21	—



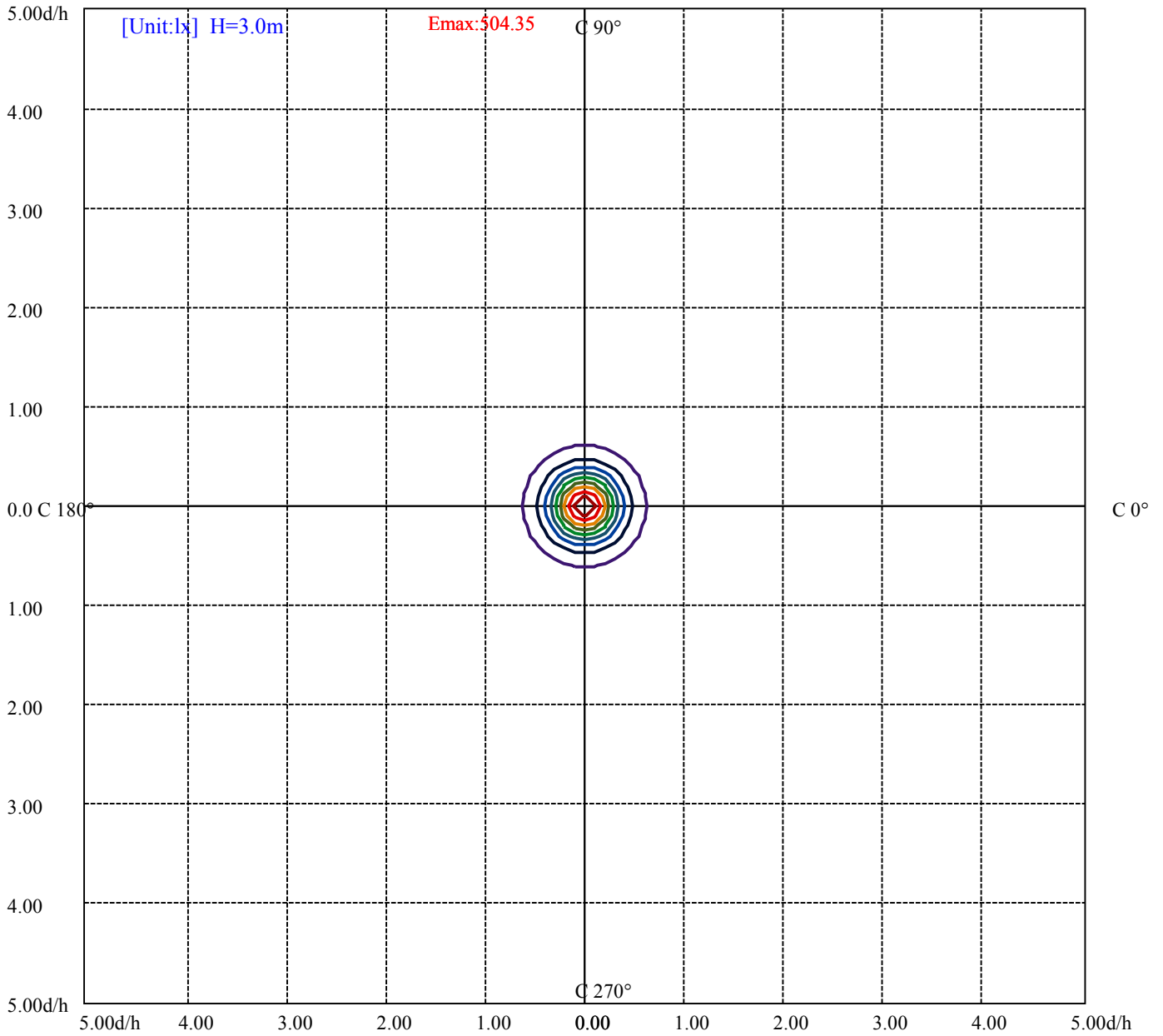
House

[Unit:cd]

