



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: 1449-E	
Luminaire: 92.70.044.00	
Report No: NATA0100	Voltage(V): 35.1000
Test No: GC2019011208	Current(A): 0.1500
LampCAT: LUMILEDS LUXEON 1202S	Power (W): 5.2650
Lamp flux(lm): 805.1	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 44	Width(mm): 44
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 719.80
Efficiency(%): 89.41%
Lumens(lm)/Power(W): 136.91
Central intensity(cd): 4388.906
Maximum intensity(cd): 4388.906
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=14.8
[C90/270]Total=14.8
Field angle(10%Imax): [C0/180]Total=31.9
[C90/270]Total=31.9
Maximum s/h(1/2): C0_180=0.25 C90_270=0.25
Maximum s/h(1/4): C0_180=0.26 C90_270=0.26
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 89.53%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.432%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4388.906	1.050	1.05	.130%	.146%
1.0	4337.508	8.301	9.351	1.031%	1.299%
2.0	4170.797	15.962	25.313	1.983%	3.517%
3.0	3886.453	22.305	47.619	2.770%	6.615%
4.0	3560.344	27.235	74.854	3.383%	10.399%
5.0	3162.445	30.225	105.079	3.754%	14.598%
6.0	2762.016	31.660	136.739	3.932%	18.997%
7.0	2341.125	31.287	168.027	3.886%	23.343%
8.0	1966.219	30.008	198.035	3.727%	27.512%
9.0	1565.831	26.861	224.896	3.336%	31.244%
10.0	1276.305	24.304	249.2	3.019%	34.621%
11.0	1014.089	21.219	270.419	2.636%	37.568%
12.0	812.384	18.522	288.941	2.301%	40.142%
13.0	647.817	15.981	304.922	1.985%	42.362%
14.0	544.303	14.440	319.362	1.794%	44.368%
15.0	479.876	13.620	332.982	1.692%	46.260%
16.0	437.738	13.231	346.213	1.643%	48.098%
17.0	411.195	13.184	359.397	1.638%	49.930%
18.0	390.417	13.230	372.627	1.643%	51.768%
19.0	374.273	13.362	385.989	1.660%	53.624%
20.0	359.128	13.470	399.459	1.673%	55.495%
21.0	344.201	13.527	412.986	1.680%	57.375%
22.0	331.495	13.618	426.603	1.691%	59.267%
23.0	320.280	13.723	440.327	1.705%	61.173%
24.0	309.452	13.803	454.129	1.714%	63.091%
25.0	299.827	13.895	468.025	1.726%	65.021%
26.0	291.762	14.026	482.05	1.742%	66.970%
27.0	283.184	14.098	496.148	1.751%	68.928%
28.0	276.216	14.220	510.369	1.766%	70.904%
29.0	269.297	14.317	524.686	1.778%	72.893%
30.0	263.693	14.458	539.144	1.796%	74.901%
31.0	258.855	14.620	553.764	1.816%	76.933%
32.0	254.700	14.801	568.565	1.838%	78.989%
33.0	250.411	14.956	583.521	1.858%	81.067%
34.0	245.658	15.064	598.585	1.871%	83.159%
35.0	240.708	15.140	613.726	1.881%	85.263%
36.0	233.965	15.081	628.806	1.873%	87.358%
37.0	222.497	14.684	643.49	1.824%	89.398%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	202.486	13.671	657.161	1.698%	91.297%
39.0	174.073	12.013	669.174	1.492%	92.966%
40.0	143.916	10.144	679.318	1.260%	94.375%
41.0	112.043	8.061	687.379	1.001%	95.495%
42.0	79.460	5.831	693.21	.724%	96.305%
43.0	51.968	3.887	697.096	.483%	96.845%
44.0	31.373	2.390	699.486	.297%	97.177%
45.0	19.498	1.512	700.998	.188%	97.387%
46.0	14.583	1.150	702.148	.143%	97.547%
47.0	13.057	1.047	703.196	.130%	97.693%
48.0	11.855	0.966	704.162	.120%	97.827%
49.0	10.266	0.850	705.011	.106%	97.945%
50.0	8.276	0.695	705.706	.086%	98.041%
51.0	6.595	0.562	706.268	.070%	98.119%
52.0	4.957	0.428	706.697	.053%	98.179%
53.0	4.472	0.392	707.088	.049%	98.233%
54.0	4.170	0.370	707.458	.046%	98.285%
55.0	3.987	0.358	707.817	.044%	98.335%
56.0	3.839	0.349	708.166	.043%	98.383%
57.0	3.755	0.345	708.511	.043%	98.431%
58.0	3.670	0.341	708.852	.042%	98.478%
59.0	3.593	0.338	709.19	.042%	98.525%
60.0	3.544	0.337	709.526	.042%	98.572%
61.0	3.480	0.334	709.86	.041%	98.618%
62.0	3.459	0.335	710.195	.042%	98.665%
63.0	3.410	0.333	710.528	.041%	98.711%
64.0	3.389	0.334	710.862	.041%	98.758%
65.0	3.382	0.336	711.199	.042%	98.804%
66.0	3.375	0.338	711.537	.042%	98.851%
67.0	3.403	0.344	711.88	.043%	98.899%
68.0	3.403	0.346	712.226	.043%	98.947%
69.0	3.410	0.349	712.575	.043%	98.996%
70.0	3.396	0.350	712.925	.043%	99.044%
71.0	3.410	0.354	713.279	.044%	99.093%
72.0	3.396	0.354	713.633	.044%	99.143%
73.0	3.396	0.356	713.989	.044%	99.192%
74.0	3.375	0.356	714.345	.044%	99.242%
75.0	3.361	0.356	714.701	.044%	99.291%

