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Nata

LumCAT: 1657-S	
Luminaire: 92.70.123.00	
Report No: NATA0100	Voltage(V): 37.2000
Test No: GC2018092614	Current(A): 0.2100
LampCAT: CITIZEN CLU7A2-1201C9	Power (W): 7.8120
Lamp flux(lm): 767.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 47	Width(mm): 47
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 670.82
Efficiency(%): 87.46%
Lumens(lm)/Power(W): 86.00
Central intensity(cd): 4468.921
Maximum intensity(cd): 4468.921
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=16.9
 [C90/270]Total=16.9
Field angle(10%Imax): [C0/180]Total=31.6
 [C90/270]Total=31.6
Maximum s/h(1/2): C0_180=0.29 C90_270=0.29
Maximum s/h(1/4): C0_180=0.29 C90_270=0.29
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 87.60%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.236%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4468.922	1.069	1.069	.139%	.159%
1.0	4432.570	8.483	9.552	1.106%	1.424%
2.0	4306.078	16.480	26.032	2.149%	3.881%
3.0	4108.570	23.580	49.612	3.074%	7.396%
4.0	3857.906	29.511	79.123	3.848%	11.795%
5.0	3517.313	33.617	112.74	4.383%	16.806%
6.0	3171.023	36.348	149.089	4.739%	22.225%
7.0	2786.203	37.236	186.325	4.855%	27.776%
8.0	2395.547	36.560	222.885	4.767%	33.226%
9.0	2030.695	34.836	257.721	4.542%	38.419%
10.0	1691.016	32.201	289.922	4.198%	43.219%
11.0	1342.420	28.089	318.011	3.662%	47.406%
12.0	1100.060	25.081	343.092	3.270%	51.145%
13.0	876.312	21.617	364.71	2.818%	54.368%
14.0	670.113	17.778	382.487	2.318%	57.018%
15.0	532.266	15.107	397.594	1.970%	59.270%
16.0	427.317	12.916	410.51	1.684%	61.195%
17.0	359.135	11.514	422.025	1.501%	62.912%
18.0	320.365	10.856	432.881	1.415%	64.530%
19.0	300.459	10.727	443.608	1.399%	66.129%
20.0	287.269	10.774	454.383	1.405%	67.736%
21.0	276.996	10.886	465.268	1.419%	69.358%
22.0	270.865	11.127	476.395	1.451%	71.017%
23.0	264.705	11.342	487.737	1.479%	72.708%
24.0	260.023	11.598	499.335	1.512%	74.437%
25.0	255.178	11.826	511.161	1.542%	76.200%
26.0	252.077	12.118	523.279	1.580%	78.006%
27.0	248.955	12.394	535.674	1.616%	79.854%
28.0	245.988	12.664	548.338	1.651%	81.742%
29.0	242.044	12.868	561.206	1.678%	83.660%
30.0	238.296	13.066	574.272	1.704%	85.608%
31.0	234.668	13.254	587.526	1.728%	87.583%
32.0	230.442	13.391	600.917	1.746%	89.580%
33.0	220.859	13.191	614.108	1.720%	91.546%
34.0	194.808	11.946	626.054	1.557%	93.327%
35.0	147.101	9.252	635.306	1.206%	94.706%
36.0	92.053	5.933	641.24	.774%	95.591%
37.0	49.859	3.290	644.53	.429%	96.081%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	21.649	1.462	645.992	.191%	96.299%
39.0	14.203	0.980	646.972	.128%	96.445%
40.0	13.233	0.933	647.905	.122%	96.584%
41.0	12.178	0.876	648.781	.114%	96.715%
42.0	10.948	0.803	649.584	.105%	96.835%
43.0	9.928	0.743	650.327	.097%	96.945%
44.0	9.155	0.697	651.024	.091%	97.049%
45.0	8.648	0.671	651.695	.087%	97.149%
46.0	8.445	0.666	652.361	.087%	97.248%
47.0	8.198	0.658	653.018	.086%	97.346%
48.0	7.833	0.638	653.657	.083%	97.442%
49.0	7.552	0.625	654.282	.081%	97.535%
50.0	7.207	0.605	654.887	.079%	97.625%
51.0	6.898	0.588	655.475	.077%	97.713%
52.0	6.616	0.572	656.047	.075%	97.798%
53.0	6.321	0.554	656.6	.072%	97.880%
54.0	6.012	0.533	657.134	.070%	97.960%
55.0	5.773	0.519	657.652	.068%	98.037%
56.0	5.505	0.501	658.153	.065%	98.112%
57.0	5.295	0.487	658.64	.063%	98.184%
58.0	5.055	0.470	659.11	.061%	98.255%
59.0	4.866	0.457	659.567	.060%	98.323%
60.0	4.697	0.446	660.013	.058%	98.389%
61.0	4.521	0.434	660.447	.057%	98.454%
62.0	4.395	0.425	660.872	.055%	98.517%
63.0	4.254	0.416	661.288	.054%	98.579%
64.0	4.170	0.411	661.699	.054%	98.641%
65.0	4.050	0.403	662.101	.052%	98.701%
66.0	3.930	0.394	662.495	.051%	98.759%
67.0	3.860	0.390	662.885	.051%	98.817%
68.0	3.776	0.384	663.269	.050%	98.875%
69.0	3.713	0.380	663.649	.050%	98.931%
70.0	3.642	0.375	664.024	.049%	98.987%
71.0	3.586	0.372	664.396	.048%	99.043%
72.0	3.530	0.368	664.764	.048%	99.097%
73.0	3.473	0.364	665.128	.047%	99.152%
74.0	3.438	0.362	665.491	.047%	99.206%
75.0	3.403	0.360	665.851	.047%	99.260%