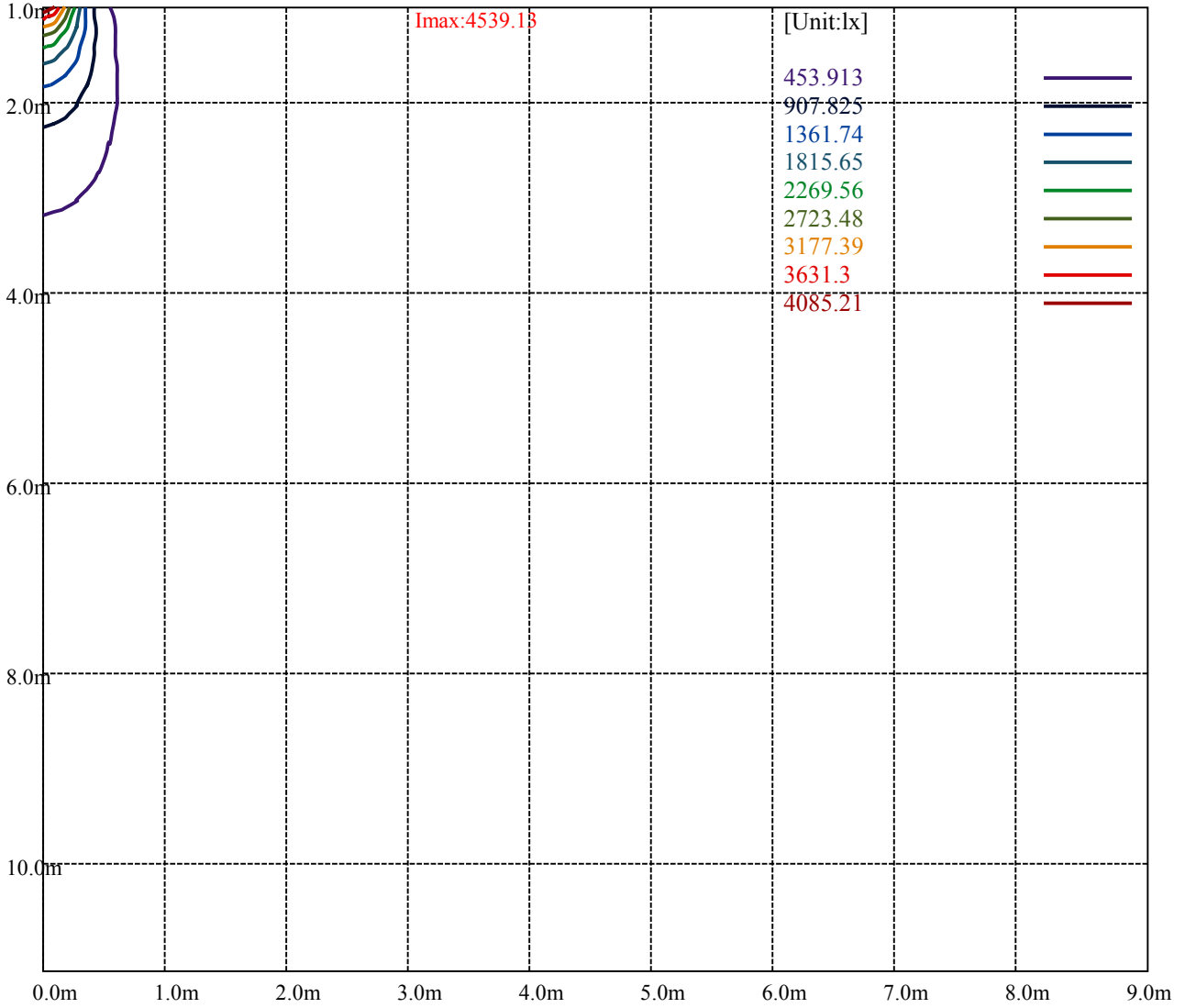
Road

Imax:4539.13

(10%Imax) 453.913	—
(20%Imax) 907.825	—
(30%Imax) 1361.74	—
(40%Imax) 1815.65	—
(50%Imax) 2269.56	—
(60%Imax) 2723.48	—
(70%Imax) 3177.39	—
(80%Imax) 3631.3	—
(90%Imax) 4085.21	—



- (10%E_{max}) 50.43467
- (20%E_{max}) 100.8692
- (30%E_{max}) 151.3044
- (40%E_{max}) 201.7389
- (50%E_{max}) 252.1733
- (60%E_{max}) 302.6078
- (70%E_{max}) 353.0422
- (80%E_{max}) 403.4767
- (90%E_{max}) 453.9122