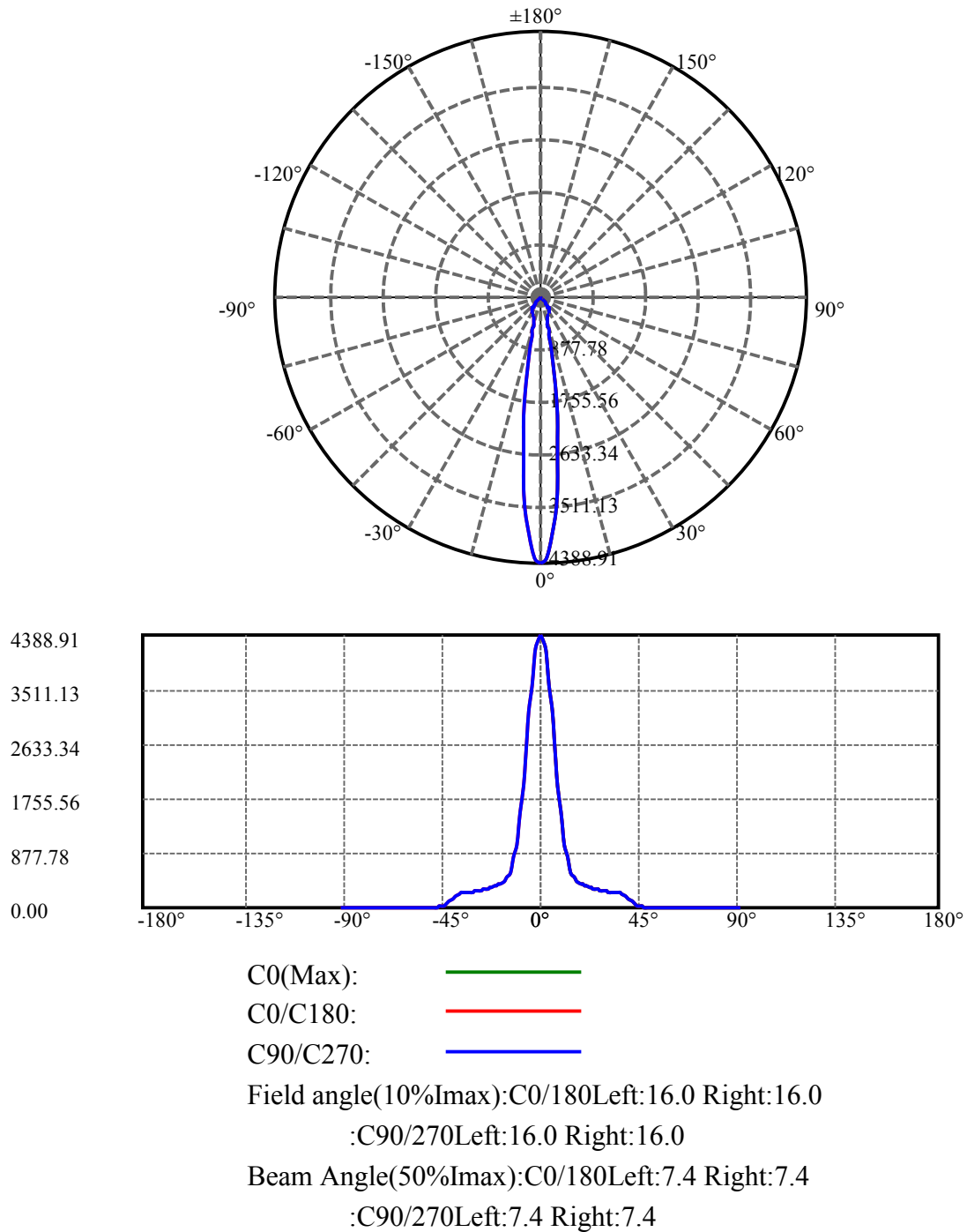
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	3.382	0.360	715.061	.045%	99.341%
77.0	3.382	0.361	715.422	.045%	99.391%
78.0	3.396	0.364	715.787	.045%	99.442%
79.0	3.396	0.366	716.152	.045%	99.493%
80.0	3.368	0.364	716.516	.045%	99.543%
81.0	3.305	0.358	716.874	.044%	99.593%
82.0	3.263	0.354	717.228	.044%	99.642%
83.0	3.227	0.351	717.579	.044%	99.691%
84.0	3.220	0.351	717.931	.044%	99.740%
85.0	3.206	0.350	718.281	.044%	99.788%
86.0	3.206	0.351	718.632	.044%	99.837%
87.0	3.213	0.352	718.983	.044%	99.886%
88.0	3.136	0.344	719.327	.043%	99.934%
89.0	2.981	0.327	719.654	.041%	99.979%
90.0	2.749	0.151	719.805	.019%	100.000%

