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Nata

LumCAT: 3-2046-M	
Luminaire: 92.70.135.00	
Report No: NATA0100	Voltage(V): 33.8000
Test No: GC2018062010	Current(A): 0.4900
LampCAT: NICHIA NFCW108B-V3	Power (W): 16.5620
Lamp flux(lm): 2255.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 84	Width(mm): 84
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1985.43
Efficiency(%): 88.05%
Lumens(lm)/Power(W): 119.88
Central intensity(cd): 4702.917
Maximum intensity(cd): 4702.917
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=34.5
 [C90/270]Total=34.5
Field angle(10%Imax): [C0/180]Total=68.1
 [C90/270]Total=68.1
Maximum s/h(1/2): C0_180=0.56 C90_270=0.56
Maximum s/h(1/4): C0_180=0.59 C90_270=0.59
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 89.21%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.420%

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2018/6/20
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.42

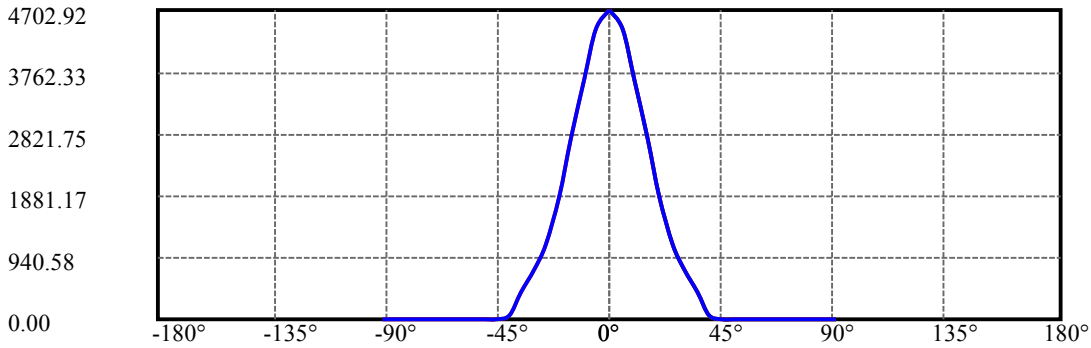
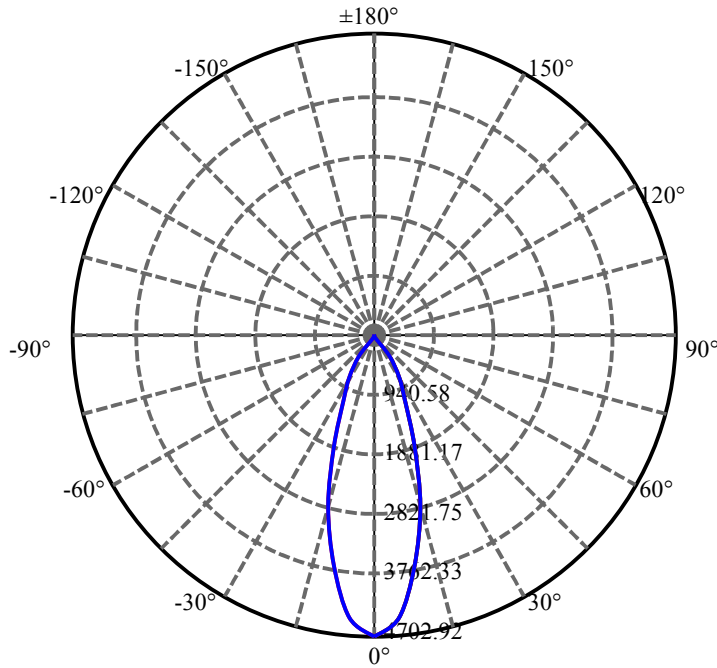
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4702.918	28.124	28.124	1.247%	1.417%
5.0	4421.648	211.237	239.361	9.367%	12.056%
10.0	3642.119	346.668	586.029	15.373%	29.516%
15.0	2748.966	389.991	976.021	17.295%	49.159%
20.0	1861.182	348.923	1324.944	15.473%	66.733%
25.0	1125.415	260.706	1585.649	11.561%	79.864%
30.0	749.572	205.434	1791.084	9.110%	90.211%
35.0	405.250	127.410	1918.494	5.650%	96.628%
40.0	67.121	23.649	1942.143	1.049%	97.820%
45.0	11.541	4.473	1946.616	.198%	98.045%
50.0	10.289	4.320	1950.936	.192%	98.262%
55.0	9.752	4.379	1955.315	.194%	98.483%
60.0	9.394	4.459	1959.774	.198%	98.708%
65.0	9.146	4.544	1964.318	.201%	98.936%
70.0	8.947	4.608	1968.926	.204%	99.169%
75.0	8.823	4.671	1973.597	.207%	99.404%
80.0	8.754	4.725	1978.323	.210%	99.642%
85.0	8.678	4.739	1983.062	.210%	99.880%
90.0	8.658	2.373	1985.434	.105%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1791.08	79.43%	90.21%
0-40	1942.14	86.13%	97.82%
0-60	1959.77	86.91%	98.71%
0-90	1983.06	87.94%	99.88%
0-120	1983.06	87.94%	99.88%
0-180	1985.43	88.05%	100.00%
60-90	27.75	1.23%	1.40%
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%
0-25.07	1588.35	70.44%	80.00%