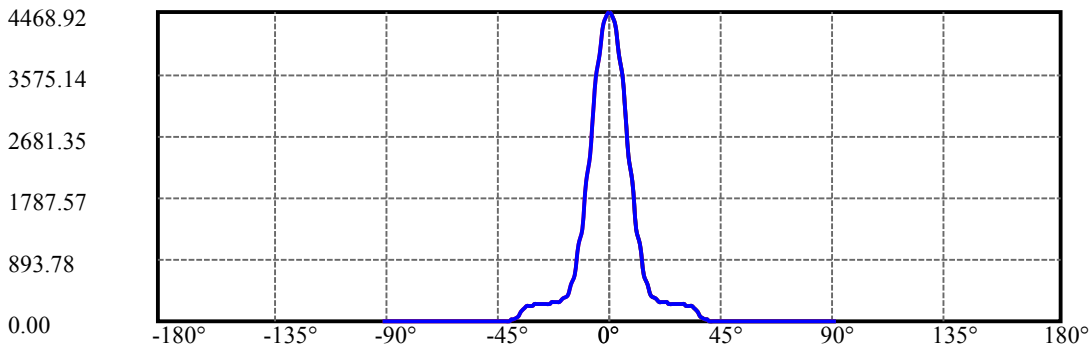
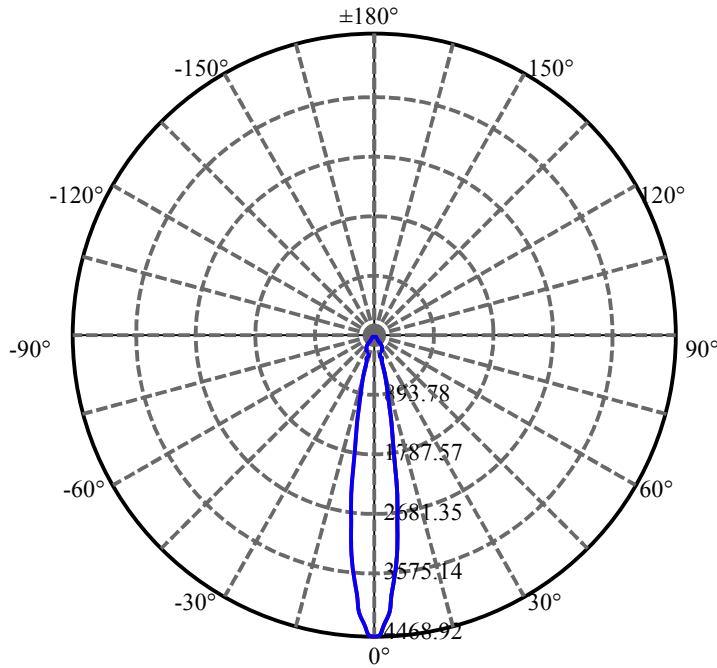
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	3.368	0.358	666.21	.047%	99.313%
77.0	3.333	0.356	666.566	.046%	99.366%
78.0	3.305	0.354	666.92	.046%	99.419%
79.0	3.270	0.352	667.272	.046%	99.471%
80.0	3.277	0.354	667.626	.046%	99.524%
81.0	3.206	0.347	667.973	.045%	99.576%
82.0	3.185	0.346	668.319	.045%	99.627%
83.0	3.150	0.343	668.662	.045%	99.679%
84.0	3.122	0.340	669.003	.044%	99.729%
85.0	3.101	0.339	669.341	.044%	99.780%
86.0	3.059	0.335	669.676	.044%	99.830%
87.0	3.009	0.330	670.005	.043%	99.879%
88.0	2.995	0.328	670.334	.043%	99.928%
89.0	2.960	0.325	670.658	.042%	99.976%
90.0	2.925	0.160	670.819	.021%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	574.27	74.87%	85.61%
0-40	647.90	84.47%	96.58%
0-60	660.01	86.05%	98.39%
0-90	670.66	87.44%	99.98%
0-120	670.66	87.44%	99.98%
0-180	670.82	87.46%	100.00%
60-90	11.09	1.45%	1.65%
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%
0-27.08	536.65	69.97%	80.00%

ZONAL LUMEN SUMMARY

0-10	289.92
10-20	164.46
20-30	119.89
30-40	73.63
40-50	6.98
50-60	5.13
60-70	4.01
70-80	3.60
80-90	3.03
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: —————