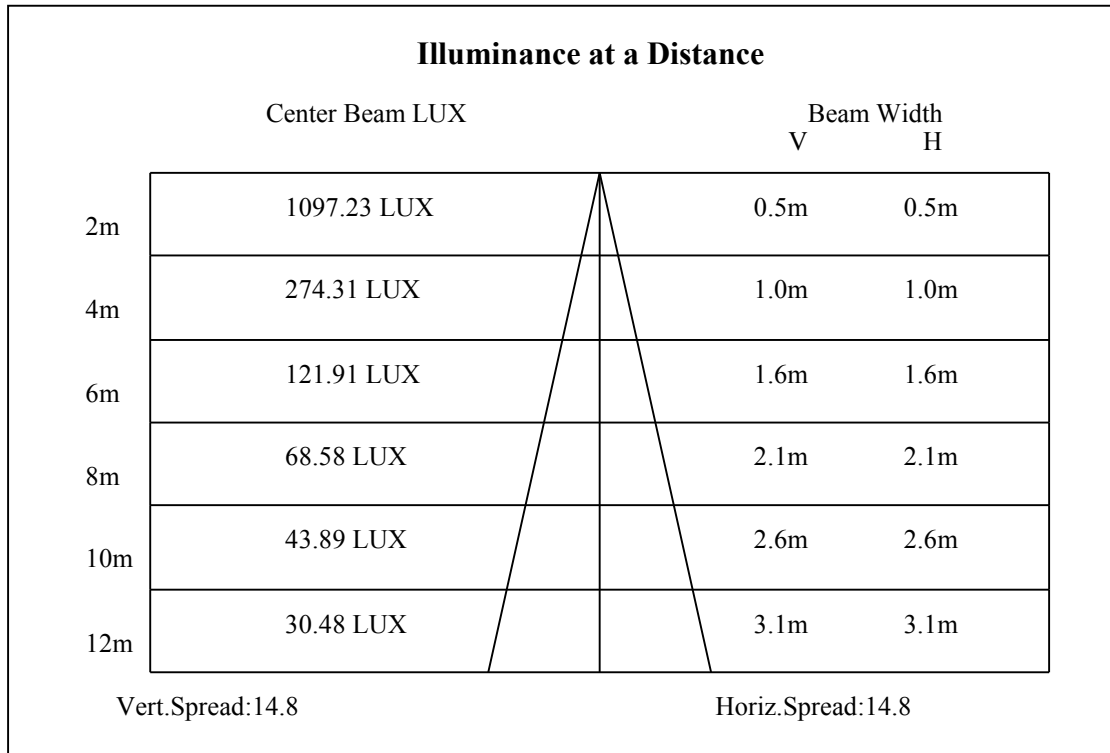
ZONAL LUMEN SUMMARY

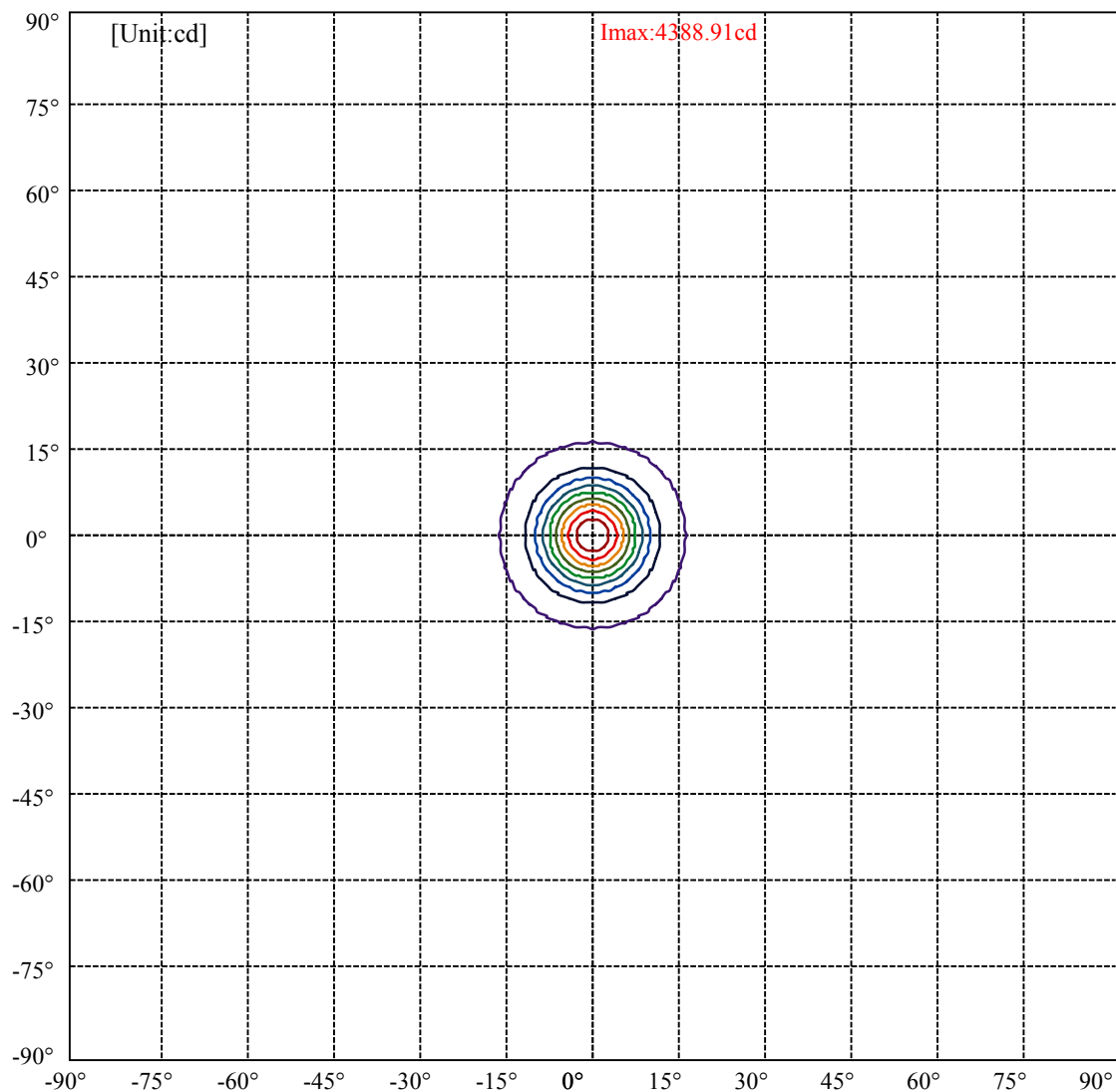
Zone	Lumens	%Lamp	%Fixt
0-30	539.14	66.97%	74.90%
0-40	679.32	84.38%	94.38%
0-60	709.53	88.13%	98.57%
0-90	719.65	89.39%	99.98%
0-120	719.65	89.39%	99.98%
0-180	719.80	89.41%	100.00%
60-90	10.46	1.30%	1.45%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-32.49	575.84	71.52%	80.00%

ZONAL LUMEN SUMMARY

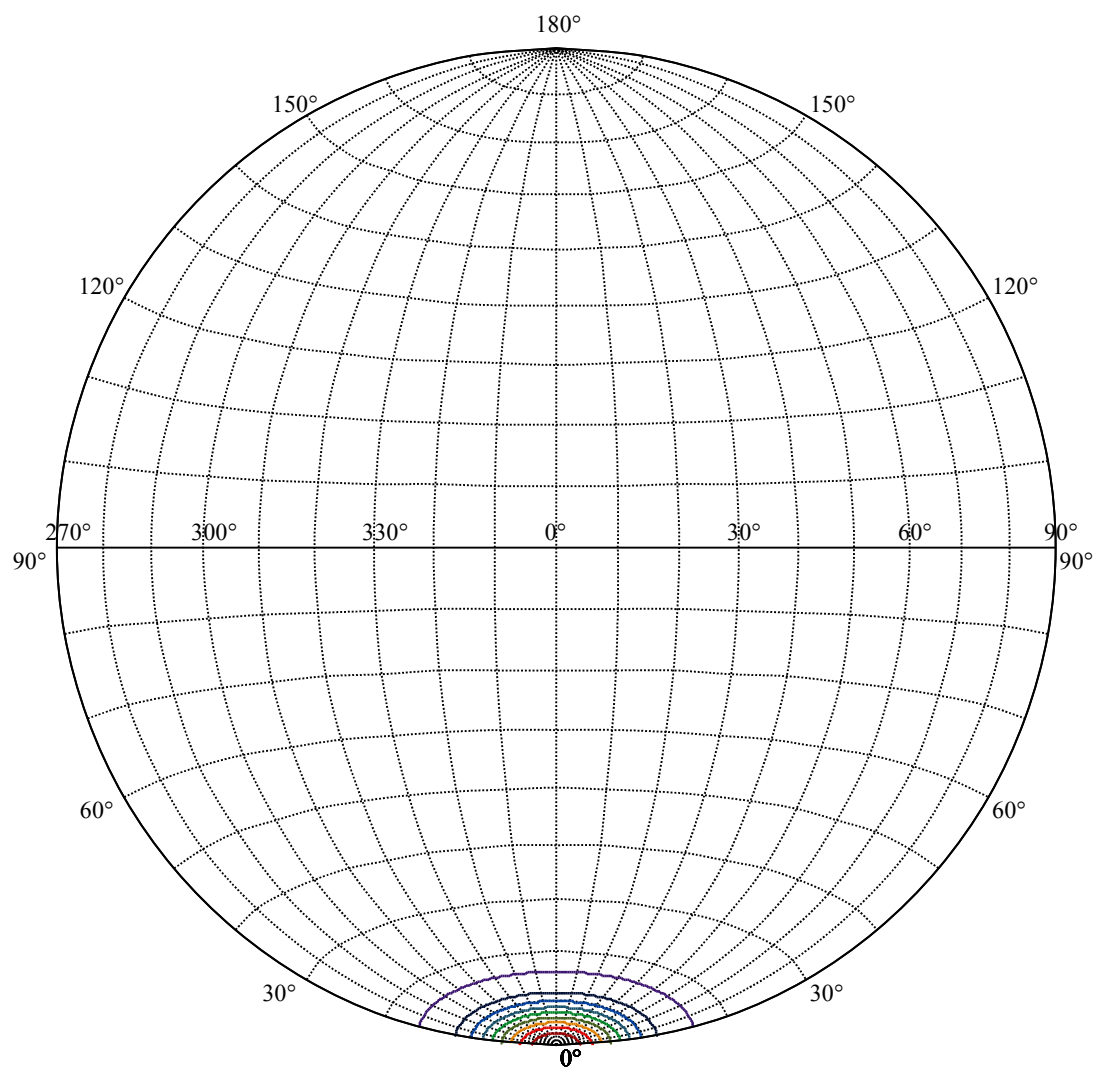
0-10	249.20
10-20	150.26
20-30	139.69
30-40	140.17
40-50	26.39
50-60	3.82
60-70	3.40
70-80	3.59
80-90	3.14
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00