Luminance Table

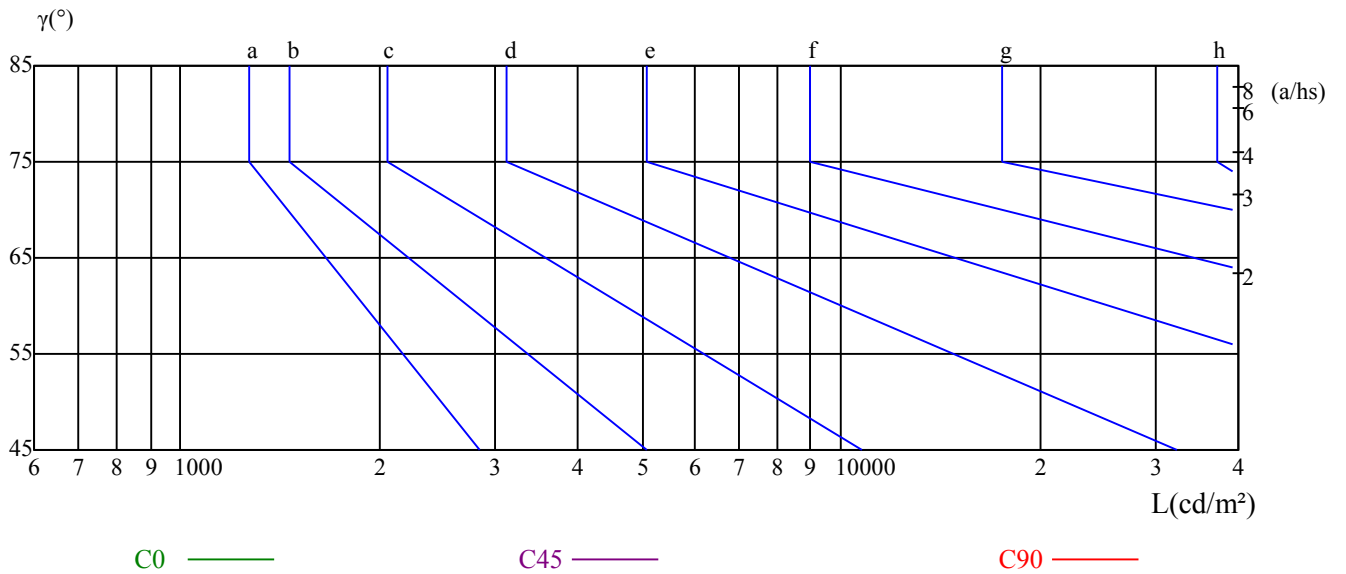
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

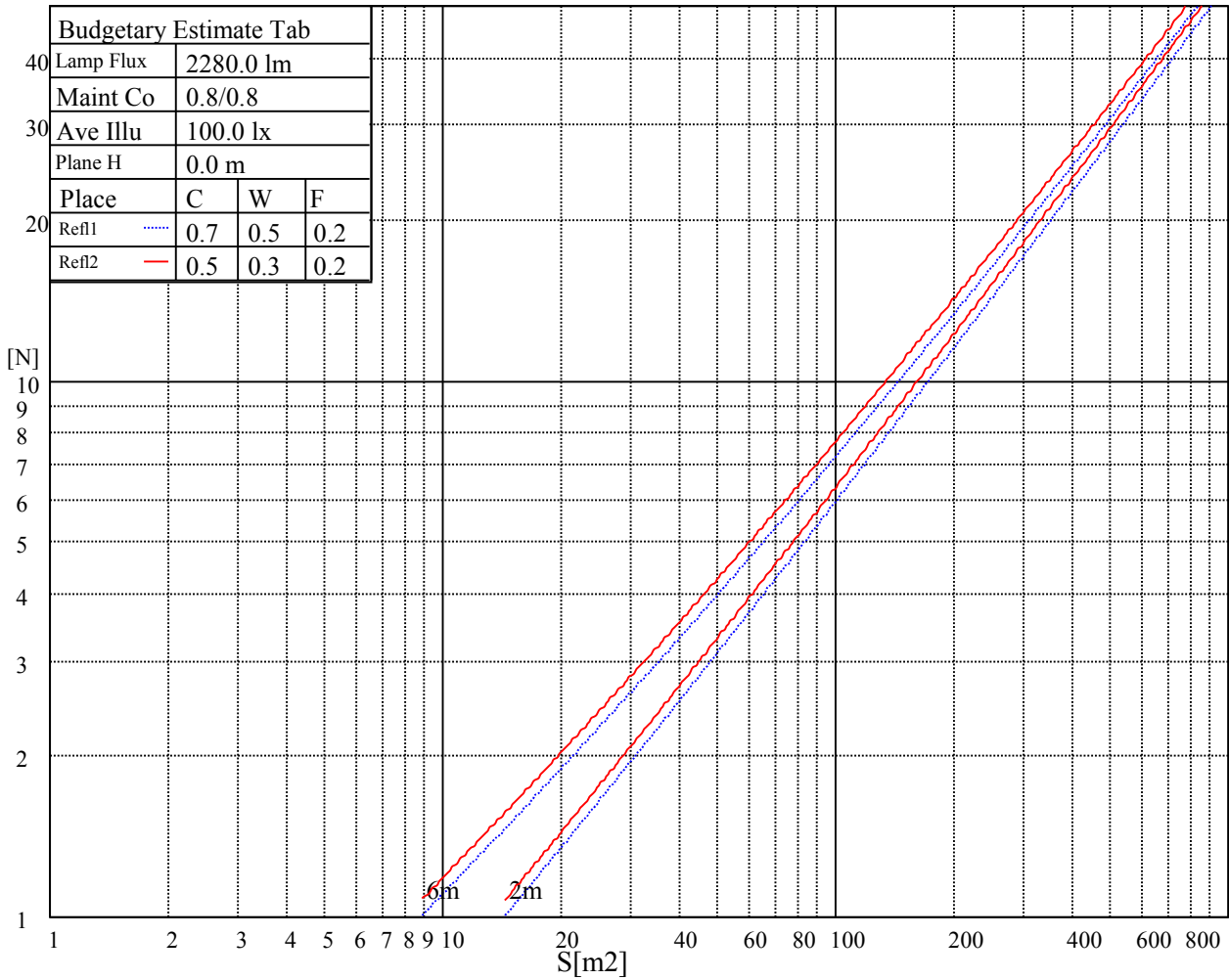
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