ZONAL LUMEN SUMMARY

0-10	586.03
10-20	738.91
20-30	466.14
30-40	151.06
40-50	8.79
50-60	8.84
60-70	9.15
70-80	9.40
80-90	4.74
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



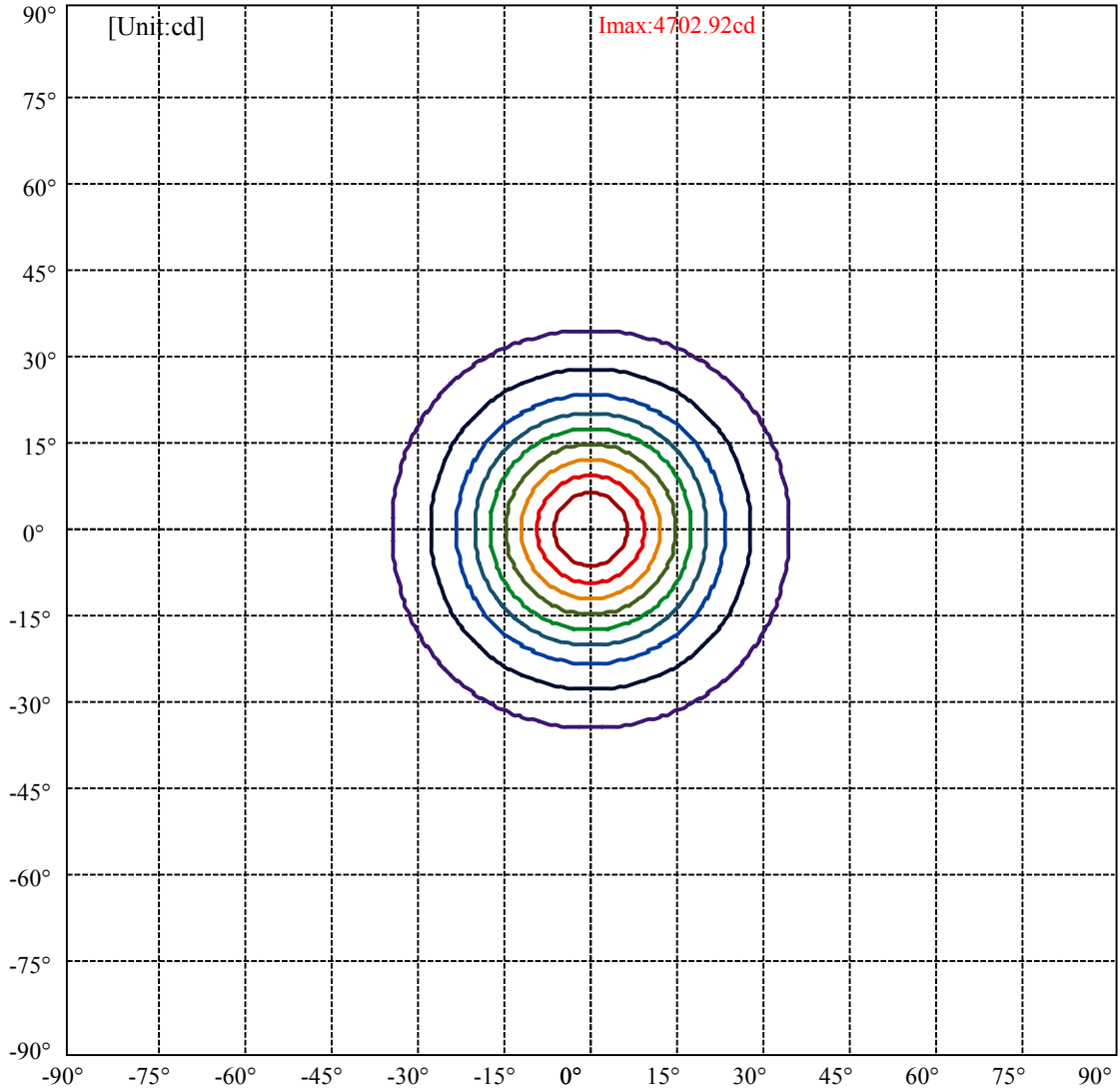
C0(Max): ———

C0/C180: ———

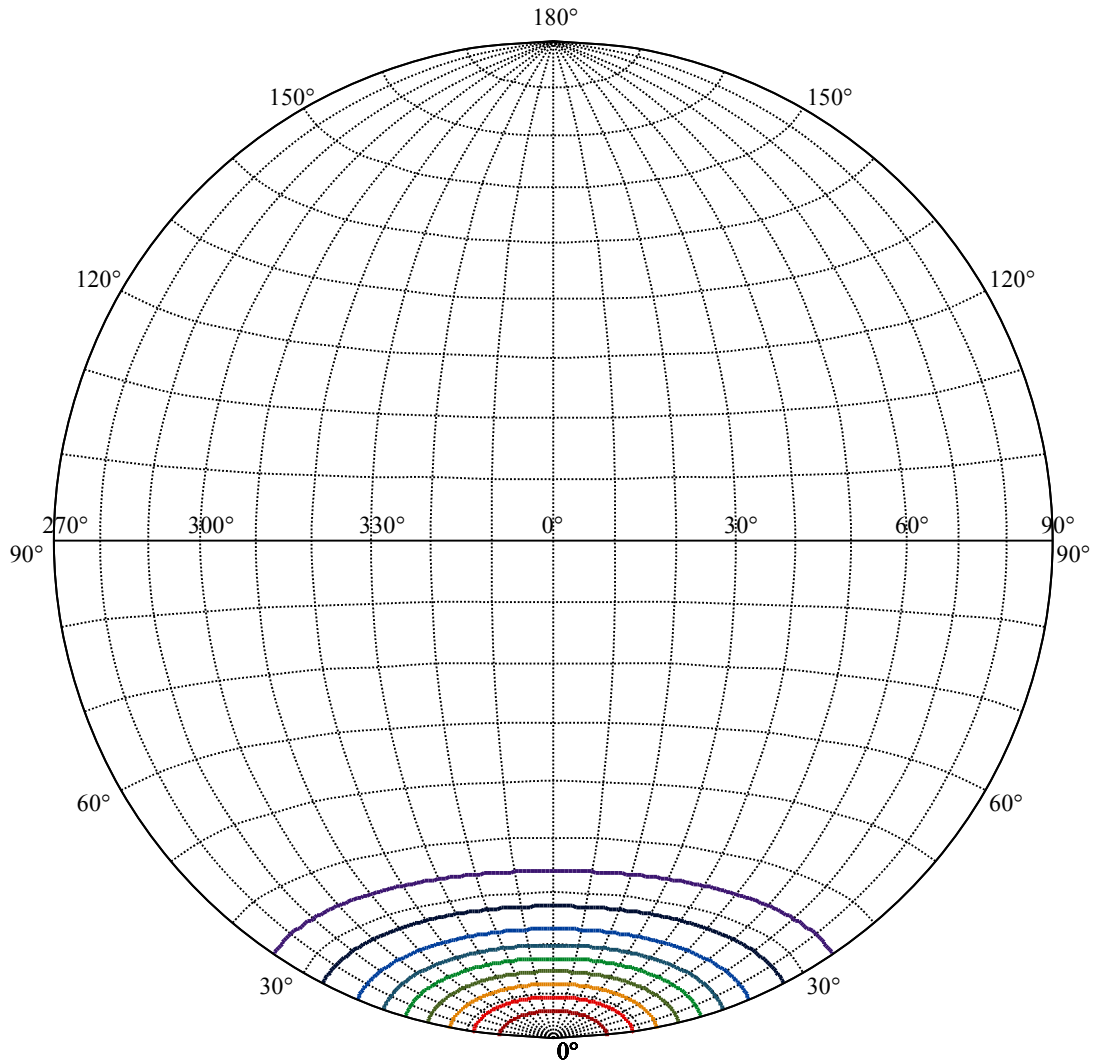
C90/C270: ———

Field angle(10%Imax):C0/180Left:34.1 Right:34.1
:C90/270Left:34.1 Right:34.1

Beam Angle(50%Imax):C0/180Left:17.2 Right:17.2
:C90/270Left:17.2 Right:17.2



(10%Imax) 470.292	—
(20%Imax) 940.583	—
(30%Imax) 1410.88	—
(40%Imax) 1881.17	—
(50%Imax) 2351.46	—
(60%Imax) 2821.75	—
(70%Imax) 3292.04	—
(80%Imax) 3762.33	—
(90%Imax) 4232.63	—



