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Nata

LumCAT: 2-2166-M
Luminaire: BJB47.360.5080
Report No: NATA0100
Test No: GC2020022013
LampCAT: NICHIA NFDWJ130B-V3
Lamp flux(lm): 2906.0
Number of Lamps: 1
Length(mm): 0
Phm Type: C

Voltage(V): 36.3500
Current(A): 0.7000
Power (W): 25.4730
PF: 0.0000
Ballast type: DC
Width(mm): 0
Height(mm): 0

Photometric Results

Lumens(lm): 2327.43
Efficiency(%): 80.09%
Lumens(lm)/Power(W): 91.37
Central intensity(cd): 6356.531
Maximum intensity(cd): 6356.531
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=36.2
[C90/270]Total=36.2
Field angle(10%Imax): [C0/180]Total=55.2
[C90/270]Total=55.2
Maximum s/h(1/2): C0_180=0.60 C90_270=0.60
Maximum s/h(1/4): C0_180=0.58 C90_270=0.58
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 80.09%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.950%

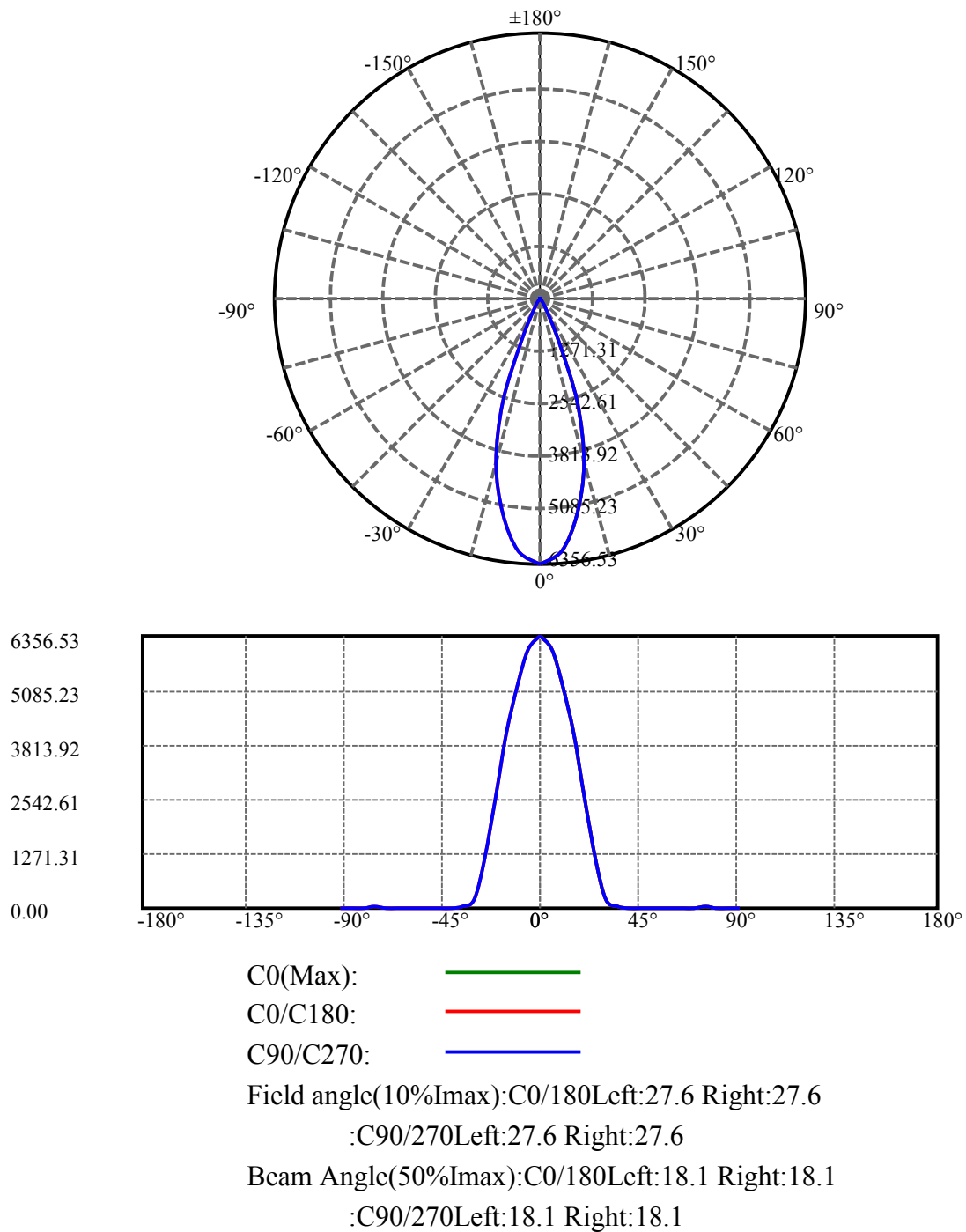
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	6356.531	0.000	0	.000%	.000%
5.0	6059.180	148.426	148.426	5.108%	6.377%
10.0	5237.227	404.108	552.534	13.906%	23.740%
15.0	4071.234	552.172	1104.706	19.001%	47.465%
20.0	2625.961	551.943	1656.649	18.993%	71.179%
25.0	1095.483	390.311	2046.96	13.431%	87.949%
30.0	215.374	165.890	2212.85	5.709%	95.077%
35.0	22.380	35.011	2247.861	1.205%	96.581%
40.0	17.290	6.619	2254.479	.228%	96.865%
45.0	15.652	6.099	2260.579	.210%	97.127%
50.0	14.899	6.173	2266.752	.212%	97.393%
55.0	14.393	6.369	2273.121	.219%	97.666%
60.0	14.203	6.610	2279.731	.227%	97.950%
65.0	15.258	7.162	2286.893	.246%	98.258%
70.0	19.688	8.848	2295.741	.304%	98.638%
75.0	21.488	10.762	2306.504	.370%	99.101%
80.0	12.466	9.085	2315.589	.313%	99.491%
85.0	10.603	6.269	2321.858	.216%	99.760%
90.0	9.766	5.577	2327.435	.192%	100.000%

