



NATA LIGHTING CO.,LTD.
www.nata.cn
Email:info@nata.com
Tel:+86-750-3770000 Fax:+86-750-3771111
Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

NATA

LumCAT: 3-1701-N
Luminaire: 92.70.045.00+92.70.061.00
Report No: NATA0100
Test No: GC2019011006
LampCAT: OSRAM SOLERIQ S19
Lamp flux(lm): 3479.0
Number of Lamps: 1
Length(mm): 86
Phm Type: C

Voltage(V): 34.7000
Current(A): 0.7000
Power (W): 24.2900
PF: 0.0000
Ballast type: DC
Width(mm): 86
Height(mm): 0

Photometric Results

Lumens(lm): 2657.54
Efficiency(%): 76.39%
Lumens(lm)/Power(W): 109.52
Central intensity(cd): 11354.060
Maximum intensity(cd): 11354.060
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=22.1
 [C90/270]Total=22.1
Field angle(10%Imax): [C0/180]Total=43.6
 [C90/270]Total=43.6
Maximum s/h(1/2): C0_180=0.38 C90_270=0.38
Maximum s/h(1/4): C0_180=0.35 C90_270=0.35
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 76.46%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.373%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	11354.063	2.716	2.716	.078%	.102%
1.0	11334.094	21.692	24.408	.624%	.918%
2.0	11281.359	43.175	67.583	1.241%	2.543%
3.0	11154.445	64.018	131.601	1.840%	4.952%
4.0	10923.891	83.563	215.164	2.402%	8.096%
5.0	10562.836	100.955	316.119	2.902%	11.895%
6.0	10058.906	115.302	431.421	3.314%	16.234%
7.0	9287.367	124.119	555.54	3.568%	20.904%
8.0	8540.719	130.347	685.887	3.747%	25.809%
9.0	7682.836	131.797	817.684	3.788%	30.768%
10.0	6633.844	126.324	944.009	3.631%	35.522%
11.0	5739.047	120.085	1064.094	3.452%	40.041%
12.0	4858.102	110.764	1174.858	3.184%	44.208%
13.0	3834.492	94.591	1269.448	2.719%	47.768%
14.0	3092.344	82.038	1351.486	2.358%	50.855%
15.0	2561.203	72.693	1424.179	2.089%	53.590%
16.0	2073.867	62.686	1486.865	1.802%	55.949%
17.0	1780.945	57.100	1543.965	1.641%	58.098%
18.0	1591.523	53.932	1597.897	1.550%	60.127%
19.0	1435.641	51.255	1649.153	1.473%	62.056%
20.0	1312.945	49.244	1698.396	1.415%	63.909%
21.0	1209.698	47.540	1745.936	1.366%	65.697%
22.0	1118.728	45.957	1791.893	1.321%	67.427%
23.0	1041.363	44.620	1836.513	1.283%	69.106%
24.0	965.102	43.047	1879.56	1.237%	70.726%
25.0	885.424	41.035	1920.595	1.179%	72.270%
26.0	825.216	39.670	1960.265	1.140%	73.762%
27.0	767.095	38.190	1998.454	1.098%	75.199%
28.0	709.861	36.546	2035	1.050%	76.575%
29.0	662.864	35.241	2070.241	1.013%	77.901%
30.0	620.149	34.003	2104.244	.977%	79.180%
31.0	572.752	32.349	2136.593	.930%	80.397%
32.0	534.157	31.041	2167.633	.892%	81.565%
33.0	499.880	29.856	2197.489	.858%	82.689%
34.0	463.423	28.418	2225.907	.817%	83.758%
35.0	435.544	27.395	2253.302	.787%	84.789%
36.0	407.763	26.283	2279.585	.755%	85.778%
37.0	380.918	25.139	2304.724	.723%	86.724%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	356.400	24.062	2328.786	.692%	87.629%
39.0	333.640	23.025	2351.811	.662%	88.496%
40.0	311.070	21.927	2373.738	.630%	89.321%
41.0	292.718	21.059	2394.797	.605%	90.113%
42.0	269.445	19.771	2414.568	.568%	90.857%
43.0	246.909	18.466	2433.034	.531%	91.552%
44.0	222.131	16.921	2449.956	.486%	92.189%
45.0	201.530	15.627	2465.583	.449%	92.777%
46.0	181.568	14.323	2479.905	.412%	93.316%
47.0	164.116	13.162	2493.068	.378%	93.811%
48.0	149.759	12.204	2505.272	.351%	94.270%
49.0	135.457	11.211	2516.483	.322%	94.692%
50.0	122.316	10.275	2526.758	.295%	95.079%
51.0	111.312	9.486	2536.244	.273%	95.436%
52.0	100.188	8.658	2544.902	.249%	95.762%
53.0	88.988	7.793	2552.695	.224%	96.055%
54.0	79.207	7.027	2559.722	.202%	96.319%
55.0	70.678	6.349	2566.071	.182%	96.558%
56.0	63.021	5.729	2571.801	.165%	96.774%
57.0	57.192	5.260	2577.061	.151%	96.972%
58.0	51.413	4.781	2581.842	.137%	97.152%
59.0	46.751	4.394	2586.236	.126%	97.317%
60.0	42.553	4.041	2590.278	.116%	97.469%
61.0	38.777	3.719	2593.997	.107%	97.609%
62.0	35.937	3.480	2597.476	.100%	97.740%
63.0	33.982	3.320	2600.797	.095%	97.865%
64.0	32.379	3.191	2603.988	.092%	97.985%
65.0	31.085	3.089	2607.078	.089%	98.101%
66.0	29.967	3.002	2610.08	.086%	98.214%
67.0	28.807	2.908	2612.988	.084%	98.323%
68.0	27.710	2.817	2615.805	.081%	98.430%
69.0	26.726	2.736	2618.541	.079%	98.532%
70.0	25.805	2.659	2621.2	.076%	98.633%
71.0	24.820	2.574	2623.774	.074%	98.729%
72.0	23.984	2.501	2626.275	.072%	98.823%
73.0	23.203	2.433	2628.708	.070%	98.915%
74.0	22.437	2.365	2631.073	.068%	99.004%
75.0	21.734	2.302	2633.376	.066%	99.091%