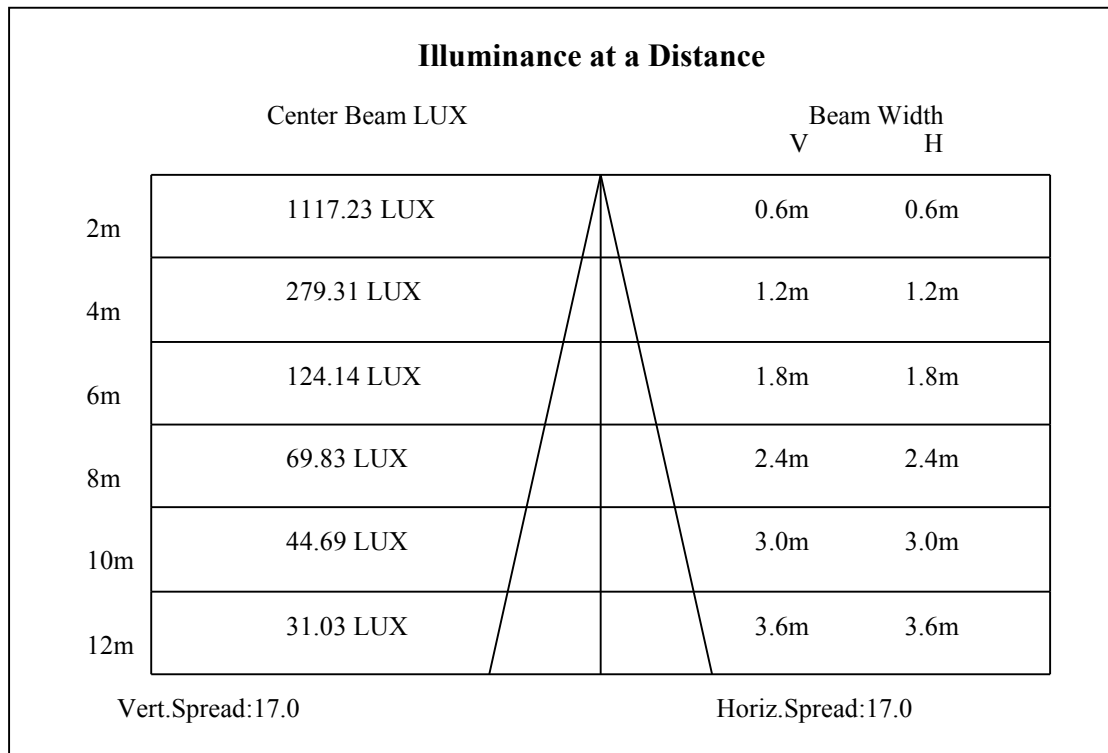
C90/C270: —————

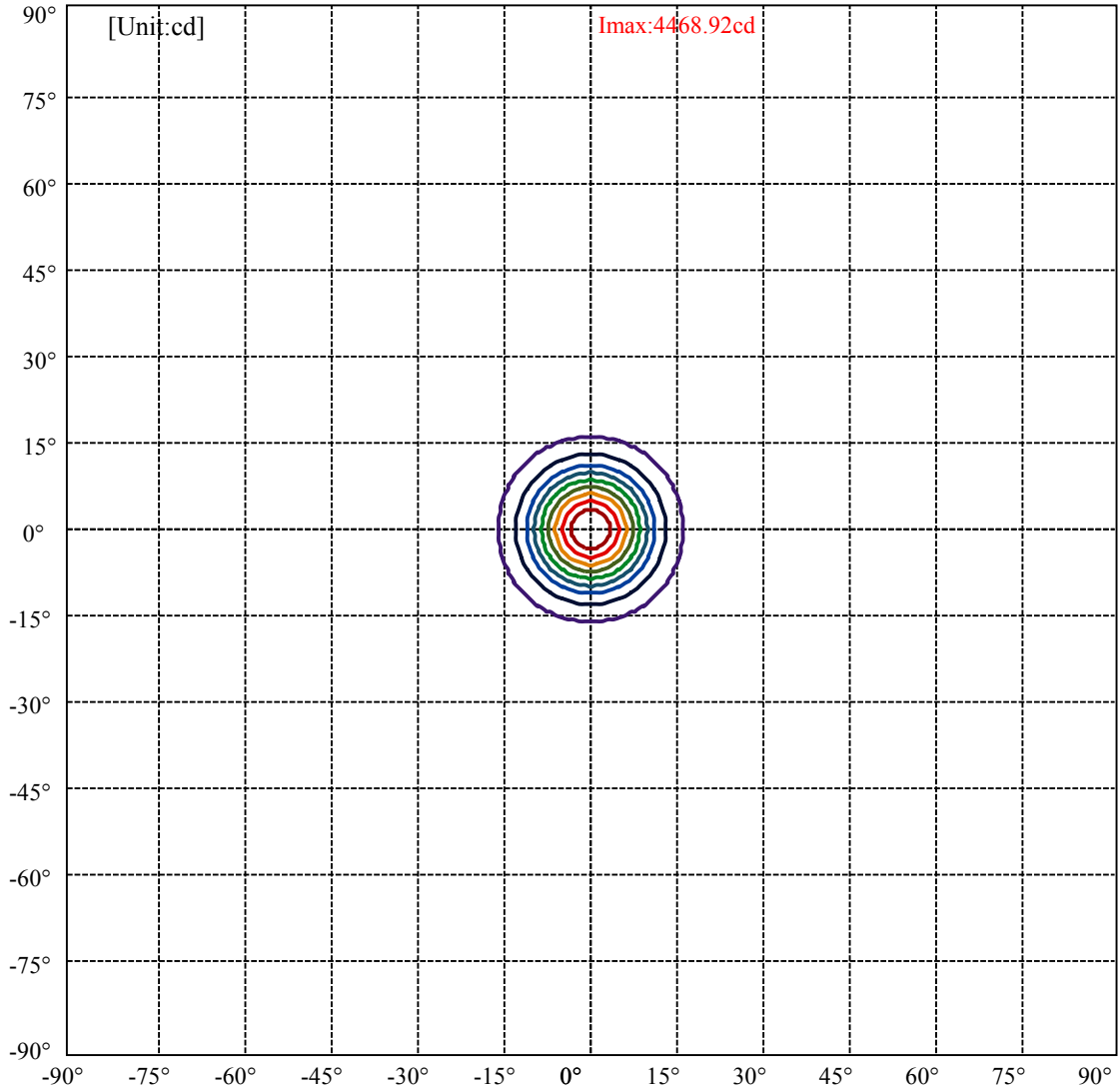
Field angle(10%Imax):C0/180Left:15.8 Right:15.8

:C90/270Left:15.8 Right:15.8

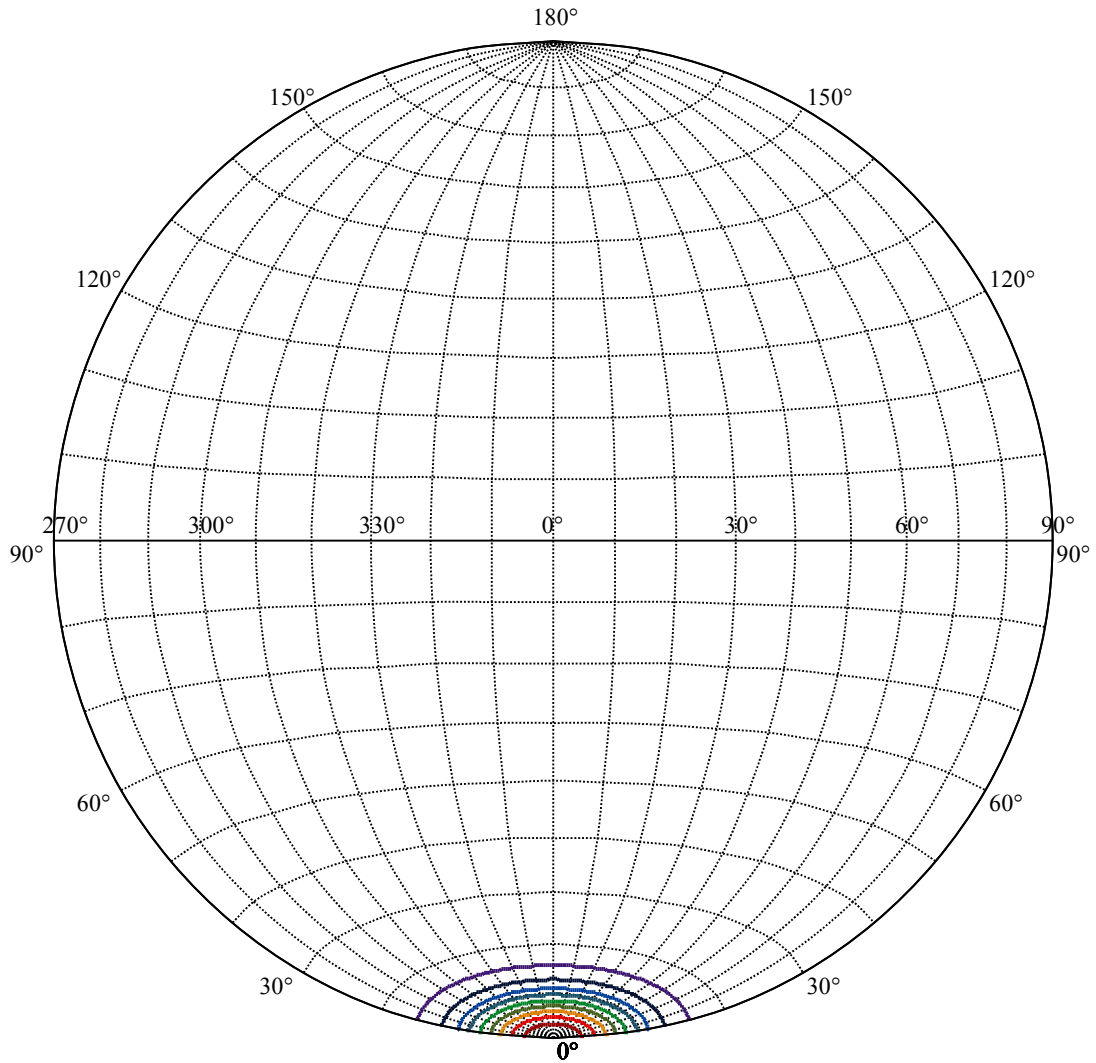
Beam Angle(50%Imax):C0/180Left:8.4 Right:8.4