(10%Imax) 438.891	—
(20%Imax) 877.781	—
(30%Imax) 1316.67	—
(40%Imax) 1755.56	—
(50%Imax) 2194.45	—
(60%Imax) 2633.34	—
(70%Imax) 3072.23	—
(80%Imax) 3511.13	—
(90%Imax) 3950.02	—



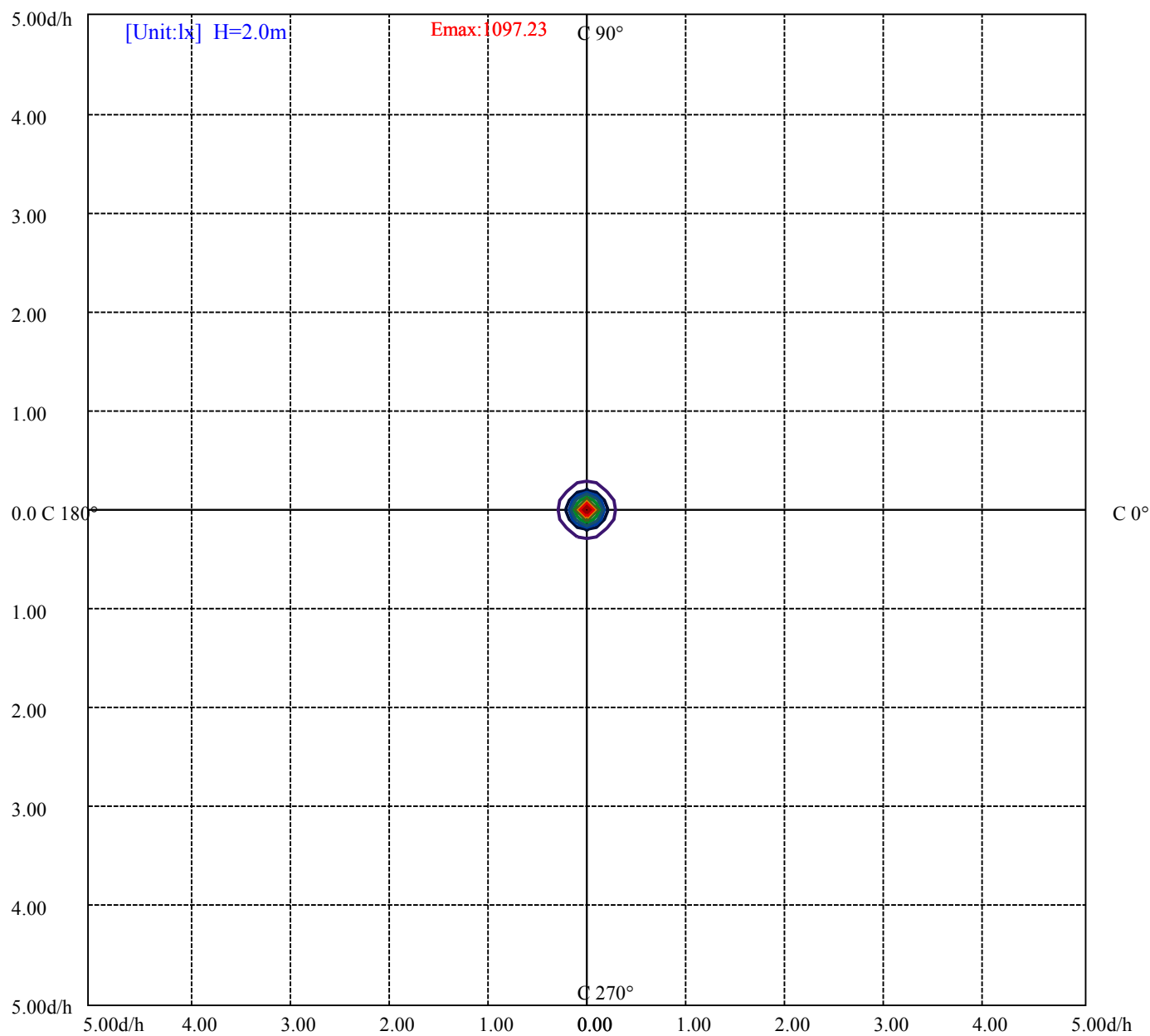
House

[Unit:cd]

