
Nata

LumCAT: 5-1065-N

Luminaire:

Report No: nata-0100

Voltage(V): 15.0000

Test No: GC2018072001

Current(A): 0.3000

LampCAT: CREE XP-E2

Power (W): 4.5000

Lamp flux(lm): 485.0

PF: 0.0000

Number of Lamps: 1

Ballast type: DC

Length(mm): 30

Width(mm): 135

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 327.57

Efficiency(%): 67.54%

Lumens(lm)/Power(W): 72.79

Central intensity(cd): 1886.370

Maximum intensity(cd): 1886.370

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=17.2

[C90/270]Total=17.2

Field angle(10%Imax): [C0/180]Total=43.1

[C90/270]Total=43.1

Maximum s/h(1/2): C0_180=0.29 C90_270=0.29

Maximum s/h(1/4): C0_180=0.33 C90_270=0.33

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 67.54%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 98.122%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1886.370	0.000	0	.000%	.000%
1.0	1867.100	1.796	1.796	.370%	.548%
2.0	1803.716	5.269	7.065	1.086%	2.157%
3.0	1700.210	8.380	15.445	1.728%	4.715%
4.0	1578.605	10.975	26.42	2.263%	8.066%
5.0	1438.555	12.980	39.4	2.676%	12.028%
6.0	1281.500	14.295	53.694	2.947%	16.392%
7.0	1139.344	15.026	68.721	3.098%	20.979%
8.0	1012.453	15.400	84.121	3.175%	25.680%
9.0	895.341	15.462	99.582	3.188%	30.401%
10.0	784.671	15.203	114.786	3.135%	35.042%
11.0	689.086	14.726	129.512	3.036%	39.537%
12.0	602.248	14.116	143.628	2.911%	43.847%
13.0	529.367	13.429	157.057	2.769%	47.947%
14.0	466.149	12.743	169.8	2.627%	51.837%
15.0	410.597	12.036	181.836	2.482%	55.511%
16.0	362.409	11.327	193.163	2.335%	58.969%
17.0	322.073	10.659	203.822	2.198%	62.223%
18.0	288.833	10.073	213.894	2.077%	65.298%
19.0	255.648	9.473	223.367	1.953%	68.190%
20.0	227.417	8.841	232.209	1.823%	70.889%
21.0	201.272	8.232	240.44	1.697%	73.402%
22.0	178.624	7.634	248.075	1.574%	75.732%
23.0	159.230	7.089	255.164	1.462%	77.897%
24.0	141.295	6.571	261.734	1.355%	79.902%
25.0	123.375	6.018	267.752	1.241%	81.740%
26.0	108.957	5.484	273.236	1.131%	83.414%
27.0	95.089	4.992	278.228	1.029%	84.938%
28.0	82.020	4.484	282.712	.925%	86.307%
29.0	70.892	4.001	286.713	.825%	87.528%
30.0	61.051	3.562	290.276	.735%	88.616%
31.0	51.946	3.145	293.42	.648%	89.576%
32.0	44.947	2.776	296.196	.572%	90.423%
33.0	38.698	2.464	298.66	.508%	91.175%
34.0	33.151	2.174	300.834	.448%	91.839%
35.0	29.015	1.931	302.765	.398%	92.428%
36.0	25.388	1.732	304.497	.357%	92.957%
37.0	22.435	1.560	306.057	.322%	93.433%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	19.875	1.412	307.469	.291%	93.864%
39.0	17.714	1.283	308.752	.265%	94.256%
40.0	15.781	1.168	309.921	.241%	94.613%
41.0	14.232	1.069	310.989	.220%	94.939%
42.0	12.856	0.984	311.973	.203%	95.240%
43.0	11.562	0.904	312.878	.186%	95.516%
44.0	10.495	0.832	313.71	.172%	95.770%
45.0	9.545	0.770	314.481	.159%	96.005%
46.0	8.658	0.712	315.192	.147%	96.222%
47.0	7.914	0.659	315.852	.136%	96.423%
48.0	7.288	0.615	316.466	.127%	96.611%
49.0	6.662	0.573	317.039	.118%	96.786%
50.0	6.125	0.533	317.572	.110%	96.949%
51.0	5.657	0.498	318.071	.103%	97.101%
52.0	5.217	0.467	318.537	.096%	97.243%
53.0	4.859	0.438	318.975	.090%	97.377%
54.0	4.522	0.413	319.389	.085%	97.503%
55.0	4.205	0.390	319.778	.080%	97.622%
56.0	3.902	0.366	320.145	.076%	97.734%
57.0	3.668	0.346	320.491	.071%	97.840%
58.0	3.413	0.327	320.818	.068%	97.940%
59.0	3.186	0.309	321.127	.064%	98.034%
60.0	2.952	0.290	321.417	.060%	98.122%
61.0	2.746	0.272	321.689	.056%	98.205%
62.0	2.567	0.256	321.945	.053%	98.284%
63.0	2.409	0.242	322.187	.050%	98.357%
64.0	2.230	0.228	322.414	.047%	98.427%
65.0	2.127	0.216	322.63	.044%	98.493%
66.0	2.010	0.206	322.836	.043%	98.556%
67.0	1.913	0.197	323.034	.041%	98.616%
68.0	1.872	0.192	323.225	.040%	98.675%
69.0	1.824	0.189	323.414	.039%	98.732%
70.0	1.803	0.186	323.6	.038%	98.789%
71.0	1.824	0.187	323.788	.039%	98.846%
72.0	1.851	0.191	323.979	.039%	98.905%
73.0	1.865	0.194	324.173	.040%	98.964%
74.0	1.913	0.199	324.372	.041%	99.024%
75.0	1.934	0.203	324.575	.042%	99.087%