:C90/270Left:8.4 Right:8.4





(10%Imax) 446.892	—
(20%Imax) 893.784	—
(30%Imax) 1340.68	—
(40%Imax) 1787.57	—
(50%Imax) 2234.46	—
(60%Imax) 2681.35	—
(70%Imax) 3128.24	—
(80%Imax) 3575.14	—
(90%Imax) 4022.03	—



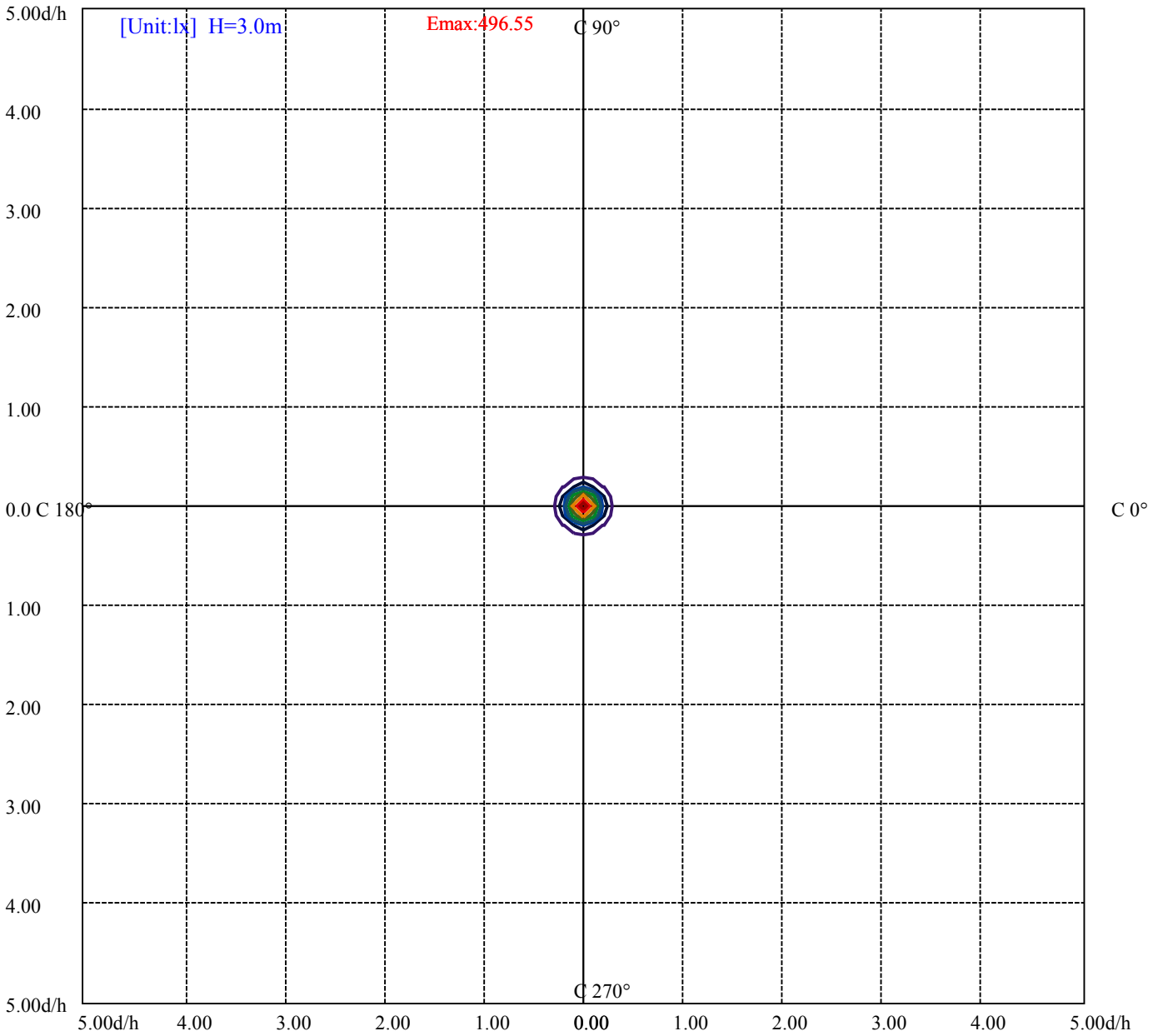
House

[Unit:cd]