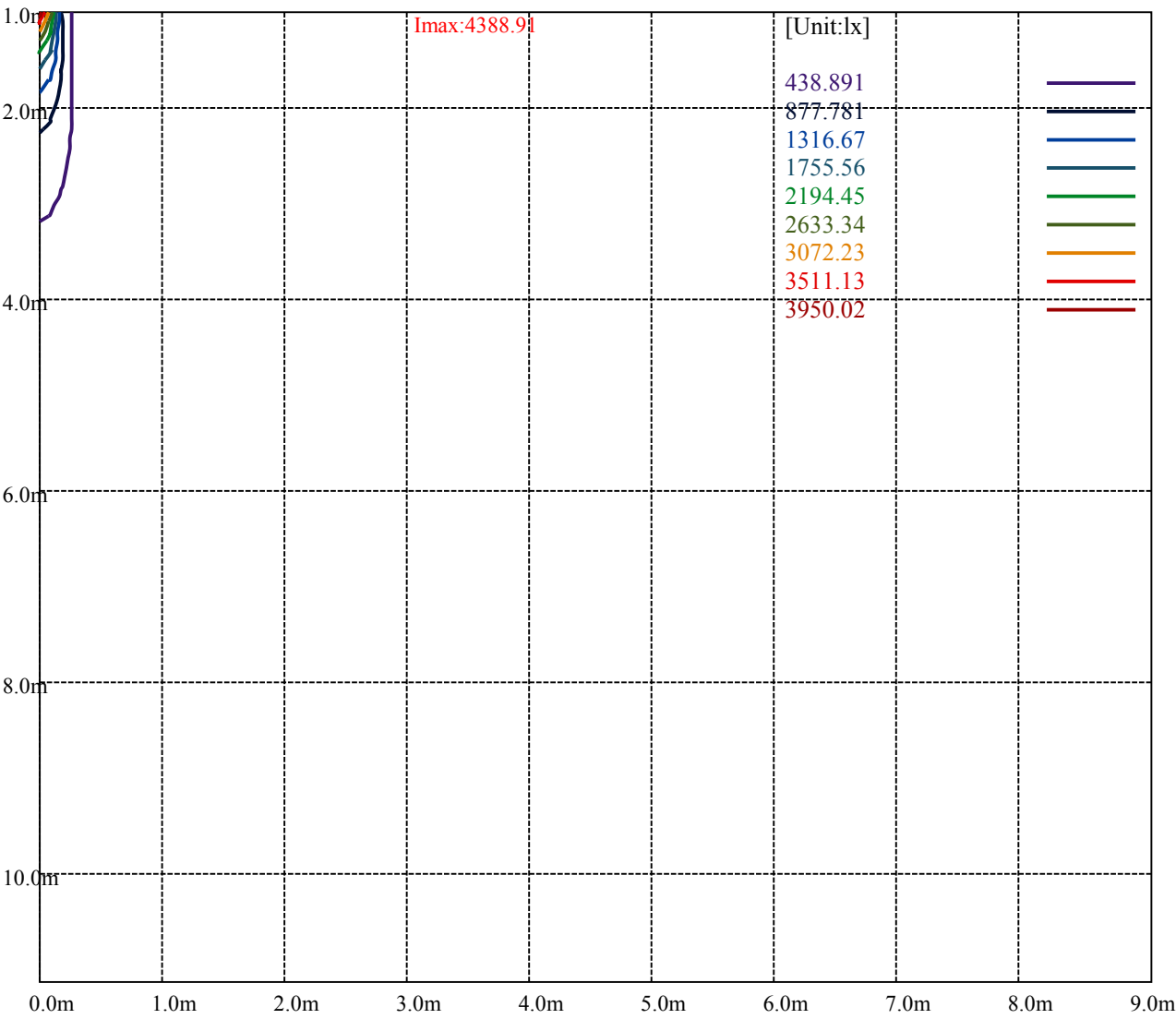
Road

Imax:4388.91

(10%Imax)	438.891	—
(20%Imax)	877.781	—
(30%Imax)	1316.67	—
(40%Imax)	1755.56	—
(50%Imax)	2194.45	—
(60%Imax)	2633.34	—
(70%Imax)	3072.23	—
(80%Imax)	3511.13	—
(90%Imax)	3950.02	—



(10%E _{max}) 109.7225	—
(20%E _{max}) 219.445	—
(30%E _{max}) 329.1675	—
(40%E _{max}) 438.89	—
(50%E _{max}) 548.6125	—
(60%E _{max}) 658.335	—
(70%E _{max}) 768.0575	—
(80%E _{max}) 877.78	—
(90%E _{max}) 987.5025	—



Luminance Table

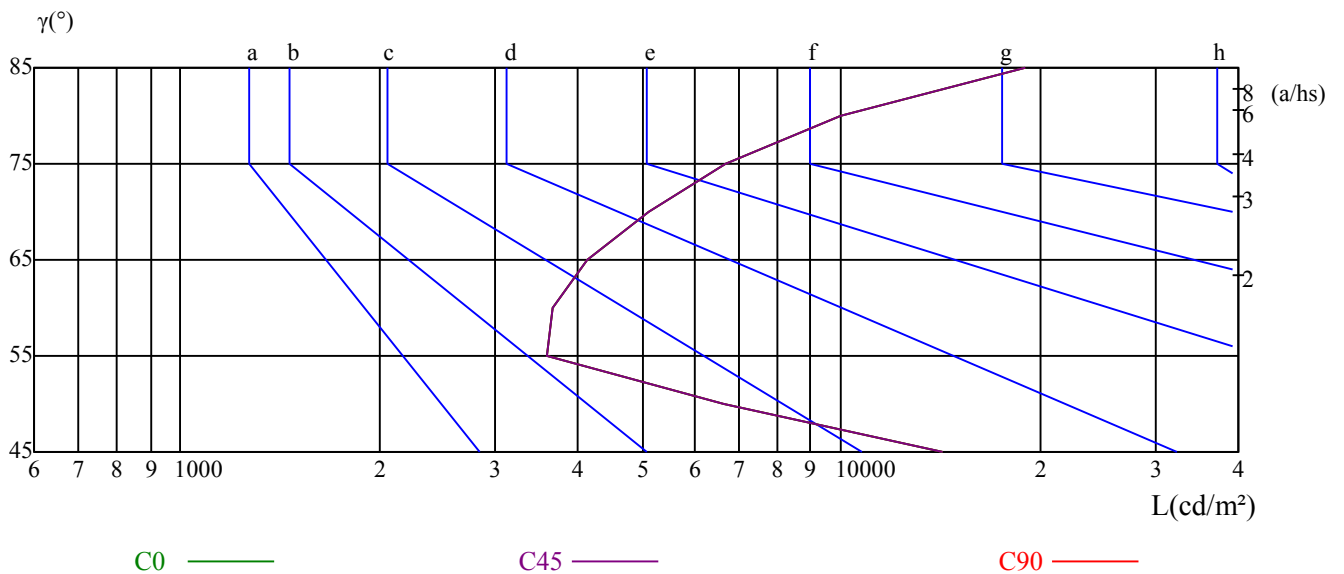
γ	45	50	55	60	65	70	75	80	85
C0	14243	6650	3590	3661	4134	5129	6707	10018	19002
C45	14243	6650	3590	3661	4134	5129	6707	10018	19002
C90	14243	6650	3590	3661	4134	5129	6707	10018	19002

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4134	4134	4134	6707	6707	6707	19002	19002	19002