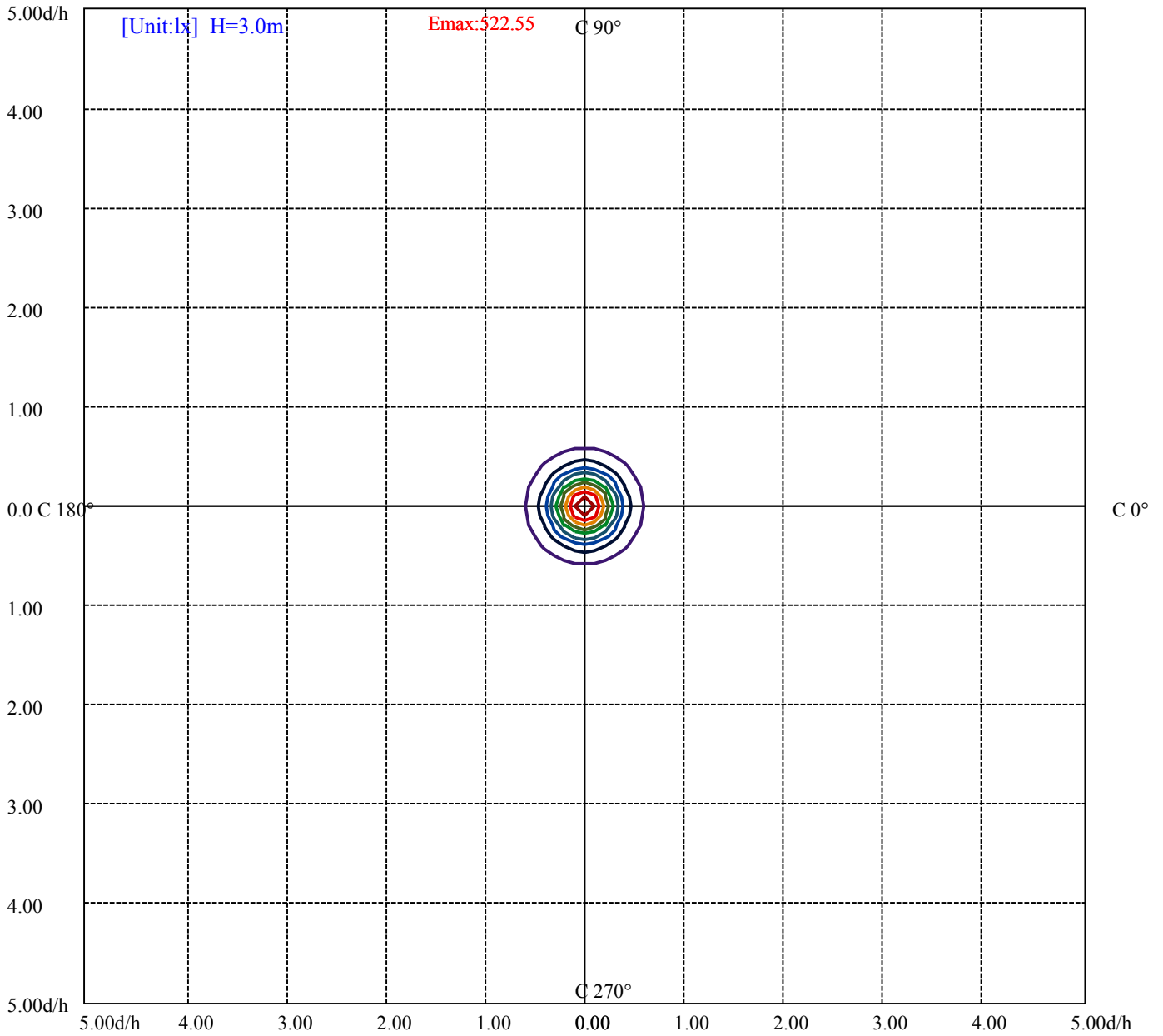
House

[Unit:cd]