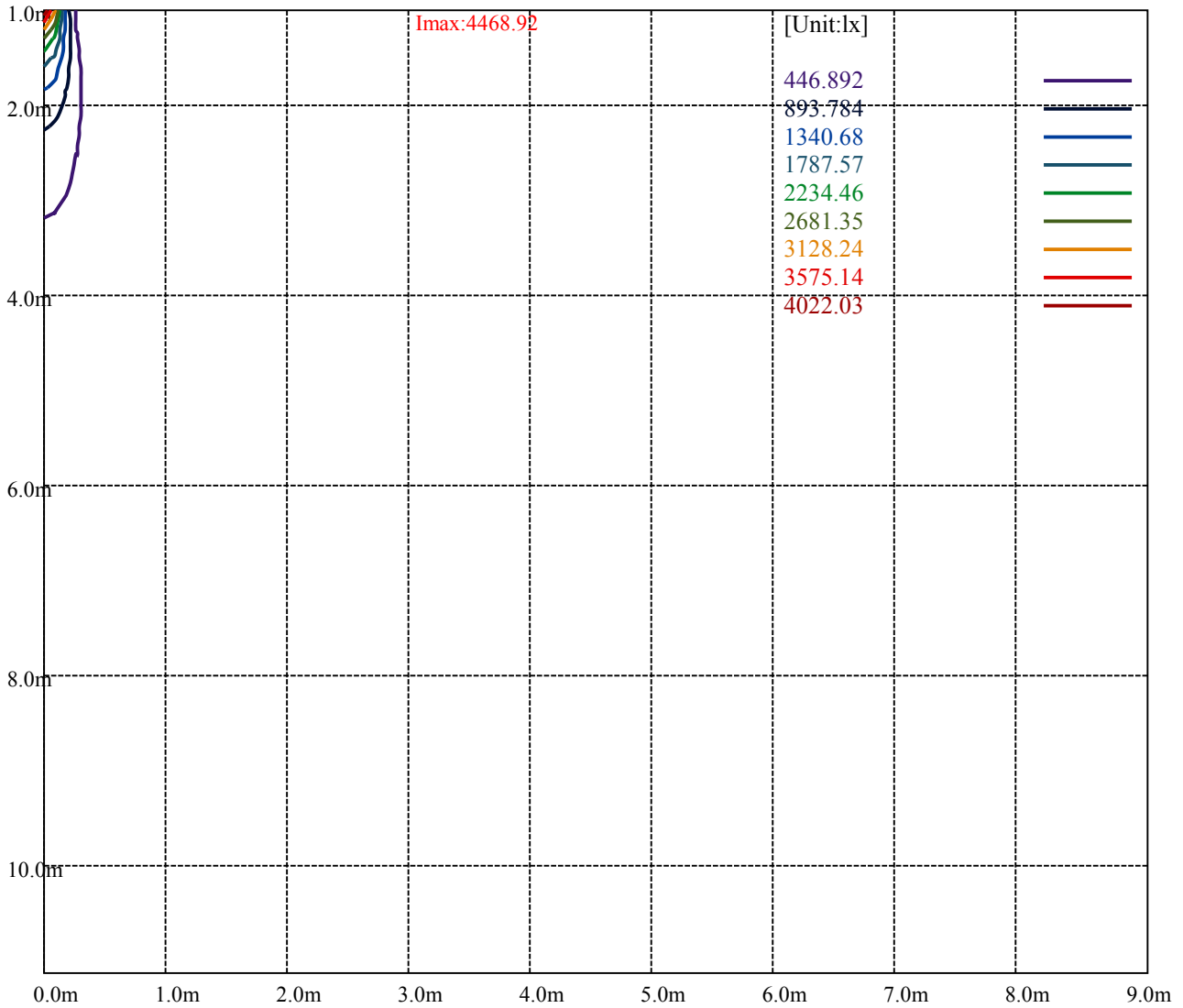
Road

Imax:4468.92

(10%Imax) 446.892	—
(20%Imax) 893.784	—
(30%Imax) 1340.68	—
(40%Imax) 1787.57	—
(50%Imax) 2234.46	—
(60%Imax) 2681.35	—
(70%Imax) 3128.24	—
(80%Imax) 3575.14	—
(90%Imax) 4022.03	—



- (10%Emax) 49.65467
- (20%Emax) 99.30923
- (30%Emax) 148.9633
- (40%Emax) 198.6189
- (50%Emax) 248.2733
- (60%Emax) 297.9278
- (70%Emax) 347.5822
- (80%Emax) 397.2367
- (90%Emax) 446.8911



Luminance Table

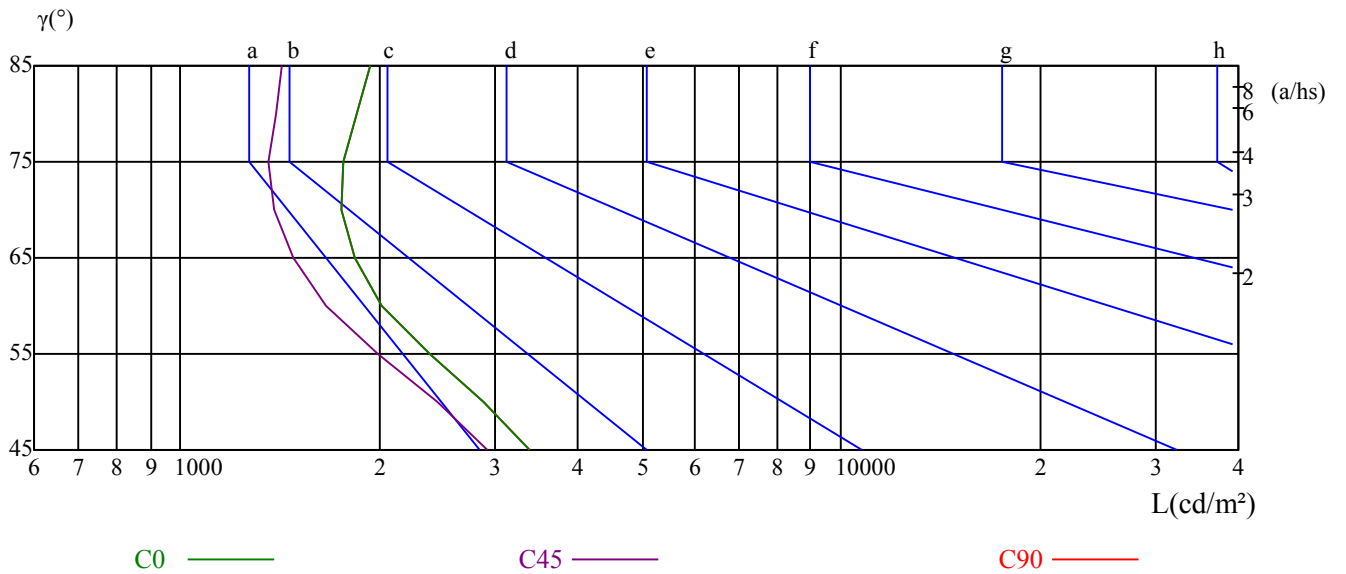
γ	45	50	55	60	65	70	75	80	85
C0	3380	2883	2383	2020	1831	1751	1760	1849	1941
C45	2910	2445	1990	1659	1478	1385	1362	1396	1423
C90	3380	2883	2383	2020	1831	1751	1760	1849	1941

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4338	4338	4338	5952	5952	5952	16106	16106	16106