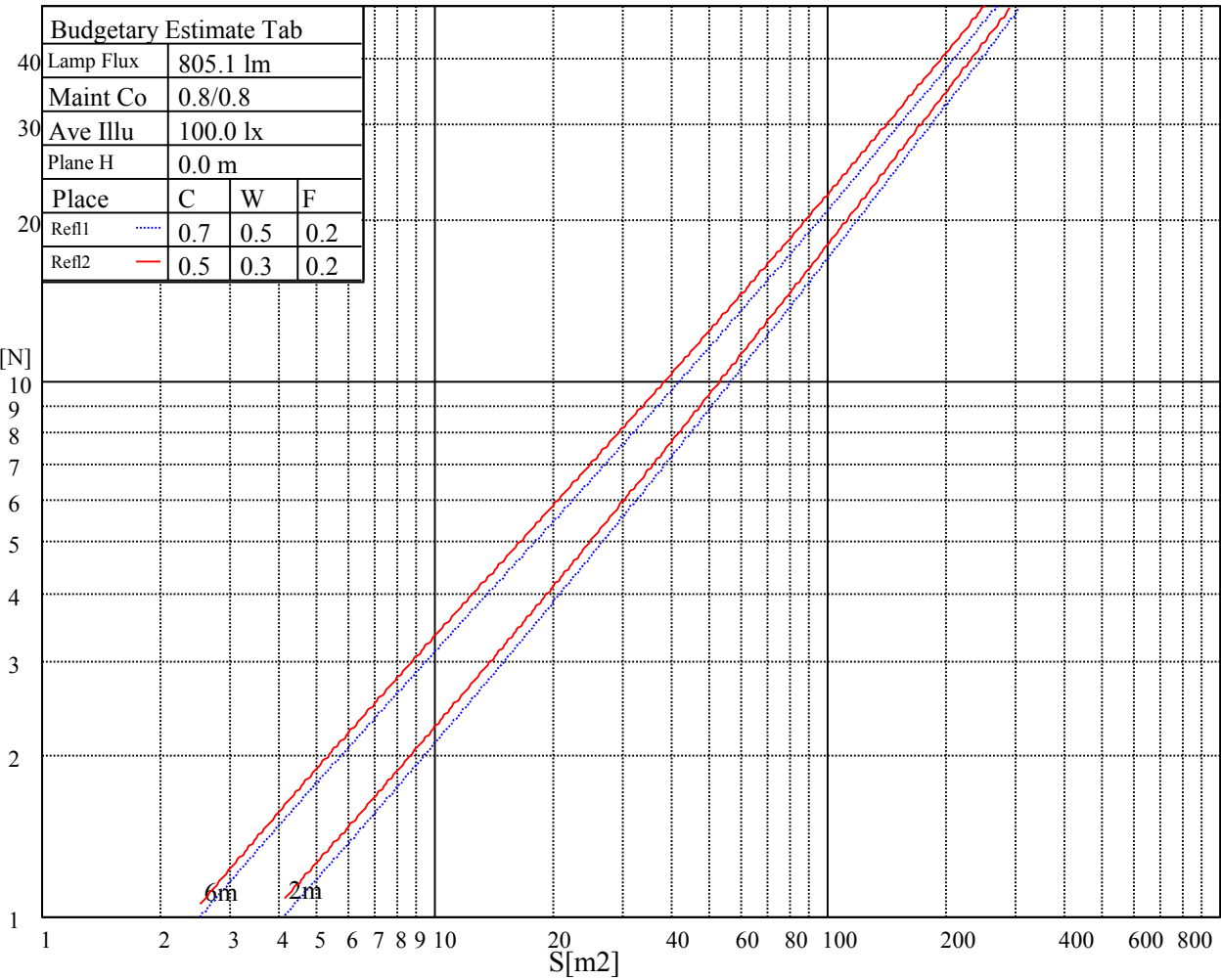
Glare Table

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

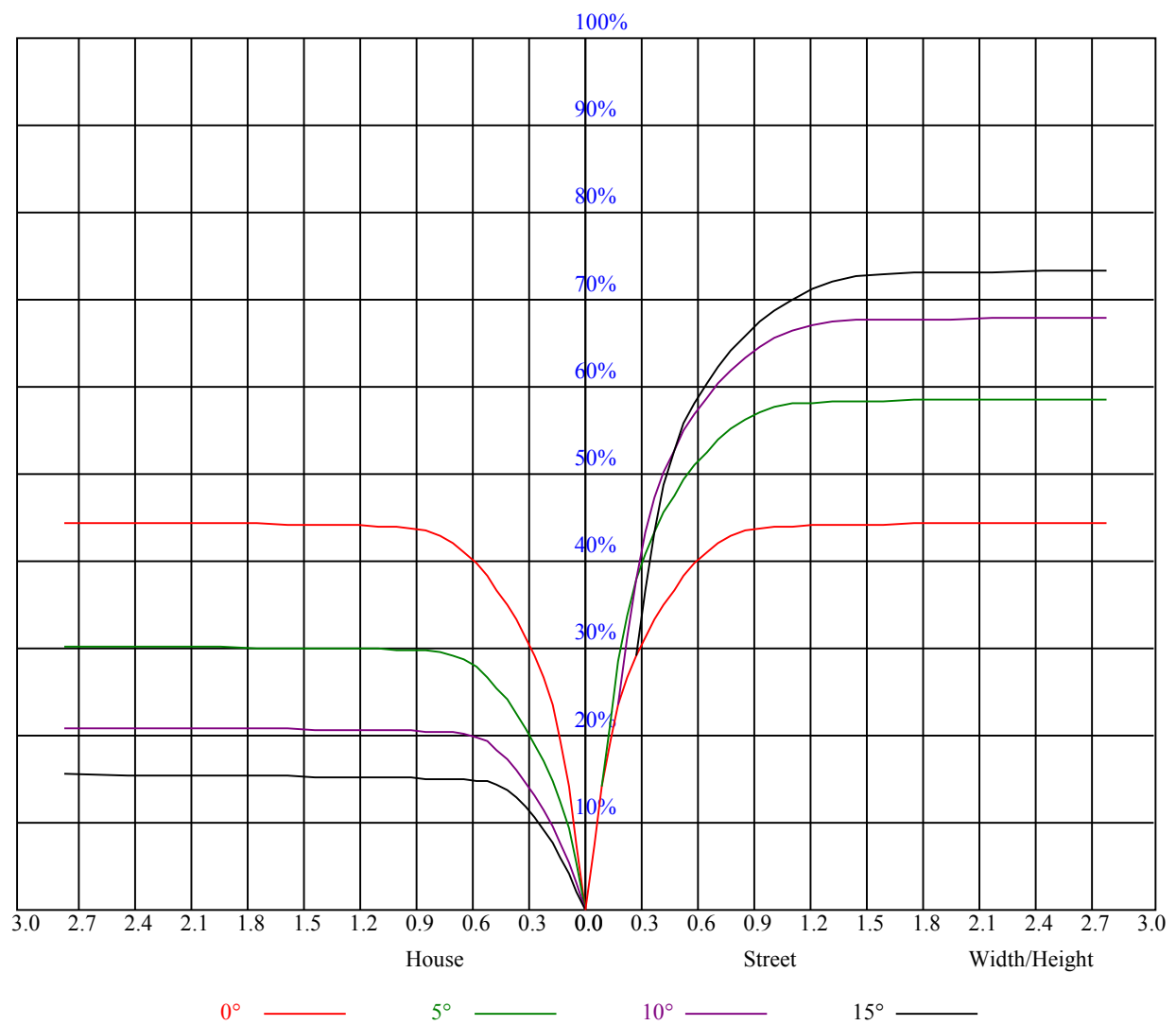
Luminance Limiting Curve



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	6.83	7.77	7.20	8.08	8.39	6.54	7.48	6.91	7.79	8.10
	3H	9.88	10.70	10.26	11.04	11.41	9.64	10.46	10.02	10.80	11.17
	4H	11.63	12.39	12.03	12.74	13.13	11.40	12.17	11.81	12.52	12.91
	6H	13.63	14.32	14.05	14.70	15.10	13.41	14.11	13.83	14.48	14.88
	8H	14.69	15.35	15.13	15.74	16.15	14.50	15.16	14.94	15.55	15.96
	12H	16.37	16.99	16.80	17.38	17.81	16.25	16.88	16.69	17.26	17.69
4H	2H	7.60	8.36	8.01	8.72	9.11	7.39	8.15	7.80	8.51	8.90
	3H	10.98	11.60	11.39	12.01	12.42	10.79	11.41	11.20	11.82	12.23
	4H	12.91	13.47	13.35	13.89	14.34	12.73	13.29	13.17	13.71	14.16
	6H	14.96	15.44	15.43	15.89	16.37	14.79	15.27	15.26	15.72	16.20
	8H	16.17	16.61	16.64	17.06	17.54	16.01	16.46	16.49	16.91	17.39
	12H	17.78	18.16	18.27	18.65	19.13	17.68	18.07	18.18	18.56	19.03
8H	4H	13.62	14.07	14.10	14.52	14.99	13.48	13.93	13.96	14.38	14.86
	6H	15.98	16.33	16.49	16.84	17.32	15.85	16.20	16.36	16.70	17.19
	8H	17.36	17.67	17.89	18.20	18.69	17.24	17.56	17.78	18.08	18.58
	12H	19.09	19.36	19.62	19.86	20.44	19.03	19.29	19.55	19.79	20.37
12H	4H	13.83	14.21	14.32	14.70	15.18	13.71	14.09	14.20	14.58	15.06
	6H	16.52	16.61	16.83	17.08	17.63	16.40	16.49	16.72	16.97	17.52
	8H	17.80	18.07	18.32	18.57	19.15	17.70	17.97	18.22	18.47	19.05
Variation with the observer position at spacings:											
S = 1.0H		4.1/-9.0					4.1/-9.0				
S = 1.5H		6.2/-6.9					6.2/-6.9				
S = 2.0H		7.8/-5.5					7.8/-5.5				
Standard tables:		BK2					BK2				
Uncorrected UGR		2.8					2.8				



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	1.07	1.07	1.07	1.04	1.04	1.04	0.99	0.99	0.99	0.95	0.95	0.95	0.91	0.91	0.91	0.90
1	1.00	0.98	0.96	0.98	0.96	0.94	0.94	0.93	0.91	0.91	0.90	0.89	0.88	0.87	0.86	0.85
2	0.94	0.91	0.88	0.92	0.89	0.87	0.89	0.87	0.85	0.87	0.85	0.83	0.84	0.83	0.81	0.80
3	0.89	0.85	0.82	0.87	0.84	0.81	0.85	0.82	0.80	0.83	0.81	0.79	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	0.74	0.78	0.76	0.74	0.72
5	0.80	0.76	0.72	0.79	0.75	0.72	0.78	0.74	0.71	0.76	0.73	0.71	0.75	0.72	0.70	0.69
6	0.76	0.72	0.69	0.76	0.72	0.68	0.75	0.71	0.68	0.73	0.70	0.68	0.72	0.69	0.67	0.66
7	0.73	0.69	0.65	0.73	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.64	0.63
8	0.70	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.62	0.68	0.65	0.62	0.67	0.64	0.62	0.61
9	0.68	0.63	0.60	0.67	0.63	0.60	0.66	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.60	0.59
10	0.65	0.61	0.58	0.65	0.61	0.58	0.64	0.60	0.58	0.63	0.60	0.58	0.63	0.60	0.57	0.56



NATA 1449-E

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	4273.88	4463.44	4506.75	4397.06	4154.63	3809.25	3429.00	2986.31	2617.31
45.0	4420.69	4515.19	4483.13	4320.00	4109.63	3639.94	3219.75	2850.75	2334.38
90.0	4444.31	4388.63	4218.75	3921.75	3588.19	3198.38	2732.63	2248.31	1839.94
135.0	4416.75	4311.00	4057.88	3785.63	3389.06	2958.19	2568.38	2109.38	1731.94