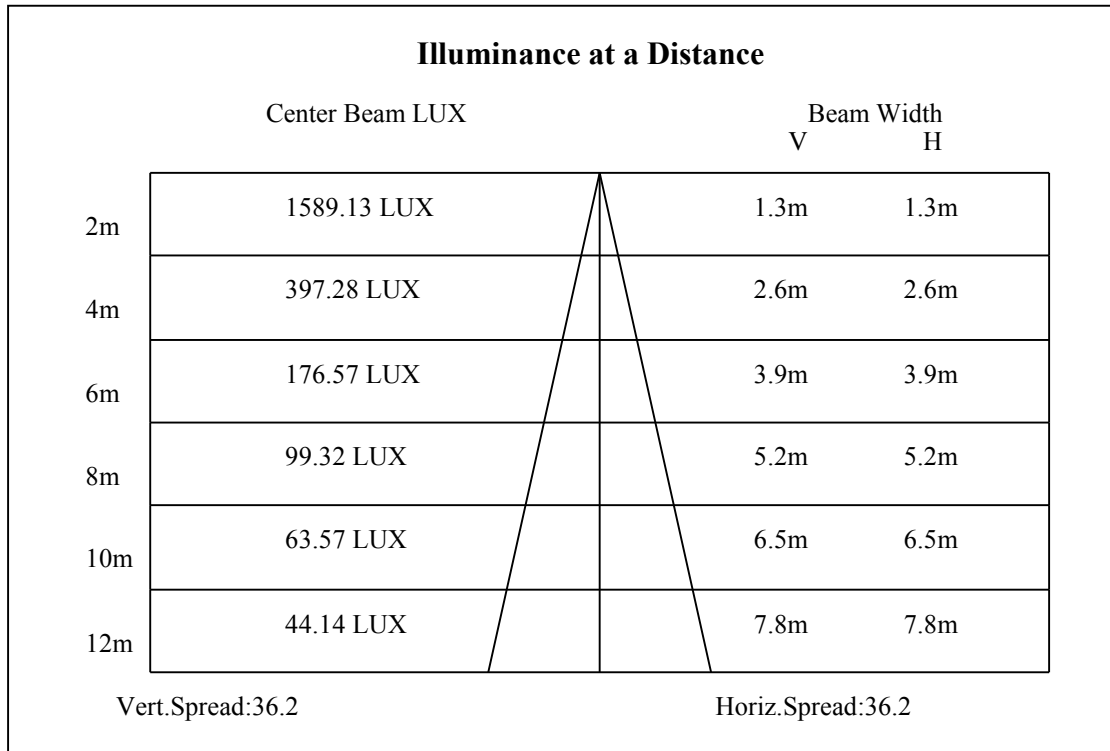
ZONAL LUMEN SUMMARY

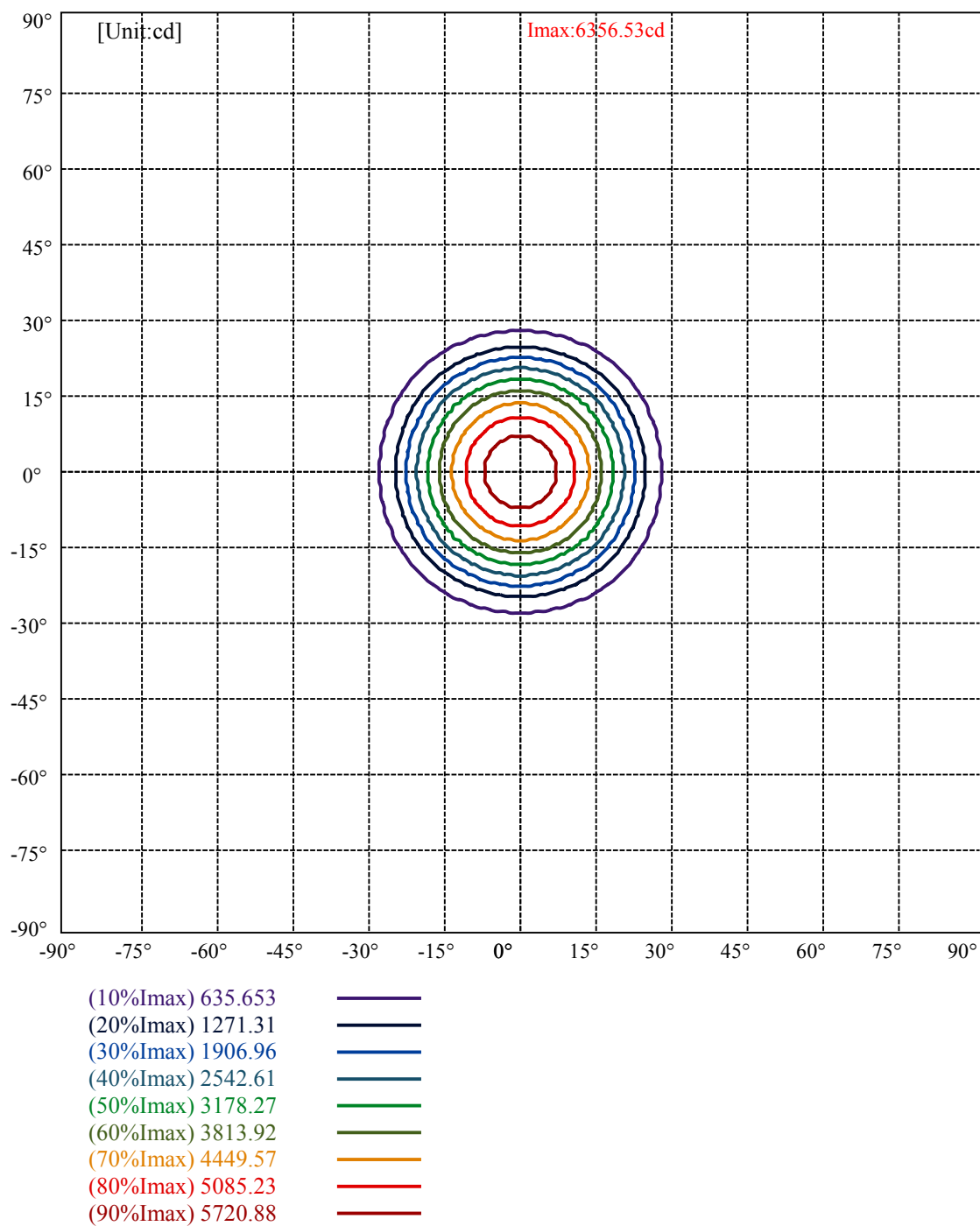
Zone	Lumens	%Lamp	%Fixt
0-30	2212.85	76.15%	95.08%
0-40	2254.48	77.58%	96.87%
0-60	2279.73	78.45%	97.95%
0-90	2321.86	79.90%	99.76%
0-120	2321.86	79.90%	99.76%
0-180	2327.43	80.09%	100.00%
60-90	48.74	1.68%	2.09%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-22.63	1861.95	64.07%	80.00%