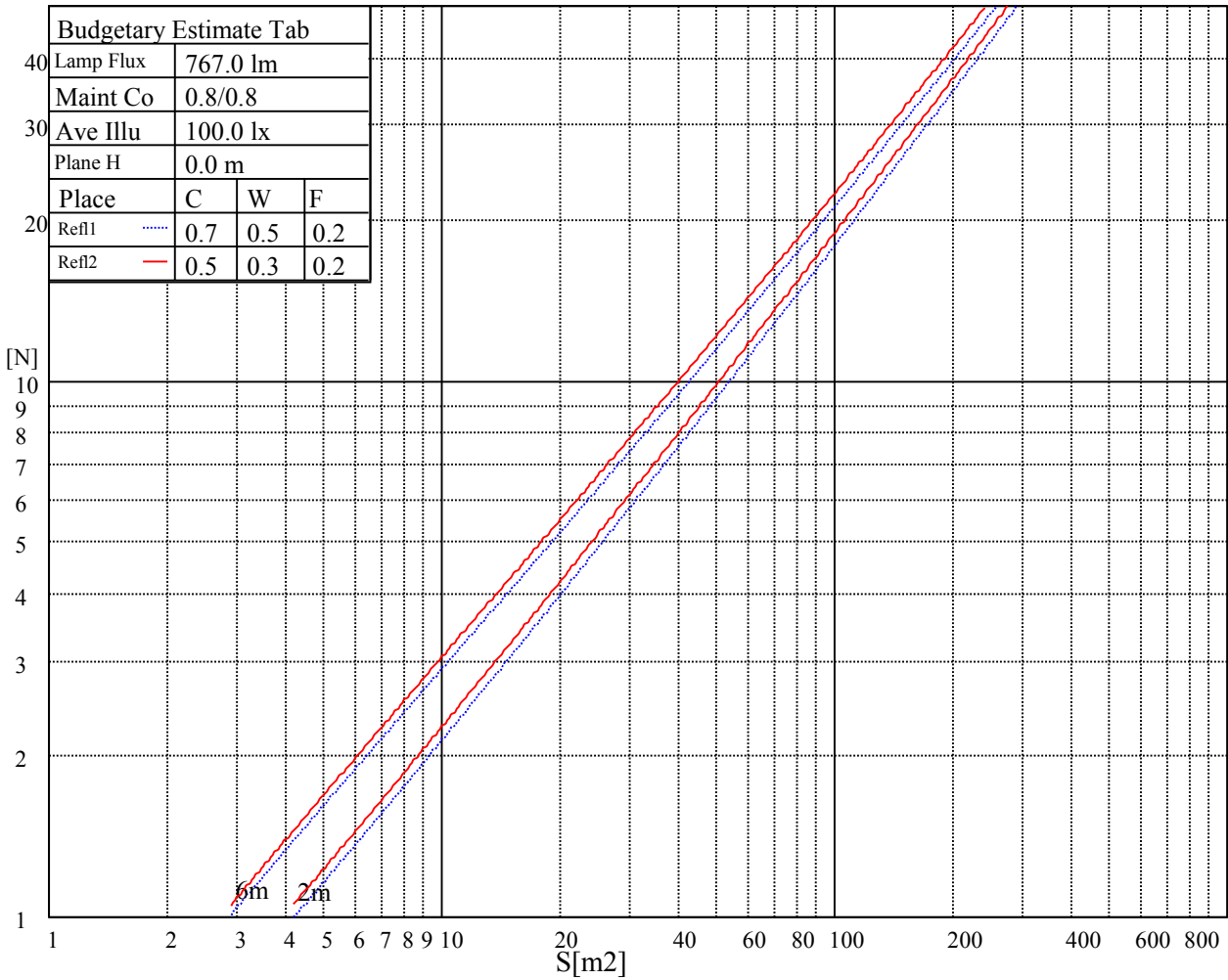
Glare Table

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

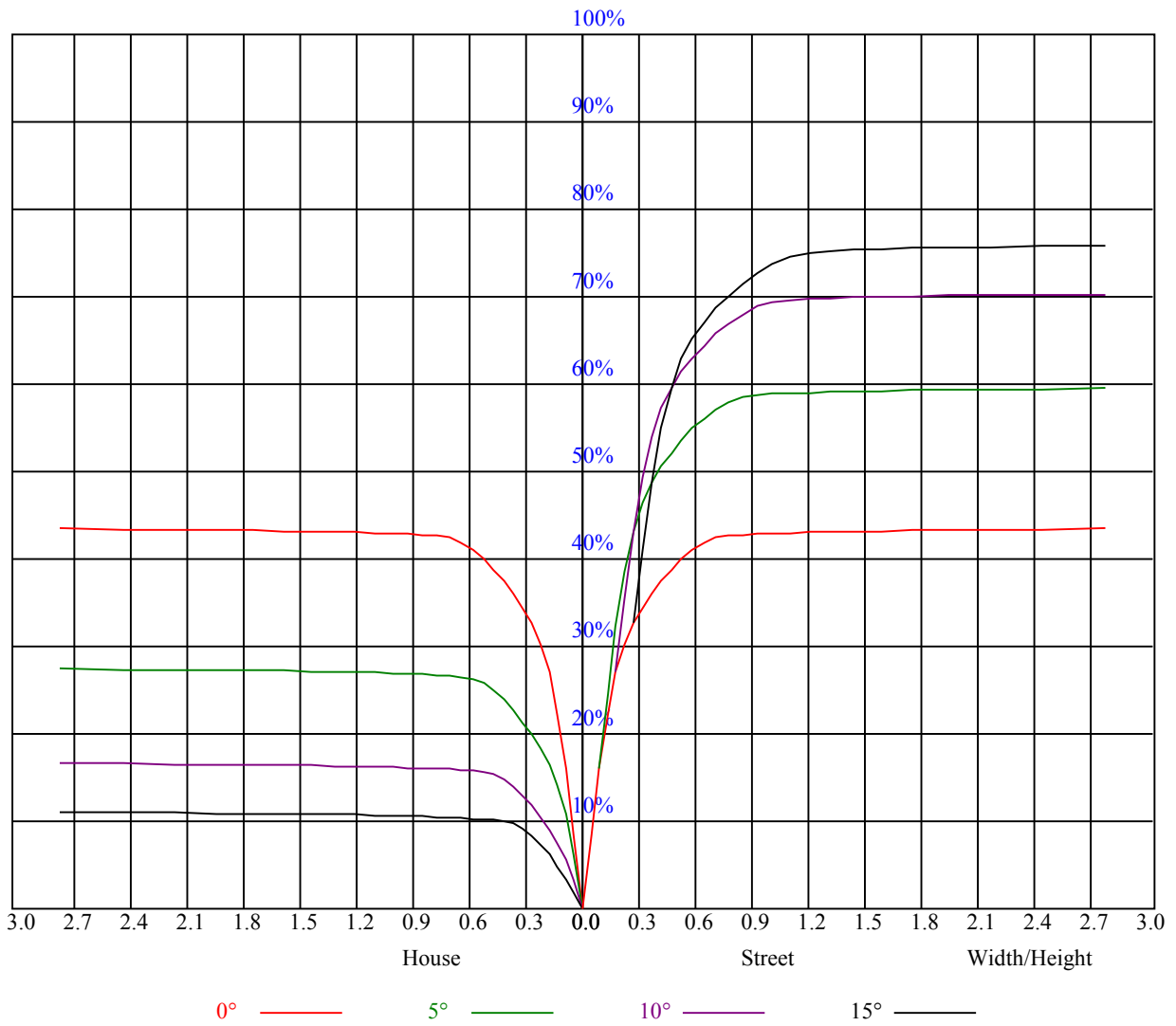
Luminance Limiting Curve



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	7.33	8.26	7.70	8.57	8.89	6.59	7.52	6.96	7.83	8.14
	3H	8.68	9.50	9.06	9.83	10.20	8.20	9.02	8.58	9.35	9.72
	4H	9.45	10.21	9.86	10.56	10.95	9.10	9.85	9.51	10.21	10.60
	6H	10.34	11.04	10.76	11.41	11.81	10.08	10.77	10.50	11.15	11.54
	8H	10.81	11.46	11.24	11.85	12.26	10.58	11.23	11.01	11.62	12.03
	12H	11.55	12.17	11.98	12.55	12.98	11.38	12.00	11.81	12.38	12.81
4H	2H	7.52	8.28	7.93	8.63	9.02	6.89	7.65	7.30	8.00	8.39
	3H	9.15	9.77	9.57	10.18	10.59	8.78	9.40	9.20	9.81	10.22
	4H	10.11	10.67	10.55	11.09	11.54	9.85	10.41	10.29	10.83	11.28
	6H	11.11	11.59	11.59	12.04	12.52	10.94	11.41	11.41	11.86	12.34
	8H	11.70	12.15	12.18	12.60	13.07	11.56	12.00	12.04	12.45	12.93
	12H	12.50	12.88	12.99	13.37	13.84	12.39	12.77	12.89	13.26	13.74
8H	4H	10.39	10.83	10.87	11.28	11.76	10.16	10.60	10.64	11.06	11.53
	6H	11.63	11.98	12.14	12.48	12.97	11.48	11.83	11.99	12.33	12.82
	8H	12.37	12.68	12.90	13.20	13.70	12.25	12.56	12.79	13.09	13.58
	12H	13.33	13.59	13.85	14.09	14.68	13.25	13.52	13.78	14.02	14.60
12H	4H	10.44	10.82	10.93	11.31	11.78	10.22	10.60	10.71	11.09	11.57
	6H	11.96	12.06	12.29	12.53	13.08	11.83	11.92	12.15	12.40	12.94
	8H	12.58	12.85	13.11	13.35	13.93	12.48	12.74	13.00	13.24	13.82
Variation with the observer position at spacings:											
S = 1.0H	6.1/-6.4					6.1/-6.4					
S = 1.5H	8.4/-5.1					8.4/-5.1					
S = 2.0H	10.1/-4.4					10.1/-4.4					
Standard tables:	BK2					BK2					
Uncorrected UGR	-3.1					-3.1					



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	1.04	1.04	1.04	1.02	1.02	1.02	0.97	0.97	0.97	0.93	0.93	0.93	0.89	0.89	0.89	0.88
1	0.98	0.96	0.95	0.96	0.95	0.93	0.93	0.91	0.90	0.90	0.89	0.88	0.87	0.86	0.85	0.84
2	0.93	0.90	0.88	0.92	0.89	0.87	0.89	0.87	0.85	0.86	0.85	0.83	0.84	0.83	0.81	0.80
3	0.89	0.85	0.83	0.88	0.84	0.82	0.85	0.83	0.81	0.83	0.81	0.79	0.82	0.80	0.78	0.77
4	0.85	0.81	0.78	0.84	0.81	0.78	0.82	0.79	0.77	0.81	0.78	0.76	0.79	0.77	0.75	0.74
5	0.82	0.78	0.75	0.81	0.77	0.75	0.80	0.76	0.74	0.78	0.76	0.73	0.77	0.75	0.73	0.72
6	0.79	0.75	0.72	0.78	0.74	0.72	0.77	0.74	0.71	0.76	0.73	0.71	0.75	0.72	0.70	0.69
7	0.76	0.72	0.69	0.76	0.72	0.69	0.75	0.71	0.69	0.74	0.71	0.69	0.73	0.70	0.68	0.67
8	0.74	0.70	0.67	0.73	0.70	0.67	0.72	0.69	0.67	0.72	0.69	0.67	0.71	0.68	0.66	0.65
9	0.71	0.68	0.65	0.71	0.68	0.65	0.70	0.67	0.65	0.70	0.67	0.65	0.69	0.66	0.64	0.64
10	0.69	0.66	0.63	0.69	0.66	0.63	0.69	0.65	0.63	0.68	0.65	0.63	0.67	0.65	0.63	0.62



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	4480.31	4501.69	4423.50	4277.81	4071.94	3740.06	3428.44	3086.44	2687.06
45.0	4424.63	4425.75	4344.75	4190.63	3996.00	3729.94	3344.63	3006.56	2652.75
90.0	4461.19	4371.19	4204.13	3954.94	3684.38	3328.31	2964.94	2553.75	2150.44
135.0	4509.56	4450.50	4280.63	4067.44	3785.63	3372.75	3019.50	2641.50	2240.44
