



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: 1405-N
Luminaire: 92.70.043.00
Report No: NATA0100
Test No: GC2018092602
LampCAT: CITIZEN CLU7A2-1201C9
Lamp flux(lm): 762.0
Number of Lamps: 1
Length(mm): 39
Phm Type: C

Voltage(V): 37.4000
Current(A): 0.2100
Power (W): 7.8540
PF: 0.0000
Ballast type: DC
Width(mm): 39
Height(mm): 0

Photometric Results

Lumens(lm): 653.87
Efficiency(%): 85.81%
Lumens(lm)/Power(W): 83.25
Central intensity(cd): 2106.984
Maximum intensity(cd): 2106.984
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=18.2
[C90/270]Total=18.2
Field angle(10%Imax): [C0/180]Total=63.2
[C90/270]Total=63.2
Maximum s/h(1/2): C0_180=0.31 C90_270=0.31
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(%): 85.87%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 95.340%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2106.984	0.504	0.504	.066%	.077%
1.0	2087.227	3.995	4.499	.524%	.688%
2.0	2031.047	7.773	12.272	1.020%	1.877%
3.0	1937.813	11.122	23.393	1.460%	3.578%
4.0	1816.945	13.899	37.292	1.824%	5.703%
5.0	1677.516	16.033	53.325	2.104%	8.155%
6.0	1530.563	17.544	70.869	2.302%	10.838%
7.0	1363.444	18.221	89.091	2.391%	13.625%
8.0	1214.346	18.533	107.624	2.432%	16.460%
9.0	1068.574	18.331	125.955	2.406%	19.263%
10.0	940.148	17.903	143.858	2.349%	22.001%
11.0	830.552	17.379	161.237	2.281%	24.659%
12.0	729.260	16.627	177.864	2.182%	27.202%
13.0	644.112	15.889	193.753	2.085%	29.632%
14.0	571.880	15.172	208.924	1.991%	31.952%
15.0	515.623	14.635	223.559	1.921%	34.190%
16.0	463.852	14.021	237.58	1.840%	36.334%
17.0	426.403	13.671	251.251	1.794%	38.425%
18.0	393.602	13.338	264.589	1.750%	40.465%
19.0	366.729	13.093	277.682	1.718%	42.467%
20.0	343.540	12.885	290.567	1.691%	44.438%
21.0	324.464	12.751	303.318	1.673%	46.388%
22.0	308.088	12.656	315.974	1.661%	48.324%
23.0	295.446	12.659	328.633	1.661%	50.260%
24.0	281.391	12.551	341.184	1.647%	52.179%
25.0	271.027	12.561	353.745	1.648%	54.100%
26.0	258.848	12.443	366.188	1.633%	56.003%
27.0	249.237	12.408	378.596	1.628%	57.901%
28.0	240.455	12.379	390.976	1.625%	59.794%
29.0	231.855	12.327	403.302	1.618%	61.679%
30.0	224.128	12.289	415.591	1.613%	63.559%
31.0	215.859	12.192	427.783	1.600%	65.423%
32.0	207.422	12.054	439.836	1.582%	67.267%
33.0	199.315	11.904	451.741	1.562%	69.087%
34.0	190.891	11.706	463.446	1.536%	70.877%
35.0	182.616	11.486	474.933	1.507%	72.634%
36.0	173.313	11.171	486.104	1.466%	74.342%
37.0	164.208	10.837	496.941	1.422%	76.000%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	154.702	10.445	507.385	1.371%	77.597%
39.0	144.696	9.986	517.371	1.310%	79.124%
40.0	135.084	9.522	526.893	1.250%	80.581%
41.0	125.262	9.012	535.905	1.183%	81.959%
42.0	115.179	8.452	544.356	1.109%	83.251%
43.0	105.124	7.862	552.219	1.032%	84.454%
44.0	96.300	7.336	559.554	.963%	85.576%
45.0	87.384	6.776	566.33	.889%	86.612%
46.0	79.348	6.259	572.59	.821%	87.569%
47.0	71.775	5.756	578.346	.755%	88.450%
48.0	65.229	5.316	583.662	.698%	89.263%
49.0	58.866	4.872	588.534	.639%	90.008%
50.0	53.227	4.471	593.005	.587%	90.691%
51.0	48.727	4.153	597.157	.545%	91.327%
52.0	44.508	3.846	601.004	.505%	91.915%
53.0	40.662	3.561	604.565	.467%	92.459%
54.0	37.399	3.318	607.883	.435%	92.967%
55.0	34.516	3.101	610.983	.407%	93.441%
56.0	31.830	2.894	613.877	.380%	93.884%
57.0	29.644	2.726	616.603	.358%	94.300%
58.0	27.534	2.561	619.164	.336%	94.692%
59.0	25.699	2.416	621.58	.317%	95.062%
60.0	23.984	2.278	623.857	.299%	95.410%
61.0	22.324	2.141	625.999	.281%	95.737%
62.0	20.939	2.027	628.026	.266%	96.047%
63.0	19.695	1.924	629.95	.253%	96.342%
64.0	18.373	1.811	631.761	.238%	96.619%
65.0	17.213	1.711	633.472	.225%	96.880%
66.0	16.207	1.624	635.095	.213%	97.129%
67.0	15.152	1.530	636.625	.201%	97.362%
68.0	14.252	1.449	638.074	.190%	97.584%
69.0	13.352	1.367	639.441	.179%	97.793%
70.0	12.530	1.291	640.732	.169%	97.991%
71.0	11.714	1.215	641.947	.159%	98.176%
72.0	10.927	1.140	643.086	.150%	98.351%
73.0	10.216	1.071	644.158	.141%	98.515%
74.0	9.534	1.005	645.163	.132%	98.668%
75.0	8.852	0.938	646.1	.123%	98.812%