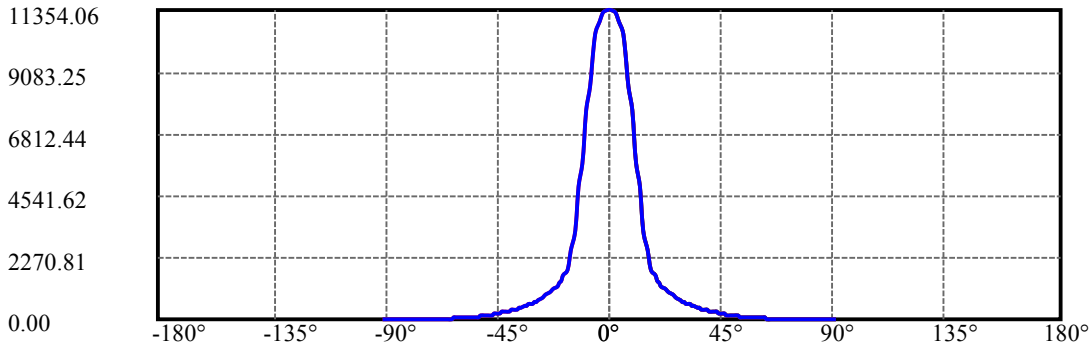
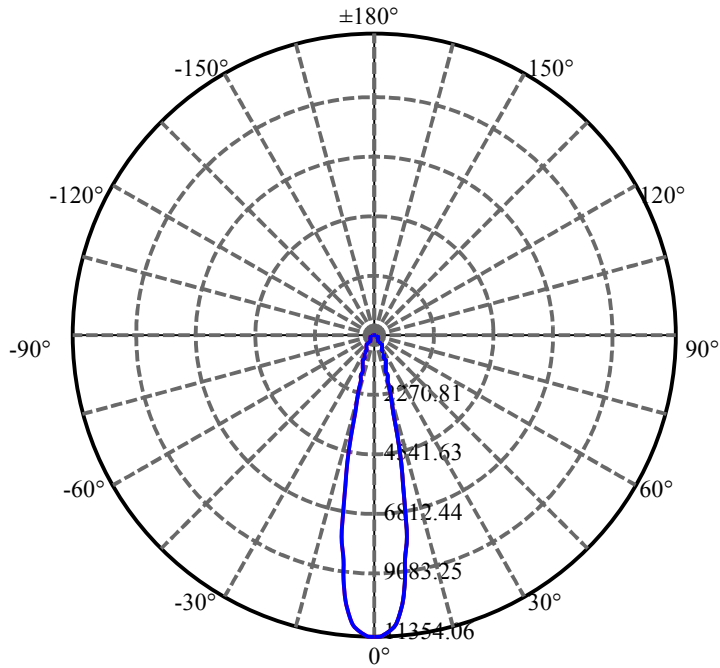
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	20.981	2.232	2635.608	.064%	99.175%
77.0	20.236	2.162	2637.77	.062%	99.256%
78.0	19.455	2.087	2639.857	.060%	99.335%
79.0	18.591	2.001	2641.858	.058%	99.410%
80.0	17.606	1.901	2643.76	.055%	99.481%
81.0	16.720	1.811	2645.571	.052%	99.550%
82.0	15.806	1.716	2647.287	.049%	99.614%
83.0	14.899	1.622	2648.909	.047%	99.675%
84.0	14.055	1.533	2650.442	.044%	99.733%
85.0	13.226	1.445	2651.887	.042%	99.787%
86.0	12.488	1.366	2653.253	.039%	99.839%
87.0	11.784	1.291	2654.543	.037%	99.887%
88.0	11.257	1.234	2655.777	.035%	99.934%
89.0	10.828	1.187	2656.964	.034%	99.978%
90.0	10.526	0.577	2657.541	.017%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2104.24	60.48%	79.18%
0-40	2373.74	68.23%	89.32%
0-60	2590.28	74.45%	97.47%
0-90	2656.96	76.37%	99.98%
0-120	2656.96	76.37%	99.98%
0-180	2657.54	76.39%	100.00%
60-90	70.73	2.03%	2.66%
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%
0-30.67	2126.03	61.11%	80.00%

ZONAL LUMEN SUMMARY

0-10	944.01
10-20	754.39
20-30	405.85
30-40	269.49
40-50	153.02
50-60	63.52
60-70	30.92
70-80	22.56
80-90	13.20
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: —————