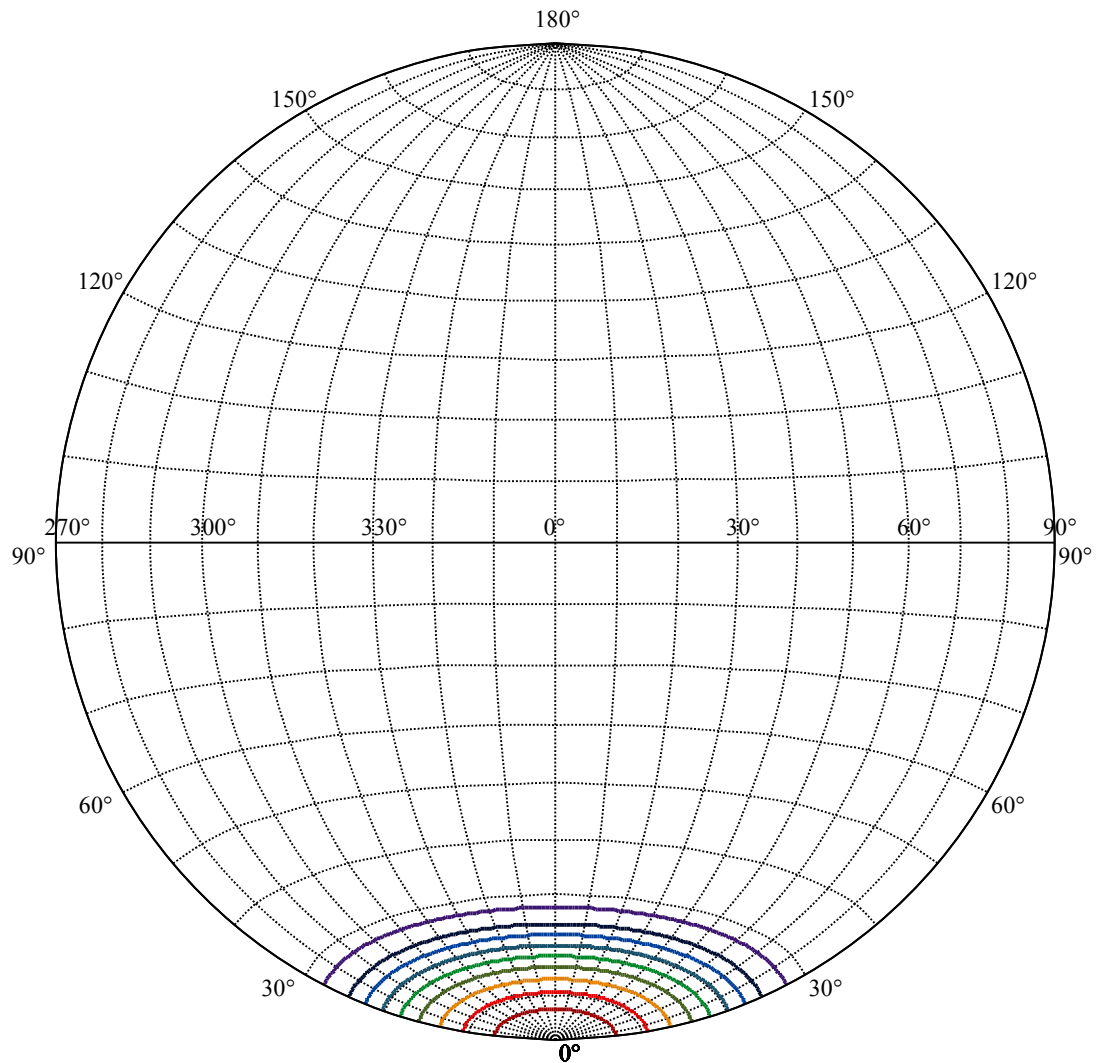
ZONAL LUMEN SUMMARY

0-10	552.53
10-20	1104.11
20-30	556.20
30-40	41.63
40-50	12.27
50-60	12.98
60-70	16.01
70-80	19.85
80-90	6.27
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