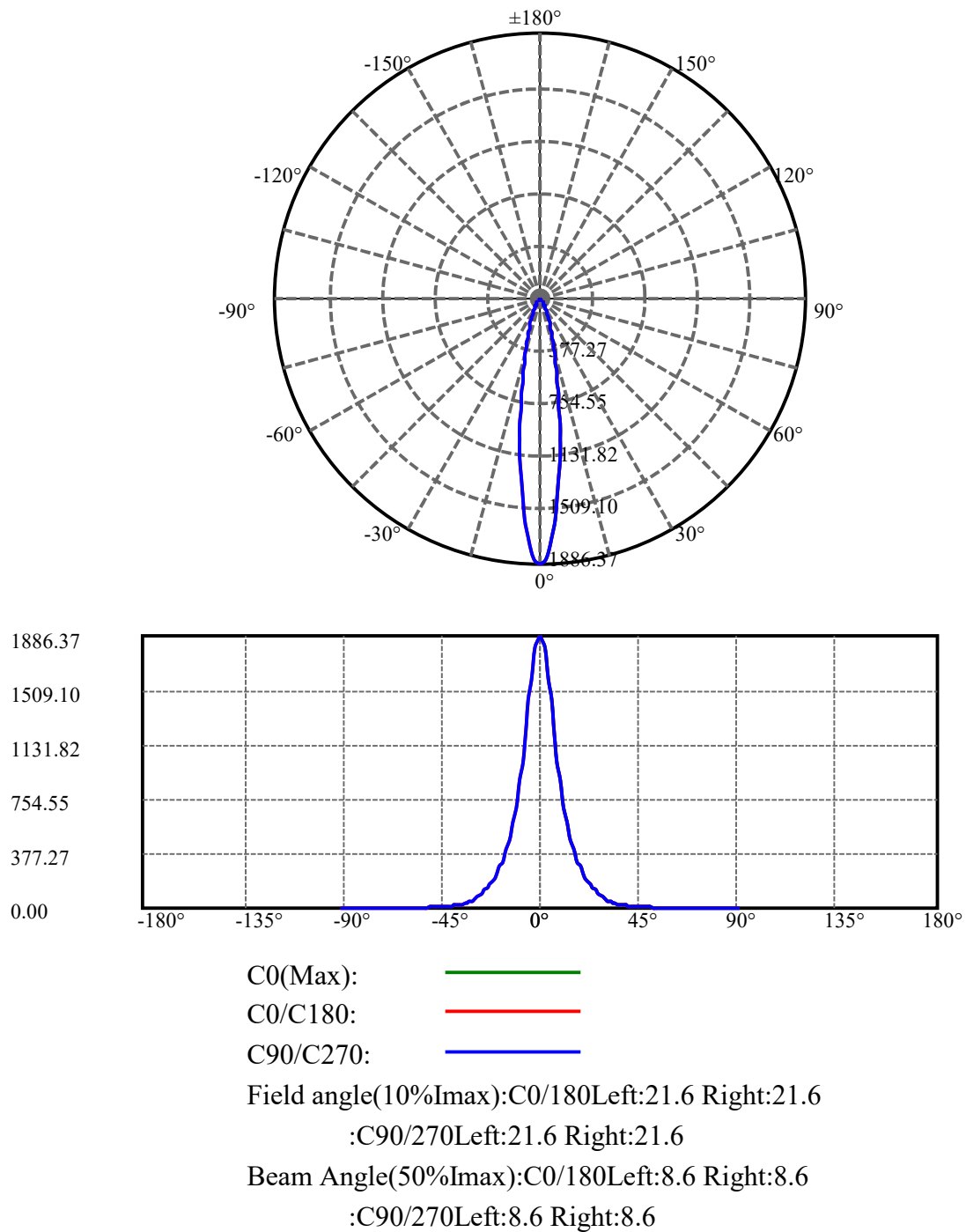
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	1.934	0.205	324.78	.042%	99.149%
77.0	1.776	0.198	324.978	.041%	99.210%
78.0	1.597	0.181	325.159	.037%	99.265%
79.0	1.507	0.167	325.325	.034%	99.316%
80.0	1.473	0.161	325.486	.033%	99.365%
81.0	1.466	0.159	325.645	.033%	99.413%
82.0	1.445	0.158	325.803	.033%	99.461%
83.0	1.480	0.159	325.962	.033%	99.510%
84.0	1.693	0.173	326.135	.036%	99.563%
85.0	2.078	0.206	326.34	.042%	99.626%
86.0	2.292	0.239	326.579	.049%	99.698%
87.0	2.223	0.247	326.826	.051%	99.774%
88.0	2.230	0.244	327.07	.050%	99.848%
89.0	2.230	0.244	327.315	.050%	99.923%
90.0	2.374	0.252	327.567	.052%	100.000%