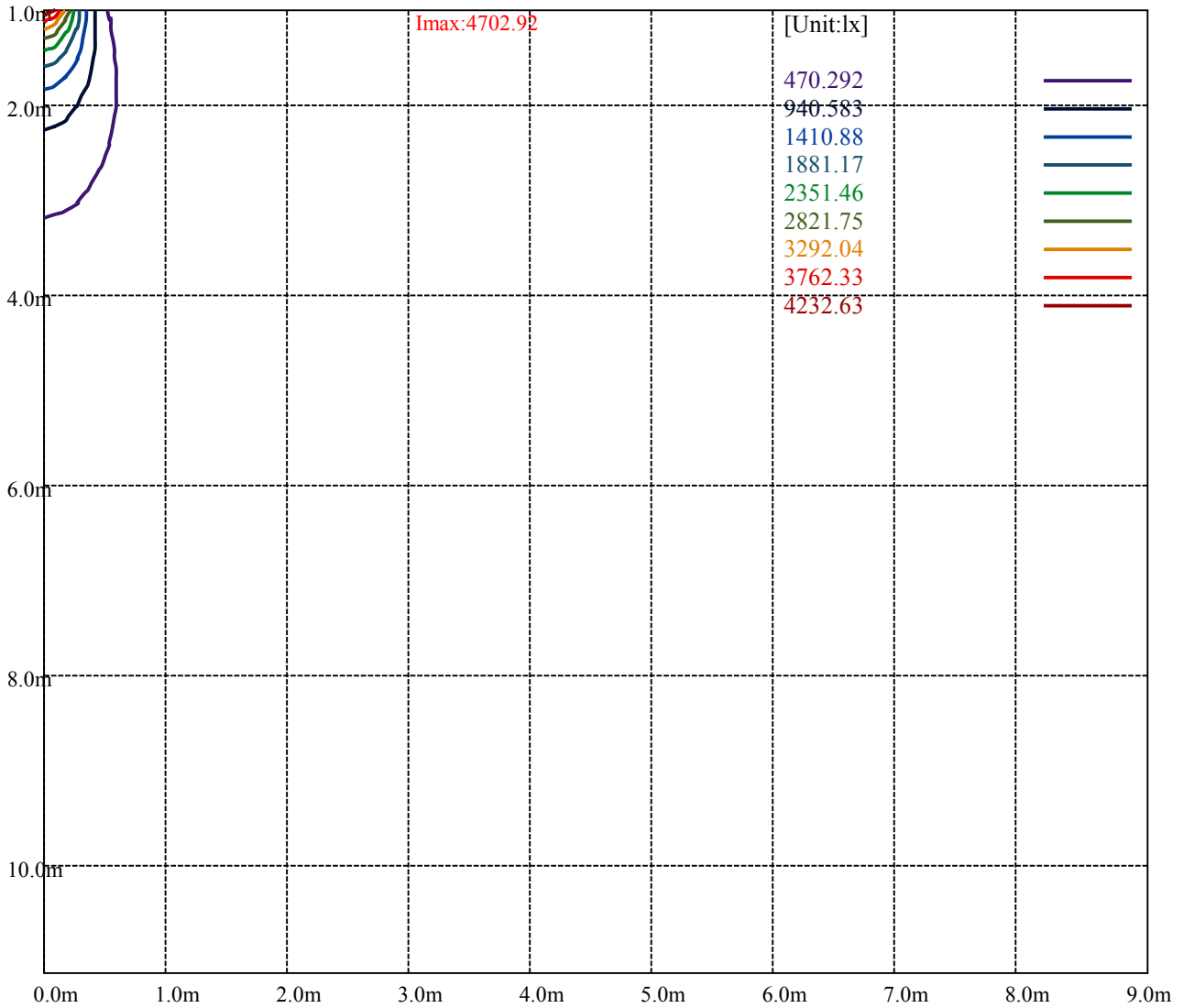
Road

Imax:4702.92

(10%Imax) 470.292	—
(20%Imax) 940.583	—
(30%Imax) 1410.88	—
(40%Imax) 1881.17	—
(50%Imax) 2351.46	—
(60%Imax) 2821.75	—
(70%Imax) 3292.04	—
(80%Imax) 3762.33	—
(90%Imax) 4232.63	—



- (10%E_{max}) 52.25455
- (20%E_{max}) 104.5091
- (30%E_{max}) 156.7633
- (40%E_{max}) 209.0178
- (50%E_{max}) 261.2722
- (60%E_{max}) 313.5278
- (70%E_{max}) 365.7822
- (80%E_{max}) 418.0367
- (90%E_{max}) 470.2911