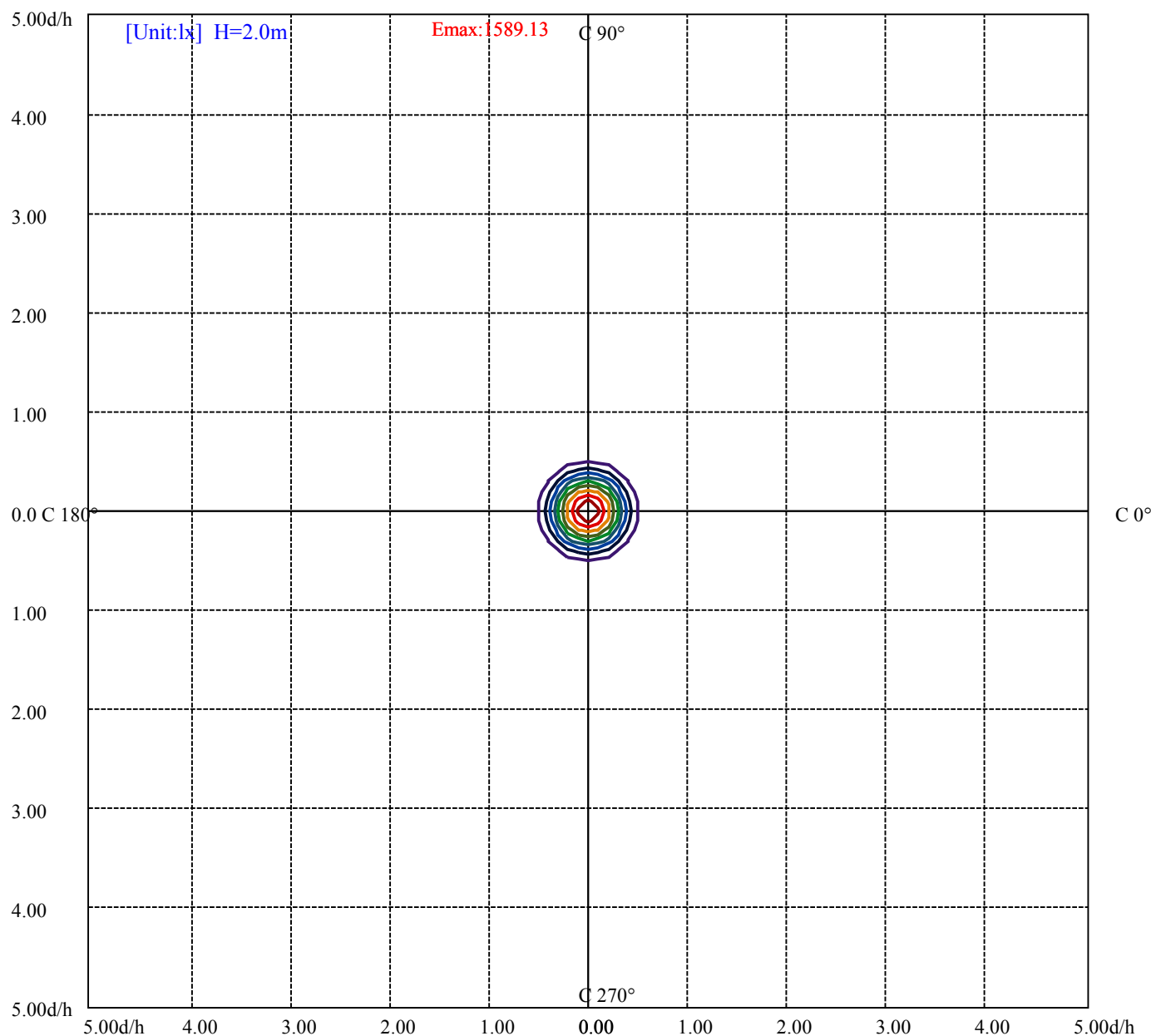
House

[Unit:cd]