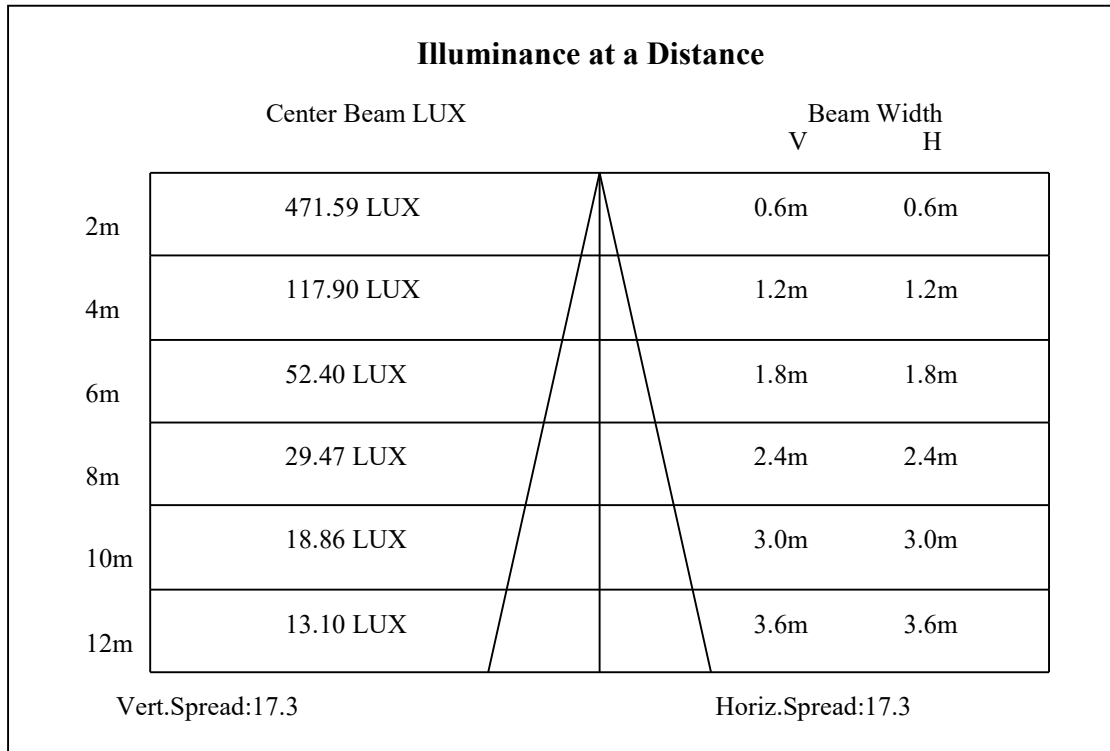
ZONAL LUMEN SUMMARY

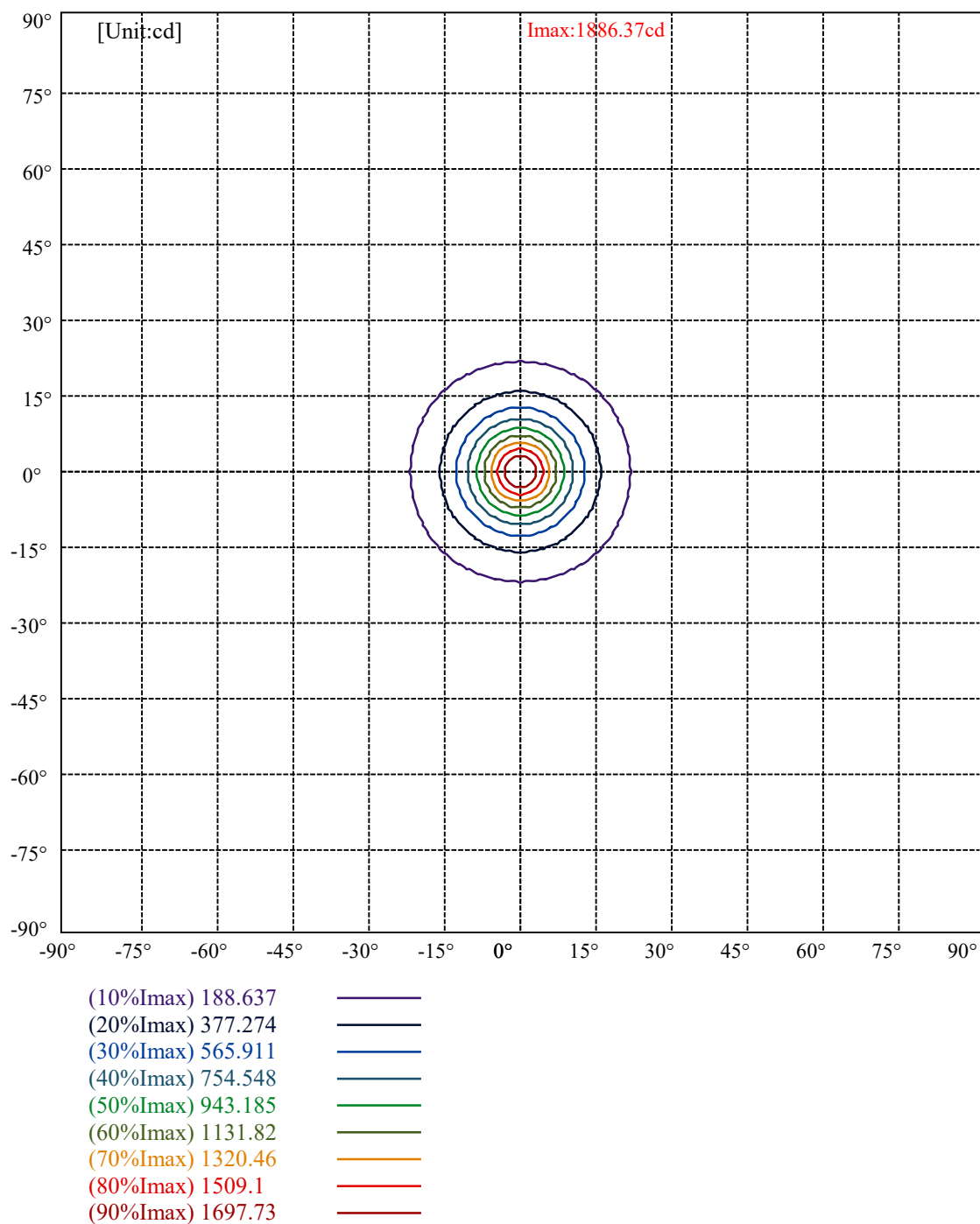
Zone	Lumens	%Lamp	%Fixt
0-30	290.28	59.85%	88.62%
0-40	309.92	63.90%	94.61%
0-60	321.42	66.27%	98.12%
0-90	327.31	67.49%	99.92%
0-120	327.31	67.49%	99.92%
0-180	327.57	67.54%	100.00%
60-90	6.19	1.28%	1.89%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-24.05	262.05	54.03%	80.00%