180.0	4480.31	4408.31	4227.19	3974.06	3689.44	3322.13	2958.75	2554.31	2163.94
225.0	4424.63	4322.81	4181.63	3937.50	3612.94	3296.81	2946.38	2508.75	2155.50
270.0	4461.19	4482.56	4386.94	4246.88	4029.19	3676.50	3350.81	2994.19	2578.50
315.0	4509.56	4497.75	4399.88	4219.31	3993.75	3672.00	3354.75	2944.13	2535.75
360.0	4480.31	4501.69	4423.50	4277.81	4071.94	3740.06	3428.44	3086.44	2687.06
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	2292.75	1960.88	1596.38	1301.06	1013.06	778.50	615.38	482.06	397.69
45.0	2219.06	1882.69	1564.88	1231.31	945.00	736.88	562.50	444.38	376.31
90.0	1811.25	1455.19	1115.83	907.76	711.06	523.58	421.88	352.01	308.03
135.0	1857.94	1552.50	1245.38	1000.13	774.56	600.75	477.56	387.00	330.75
180.0	1842.75	1514.81	1103.18	990.73	794.03	618.58	484.99	397.13	338.34
225.0	1842.75	1481.63	1109.42	1002.26	813.04	616.89	496.52	402.58	338.96
270.0	2194.88	1864.13	1530.56	1257.19	990.00	774.00	614.81	478.13	383.06
315.0	2184.19	1816.31	1473.75	1110.04	969.75	711.73	584.49	475.26	399.94
360.0	2292.75	1960.88	1596.38	1301.06	1013.06	778.50	615.38	482.06	397.69
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	355.50	329.63	311.63	303.19	295.31	286.31	284.06	273.83	268.43
45.0	330.75	310.50	297.56	289.13	284.06	275.85	269.66	265.22	261.39
90.0	284.85	273.49	265.28	257.57	253.58	249.02	245.25	241.54	238.61
135.0	303.19	287.44	276.86	266.23	260.83	254.42	249.41	245.93	243.56
180.0	305.33	289.69	279.28	266.18	259.54	257.63	257.68	259.14	261.62
225.0	304.65	287.27	275.12	267.30	260.72	253.52	245.59	238.33	235.58
270.0	332.44	302.63	284.63	268.71	263.08	258.98	252.34	247.50	242.78
315.0	346.22	323.04	307.80	297.68	289.80	281.93	276.19	269.94	264.66
360.0	355.50	329.63	311.63	303.19	295.31	286.31	284.06	273.83	268.43
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	262.80	258.30	253.41	248.18	242.38	237.32	233.27	223.76	177.24
45.0	256.84	253.74	250.43	244.91	240.41	236.25	232.31	216.79	173.76
90.0	236.31	233.10	228.66	226.46	223.93	220.50	203.57	164.64	103.22
135.0	239.68	236.93	232.26	228.43	224.21	219.04	204.64	164.59	117.51
180.0	264.04	259.99	255.04	249.98	245.42	241.43	224.38	184.05	132.36
225.0	234.45	236.36	236.08	238.11	238.73	235.80	222.41	184.39	128.42
270.0	237.43	233.94	229.61	224.27	220.22	216.45	212.68	202.89	168.75
315.0	260.10	255.54	250.88	246.04	242.04	236.76	233.61	217.35	175.56
360.0	262.80	258.30	253.41	248.18	242.38	237.32	233.27	223.76	177.24
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	125.49	74.14	25.99	12.38	11.25	9.96	8.49	7.14	6.02
45.0	116.16	65.98	25.48	11.93	10.86	9.79	8.10	6.86	5.91
90.0	57.32	25.99	14.57	13.50	12.54	11.36	10.52	9.56	9.23
135.0	66.94	32.63	17.61	16.65	15.86	14.96	13.73	13.05	12.60
180.0	68.68	31.89	15.92	14.63	13.78	12.83	11.70	10.86	10.07
225.0	72.56	33.41	16.03	14.96	14.23	13.11	12.09	11.19	10.46
270.0	117.79	72.39	32.23	16.71	15.58	14.68	13.56	12.60	11.64
315.0	111.49	62.44	25.37	12.88	11.76	10.74	9.39	8.16	7.31
360.0	125.49	74.14	25.99	12.38	11.25	9.96	8.49	7.14	6.02