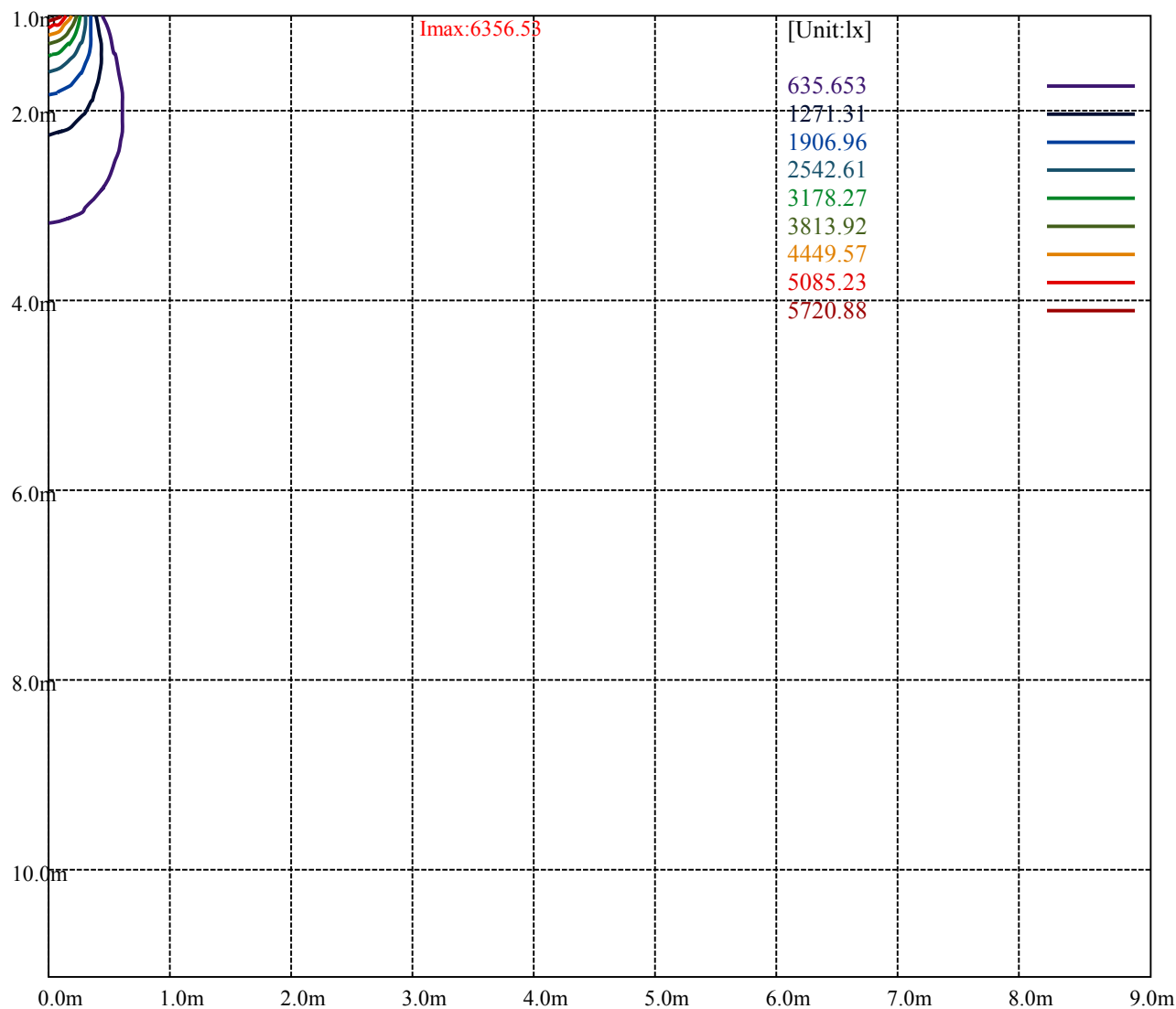
Road

Imax:6356.53

(10%Imax)	635.653	—
(20%Imax)	1271.31	—
(30%Imax)	1906.96	—
(40%Imax)	2542.61	—
(50%Imax)	3178.27	—
(60%Imax)	3813.92	—
(70%Imax)	4449.57	—
(80%Imax)	5085.23	—
(90%Imax)	5720.88	—



(10%Emax)	158.913	—
(20%Emax)	317.825	—