180.0	4273.88	4061.25	3777.75	3288.94	2964.38	2589.75	2198.25	1733.63	1416.38
225.0	4420.69	4206.94	3904.88	3513.38	3147.75	2794.50	2380.50	1971.56	1640.81
270.0	4444.31	4358.81	4151.25	3882.38	3480.19	3047.06	2709.00	2343.38	2008.69
315.0	4416.75	4394.81	4266.00	3982.50	3648.94	3262.50	2858.63	2485.69	2140.31
360.0	4273.88	4463.44	4506.75	4397.06	4154.63	3809.25	3429.00	2986.31	2617.31
C/ γ (°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	2202.75	1812.94	1504.13	1224.56	921.94	732.94	608.63	518.63	472.50
45.0	1888.31	1543.50	1212.19	963.56	736.88	588.94	506.25	450.00	415.69
90.0	1441.69	1121.74	888.47	684.73	562.28	478.41	429.98	404.10	385.48
135.0	1362.94	1055.25	830.81	661.50	531.56	472.50	435.94	408.38	393.75
180.0	1097.83	842.01	678.54	567.34	488.14	444.15	418.61	398.93	386.89
225.0	1091.19	1028.70	810.84	638.61	541.24	473.12	432.17	407.70	387.62
270.0	1663.88	1352.25	1095.19	868.50	665.44	563.06	493.88	441.00	411.75
315.0	1778.06	1454.06	1092.54	890.27	735.08	601.31	513.56	473.18	435.88
360.0	2202.75	1812.94	1504.13	1224.56	921.94	732.94	608.63	518.63	472.50
C/ γ (°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	441.00	414.00	391.50	374.06	357.19	343.69	330.19	319.50	309.94
45.0	396.00	381.94	364.50	351.00	339.19	326.81	315.56	306.56	295.88
90.0	368.61	356.29	345.09	330.47	319.56	307.58	296.33	286.37	278.33
135.0	383.63	373.50	363.38	352.69	340.88	330.75	318.94	308.81	300.94
180.0	372.49	359.78	348.58	336.43	323.49	313.54	304.65	294.58	286.93
225.0	368.94	354.32	341.04	324.90	313.31	303.98	295.48	287.89	281.48
270.0	387.00	365.06	346.50	332.44	318.38	307.13	297.00	289.13	284.06
315.0	405.68	389.31	372.43	351.62	339.98	328.78	317.48	305.78	296.55
360.0	441.00	414.00	391.50	374.06	357.19	343.69	330.19	319.50	309.94
C/ γ (°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	299.81	290.25	284.63	276.58	270.45	266.01	261.56	256.61	251.89
45.0	287.44	284.63	272.31	267.13	262.80	259.37	255.83	253.24	248.79
90.0	270.51	263.36	256.78	251.49	246.77	241.99	237.71	234.68	228.88
135.0	291.38	284.06	274.33	268.31	261.39	256.67	252.45	244.86	239.06
180.0	279.68	271.46	265.61	260.44	255.43	250.99	245.81	238.28	233.66
225.0	275.18	270.28	265.16	261.56	258.24	255.60	251.55	246.38	241.20
270.0	272.64	264.60	259.82	253.80	250.09	246.26	242.89	240.24	235.46
315.0	288.84	281.08	275.74	270.23	265.67	260.72	255.49	250.99	246.71
360.0	299.81	290.25	284.63	276.58	270.45	266.01	261.56	256.61	251.89
C/ γ (°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	247.84	240.02	233.38	216.45	189.23	159.64	125.49	91.58	61.43
45.0	241.82	236.93	225.00	203.79	177.36	143.38	109.07	78.98	48.66
90.0	224.16	216.34	198.84	167.68	139.05	109.29	73.58	47.76	28.41
135.0	234.62	222.24	192.71	162.62	132.30	95.79	61.76	37.13	18.17
180.0	220.16	193.89	164.64	130.61	94.61	63.51	38.64	17.44	11.03
225.0	233.38	212.79	187.03	147.21	115.37	84.21	52.09	27.39	15.98
270.0	231.75	225.84	203.63	177.24	148.78	116.38	84.26	58.16	34.82
315.0	237.99	231.92	214.65	186.98	154.63	124.14	90.79	57.32	32.51
360.0	247.84	240.02	233.38	216.45	189.23	159.64	125.49	91.58	61.43