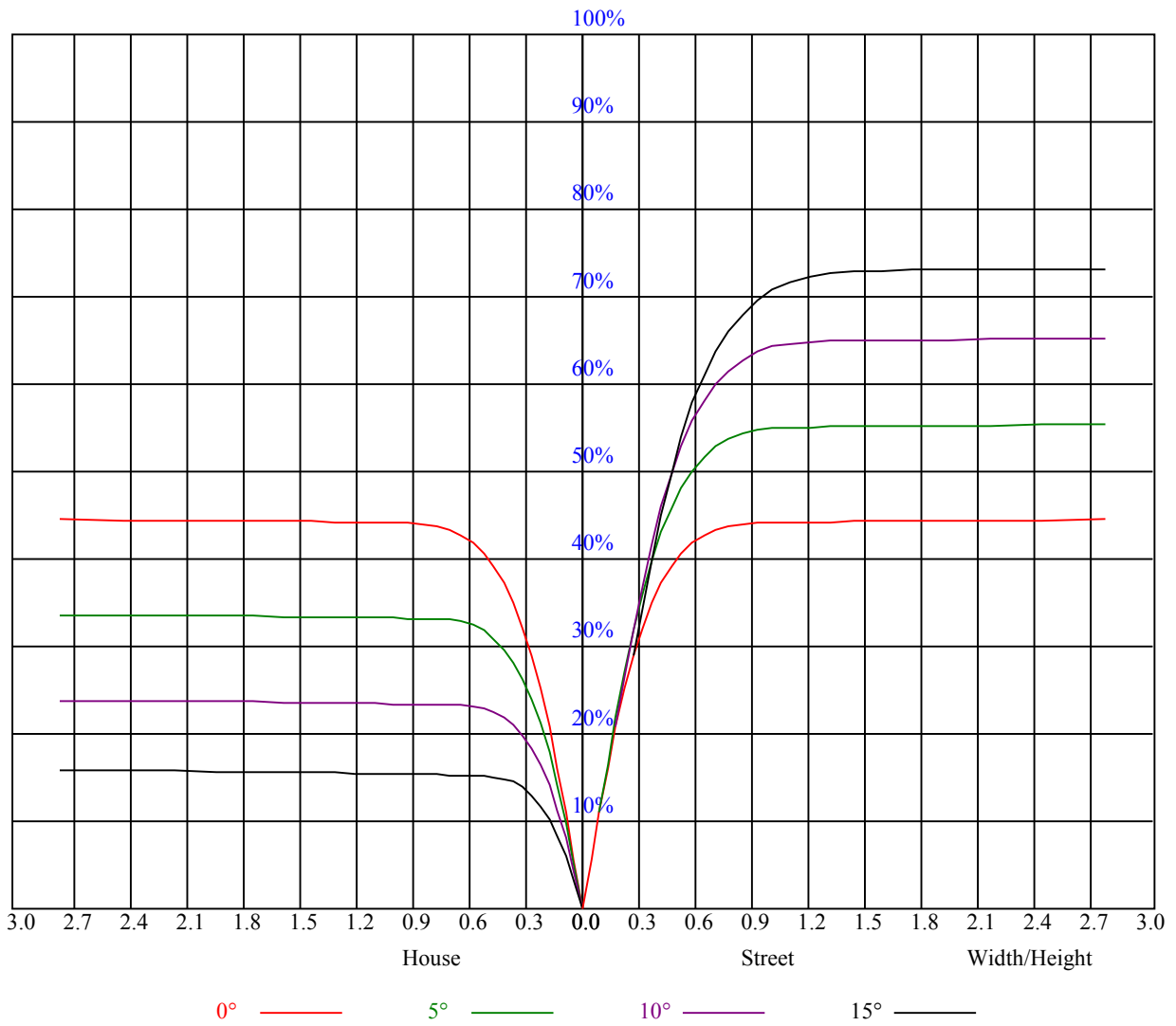
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.08	1.08	1.08	1.05	1.05	1.05	1.00	1.00	1.00	0.96	0.96	0.96	0.92	0.92	0.92	0.90
1	1.00	0.97	0.95	0.98	0.96	0.94	0.94	0.92	0.91	0.91	0.89	0.88	0.88	0.86	0.85	0.84
2	0.94	0.91	0.88	0.93	0.89	0.87	0.90	0.87	0.85	0.87	0.85	0.83	0.85	0.83	0.81	0.80
3	0.89	0.85	0.82	0.88	0.84	0.81	0.86	0.83	0.80	0.84	0.81	0.79	0.82	0.80	0.78	0.76
4	0.85	0.81	0.77	0.84	0.80	0.77	0.82	0.79	0.76	0.80	0.78	0.75	0.79	0.76	0.74	0.73
5	0.81	0.77	0.73	0.80	0.76	0.73	0.79	0.75	0.73	0.77	0.74	0.72	0.76	0.73	0.71	0.70
6	0.78	0.73	0.70	0.77	0.73	0.70	0.76	0.72	0.69	0.75	0.71	0.69	0.74	0.71	0.68	0.67
7	0.75	0.70	0.67	0.74	0.70	0.67	0.73	0.69	0.66	0.72	0.69	0.66	0.71	0.68	0.66	0.65
8	0.72	0.67	0.64	0.71	0.67	0.64	0.70	0.67	0.64	0.70	0.66	0.64	0.69	0.66	0.63	0.62
9	0.69	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.61	0.67	0.63	0.61	0.60
10	0.67	0.62	0.60	0.66	0.62	0.59	0.66	0.62	0.59	0.65	0.62	0.59	0.64	0.61	0.59	0.58