(30%Emax)	476.74	—
(40%Emax)	635.6525	—
(50%Emax)	794.565	—
(60%Emax)	953.4775	—
(70%Emax)	1112.392	—
(80%Emax)	1271.305	—
(90%Emax)	1430.218	—



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

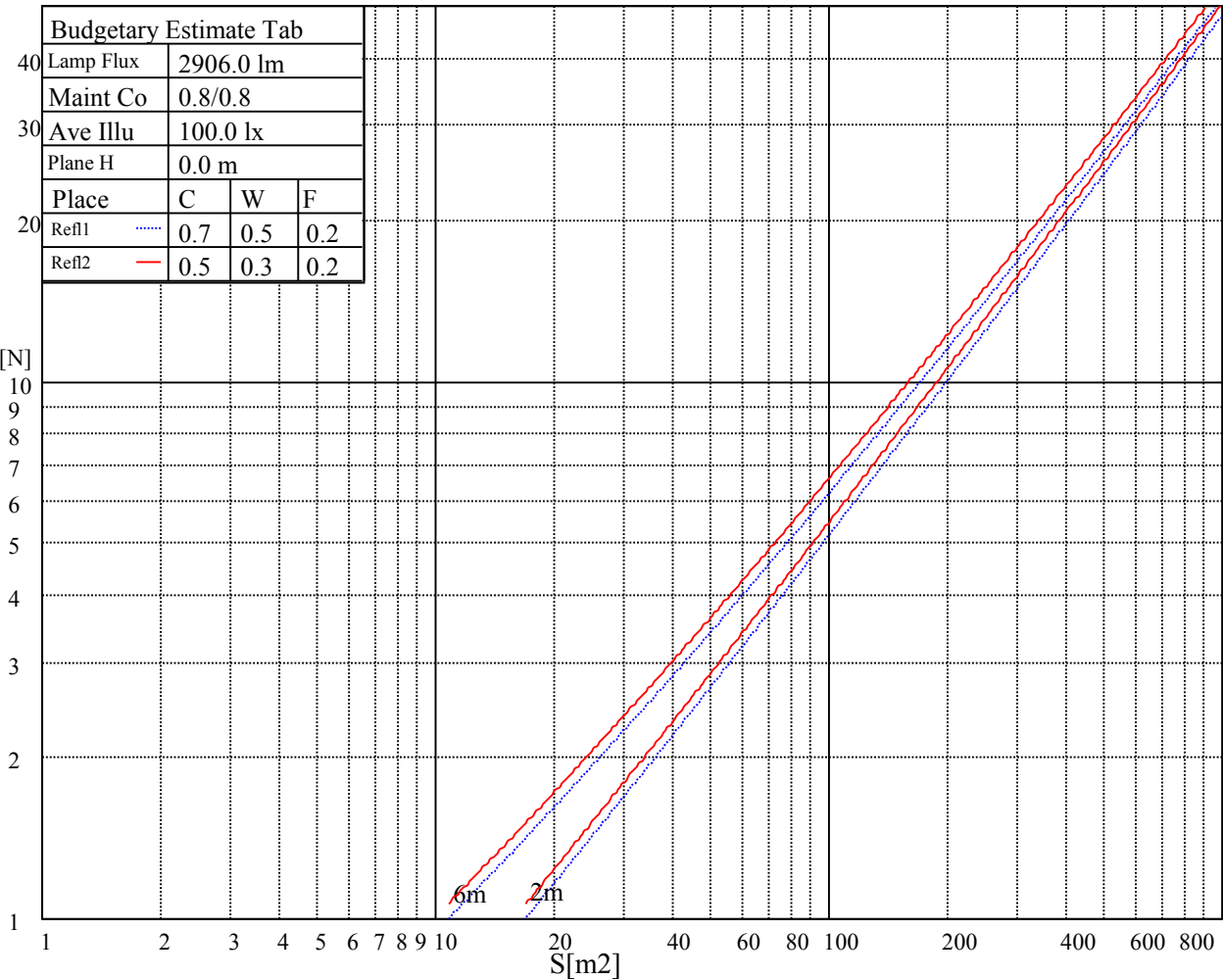
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