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	5.23	4.89	4.67	4.50	4.33	4.22	4.11	4.05	3.99
45.0	5.18	4.89	4.78	4.67	4.56	4.44	4.44	4.39	4.44
90.0	9.06	9.06	8.72	8.44	8.16	7.76	7.48	7.26	6.92
135.0	12.26	12.04	11.87	11.08	10.52	10.07	9.23	8.66	8.16
180.0	9.79	9.62	9.23	8.72	8.33	7.93	7.59	7.14	6.86
225.0	10.24	10.18	9.84	9.39	9.11	8.49	8.10	7.71	7.14
270.0	10.86	10.52	10.29	9.84	9.51	9.00	8.55	8.21	7.65
315.0	6.58	6.36	6.19	6.02	5.91	5.74	5.68	5.51	5.40
360.0	5.23	4.89	4.67	4.50	4.33	4.22	4.11	4.05	3.99
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	3.94	3.94	3.88	3.88	3.83	3.83	3.83	3.83	3.77
45.0	4.39	4.33	4.28	4.28	4.22	4.16	4.11	3.99	3.99
90.0	6.47	6.24	5.91	5.68	5.34	5.06	4.89	4.67	4.50
135.0	7.48	6.98	6.58	6.13	5.74	5.51	5.23	4.89	4.78
180.0	6.47	6.24	6.08	5.85	5.57	5.40	5.18	5.01	4.84
225.0	6.81	6.47	6.08	5.74	5.40	5.12	4.89	4.67	4.50
270.0	7.26	6.86	6.30	5.96	5.68	5.34	5.06	4.84	4.61
315.0	5.29	5.12	4.95	4.84	4.67	4.50	4.39	4.28	4.16
360.0	3.94	3.94	3.88	3.88	3.83	3.83	3.83	3.83	3.77
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	3.77	3.77	3.71	3.71	3.66	3.66	3.66	3.60	3.60
45.0	3.88	3.83	3.77	3.71	3.66	3.60	3.60	3.54	3.49
90.0	4.33	4.22	4.05	3.99	3.94	3.83	3.77	3.71	3.66
135.0	4.61	4.44	4.33	4.11	3.99	3.88	3.77	3.71	3.60
180.0	4.61	4.56	4.33	4.16	4.11	3.94	3.88	3.77	3.71
225.0	4.33	4.22	4.05	3.88	3.83	3.71	3.60	3.54	3.49
270.0	4.44	4.33	4.22	4.05	3.94	3.88	3.77	3.66	3.60
315.0	4.05	3.99	3.94	3.83	3.77	3.71	3.66	3.60	3.54
360.0	3.77	3.77	3.71	3.71	3.66	3.66	3.66	3.60	3.60
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	3.54	3.54	3.54	3.49	3.43	3.43	3.43	3.38	3.38
45.0	3.49	3.43	3.38	3.38	3.38	3.32	3.32	3.26	3.26
90.0	3.60	3.54	3.49	3.43	3.43	3.38	3.38	3.32	3.32
135.0	3.54	3.49	3.43	3.32	3.32	3.26	3.21	3.21	3.38
180.0	3.54	3.49	3.43	3.43	3.38	3.32	3.26	3.21	3.21
225.0	3.38	3.32	3.26	3.26	3.21	3.21	3.15	3.15	3.04
270.0	3.60	3.49	3.49	3.43	3.38	3.38	3.32	3.32	3.32
315.0	3.54	3.49	3.49	3.49	3.43	3.38	3.38	3.32	3.32
360.0	3.54	3.54	3.54	3.49	3.43	3.43	3.43	3.38	3.38
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	3.32	3.32	3.26	3.21	3.21	3.21	3.09	3.09	3.09
45.0	3.21	3.21	3.15	3.09	3.09	3.04	2.98	2.98	2.93
90.0	3.21	3.21	3.15	3.15	3.09	2.98	2.93	2.93	2.87
135.0	3.15	3.09	3.09	3.04	3.04	3.04	2.98	2.98	2.98
180.0	3.21	3.15	3.15	3.09	3.09	3.09	3.09	3.04	3.04
225.0	3.04	3.04	2.98	3.04	2.98	2.98	2.98	2.98	2.93
270.0	3.26	3.26	3.21	3.21	3.15	3.04	2.98	2.93	2.87
315.0	3.26	3.21	3.21	3.15	3.15	3.09	3.04	3.04	2.98
360.0	3.32	3.32	3.26	3.21	3.21	3.21	3.09	3.09	3.09

Intensity data(cd)

C/γ(°)	90.0
0.0	3.04
45.0	2.93
90.0	2.87
135.0	2.93
180.0	2.98
225.0	2.87
270.0	2.87
315.0	2.93
360.0	3.04