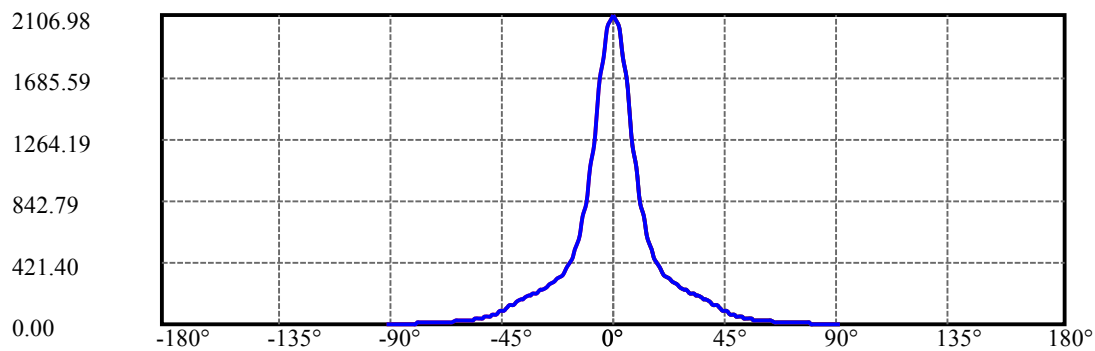
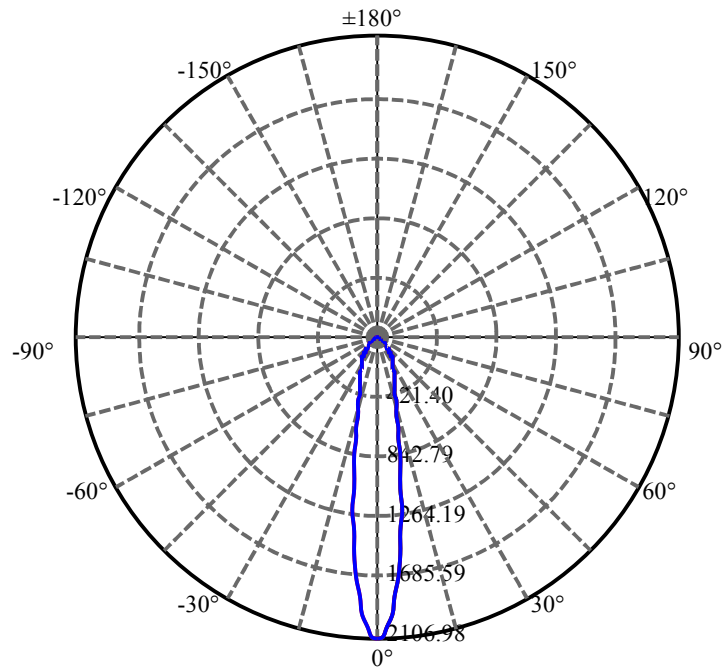
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	8.184	0.871	646.971	.114%	98.945%
77.0	7.580	0.810	647.781	.106%	99.069%
78.0	6.982	0.749	648.53	.098%	99.183%
79.0	6.448	0.694	649.224	.091%	99.289%
80.0	5.913	0.639	649.863	.084%	99.387%
81.0	5.414	0.586	650.449	.077%	99.477%
82.0	4.957	0.538	650.988	.071%	99.559%
83.0	4.542	0.494	651.482	.065%	99.635%
84.0	4.205	0.459	651.94	.060%	99.705%
85.0	3.895	0.426	652.366	.056%	99.770%
86.0	3.628	0.397	652.763	.052%	99.831%
87.0	3.101	0.340	653.102	.045%	99.882%
88.0	2.890	0.317	653.419	.042%	99.931%
89.0	2.770	0.304	653.723	.040%	99.977%
90.0	2.700	0.148	653.871	.019%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	415.59	54.54%	63.56%
0-40	526.89	69.15%	80.58%
0-60	623.86	81.87%	95.41%
0-90	653.72	85.79%	99.98%
0-120	653.72	85.79%	99.98%
0-180	653.87	85.81%	100.00%
60-90	32.14	4.22%	4.92%
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%
0-39.60	523.10	68.65%	80.00%

ZONAL LUMEN SUMMARY

0-10	143.86
10-20	146.71
20-30	125.02
30-40	111.30
40-50	66.11
50-60	30.85
60-70	16.87
70-80	9.13
80-90	3.86
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:

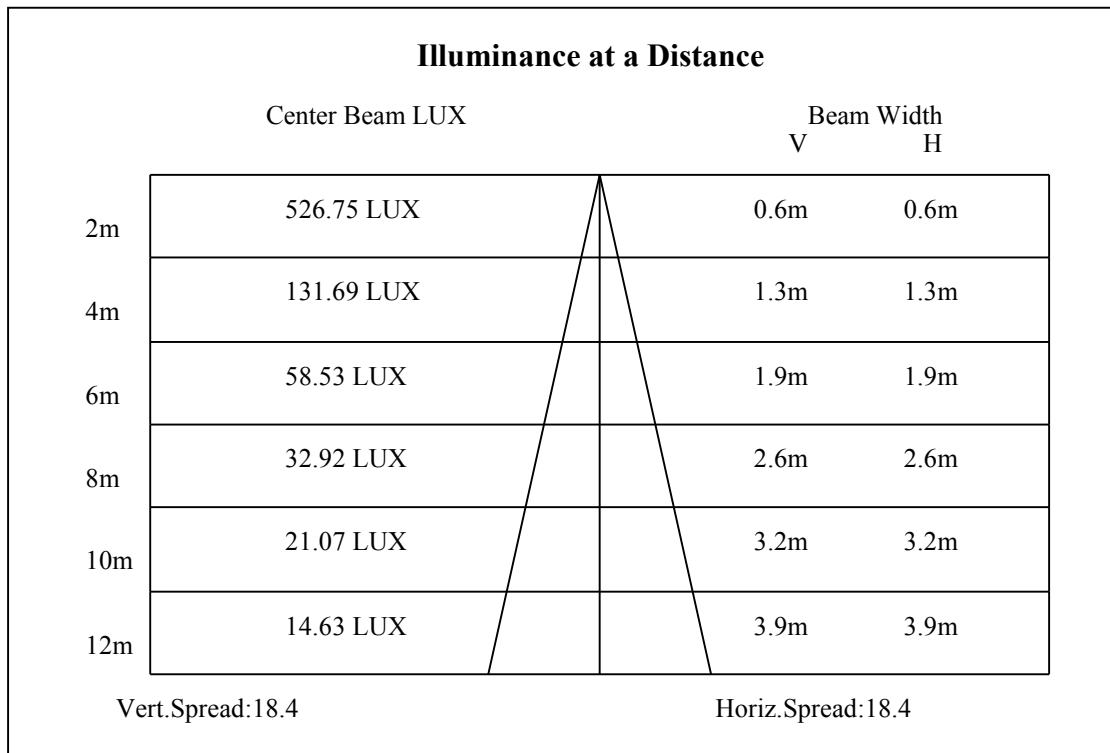
C90/C270:

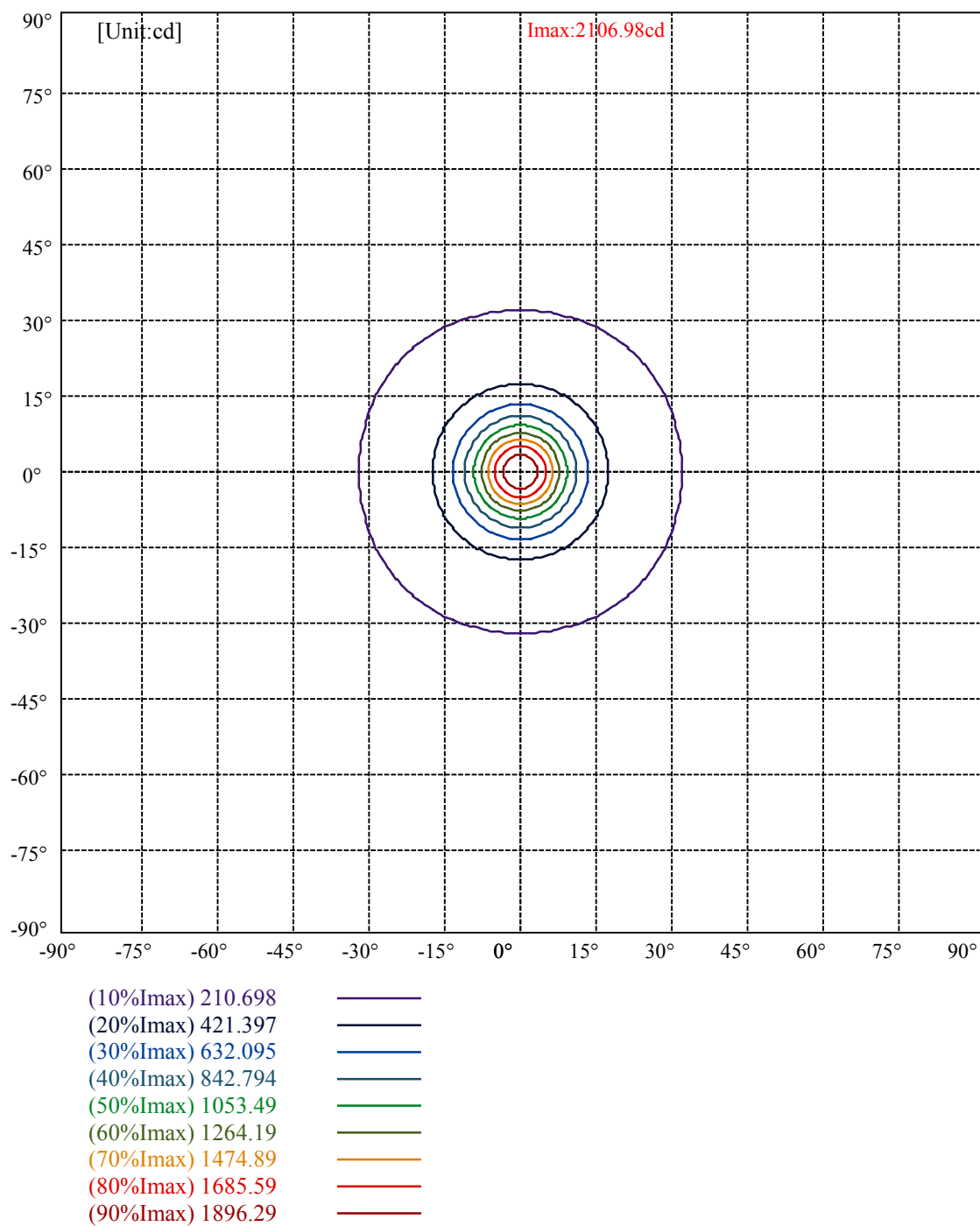
Field angle(10%Imax):C0/180Left:31.6 Right:31.6