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	4543.80	4369.28	3744.39	2875.05	2017.27	1299.88	911.18	554.42	148.98
45.0	4521.78	4412.77	3867.71	3004.43	2123.53	1367.60	967.34	599.56	287.94
90.0	4545.46	4342.85	3675.01	2777.60	1907.15	1082.02	887.62	489.95	52.08
135.0	4543.25	4370.93	3777.42	2837.61	2004.05	1273.45	901.27	532.95	71.79
180.0	4548.21	4209.61	3482.87	2530.94	1728.77	1093.86	794.08	377.14	22.63
225.0	4521.78	4120.42	3363.95	2418.08	1609.30	1067.93	751.52	280.35	20.87
270.0	4545.46	4221.17	3567.65	2642.71	1799.24	1177.11	837.96	415.13	27.75
315.0	4543.25	4214.57	3462.50	2567.83	1743.09	1080.76	804.04	387.93	24.33
360.0	4543.80	4369.28	3744.39	2875.05	2017.27	1299.88	911.18	554.42	148.98
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	12.06	10.24	9.47	9.08	8.97	9.08	11.56	12.06	8.97
45.0	13.05	10.41	9.63	9.25	9.08	9.14	10.02	13.16	9.08
90.0	11.84	10.13	9.41	9.14	9.03	9.08	11.18	10.68	8.97
135.0	11.62	10.13	9.41	9.03	8.92	8.86	9.14	10.57	8.86
180.0	10.90	9.80	9.25	8.97	8.92	8.92	13.38	8.92	8.86
225.0	10.57	9.63	9.14	8.97	8.92	9.03	13.65	9.25	8.92
270.0	11.01	9.80	9.25	8.97	8.86	8.92	11.84	10.52	8.92
315.0	10.96	9.86	9.25	8.92	8.92	8.97	14.15	9.36	8.86
360.0	12.06	10.24	9.47	9.08	8.97	9.08	11.56	12.06	8.97
C/ γ (°)	90.0								
0.0	8.75								
45.0	8.81								
90.0	8.75								
135.0	8.75								
180.0	8.75								
225.0	8.86								
270.0	8.81								
315.0	8.75								
360.0	8.75								