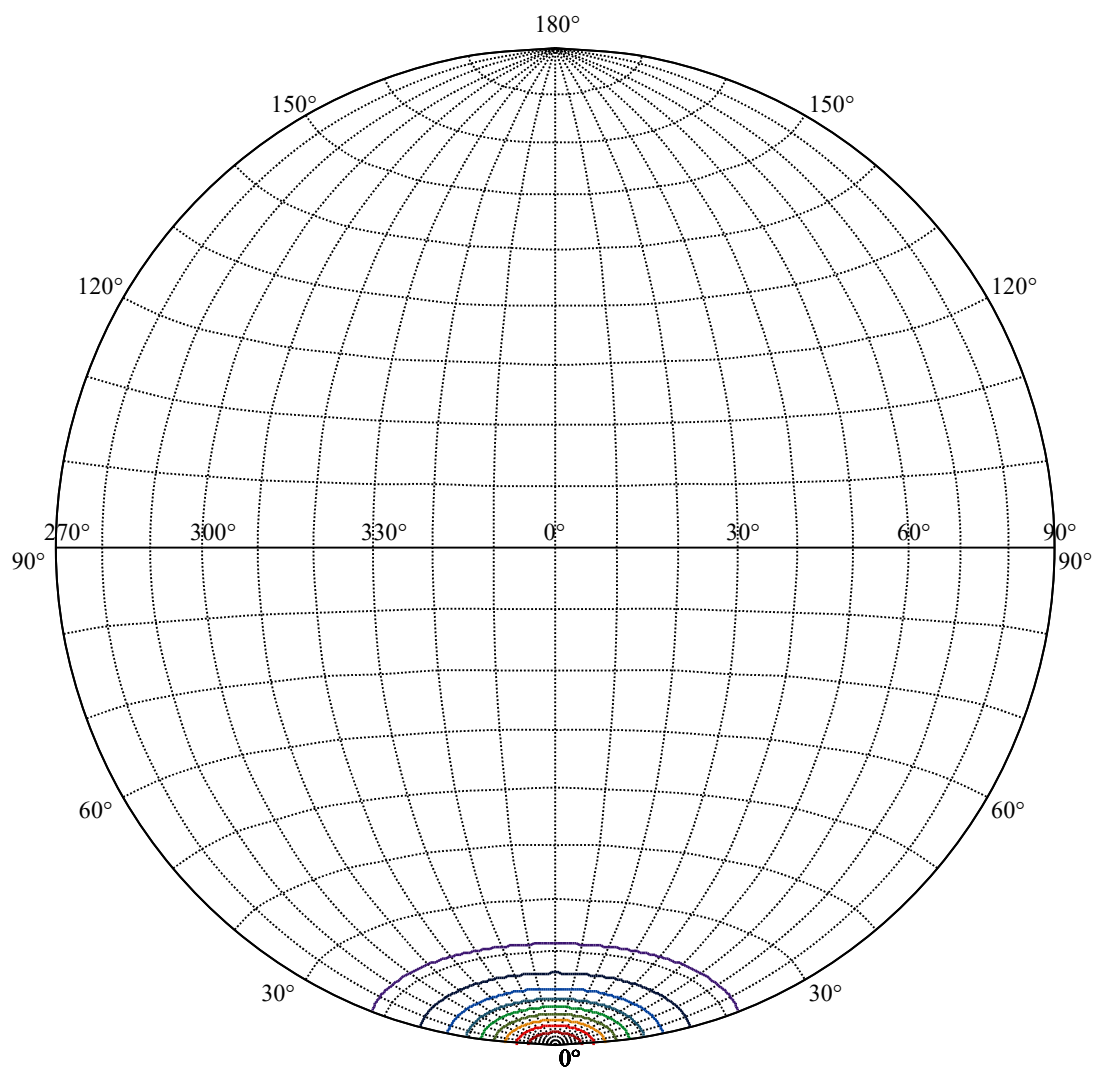
ZONAL LUMEN SUMMARY

0-10	114.79
10-20	117.42
20-30	58.07
30-40	19.64
40-50	7.65
50-60	3.84
60-70	2.18
70-80	1.89
80-90	1.83
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