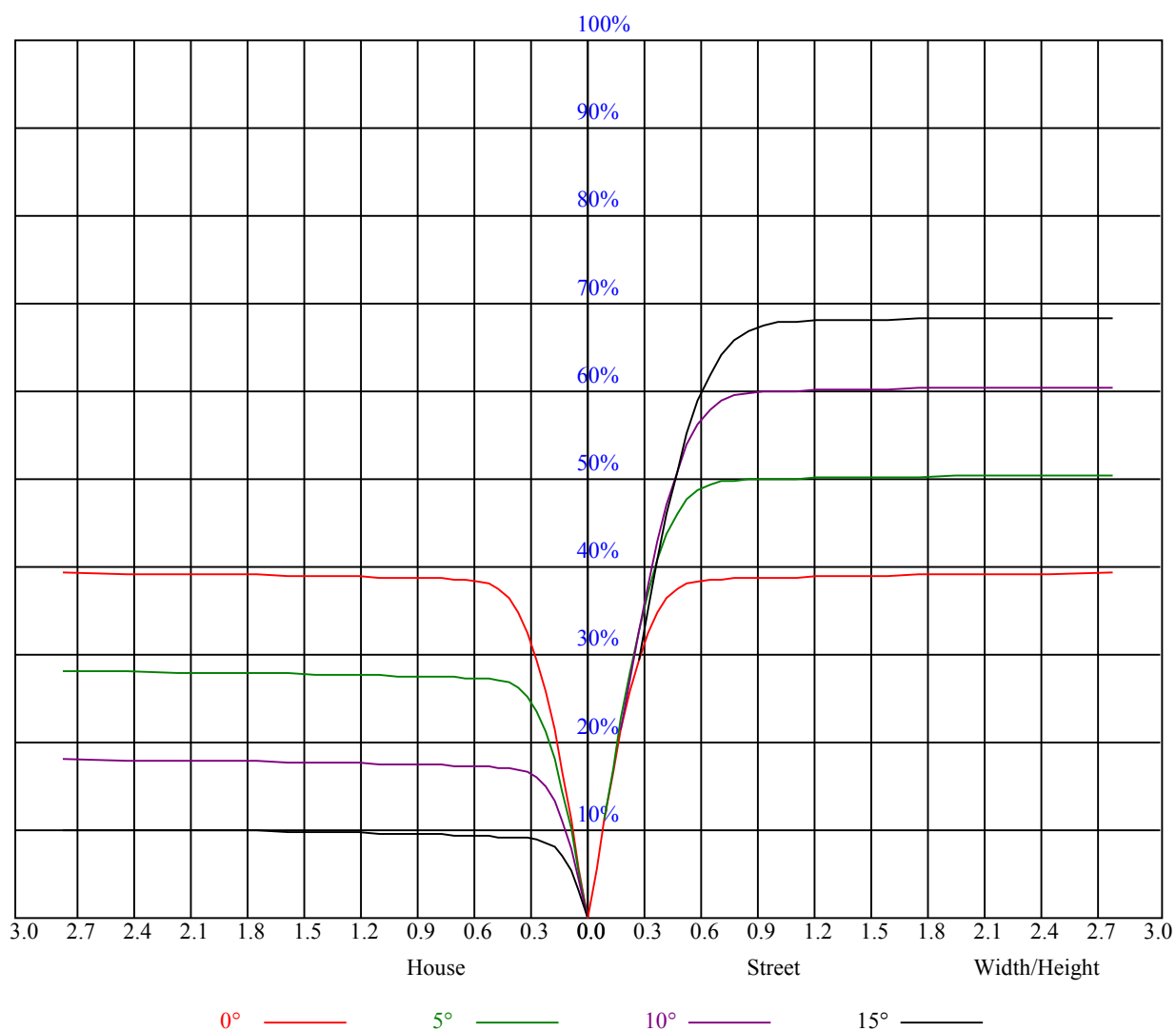
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