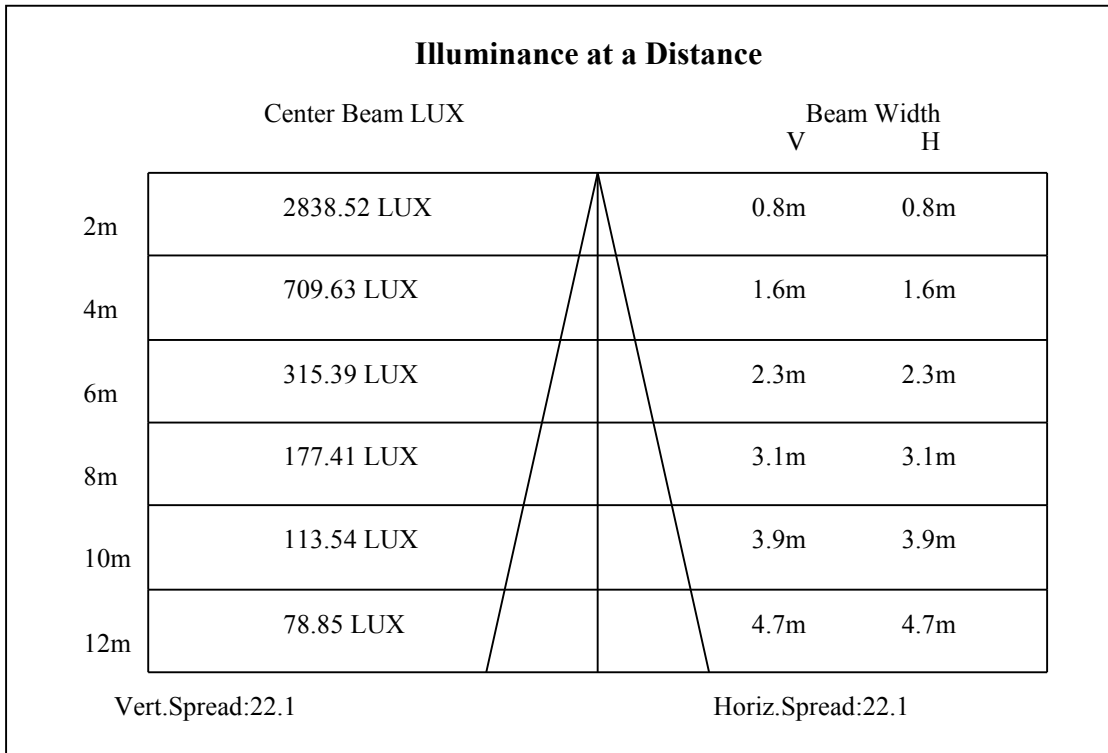
C90/C270: —————

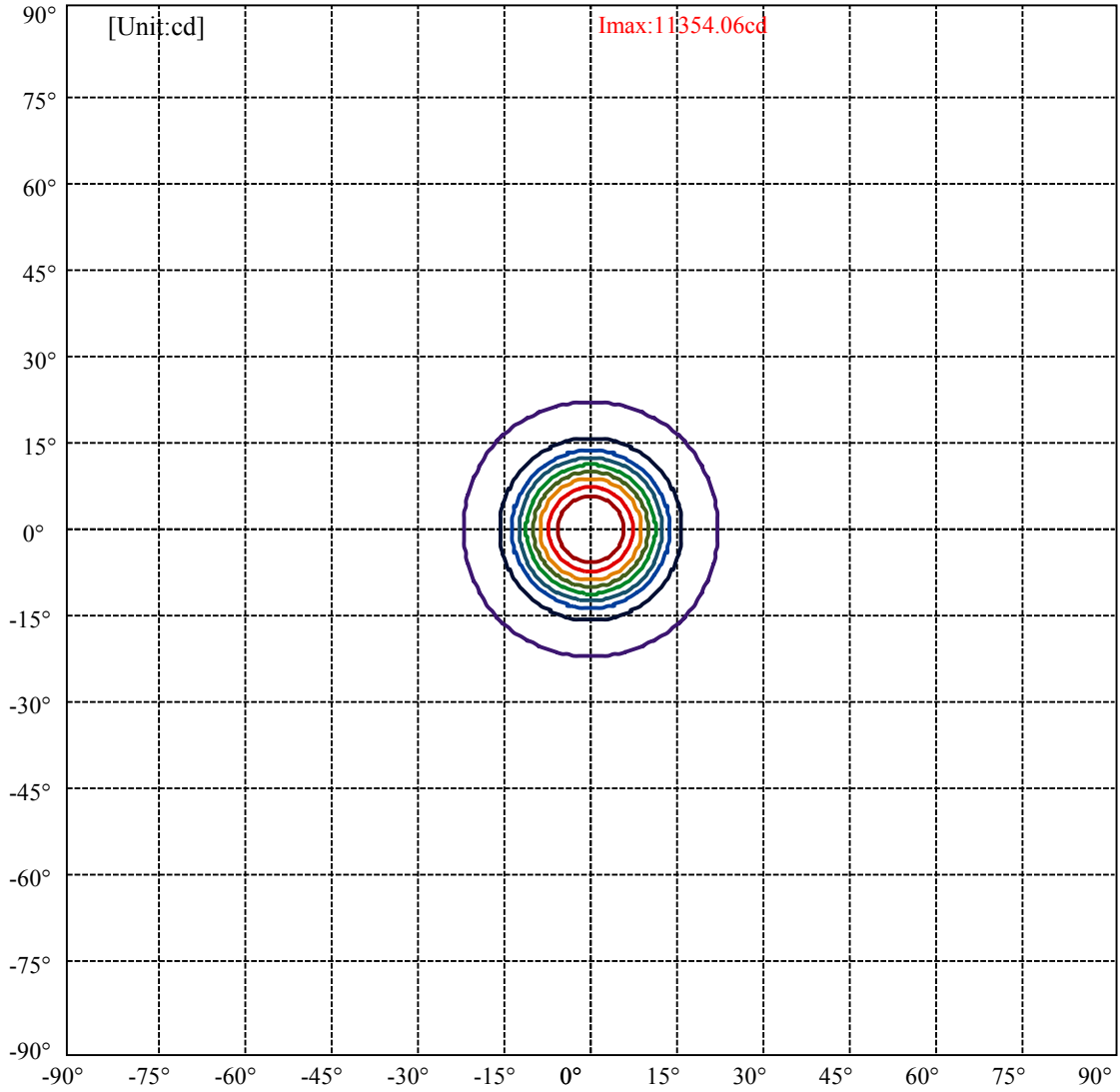
Field angle(10%Imax):C0/180Left:21.8 Right:21.8

:C90/270Left:21.8 Right:21.8

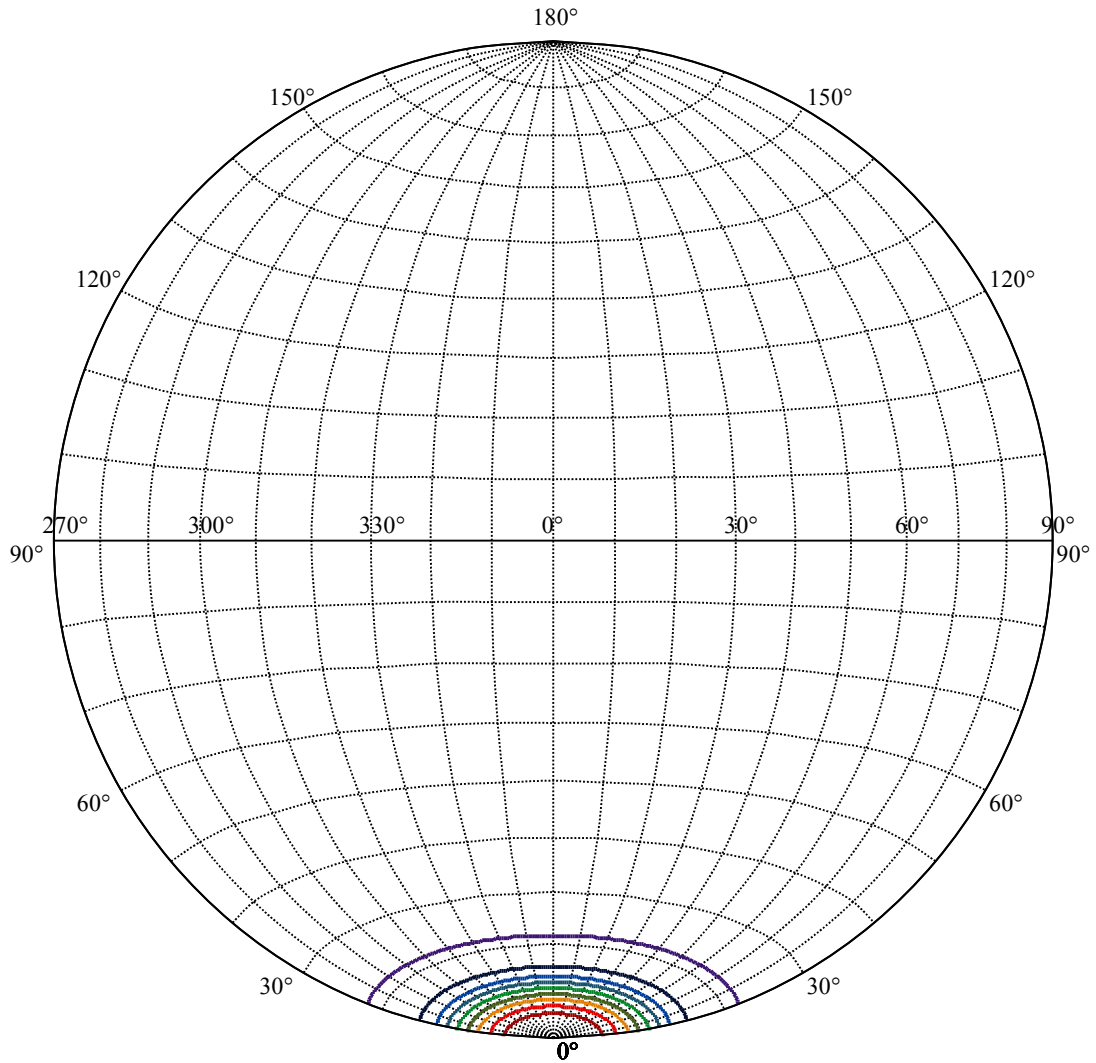
Beam Angle(50%Imax):C0/180Left:11.1 Right:11.1