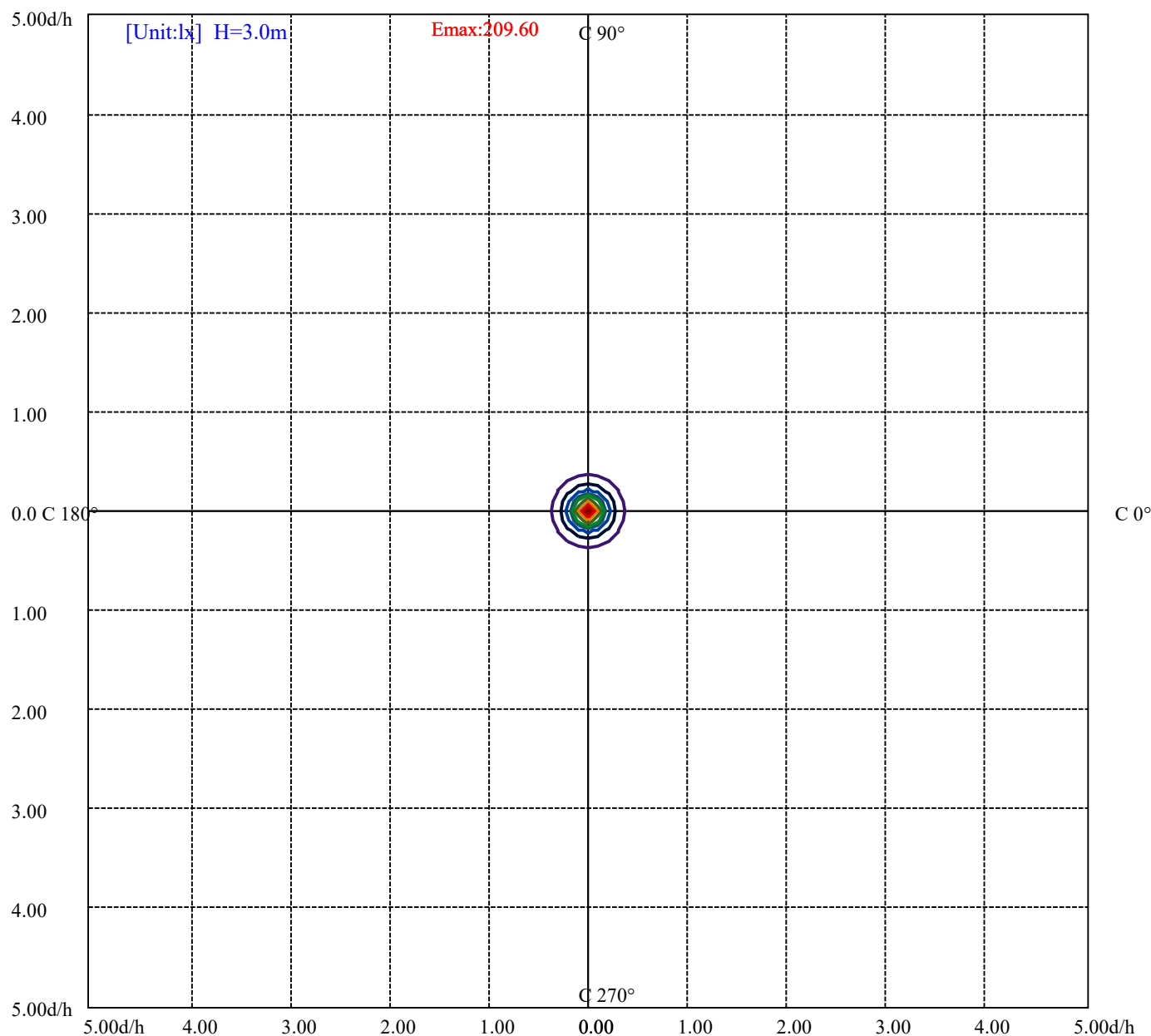
House

[Unit:cd]

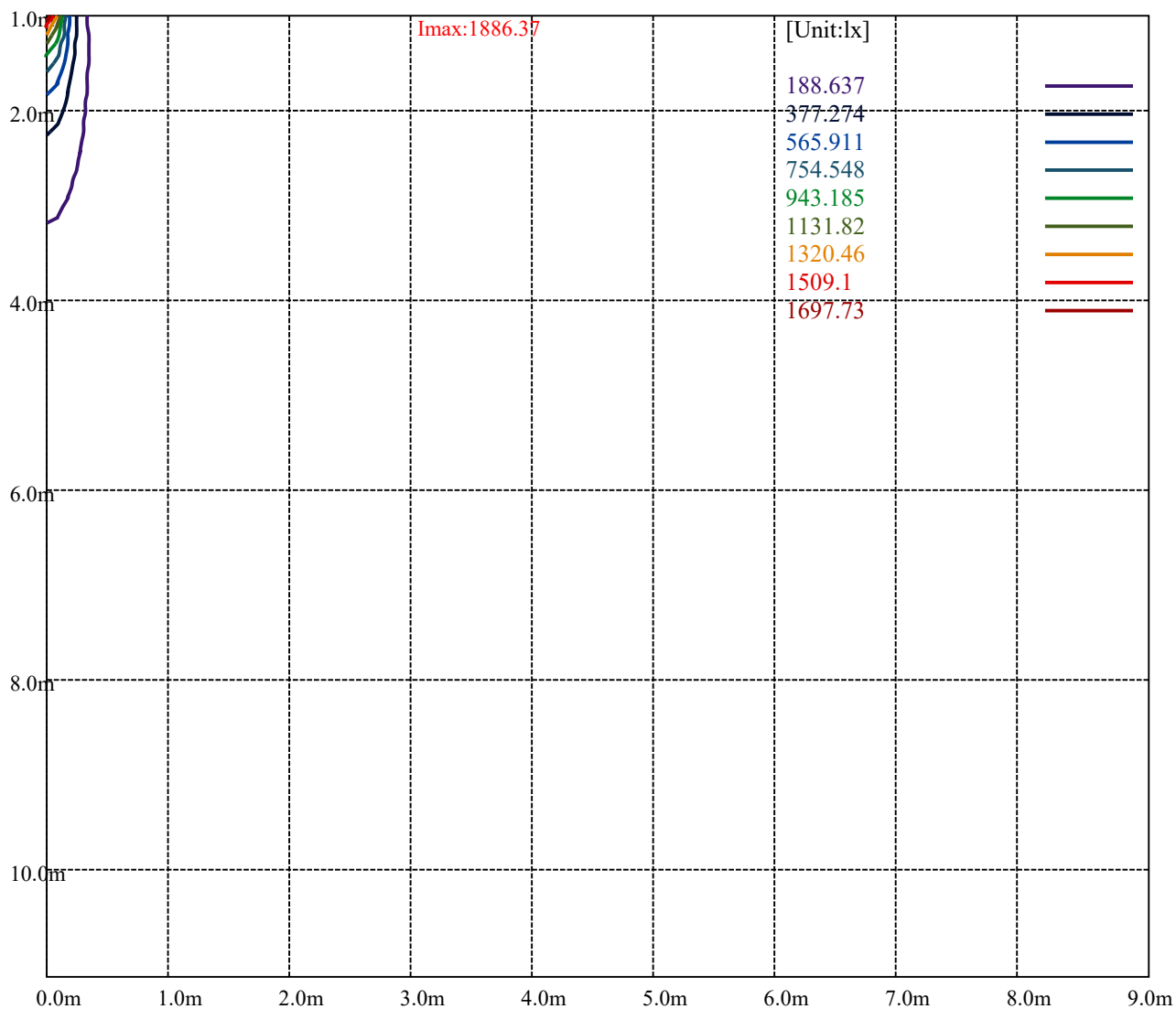
Road

Imax:1886.37

(10%Imax)	188.637	—
(20%Imax)	377.274	—
(30%Imax)	565.911	—
(40%Imax)	754.548	—
(50%Imax)	943.185	—
(60%Imax)	1131.82	—
(70%Imax)	1320.46	—
(80%Imax)	1509.1	—
(90%Imax)	1697.73	—



(10%Emax)	20.95967	—
(20%Emax)	41.91922	—
(30%Emax)	62.87889	—
(40%Emax)	83.83855	—
(50%Emax)	104.7981	—
(60%Emax)	125.7578	—
(70%Emax)	146.7178	—
(80%Emax)	167.6767	—
(90%Emax)	188.6367	—