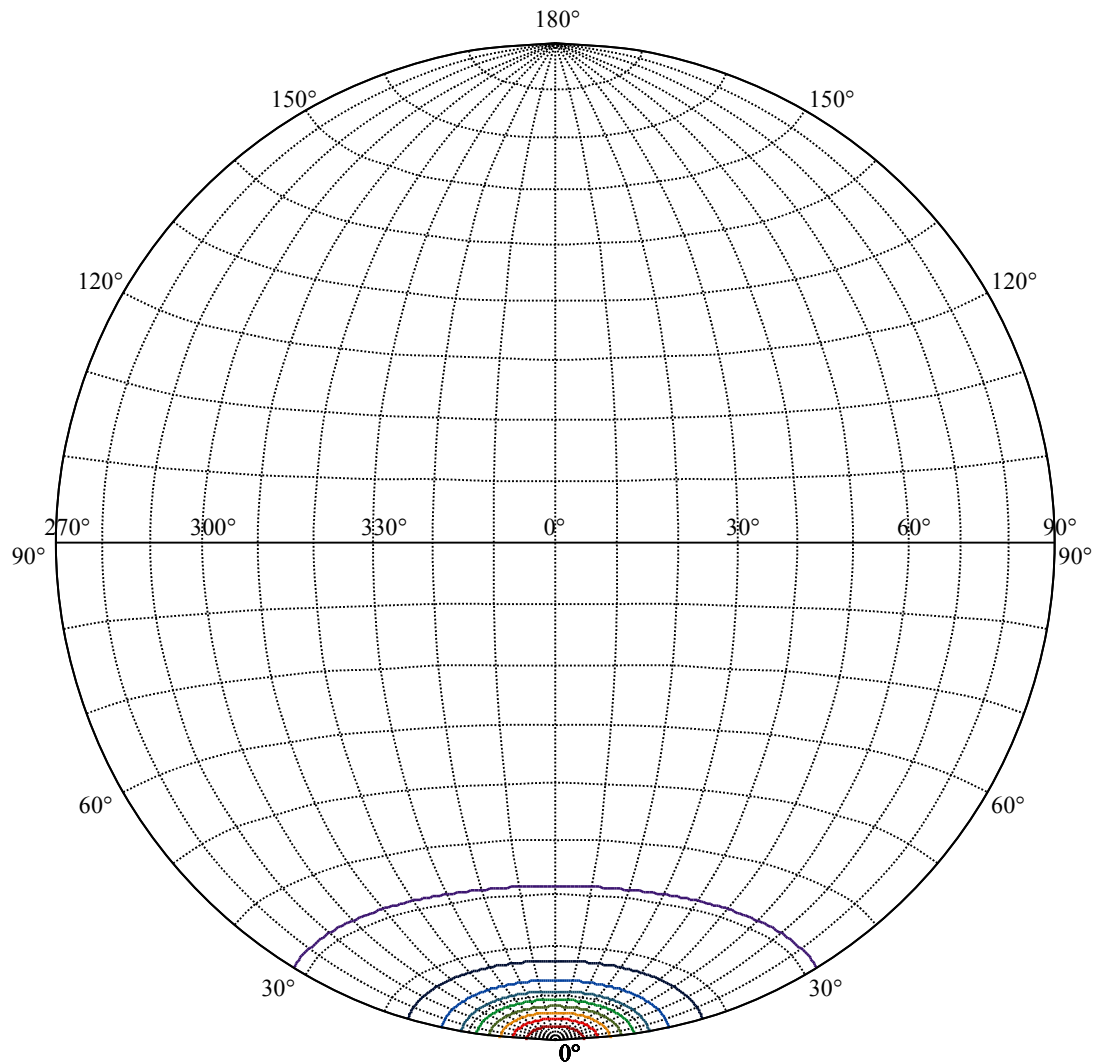
:C90/270Left:31.6 Right:31.6

Beam Angle(50%Imax):C0/180Left:9.1 Right:9.1

:C90/270Left:9.1 Right:9.1







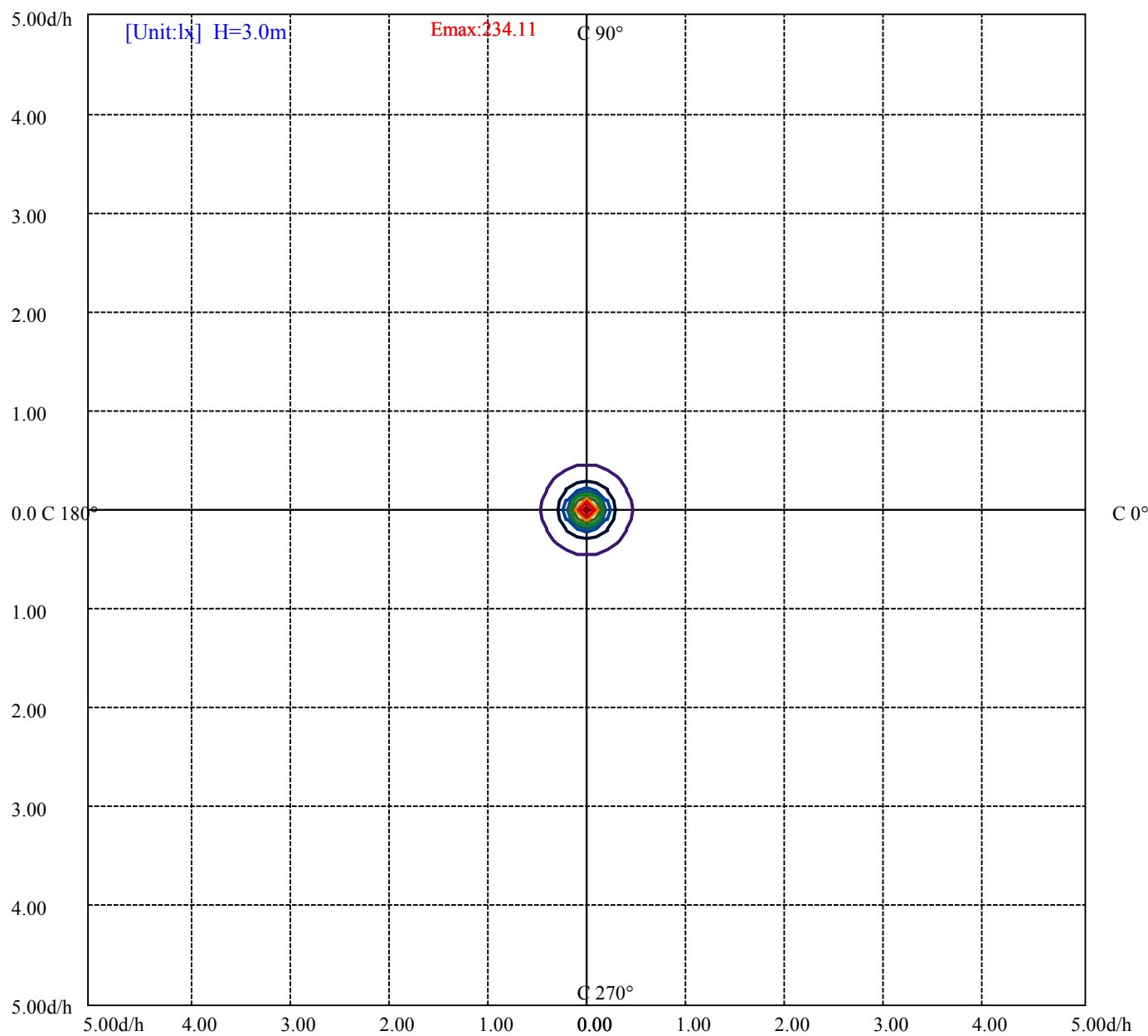
House

[Unit:cd]