:C90/270Left:11.1 Right:11.1





(10%Imax) 1135.41	—
(20%Imax) 2270.81	—
(30%Imax) 3406.22	—
(40%Imax) 4541.62	—
(50%Imax) 5677.03	—
(60%Imax) 6812.44	—
(70%Imax) 7947.84	—
(80%Imax) 9083.25	—
(90%Imax) 10218.7	—



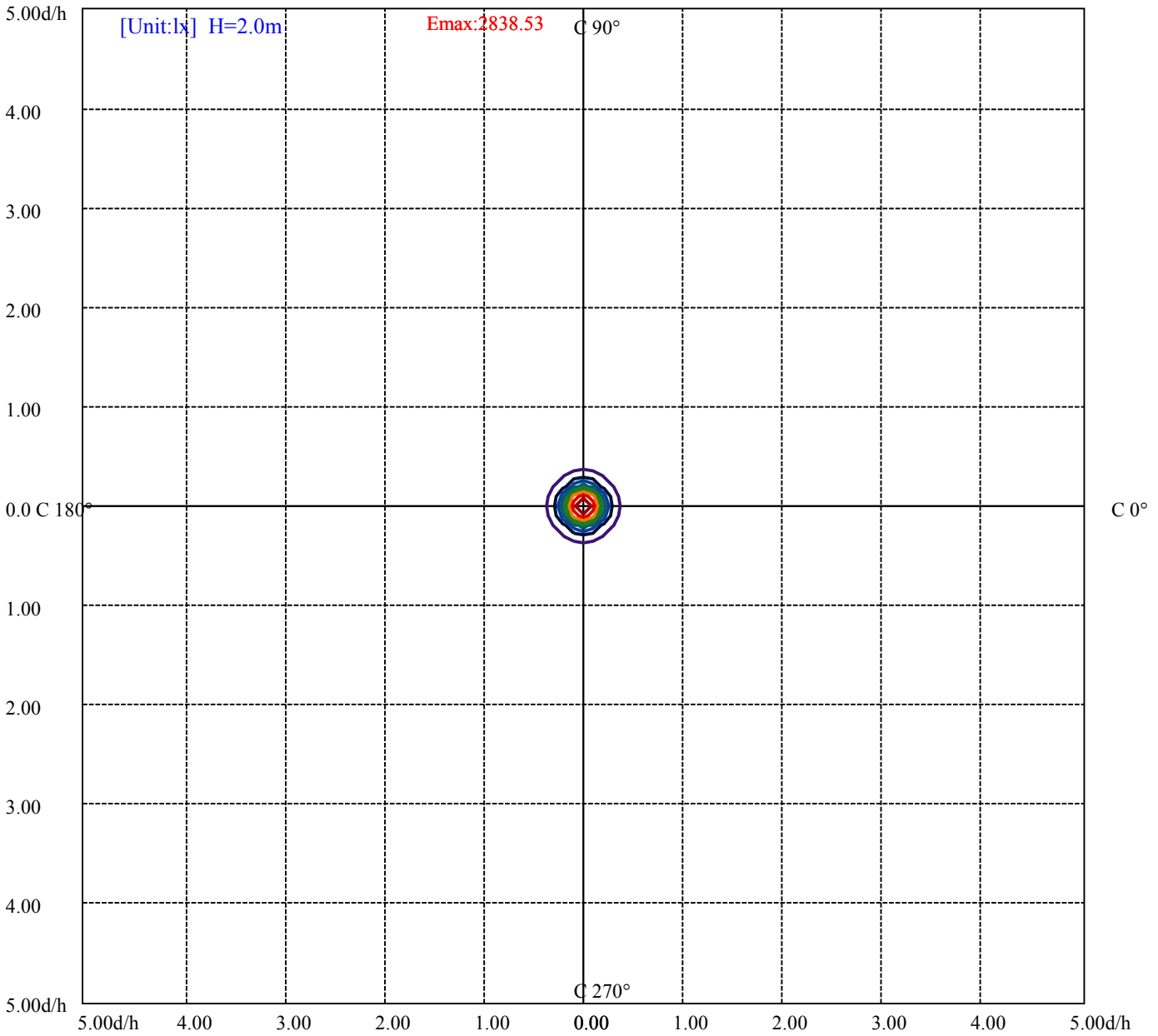
House

[Unit:cd]