Luminance Table

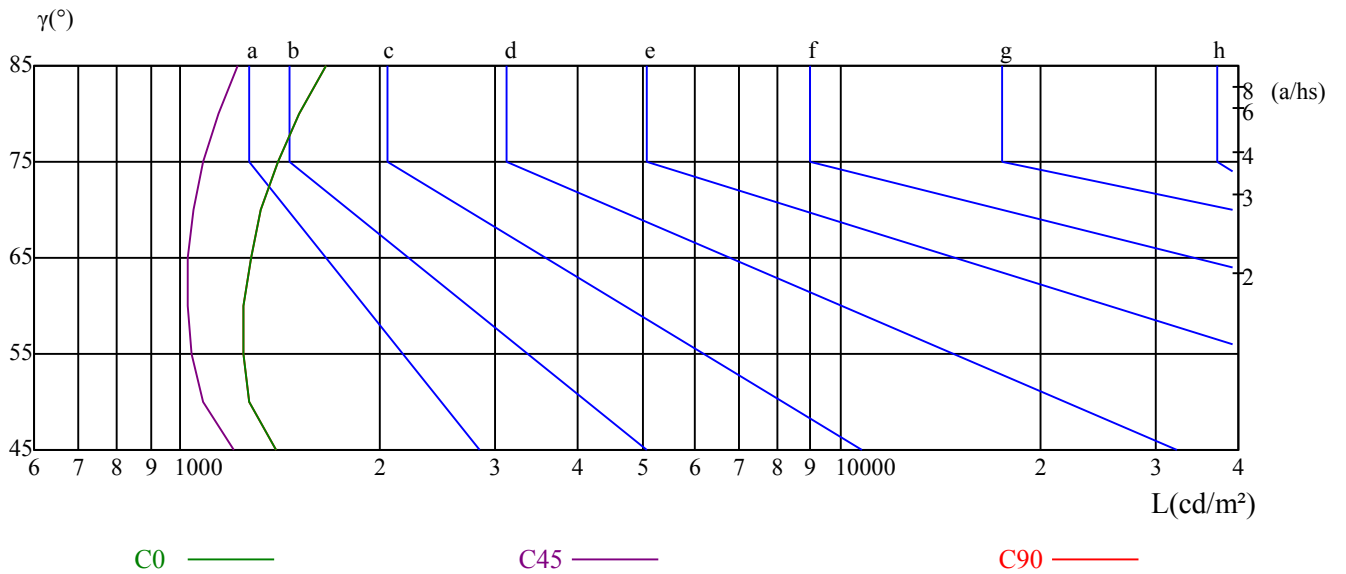
γ	45	50	55	60	65	70	75	80	85
C0	1398	1274	1245	1248	1276	1325	1403	1516	1663
C45	1201	1078	1038	1023	1027	1046	1084	1143	1218
C90	1398	1274	1245	1248	1276	1325	1403	1516	1663

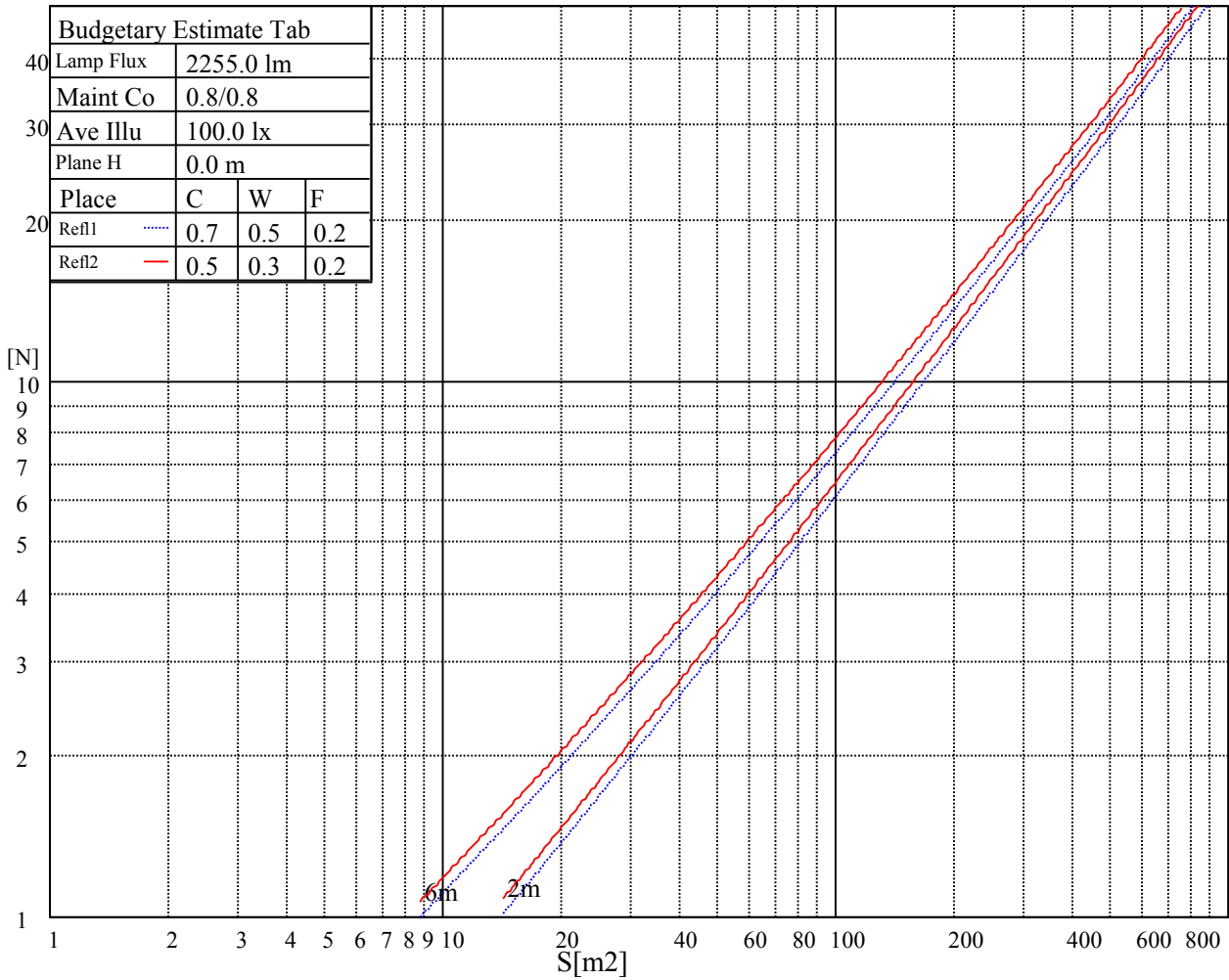
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3067	3067	3067	4831	4831	4831	14112	14112	14112