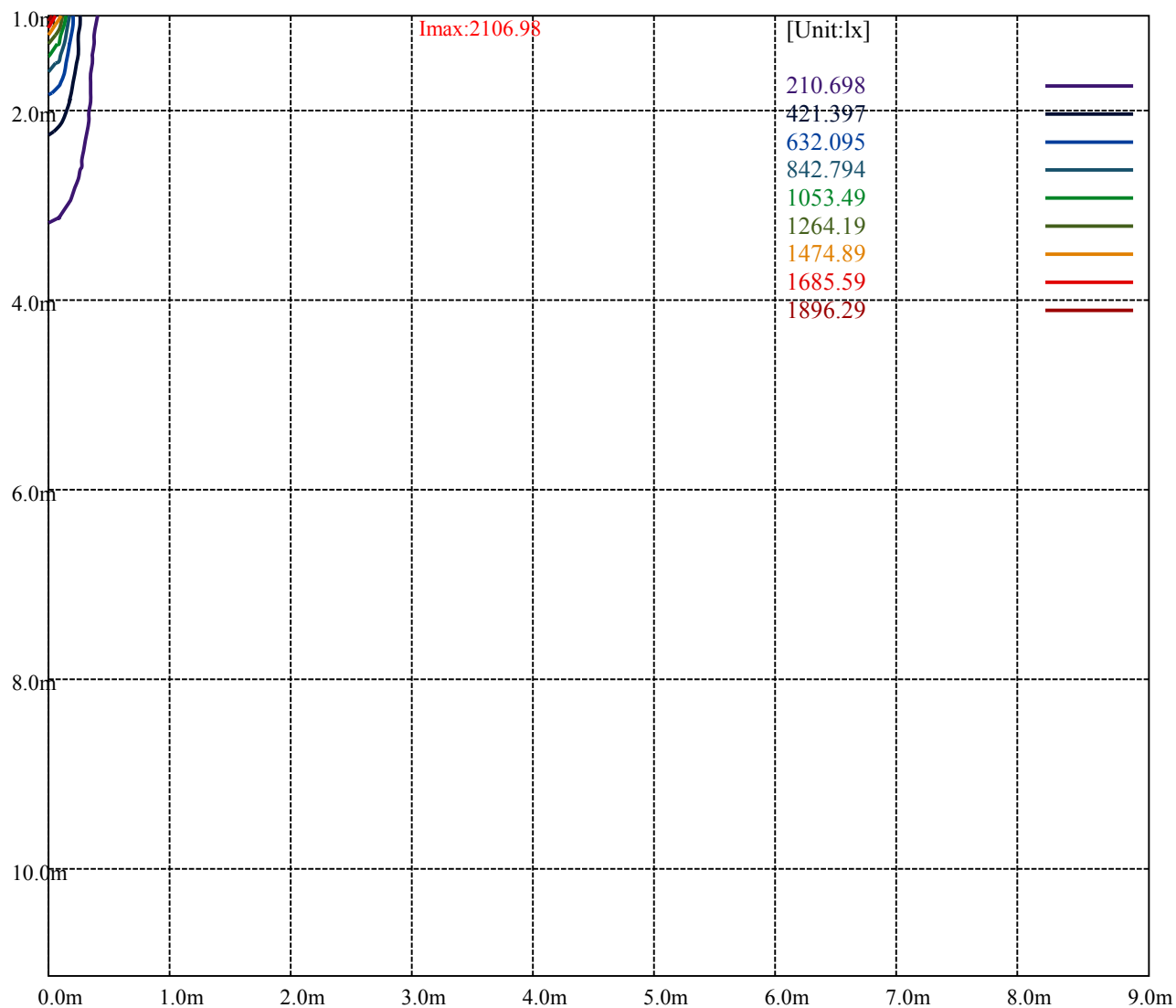
Road

Imax:2106.98

(10%Imax)	210.698	—
(20%Imax)	421.397	—
(30%Imax)	632.095	—
(40%Imax)	842.794	—
(50%Imax)	1053.49	—
(60%Imax)	1264.19	—
(70%Imax)	1474.89	—
(80%Imax)	1685.59	—
(90%Imax)	1896.29	—



(10%Emax) 23.41089	—
(20%Emax) 46.82178	—
(30%Emax) 70.23267	—
(40%Emax) 93.64367	—
(50%Emax) 117.0544	—
(60%Emax) 140.4655	—
(70%Emax) 163.8767	—
(80%Emax) 187.2878	—
(90%Emax) 210.6978	—



Luminance Table

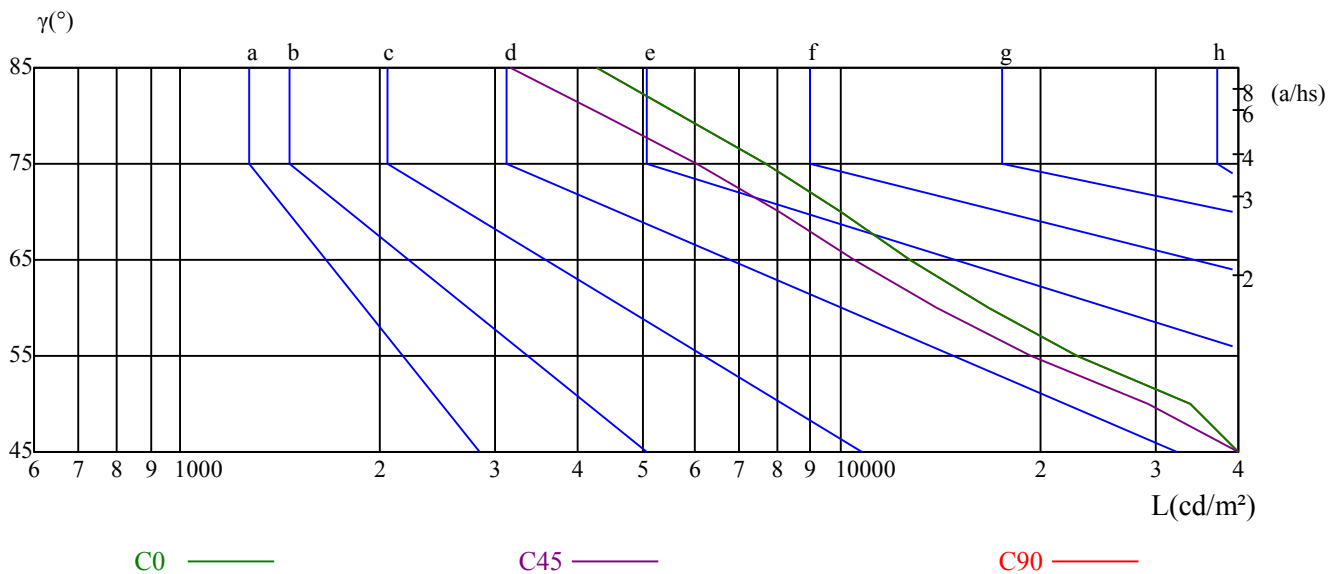
γ	45	50	55	60	65	70	75	80	85
C0	53707	33790	22838	16702	12753	9998	7717	5728	4282
C45	47095	29202	19435	13978	10479	8048	6067	4379	3163
C90	53707	33790	22838	16702	12753	9998	7717	5728	4282

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
26777	26777	26777	22487	22487	22487	29384	29384	29384