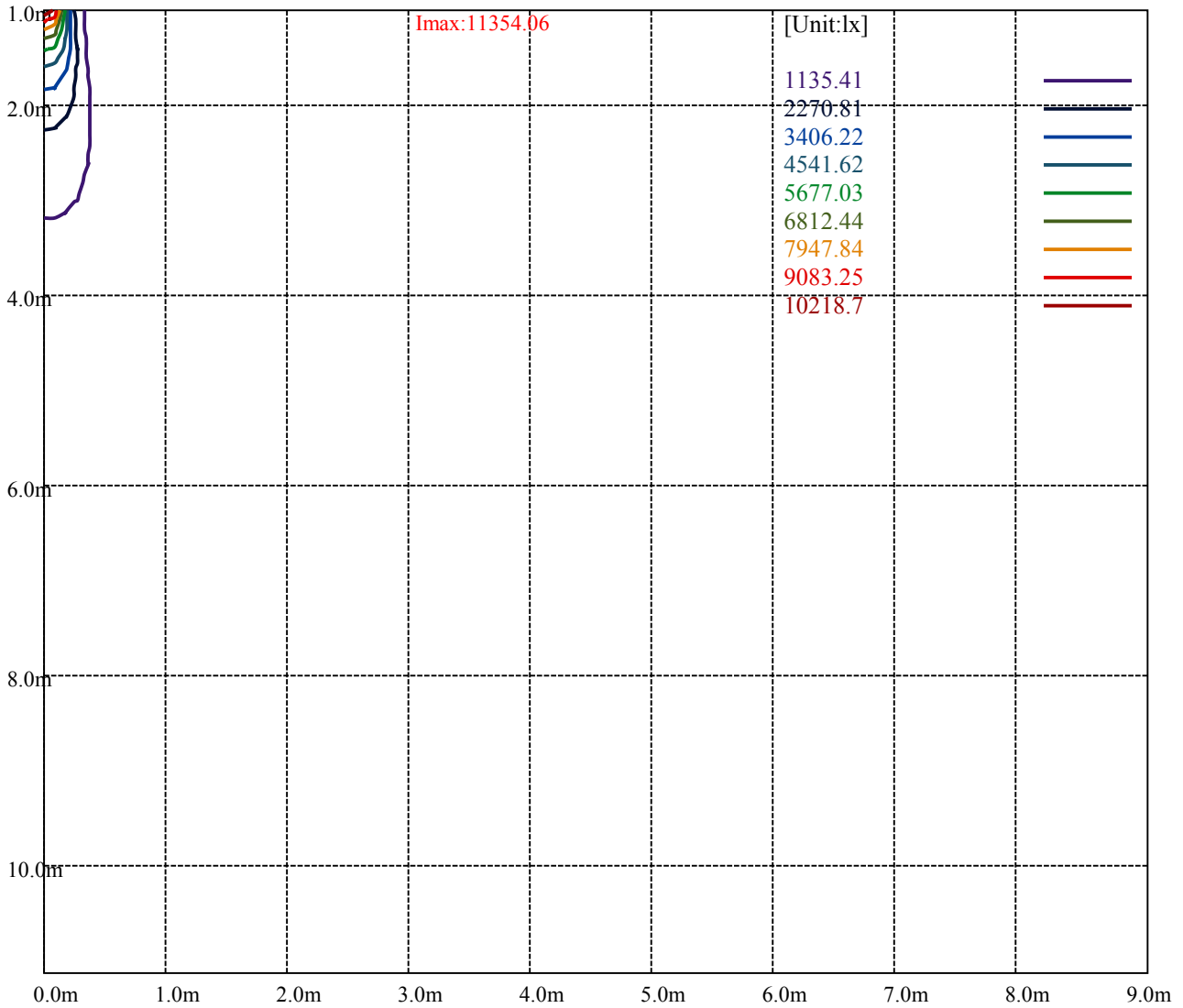
Road

Imax:11354.06

(10%Imax)	1135.41	—
(20%Imax)	2270.81	—
(30%Imax)	3406.22	—
(40%Imax)	4541.62	—
(50%Imax)	5677.03	—
(60%Imax)	6812.44	—
(70%Imax)	7947.84	—
(80%Imax)	9083.25	—
(90%Imax)	10218.7	—



(10%Emax) 283.8525	—
(20%Emax) 567.7025	—
(30%Emax) 851.555	—
(40%Emax) 1135.405	—
(50%Emax) 1419.257	—
(60%Emax) 1703.11	—
(70%Emax) 1986.96	—
(80%Emax) 2270.813	—
(90%Emax) 2554.675	—



Luminance Table

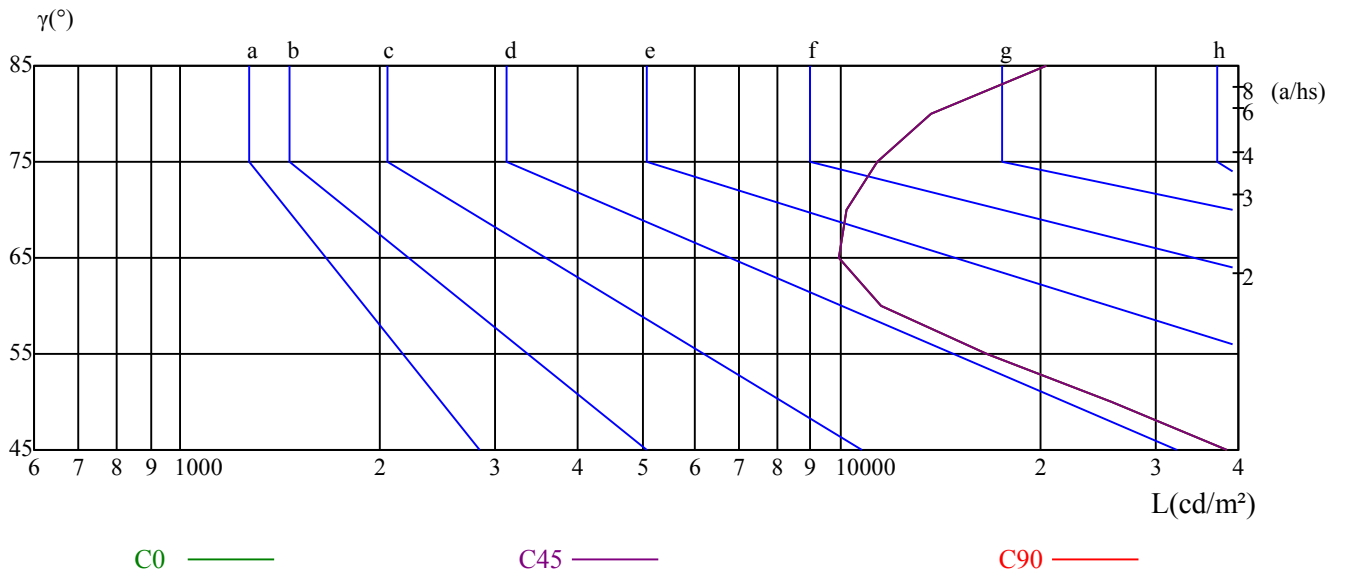
γ	45	50	55	60	65	70	75	80	85
C0	38535	25729	16661	11507	9945	10201	11354	13709	20518
C45	38535	25729	16661	11507	9945	10201	11354	13709	20518
C90	38535	25729	16661	11507	9945	10201	11354	13709	20518

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
9945	9945	9945	11354	11354	11354	20518	20518	20518