Glare Table

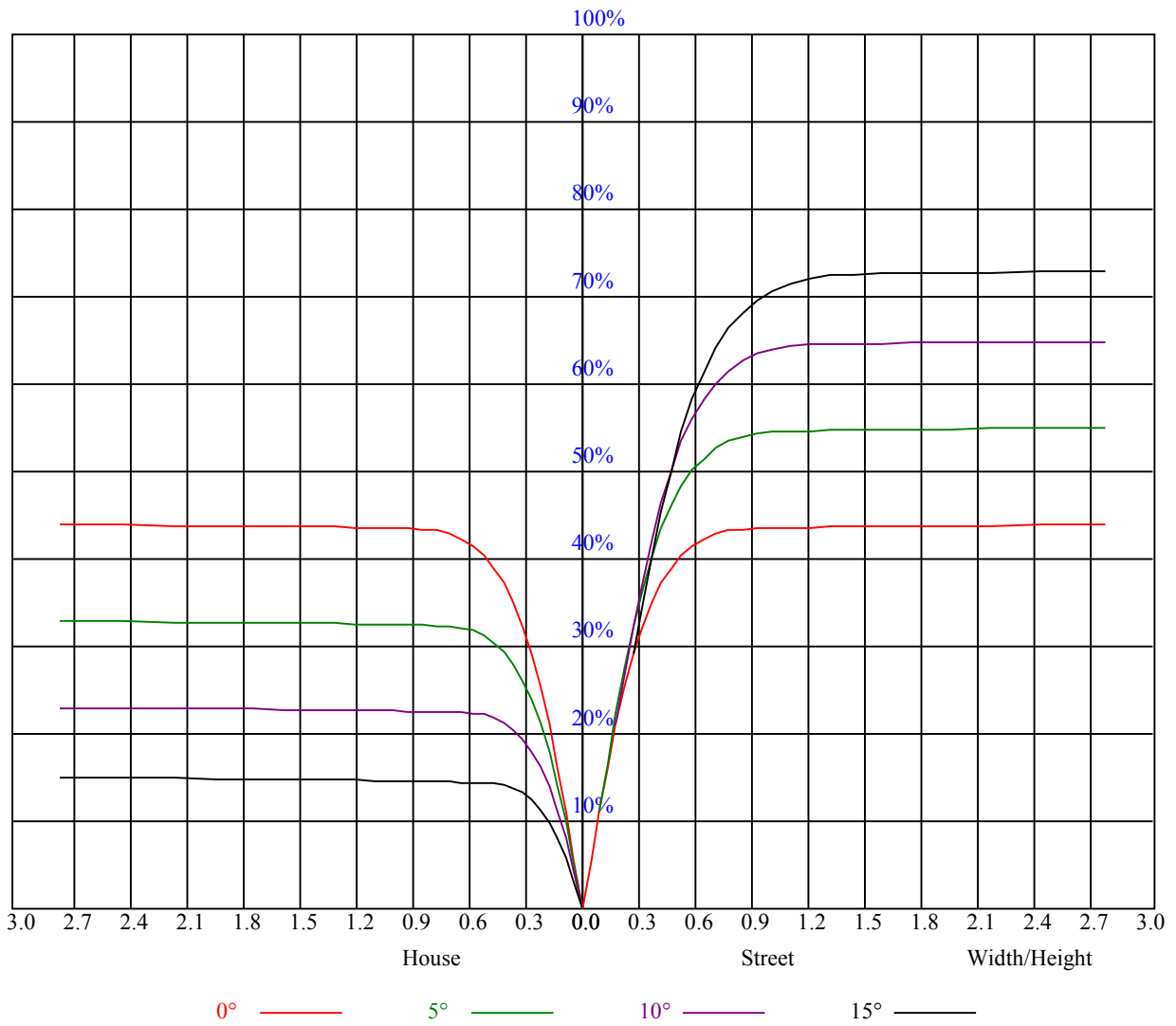
Glare	Quality	Service Values Illuminance(lx)							
		a	b	c	d	e	f	g	h
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.06	1.06	1.06	1.04	1.04	1.04	0.99	0.99	0.99	0.95	0.95	0.95	0.91	0.91	0.91	0.89
1	0.98	0.96	0.94	0.96	0.94	0.92	0.93	0.91	0.90	0.89	0.88	0.87	0.86	0.85	0.84	0.83
2	0.93	0.90	0.87	0.91	0.88	0.86	0.89	0.86	0.84	0.86	0.84	0.82	0.84	0.82	0.80	0.79
3	0.88	0.84	0.81	0.87	0.84	0.81	0.85	0.82	0.79	0.83	0.80	0.78	0.81	0.79	0.77	0.76
4	0.84	0.80	0.77	0.83	0.79	0.76	0.81	0.78	0.75	0.80	0.77	0.75	0.78	0.76	0.74	0.73
5	0.81	0.76	0.73	0.80	0.76	0.73	0.78	0.75	0.72	0.77	0.74	0.71	0.76	0.73	0.71	0.70
6	0.77	0.73	0.70	0.77	0.72	0.69	0.75	0.72	0.69	0.74	0.71	0.69	0.73	0.70	0.68	0.67
7	0.74	0.70	0.67	0.74	0.70	0.67	0.73	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.66	0.65
8	0.71	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.64	0.69	0.66	0.64	0.68	0.66	0.63	0.62
9	0.69	0.65	0.62	0.68	0.64	0.62	0.68	0.64	0.61	0.67	0.64	0.61	0.66	0.63	0.61	0.60
10	0.67	0.62	0.60	0.66	0.62	0.60	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	4661.63	4646.21	4108.86	3194.37	2184.09	1320.25	826.95	560.47	279.14