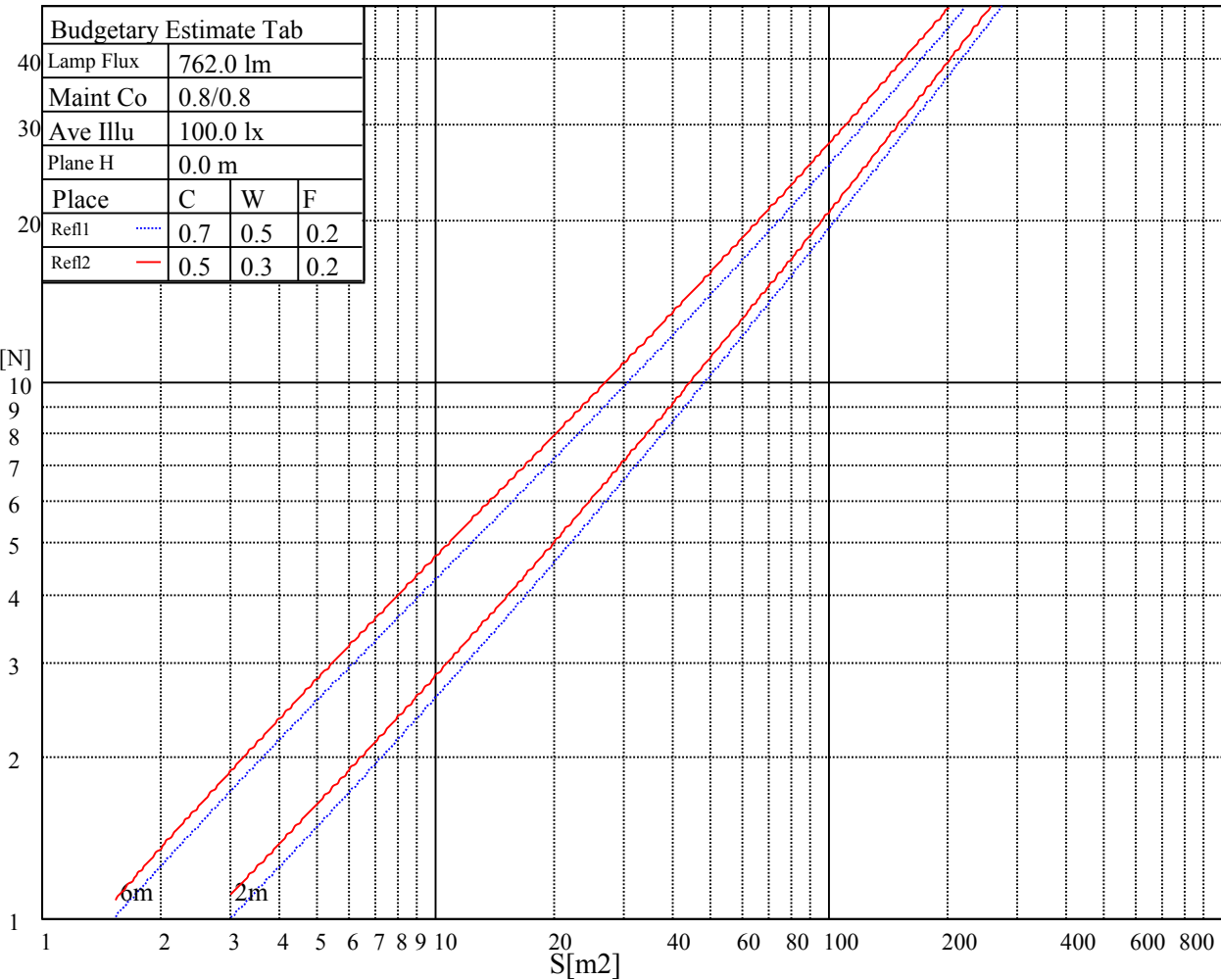
Glare Table

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

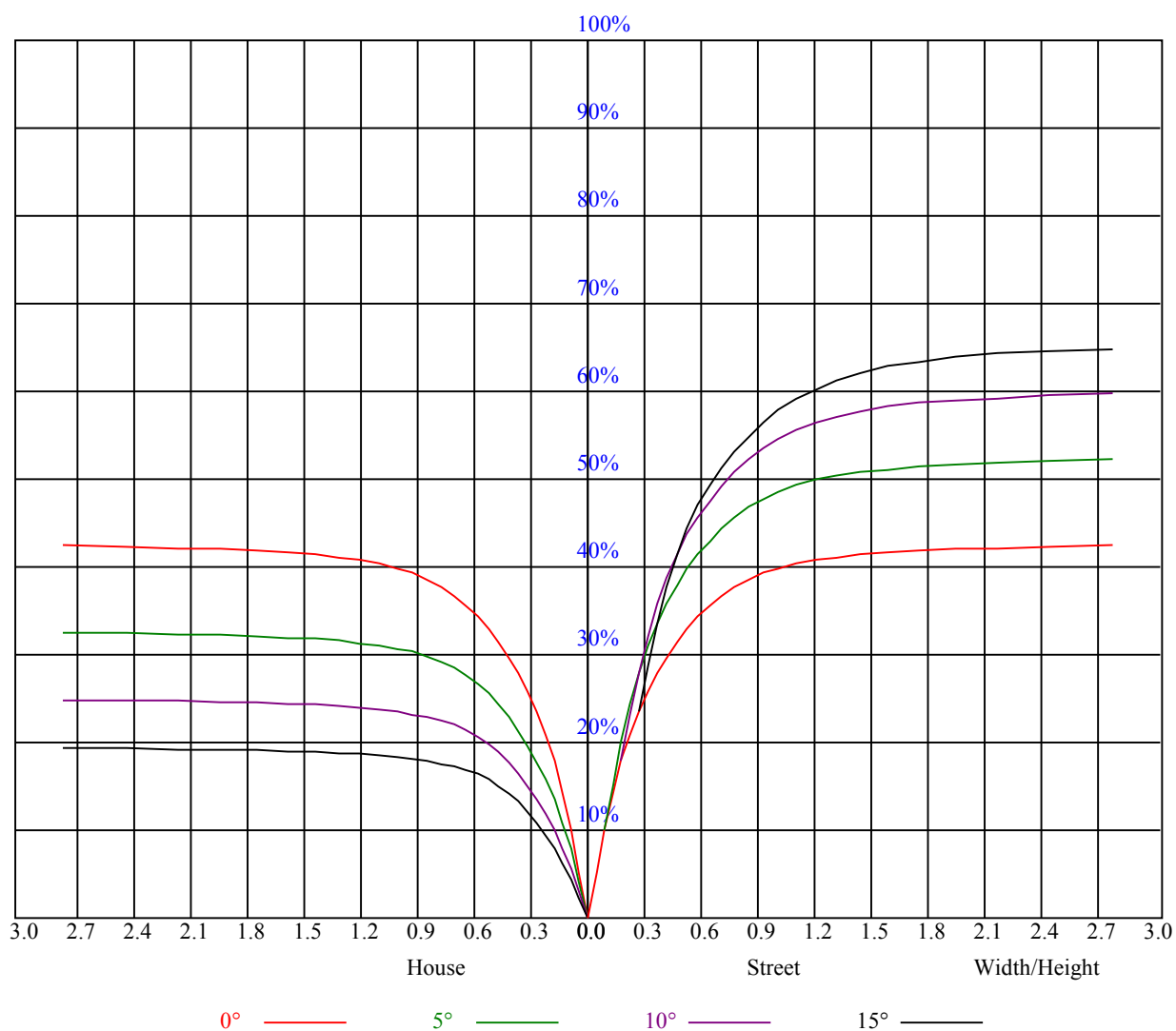
Luminance Limiting Curve



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	20.27	21.43	20.64	21.74	22.06	20.46	21.62	20.83	21.93	22.24
	3H	20.98	22.00	21.36	22.33	22.70	21.16	22.18	21.54	22.51	22.88
	4H	21.22	22.17	21.62	22.52	22.90	21.40	22.35	21.81	22.70	23.09
	6H	21.37	22.24	21.79	22.62	23.01	21.57	22.44	21.99	22.81	23.21
	8H	21.42	22.24	21.85	22.63	23.04	21.62	22.44	22.05	22.83	23.24
	12H	21.50	22.28	21.93	22.67	23.10	21.71	22.49	22.14	22.88	23.31
4H	2H	20.39	21.34	20.79	21.69	22.08	20.56	21.51	20.96	21.86	22.25
	3H	21.26	22.04	21.67	22.44	22.85	21.42	22.19	21.83	22.60	23.01
	4H	21.58	22.27	22.02	22.70	23.14	21.75	22.44	22.18	22.86	23.31
	6H	21.77	22.36	22.23	22.81	23.28	21.94	22.54	22.41	22.99	23.46
	8H	21.84	22.40	22.32	22.85	23.32	22.03	22.58	22.50	23.03	23.51
	12H	21.95	22.44	22.44	22.92	23.40	22.14	22.63	22.63	23.12	23.59
8H	4H	21.62	22.17	22.09	22.62	23.10	21.77	22.33	22.25	22.78	23.25
	6H	21.88	22.33	22.38	22.83	23.31	22.05	22.50	22.55	23.00	23.48
	8H	22.01	22.41	22.53	22.93	23.42	22.18	22.58	22.71	23.10	23.60
	12H	22.32	22.67	22.84	23.17	23.74	22.50	22.85	23.02	23.35	23.92
12H	4H	21.59	22.08	22.08	22.56	23.04	21.74	22.23	22.23	22.72	23.19
	6H	22.31	22.27	22.40	22.74	23.29	22.47	22.44	22.57	22.91	23.45
	8H	22.04	22.39	22.56	22.89	23.46	22.21	22.56	22.73	23.06	23.63
Variation with the observer position at spacings:											
S = 1.0H		1.3/-2.1					1.3/-2.1				
S = 1.5H		2.6/-2.8					2.6/-2.8				
S = 2.0H		4.6/-3.1					4.6/-3.1				
Standard tables:		BK2					BK2				
Uncorrected UGR		4.2					4.2				



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 RHOF=20 CU															
0	1.02	1.02	1.02	1.00	1.00	1.00	0.95	0.95	0.95	0.91	0.91	0.91	0.88	0.88	0.88	0.86
1	0.94	0.92	0.90	0.92	0.90	0.88	0.89	0.87	0.86	0.86	0.84	0.83	0.83	0.82	0.81	0.79
2	0.87	0.83	0.80	0.86	0.82	0.79	0.83	0.80	0.78	0.80	0.78	0.76	0.78	0.76	0.74	0.73
3	0.81	0.76	0.73	0.80	0.76	0.72	0.77	0.74	0.71	0.75	0.72	0.70	0.73	0.71	0.69	0.67
4	0.76	0.71	0.67	0.75	0.70	0.66	0.73	0.69	0.66	0.71	0.68	0.65	0.69	0.66	0.64	0.63
5	0.71	0.66	0.62	0.70	0.65	0.62	0.68	0.64	0.61	0.67	0.63	0.60	0.66	0.62	0.60	0.59
6	0.67	0.61	0.58	0.66	0.61	0.57	0.65	0.60	0.57	0.63	0.60	0.57	0.62	0.59	0.56	0.55
7	0.63	0.58	0.54	0.62	0.58	0.54	0.61	0.57	0.54	0.60	0.56	0.53	0.59	0.56	0.53	0.52
8	0.60	0.55	0.51	0.59	0.54	0.51	0.58	0.54	0.51	0.57	0.53	0.51	0.57	0.53	0.50	0.49
9	0.57	0.52	0.48	0.56	0.52	0.48	0.56	0.51	0.48	0.55	0.51	0.48	0.54	0.51	0.48	0.47
10	0.54	0.49	0.46	0.54	0.49	0.46	0.53	0.49	0.46	0.53	0.49	0.46	0.52	0.48	0.46	0.45



Nata 1405-N

Intensity data(cd)										Appendix Page: 17 Total:19	
C/γ(°)	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0		
0.0	2112.75	2126.81	2103.75	2048.06	1937.25	1802.25	1658.81	1491.75	1337.63		
45.0	2094.75	2091.38	2036.25	1958.63	1854.00	1695.38	1553.63	1407.94	1241.44		
90.0	2091.94	2026.13	1929.94	1777.50	1635.19	1486.69	1320.19	1118.36	1018.74		
135.0	2128.50	2063.81	1957.50	1839.94	1685.81	1521.56	1374.19	1211.06	1076.63		