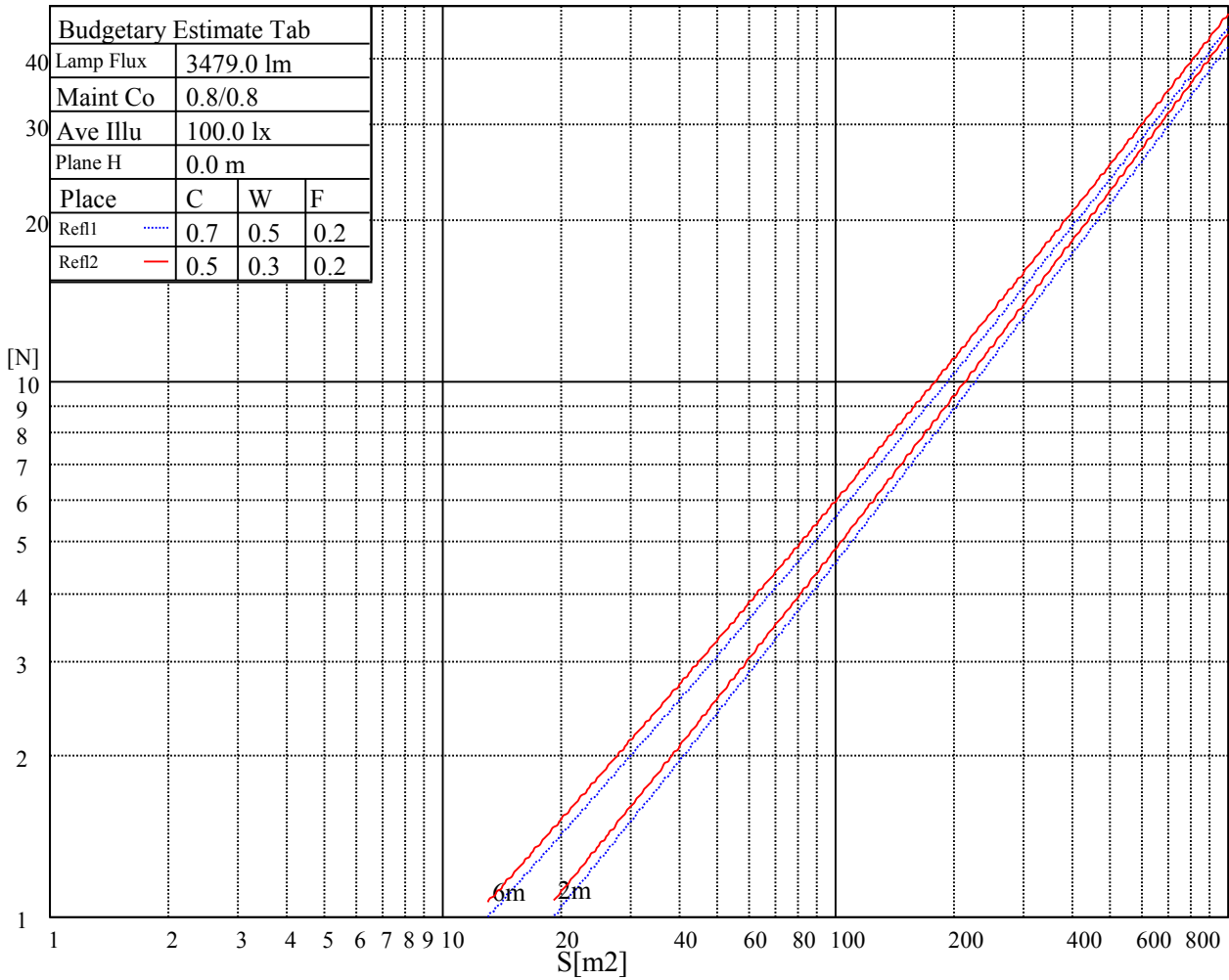
Glare Table

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

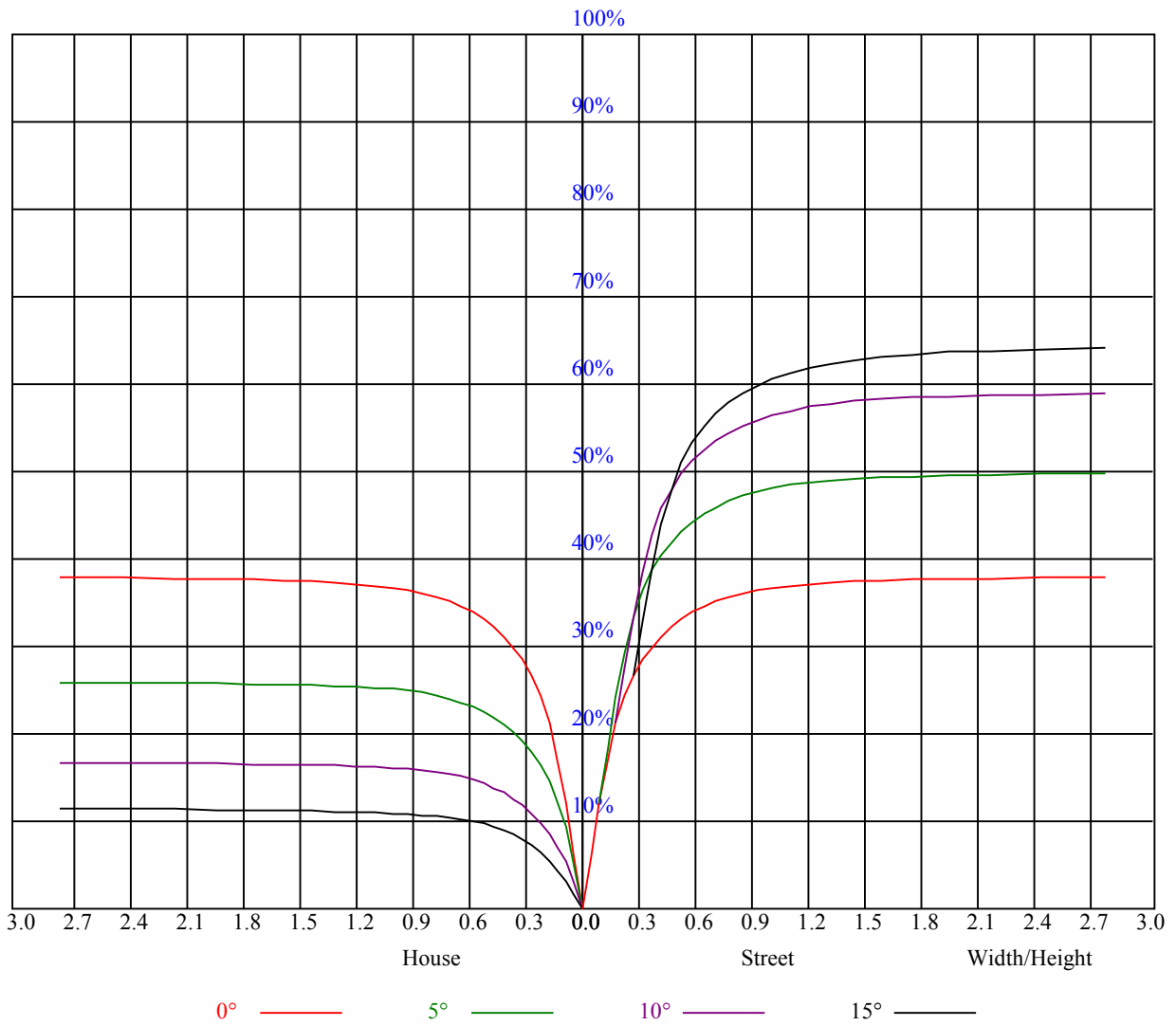
Luminance Limiting Curve



Illumination assessment according UGR											
Rf of Ceiling	70	70	50	50	30	70	70	50	50	30	
Rf of Wall	50	30	50	30	30	50	30	50	30	30	
Rf of Floor	20	20	20	20	20	20	20	20	20	20	
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	11.50	12.54	11.87	12.85	13.16	11.65	12.68	12.01	12.99	13.31
	3H	12.65	13.56	13.03	13.89	14.26	12.76	13.67	13.14	14.00	14.37
	4H	13.33	14.17	13.73	14.52	14.91	13.42	14.27	13.83	14.62	15.01
	6H	14.09	14.87	14.51	15.24	15.64	14.18	14.95	14.59	15.33	15.72
	8H	14.50	15.23	14.94	15.62	16.03	14.58	15.31	15.01	15.70	16.11
	12H	15.20	15.89	15.63	16.27	16.71	15.27	15.96	15.70	16.34	16.78
4H	2H	11.71	12.55	12.12	12.91	13.30	11.83	12.68	12.24	13.03	13.42
	3H	13.17	13.86	13.59	14.27	14.68	13.26	13.95	13.67	14.36	14.76
	4H	14.05	14.67	14.49	15.09	15.54	14.13	14.75	14.57	15.17	15.62
	6H	14.93	15.46	15.40	15.91	16.38	14.99	15.52	15.46	15.97	16.45
	8H	15.47	15.96	15.94	16.41	16.88	15.53	16.02	16.00	16.47	16.95
	12H	16.23	16.65	16.72	17.14	17.62	16.28	16.71	16.77	17.20	17.68
8H	4H	14.38	14.87	14.85	15.32	15.79	14.44	14.94	14.92	15.39	15.86
	6H	15.51	15.90	16.02	16.41	16.89	15.57	15.96	16.08	16.46	16.95
	8H	16.21	16.57	16.75	17.09	17.59	16.27	16.62	16.80	17.14	17.64
	12H	17.31	17.61	17.83	18.11	18.69	17.35	17.66	17.87	18.16	18.74
12H	4H	14.43	14.86	14.92	15.35	15.83	14.49	14.92	14.99	15.41	15.89
	6H	15.97	16.01	16.19	16.48	17.03	16.02	16.06	16.24	16.53	17.08
	8H	16.46	16.77	16.99	17.27	17.85	16.51	16.82	17.03	17.32	17.90
Variation with the observer position at spacings:											
S = 1.0H	1.4/-2.3					1.4/-2.3					
S = 1.5H	2.7/-2.6					2.7/-2.6					
S = 2.0H	4.1/-2.2					4.1/-2.2					
Standard tables:	BK3					BK3					
Uncorrected UGR	2.9					2.9					



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	0.91	0.91	0.91	0.89	0.89	0.89	0.85	0.85	0.85	0.81	0.81	0.81	0.78	0.78	0.78	0.76
1	0.85	0.83	0.82	0.83	0.82	0.80	0.80	0.79	0.78	0.78	0.77	0.76	0.75	0.74	0.73	0.72
2	0.80	0.77	0.75	0.79	0.76	0.74	0.76	0.74	0.73	0.74	0.72	0.71	0.72	0.71	0.70	0.68
3	0.76	0.72	0.70	0.75	0.72	0.69	0.73	0.70	0.68	0.71	0.69	0.67	0.69	0.68	0.66	0.65
4	0.72	0.68	0.66	0.71	0.68	0.65	0.70	0.67	0.65	0.68	0.66	0.64	0.67	0.65	0.63	0.62
5	0.69	0.65	0.62	0.68	0.65	0.62	0.67	0.64	0.61	0.66	0.63	0.61	0.64	0.62	0.60	0.59
6	0.66	0.62	0.59	0.65	0.62	0.59	0.64	0.61	0.59	0.63	0.60	0.58	0.62	0.60	0.58	0.57
7	0.63	0.59	0.57	0.63	0.59	0.57	0.62	0.59	0.56	0.61	0.58	0.56	0.60	0.58	0.56	0.55
8	0.61	0.57	0.55	0.61	0.57	0.55	0.60	0.57	0.54	0.59	0.56	0.54	0.58	0.56	0.54	0.53
9	0.59	0.55	0.53	0.59	0.55	0.53	0.58	0.55	0.52	0.57	0.54	0.52	0.57	0.54	0.52	0.51
10	0.57	0.53	0.51	0.57	0.53	0.51	0.56	0.53	0.51	0.56	0.53	0.51	0.55	0.52	0.51	0.50



NATA 3-1701-N

Intensity data(cd)

C/γ(°)	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
0.0	11311.88	11390.63	11430.00	11418.75	11345.63	11193.75	10940.63	10434.38	9838.13
45.0	11373.75	11385.00	11368.13	11300.63	11154.38	10856.25	10417.50	9748.13	9050.63
90.0	11362.50	11300.63	11226.94	11072.25	10737.56	10277.44	9666.56	8736.75	7899.75
135.0	11368.13	11289.38	11165.63	11019.38	10670.63	10158.75	9630.00	8730.00	7925.63