Luminance Table

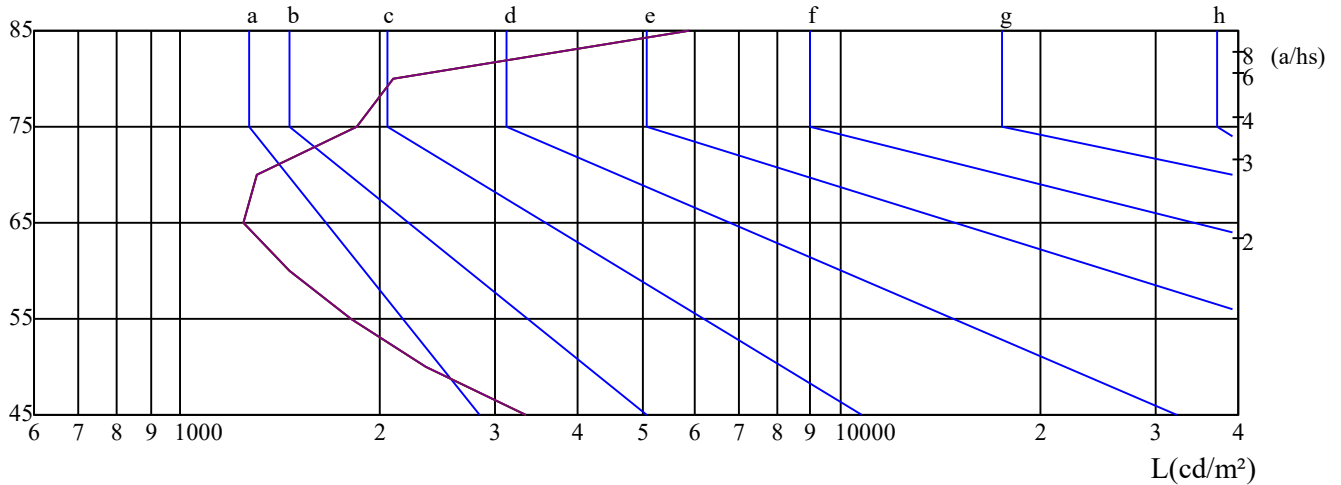
γ	45	50	55	60	65	70	75	80	85
C0	3333	2353	1810	1458	1242	1302	1845	2094	5888
C45	3333	2353	1810	1458	1242	1302	1845	2094	5888
C90	3333	2353	1810	1458	1242	1302	1845	2094	5888

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
1242	1242	1242	1845	1845	1845	5888	5888	5888