45.0	4715.03	4614.83	3889.73	2913.58	1930.28	1182.61	761.98	459.17	69.92
90.0	4713.93	4444.15	3574.81	2626.19	1779.97	1068.70	710.45	369.87	24.22
135.0	4721.09	4385.79	3562.15	2696.66	1837.78	1127.00	758.13	389.25	29.18
180.0	4661.63	4105.01	3239.52	2370.18	1576.82	958.81	674.22	240.71	17.45
225.0	4715.03	4262.47	3384.87	2570.03	1754.65	1067.10	740.40	341.62	21.14
270.0	4713.93	4424.33	3664.00	2796.87	1969.37	1190.87	776.85	469.08	49.39
315.0	4721.09	4490.40	3713.00	2823.84	1856.50	1087.97	747.61	411.82	46.52
360.0	4661.63	4646.21	4108.86	3194.37	2184.09	1320.25	826.95	560.47	279.14

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	13.43	10.41	9.86	9.41	9.14	8.92	8.81	8.75	8.70
45.0	12.06	10.30	9.80	9.41	9.19	8.97	8.86	8.75	8.70
90.0	11.07	10.24	9.74	9.41	9.08	8.92	8.81	8.75	8.70
135.0	11.34	10.46	9.86	9.47	9.25	8.97	8.86	8.75	8.70
180.0	10.74	10.08	9.58	9.30	9.08	8.97	8.81	8.75	8.64
225.0	10.90	10.13	9.63	9.30	9.08	8.92	8.81	8.75	8.70
270.0	11.40	10.35	9.74	9.41	9.19	8.97	8.81	8.75	8.64
315.0	11.40	10.35	9.80	9.41	9.14	8.92	8.81	8.75	8.64
360.0	13.43	10.41	9.86	9.41	9.14	8.92	8.81	8.75	8.70

C/γ(°)	90.0
0.0	8.64
45.0	8.70
90.0	8.64
135.0	8.64
180.0	8.64
225.0	8.70
270.0	8.64
315.0	8.64
360.0	8.64