180.0	11311.88	11225.25	11088.56	10740.94	10377.00	9816.75	9050.06	8141.06	7301.25
225.0	11373.75	11306.25	11224.13	11065.50	10761.75	10310.63	9715.50	8847.00	8059.50
270.0	11362.50	11373.75	11340.00	11278.13	11126.25	10845.00	10406.25	9731.25	9022.50
315.0	11368.13	11401.88	11407.50	11340.00	11217.94	11044.13	10644.75	9930.38	9228.38
360.0	11311.88	11390.63	11430.00	11418.75	11345.63	11193.75	10940.63	10434.38	9838.13
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	9033.75	8111.25	7250.63	6361.88	5225.63	4297.50	3453.75	2902.50	2156.06
45.0	8150.63	7171.88	6255.00	5321.25	4173.75	3341.25	2891.25	2109.38	1832.06
90.0	7014.94	5880.38	4959.56	4060.13	3151.13	2462.63	2051.44	1760.06	1582.88
135.0	7093.13	6001.88	5135.63	4258.13	3290.63	2885.63	2235.38	1872.00	1672.31
180.0	6444.00	5361.75	4486.50	3669.19	2895.75	2330.44	1994.06	1744.31	1578.94
225.0	7205.63	6094.13	5189.06	4291.31	3372.19	2651.06	2208.94	1879.31	1672.31
270.0	8100.00	7115.63	6204.38	5394.38	4111.88	3268.13	2840.63	2067.75	1806.75
315.0	8420.63	7333.88	6431.63	5508.56	4455.00	3502.13	2814.19	2255.63	1946.25
360.0	9033.75	8111.25	7250.63	6361.88	5225.63	4297.50	3453.75	2902.50	2156.06
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1880.44	1672.31	1508.63	1388.81	1275.75	1179.00	1098.00	1009.13	936.00
45.0	1648.69	1479.38	1347.19	1249.31	1157.06	1076.06	995.63	916.31	855.00
90.0	1422.00	1295.44	1206.56	1117.46	1035.34	961.54	892.01	814.28	759.99
135.0	1515.94	1369.69	1248.75	1156.50	1066.50	986.63	910.13	843.75	786.94
180.0	1423.69	1297.13	1177.31	1102.56	1013.12	938.59	871.43	796.22	742.44
225.0	1494.56	1356.19	1255.50	1114.26	1064.87	989.44	919.80	841.89	787.84
270.0	1625.06	1467.00	1339.88	1247.63	1159.31	1084.50	1000.13	919.13	852.75
315.0	1721.81	1548.00	1419.75	1301.06	1177.88	1115.16	1033.71	942.69	880.76
360.0	1880.44	1672.31	1508.63	1388.81	1275.75	1179.00	1098.00	1009.13	936.00
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	861.75	794.25	741.38	692.44	633.94	590.06	545.63	502.31	471.94
45.0	792.56	737.44	691.88	650.81	599.63	562.50	526.50	486.00	456.19
90.0	710.66	648.00	610.48	569.64	527.57	490.56	461.64	431.55	406.63
135.0	730.69	680.06	637.31	595.69	548.44	511.88	479.25	440.44	412.31
180.0	692.78	639.45	589.11	545.46	501.86	466.48	438.58	409.67	385.93
225.0	738.68	687.32	640.52	601.09	560.08	520.76	488.25	455.74	429.19
270.0	786.38	727.88	681.19	638.44	589.50	553.50	519.75	482.06	455.06
315.0	823.28	764.49	711.06	667.63	621.00	577.52	539.44	499.61	467.10
360.0	861.75	794.25	741.38	692.44	633.94	590.06	545.63	502.31	471.94
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	444.38	417.94	386.44	363.38	342.00	320.06	298.13	284.06	252.39
45.0	424.69	397.13	369.00	344.25	320.06	299.81	285.75	252.73	228.88
90.0	381.43	357.19	336.43	316.35	291.88	271.07	248.79	222.75	203.18
135.0	387.56	358.88	333.00	312.19	290.25	285.75	244.46	223.76	201.54
180.0	361.18	338.79	319.78	298.97	278.72	257.63	237.43	213.24	194.91
225.0	399.32	370.58	351.73	327.49	306.06	286.59	264.88	238.44	217.80
270.0	429.19	403.31	378.56	358.31	336.38	317.25	292.50	286.31	243.11
315.0	434.36	403.54	376.26	348.19	323.21	303.58	283.61	253.97	235.24
360.0	444.38	417.94	386.44	363.38	342.00	320.06	298.13	284.06	252.39