180.0	2112.75	2050.31	1971.56	1857.94	1720.69	1591.31	1453.50	1284.19	1119.71		
225.0	2094.75	2066.63	2012.63	1909.13	1801.13	1678.50	1533.94	1382.06	1211.06		
270.0	2091.94	2127.38	2111.63	2066.06	1961.44	1834.88	1701.00	1538.44	1391.06		
315.0	2128.50	2145.38	2125.13	2045.25	1940.06	1809.56	1649.25	1473.75	1318.50		
360.0	2112.75	2126.81	2103.75	2048.06	1937.25	1802.25	1658.81	1491.75	1337.63		
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0		
0.0	1175.06	1024.31	903.94	771.19	684.56	609.75	555.19	487.13	447.19		
45.0	1087.88	961.88	834.75	736.31	653.06	569.25	514.69	464.63	424.13		
90.0	883.86	768.15	679.73	597.77	537.81	481.05	435.26	401.46	373.84		
135.0	942.19	822.94	730.13	649.69	568.13	511.88	466.88	420.75	388.69		
180.0	1029.71	895.44	801.34	717.75	638.38	568.86	517.78	469.74	433.18		
225.0	1105.43	975.43	869.06	764.61	682.99	606.94	542.03	492.53	451.80		
270.0	1229.63	1078.31	951.75	842.06	721.69	641.81	573.75	502.88	459.56		
315.0	1094.85	994.73	873.73	754.71	666.28	585.51	519.41	471.71	432.84		
360.0	1175.06	1024.31	903.94	771.19	684.56	609.75	555.19	487.13	447.19		
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0		
0.0	419.06	384.75	360.00	343.69	322.88	309.38	296.44	284.63	269.89		
45.0	394.88	372.38	344.81	327.38	313.88	297.56	285.19	276.69	260.78		
90.0	344.31	325.01	308.08	289.91	278.21	267.08	255.04	246.71	239.01		
135.0	362.81	338.63	317.25	301.50	286.31	284.63	260.38	249.53	240.41		
180.0	398.48	370.24	347.51	327.60	310.56	297.00	285.92	272.53	263.08		
225.0	411.02	383.91	360.79	336.38	320.46	306.23	291.88	280.46	270.45		
270.0	423.00	389.25	361.69	340.88	321.19	303.75	290.25	284.63	264.21		
315.0	395.27	369.68	348.19	328.39	311.23	297.96	286.03	273.04	262.97		
360.0	419.06	384.75	360.00	343.69	322.88	309.38	296.44	284.63	269.89		
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0		
0.0	259.03	248.68	240.81	232.76	223.65	215.78	208.07	198.34	190.13		
45.0	251.33	242.89	234.11	227.19	218.76	210.04	202.16	193.84	185.12		
90.0	229.56	223.59	216.17	207.73	201.83	194.46	185.57	179.38	171.45		
135.0	232.71	223.82	216.45	210.15	200.81	193.89	186.19	177.13	170.04		
180.0	254.48	243.90	235.24	227.31	218.53	209.59	201.09	191.87	183.38		
225.0	259.37	250.93	241.54	232.99	224.66	215.61	206.38	197.83	189.34		
270.0	253.18	245.36	235.13	226.97	219.09	209.03	201.54	193.61	184.11		
315.0	254.25	244.46	235.41	227.93	219.54	210.99	203.51	195.13	187.37		
360.0	259.03	248.68	240.81	232.76	223.65	215.78	208.07	198.34	190.13		
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0		
0.0	181.46	171.51	161.10	151.99	141.08	131.85	121.05	110.98	102.15		
45.0	176.96	167.79	156.71	148.22	138.83	127.35	117.06	107.27	97.37		
90.0	160.26	152.66	144.00	130.89	122.12	112.28	101.53	91.18	82.63		
135.0	161.44	151.99	142.59	134.16	125.27	114.92	105.19	96.13	88.37		
180.0	173.76	162.96	154.63	144.11	133.26	123.81	114.30	103.22	94.73		
225.0	178.48	169.54	160.65	148.84	139.61	129.88	119.36	108.96	100.01		
270.0	175.78	167.68	156.71	148.16	139.16	129.66	119.70	111.32	101.81		
315.0	178.37	169.54	161.21	151.20	141.36	132.36	123.24	111.94	103.33		
360.0	181.46	171.51	161.10	151.99	141.08	131.85	121.05	110.98	102.15		