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

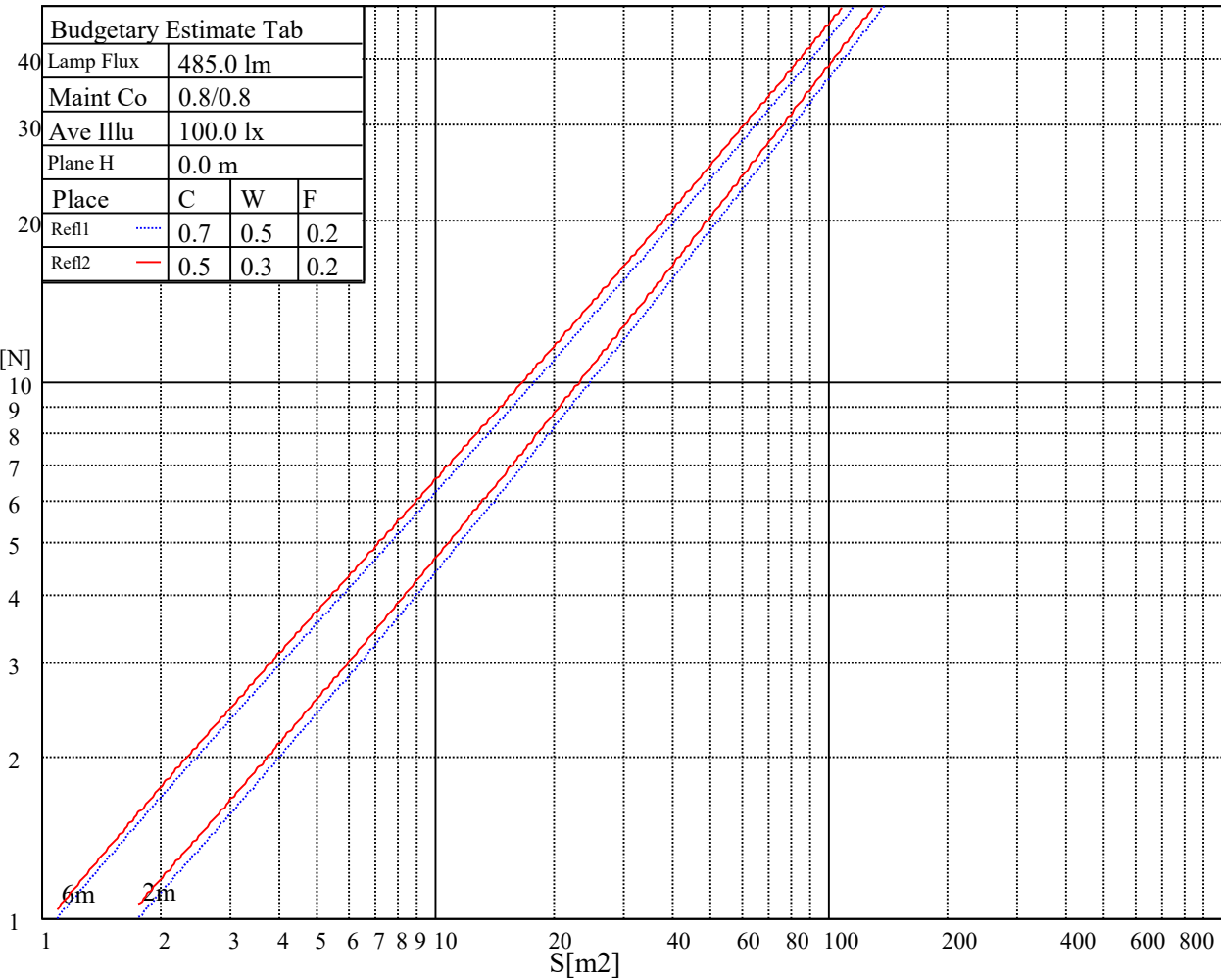
 $\gamma(^{\circ})$ 

C0 ———

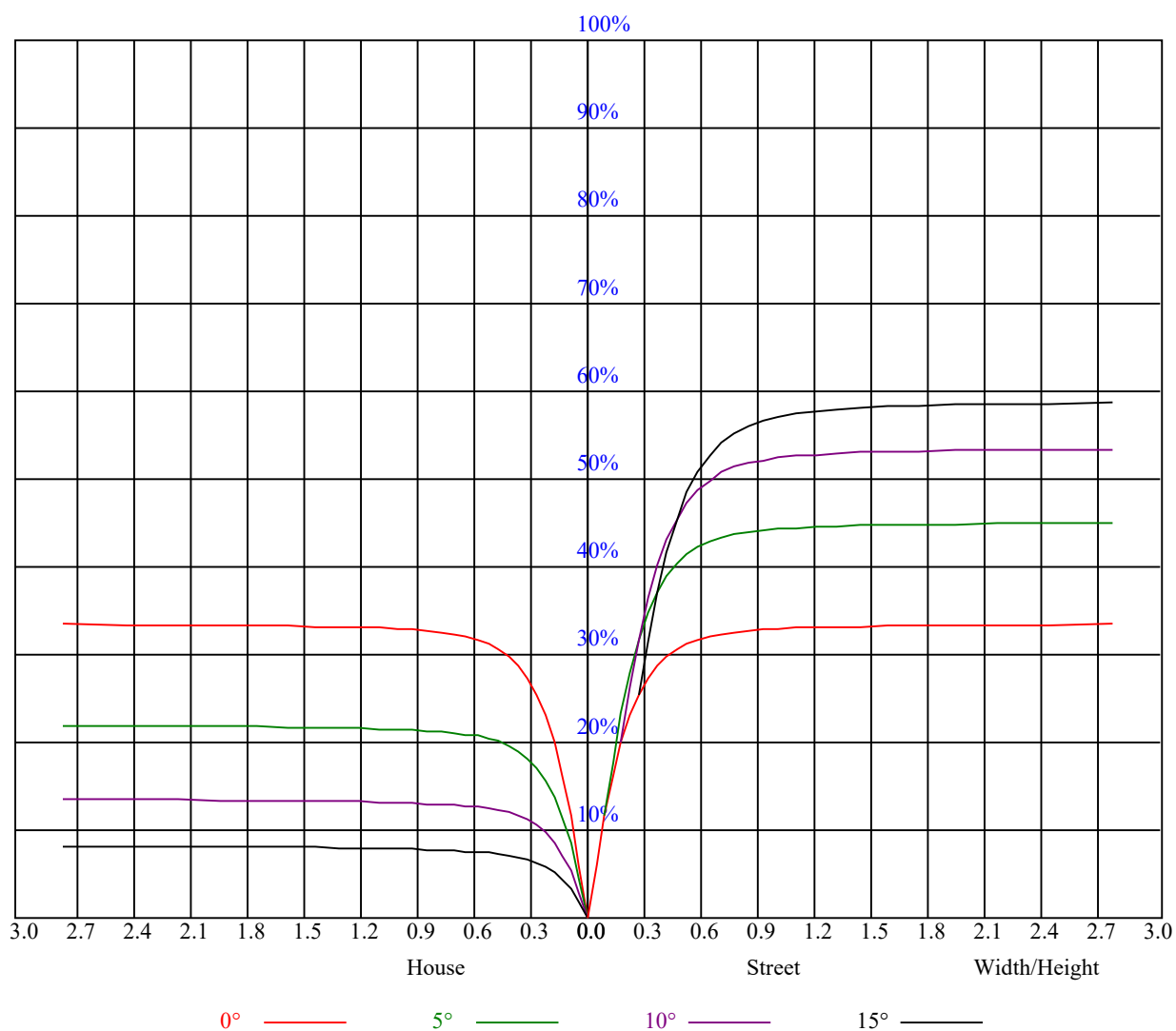
C45 ———

C90 ———

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	9.54	10.50	9.91	10.81	11.12	8.58	9.53	8.94	9.84	10.16
	3H	10.93	11.77	11.31	12.10	12.47	9.73	10.58	10.12	10.91	11.28
	4H	12.23	13.01	12.64	13.37	13.76	10.66	11.44	11.06	11.79	12.18
	6H	13.26	13.97	13.68	14.35	14.74	11.89	12.61	12.31	12.98	13.38
	8H	13.84	14.51	14.27	14.90	15.31	12.72	13.39	13.16	13.78	14.19
	12H	15.08	15.72	15.52	16.11	16.54	14.23	14.87	14.67	15.26	15.69
4H	2H	9.84	10.62	10.25	10.97	11.36	9.05	9.83	9.46	10.18	10.57
	3H	11.58	12.22	11.99	12.63	13.03	10.58	11.22	11.00	11.63	12.04
	4H	13.16	13.73	13.59	14.15	14.60	11.79	12.36	12.23	12.79	13.24
	6H	14.64	15.13	15.11	15.58	16.05	13.46	13.96	13.94	14.41	14.88
	8H	15.33	15.78	15.80	16.24	16.71	14.40	14.85	14.87	15.30	15.78
	12H	16.59	16.99	17.08	17.48	17.95	15.87	16.26	16.36	16.75	17.23
8H	4H	13.55	14.01	14.03	14.46	14.94	12.44	12.90	12.92	13.35	13.83
	6H	15.25	15.61	15.76	16.12	16.60	14.35	14.71	14.86	15.22	15.70
	8H	16.26	16.58	16.79	17.10	17.60	15.60	15.92	16.13	16.44	16.94
	12H	17.91	18.19	18.43	18.69	19.27	17.38	17.66	17.90	18.16	18.74
12H	4H	13.63	14.02	14.12	14.51	14.99	12.58	12.98	13.07	13.46	13.94
	6H	15.75	15.83	16.04	16.30	16.85	14.95	15.03	15.24	15.50	16.05
	8H	16.75	17.03	17.28	17.53	18.11	16.20	16.47	16.72	16.97	17.55
Variation with the observer position at spacings:											
S = 1.0H		2.5/-1.9					2.5/-1.9				
S = 1.5H		3.6/-1.7					3.6/-1.7				
S = 2.0H		4.5/-1.6					4.5/-1.6				
Standard tables:		BKBF					BKBF				
Uncorrected UGR		-3.0					-3.0				