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 RHOFC=20 CU															
0	0.95	0.95	0.95	0.93	0.93	0.93	0.89	0.89	0.89	0.85	0.85	0.85	0.82	0.82	0.82	0.80
1	0.90	0.88	0.86	0.88	0.86	0.85	0.85	0.83	0.82	0.82	0.81	0.80	0.79	0.78	0.78	0.76
2	0.85	0.82	0.80	0.83	0.81	0.79	0.81	0.79	0.77	0.79	0.77	0.76	0.76	0.75	0.74	0.73
3	0.81	0.77	0.75	0.80	0.77	0.74	0.78	0.75	0.73	0.76	0.74	0.72	0.74	0.72	0.71	0.70
4	0.77	0.73	0.71	0.76	0.73	0.70	0.75	0.72	0.70	0.73	0.71	0.69	0.72	0.70	0.68	0.67
5	0.74	0.70	0.67	0.73	0.70	0.67	0.72	0.69	0.66	0.70	0.68	0.66	0.69	0.67	0.65	0.64
6	0.71	0.67	0.64	0.70	0.67	0.64	0.69	0.66	0.64	0.68	0.65	0.63	0.67	0.65	0.63	0.62
7	0.68	0.64	0.62	0.68	0.64	0.62	0.67	0.64	0.61	0.66	0.63	0.61	0.65	0.63	0.61	0.60
8	0.66	0.62	0.59	0.65	0.62	0.59	0.64	0.61	0.59	0.64	0.61	0.59	0.63	0.60	0.59	0.58
9	0.63	0.60	0.57	0.63	0.59	0.57	0.62	0.59	0.57	0.62	0.59	0.57	0.61	0.58	0.57	0.56
10	0.61	0.58	0.55	0.61	0.57	0.55	0.60	0.57	0.55	0.60	0.57	0.55	0.59	0.57	0.55	0.54



Intensity data(cd)										Appendix Page: 14 Total:14	
C/ γ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0		
0.0	6352.88	5993.44	5202.56	4001.63	2467.13	938.81	320.06	20.08	16.65		
45.0	6357.94	6139.13	5397.75	4234.50	2852.44	1293.19	312.19	23.12	18.39		
90.0	6363.56	6041.81	5135.06	3898.69	2460.38	941.06	81.84	21.49	17.66		
135.0	6351.75	6171.75	5382.56	4341.94	2813.63	1329.75	309.94	26.10	16.99		
180.0	6352.88	6096.38	5339.25	4176.56	2729.25	1118.76	195.98	22.95	16.65		
225.0	6357.94	5984.44	5059.69	3907.69	2445.75	921.32	99.79	21.09	16.99		
270.0	6363.56	6101.44	5322.94	4169.81	2854.69	1280.81	313.88	24.24	18.06		
315.0	6351.75	5945.06	5058.00	3839.06	2384.44	940.16	89.33	19.97	16.93		
360.0	6352.88	5993.44	5202.56	4001.63	2467.13	938.81	320.06	20.08	16.65		
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	15.24	14.29	13.56	13.11	12.71	12.49	12.38	11.42	11.03		
45.0	16.43	15.36	14.74	14.63	15.58	20.25	30.21	13.67	11.25		
90.0	16.20	15.75	15.30	15.41	18.90	27.06	27.06	12.21	10.63		
135.0	15.47	14.79	14.34	13.95	13.95	15.24	17.04	13.73	10.29		
180.0	14.85	13.95	13.22	12.83	12.38	12.09	11.87	11.31	10.52		
225.0	15.30	14.51	13.89	13.73	14.91	22.39	26.44	11.36	10.35		
270.0	16.20	15.58	15.53	15.58	18.84	29.81	29.42	13.89	10.46		
315.0	15.53	14.96	14.57	14.40	14.79	18.17	17.49	12.15	10.29		
360.0	15.24	14.29	13.56	13.11	12.71	12.49	12.38	11.42	11.03		
C/ γ (°)	90.0										
0.0	9.90										
45.0	9.84										
90.0	9.68										
135.0	9.73										
180.0	9.84										
225.0	9.73										
270.0	9.68										
315.0	9.73										
360.0	9.90										