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	92.76	83.76	76.28	69.47	61.65	56.36	51.47	46.74	42.69
45.0	87.75	79.76	71.89	65.53	58.95	53.27	48.83	44.66	40.33
90.0	73.91	67.16	60.41	54.45	49.95	45.51	42.08	38.48	35.78
135.0	79.76	72.11	65.98	60.41	54.56	49.16	45.17	41.51	37.52
180.0	86.74	78.53	71.04	64.74	58.39	52.76	48.38	43.88	40.33
225.0	90.68	82.86	74.76	67.28	61.26	55.18	49.89	45.90	42.24
270.0	92.81	85.22	76.95	69.92	63.00	56.70	51.69	47.36	42.64
315.0	94.67	85.39	76.89	70.03	63.17	56.87	52.31	47.53	43.76
360.0	92.76	83.76	76.28	69.47	61.65	56.36	51.47	46.74	42.69
C/ γ (°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	39.88	36.28	33.41	31.22	28.97	27.11	25.26	23.57	22.22
45.0	37.29	34.59	31.61	29.59	27.79	25.76	24.13	22.67	21.15
90.0	32.68	30.54	28.58	26.55	24.81	23.34	21.77	20.42	19.24
135.0	34.88	32.46	29.76	27.84	26.16	24.30	22.56	21.15	19.80
180.0	36.96	33.81	31.39	29.25	26.89	25.14	23.57	21.49	20.25
225.0	38.25	35.38	32.79	30.26	27.96	26.16	24.30	22.56	21.15
270.0	39.38	36.45	33.19	30.88	28.86	26.72	24.86	23.34	21.71
315.0	39.88	36.62	33.92	31.56	28.86	27.06	25.43	23.40	21.99
360.0	39.88	36.28	33.41	31.22	28.97	27.11	25.26	23.57	22.22
C/ γ (°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	20.93	19.41	18.34	17.33	16.09	15.19	14.29	13.33	12.49
45.0	19.97	18.68	17.44	16.48	15.41	14.46	13.61	12.83	11.81
90.0	18.06	16.88	15.81	14.79	13.95	13.11	12.15	11.42	10.74
135.0	18.62	17.33	16.20	15.30	14.23	13.28	12.54	11.81	10.91
180.0	19.07	17.66	16.59	15.64	14.51	13.78	12.88	11.98	11.42
225.0	19.74	18.56	17.33	16.20	15.19	14.34	13.28	12.54	11.76
270.0	20.48	19.13	17.94	16.88	15.86	14.85	14.01	13.16	12.21
315.0	20.70	19.35	18.06	17.04	15.98	15.02	14.06	13.16	12.38
360.0	20.93	19.41	18.34	17.33	16.09	15.19	14.29	13.33	12.49
C/ γ (°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	11.64	10.86	10.18	9.45	8.72	8.16	7.48	6.86	6.36
45.0	11.08	10.41	9.68	8.94	8.33	7.65	7.03	6.47	5.96
90.0	10.01	9.28	8.61	7.99	7.26	6.69	6.19	5.63	5.12
135.0	10.24	9.68	8.89	8.16	7.65	6.98	6.41	5.96	5.40
180.0	10.63	9.79	9.28	8.72	7.88	7.43	6.86	6.30	5.79
225.0	10.86	10.24	9.62	8.83	8.33	7.71	7.09	6.69	6.13
270.0	11.42	10.74	9.96	9.28	8.66	7.99	7.37	6.86	6.30
315.0	11.53	10.74	10.07	9.45	8.66	8.04	7.43	6.81	6.24
360.0	11.64	10.86	10.18	9.45	8.72	8.16	7.48	6.86	6.36
C/ γ (°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	5.79	5.23	4.78	4.39	3.99	3.71	3.21	2.98	2.76
45.0	5.40	4.95	4.50	4.16	3.88	3.66	3.09	2.81	2.76
90.0	4.73	4.33	3.99	3.71	3.49	3.26	2.81	2.76	2.64
135.0	4.89	4.50	4.11	3.77	3.49	3.21	2.87	2.70	2.70
180.0	5.40	4.89	4.56	4.28	3.99	3.66	3.04	2.81	2.76
225.0	5.63	5.29	4.89	4.56	4.28	4.05	3.26	2.98	2.87
270.0	5.74	5.29	4.78	4.44	4.11	3.83	3.26	3.04	2.87
315.0	5.74	5.18	4.73	4.33	3.94	3.66	3.26	3.04	2.81
360.0	5.79	5.23	4.78	4.39	3.99	3.71	3.21	2.98	2.76

Intensity data(cd)

Appendix Page: 19 Total:19

C/γ(°)	90.0
0.0	2.70
45.0	2.64
90.0	2.70
135.0	2.64
180.0	2.70
225.0	2.81
270.0	2.70
315.0	2.70
360.0	2.70