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Intensity data(cd)										Appendix Page: 18 Total:19	
C/ γ (°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0		
0.0	34.59	17.61	12.94	12.43	11.70	10.97	10.63	4.84	4.28		
45.0	28.58	17.55	16.37	15.58	14.34	12.94	9.51	5.96	5.23		
90.0	18.28	17.10	15.81	13.61	11.93	8.21	5.91	5.23	4.67		
135.0	11.59	10.91	10.35	9.39	8.16	4.28	4.11	3.99	3.88		
180.0	10.24	9.51	8.44	7.43	4.33	4.11	3.99	3.88	3.83		
225.0	12.54	11.64	10.46	9.06	8.10	5.06	4.67	4.33	4.16		
270.0	22.84	20.64	19.29	17.38	14.79	12.54	8.55	6.98	5.46		
315.0	17.33	11.70	10.80	9.96	8.78	8.10	5.40	4.44	4.28		
360.0	34.59	17.61	12.94	12.43	11.70	10.97	10.63	4.84	4.28		
C/ γ (°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0		
0.0	4.16	4.05	3.99	3.83	3.71	3.66	3.60	3.54	3.49		
45.0	4.67	4.28	3.94	3.83	3.77	3.66	3.54	3.49	3.49		
90.0	4.28	4.05	3.94	3.83	3.66	3.60	3.60	3.49	3.49		
135.0	3.77	3.66	3.60	3.54	3.54	3.43	3.43	3.38	3.32		
180.0	3.66	3.60	3.54	3.54	3.43	3.43	3.38	3.32	3.38		
225.0	3.94	3.83	3.71	3.71	3.66	3.60	3.54	3.49	3.49		
270.0	4.73	4.39	4.16	3.99	3.94	3.77	3.71	3.66	3.60		
315.0	4.16	4.05	3.83	3.77	3.66	3.60	3.54	3.49	3.43		
360.0	4.16	4.05	3.99	3.83	3.71	3.66	3.60	3.54	3.49		
C/ γ (°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0		
0.0	3.43	3.38	3.38	3.38	3.38	3.43	3.49	3.43	3.49		
45.0	3.43	3.38	3.38	3.32	3.38	3.38	3.38	3.38	3.43		
90.0	3.43	3.43	3.38	3.32	3.38	3.32	3.32	3.32	3.32		
135.0	3.26	3.26	3.26	3.26	3.21	3.21	3.15	3.15	3.15		
180.0	3.26	3.26	3.26	3.26	3.26	3.26	3.26	3.26	3.26		
225.0	3.43	3.49	3.49	3.49	3.54	3.54	3.54	3.49	3.49		
270.0	3.60	3.54	3.54	3.60	3.66	3.66	3.66	3.66	3.66		
315.0	3.43	3.38	3.38	3.38	3.43	3.43	3.49	3.49	3.49		
360.0	3.43	3.38	3.38	3.38	3.38	3.43	3.49	3.43	3.49		
C/ γ (°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0		
0.0	3.49	3.49	3.49	3.49	3.49	3.43	3.43	3.43	3.43		
45.0	3.38	3.38	3.38	3.38	3.38	3.32	3.32	3.32	3.26		
90.0	3.26	3.26	3.26	3.21	3.21	3.21	3.15	3.15	3.09		
135.0	3.15	3.15	3.09	3.09	3.09	3.04	3.04	3.04	3.04		
180.0	3.26	3.21	3.15	3.15	3.15	3.15	3.15	3.21	3.21		
225.0	3.49	3.49	3.49	3.49	3.54	3.71	3.83	3.83	3.77		
270.0	3.66	3.71	3.66	3.66	3.71	3.77	3.83	3.83	3.77		
315.0	3.49	3.49	3.49	3.43	3.49	3.43	3.43	3.38	3.38		
360.0	3.49	3.49	3.49	3.49	3.49	3.43	3.43	3.43	3.43		
C/ γ (°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0		
0.0	3.49	3.43	3.38	3.32	3.32	3.32	3.38	3.38	3.38		
45.0	3.26	3.26	3.21	3.21	3.15	3.15	3.09	3.09	2.81		
90.0	3.09	3.09	3.04	3.04	2.98	2.98	2.98	2.76	2.76		
135.0	3.04	3.04	2.98	2.98	2.98	2.93	2.98	2.81	2.76		
180.0	3.15	3.09	3.09	3.15	3.15	3.15	3.09	2.76	2.76		
225.0	3.43	3.38	3.32	3.38	3.38	3.43	3.43	3.49	2.76		
270.0	3.66	3.49	3.49	3.43	3.43	3.43	3.49	3.54	3.43		
315.0	3.32	3.32	3.32	3.26	3.26	3.26	3.26	3.26	3.21		
360.0	3.49	3.43	3.38	3.32	3.32	3.32	3.38	3.38	3.38		

Intensity data(cd)

Appendix Page: 19 Total:19

C/ γ (°)	90.0
0.0	2.81
45.0	2.76
90.0	2.70
135.0	2.70
180.0	2.70
225.0	2.76
270.0	2.76
315.0	2.81
360.0	2.81