Intensity data(cd)

C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	229.16	209.48	188.55	171.34	155.81	138.83	126.79	115.82	103.33
45.0	206.49	187.71	168.36	153.62	139.28	126.23	115.03	105.58	91.13
90.0	185.06	168.53	150.19	137.76	126.23	112.61	102.21	91.91	81.17
135.0	181.58	163.46	149.06	136.58	123.98	112.05	101.76	91.86	80.10
180.0	177.92	160.71	144.96	132.47	119.81	108.00	97.71	86.74	78.08
225.0	198.45	176.51	161.16	147.66	133.48	120.09	109.01	95.51	86.46
270.0	219.43	196.88	178.99	162.62	145.24	132.69	120.94	109.91	96.41
315.0	214.14	189.28	171.68	156.04	139.84	128.03	117.06	104.18	95.23
360.0	229.16	209.48	188.55	171.34	155.81	138.83	126.79	115.82	103.33
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	93.32	83.76	73.24	66.04	59.91	53.66	48.21	43.88	39.66
45.0	81.34	73.80	64.18	58.22	53.61	47.81	43.26	40.22	36.45
90.0	71.61	64.58	57.94	52.82	47.64	43.26	39.77	36.51	33.98
135.0	71.94	64.97	57.71	52.82	48.38	44.10	40.39	37.29	34.71
180.0	69.41	62.04	56.36	51.41	45.96	42.19	38.81	35.33	33.75
225.0	75.99	67.44	60.81	54.96	48.15	44.44	40.56	36.62	34.20
270.0	86.12	75.88	67.39	60.98	54.73	49.78	44.78	40.56	37.46
315.0	83.93	72.96	66.54	60.30	52.93	48.77	44.66	39.83	37.29
360.0	93.32	83.76	73.24	66.04	59.91	53.66	48.21	43.88	39.66
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	36.45	33.92	32.57	31.44	30.26	28.97	28.07	27.17	26.10
45.0	34.20	32.79	31.33	30.15	29.08	27.79	26.83	25.93	24.86
90.0	32.63	31.39	29.98	28.86	27.84	26.83	25.76	24.92	24.02
135.0	33.36	31.95	30.71	29.64	28.46	27.34	26.38	25.65	24.47
180.0	32.46	30.94	29.87	28.74	27.62	26.61	25.65	24.69	23.85
225.0	32.79	31.44	30.21	29.14	28.07	27.06	26.04	24.98	24.19
270.0	34.99	33.19	32.01	30.83	29.48	28.46	27.51	26.61	25.43
315.0	34.99	33.41	32.01	30.94	29.64	28.63	27.56	26.49	25.65
360.0	36.45	33.92	32.57	31.44	30.26	28.97	28.07	27.17	26.10
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	25.31	24.41	23.57	22.78	22.05	21.32	20.59	19.86	19.01
45.0	24.13	23.34	22.61	21.88	21.26	20.48	19.69	18.84	17.94
90.0	23.18	22.56	21.77	21.15	20.48	19.69	18.96	18.00	16.99
135.0	23.74	23.12	22.28	21.54	20.93	19.97	19.07	18.28	17.16
180.0	23.01	22.16	21.49	20.81	19.80	19.18	18.34	17.21	16.31
225.0	23.40	22.56	21.94	21.26	20.42	19.69	18.90	18.06	16.93
270.0	24.53	23.68	22.84	22.11	21.43	20.70	19.91	19.01	18.11
315.0	24.58	23.79	23.01	22.33	21.49	20.87	20.19	19.46	18.39
360.0	25.31	24.41	23.57	22.78	22.05	21.32	20.59	19.86	19.01
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	18.00	17.04	16.09	15.19	14.23	13.39	12.60	11.81	11.25
45.0	16.99	16.14	15.19	14.23	13.33	12.54	11.76	11.14	10.63
90.0	16.09	15.24	14.29	13.39	12.60	11.87	11.08	10.69	10.46
135.0	16.20	15.36	14.46	13.67	12.88	12.15	11.70	10.69	10.52
180.0	15.53	14.51	13.73	12.88	12.15	11.53	10.97	10.63	10.58
225.0	16.14	15.19	14.29	13.50	12.71	11.98	11.36	10.91	10.52
270.0	17.21	16.26	15.41	14.57	13.61	12.83	12.04	11.36	10.86
315.0	17.61	16.71	15.75	15.02	14.29	13.61	12.77	12.83	11.81
360.0	18.00	17.04	16.09	15.19	14.23	13.39	12.60	11.81	11.25

Intensity data(cd)

C/γ(°)	90.0
0.0	10.74
45.0	10.46
90.0	10.46
135.0	10.52
180.0	10.52
225.0	10.52
270.0	10.46
315.0	10.52
360.0	10.74