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	0.80	0.80	0.80	0.79	0.79	0.79	0.75	0.75	0.75	0.72	0.72	0.72	0.69	0.69	0.69	0.68
1	0.76	0.74	0.73	0.74	0.73	0.72	0.71	0.70	0.70	0.69	0.68	0.67	0.67	0.66	0.66	0.64
2	0.72	0.69	0.68	0.71	0.68	0.67	0.68	0.67	0.65	0.66	0.65	0.64	0.65	0.64	0.63	0.62
3	0.68	0.66	0.63	0.67	0.65	0.63	0.66	0.64	0.62	0.64	0.62	0.61	0.63	0.61	0.60	0.59
4	0.65	0.62	0.60	0.65	0.62	0.60	0.63	0.61	0.59	0.62	0.60	0.58	0.61	0.59	0.58	0.57
5	0.63	0.60	0.57	0.62	0.59	0.57	0.61	0.58	0.57	0.60	0.58	0.56	0.59	0.57	0.56	0.55
6	0.60	0.57	0.55	0.60	0.57	0.55	0.59	0.56	0.54	0.58	0.56	0.54	0.57	0.55	0.54	0.53
7	0.58	0.55	0.53	0.58	0.55	0.53	0.57	0.54	0.52	0.56	0.54	0.52	0.56	0.53	0.52	0.51
8	0.56	0.53	0.51	0.56	0.53	0.51	0.55	0.53	0.51	0.55	0.52	0.51	0.54	0.52	0.50	0.50
9	0.54	0.51	0.49	0.54	0.51	0.49	0.54	0.51	0.49	0.53	0.51	0.49	0.53	0.50	0.49	0.48
10	0.53	0.50	0.48	0.52	0.50	0.48	0.52	0.49	0.48	0.52	0.49	0.48	0.51	0.49	0.47	0.47



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	1870.27	1893.39	1867.51	1800.34	1699.59	1545.43	1409.44	1271.25	1123.15
45.0	1895.04	1864.76	1786.58	1684.18	1544.33	1411.65	1255.84	1105.53	980.55
90.0	1870.82	1798.69	1690.23	1516.80	1395.13	1253.63	1084.28	958.37	845.39
135.0	1909.36	1836.68	1739.78	1604.34	1470.01	1314.20	1162.24	1033.41	915.04
180.0	1870.27	1809.70	1702.34	1569.66	1439.72	1288.32	1089.29	1012.49	884.21
225.0	1895.04	1877.42	1822.92	1707.85	1592.23	1462.30	1298.23	1087.69	1042.71
270.0	1870.82	1925.87	1915.41	1876.87	1767.86	1638.48	1509.10	1357.14	1222.80
315.0	1909.36	1930.28	1904.95	1841.64	1719.96	1594.43	1443.58	1288.87	1085.77
360.0	1870.27	1893.39	1867.51	1800.34	1699.59	1545.43	1409.44	1271.25	1123.15
C/ γ (°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	982.76	869.34	755.37	653.52	574.79	499.36	439.90	382.09	333.09
45.0	855.58	743.26	656.27	579.19	498.26	449.81	389.25	343.00	307.21
90.0	733.30	646.86	564.00	500.02	438.14	385.62	345.37	306.39	275.34
135.0	784.55	692.61	611.68	525.79	465.78	414.02	360.07	322.63	289.60
180.0	781.58	680.61	594.66	527.61	468.25	405.66	362.16	323.62	284.81
225.0	903.04	803.16	713.26	613.82	554.14	486.86	422.89	383.08	338.82
270.0	1096.72	948.62	841.81	734.45	641.41	568.73	505.42	436.05	389.25
315.0	1025.21	892.90	775.63	683.58	594.17	519.13	459.72	402.41	358.47
360.0	982.76	869.34	755.37	653.52	574.79	499.36	439.90	382.09	333.09
C/ γ (°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	295.65	278.59	231.73	200.68	178.93	159.88	138.30	122.89	108.90
45.0	278.59	242.08	214.39	191.60	169.90	151.41	132.69	115.45	101.19
90.0	244.62	218.02	199.19	177.39	155.37	139.29	124.21	106.64	93.82
135.0	278.59	226.39	204.15	184.88	161.48	142.27	127.84	109.34	95.85
180.0	250.40	223.09	195.17	170.90	152.07	133.40	118.37	103.07	89.25
225.0	297.52	271.98	245.66	213.73	195.34	176.07	155.81	137.59	122.28
270.0	349.06	305.01	278.03	246.05	219.40	195.67	176.46	156.42	140.01
315.0	316.24	280.02	251.00	224.96	196.50	175.85	156.69	135.60	120.35
360.0	295.65	278.59	231.73	200.68	178.93	159.88	138.30	122.89	108.90
C/ γ (°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	92.88	81.48	71.79	60.95	52.80	45.15	37.88	31.88	27.42
45.0	87.15	75.26	65.46	56.82	47.68	41.95	37.44	32.04	28.41
90.0	82.09	70.09	58.47	49.33	40.96	35.02	29.68	25.44	22.35
135.0	83.25	70.58	61.39	52.41	45.04	39.81	34.52	30.56	26.98
180.0	78.35	68.05	55.61	46.85	39.64	32.98	27.80	24.11	20.81
225.0	108.13	91.56	80.16	69.98	60.01	51.70	45.31	39.26	34.74
270.0	122.67	107.25	94.81	82.20	70.09	59.96	51.04	41.90	35.95
315.0	106.20	91.89	79.45	69.87	59.35	53.02	45.92	40.03	35.46
360.0	92.88	81.48	71.79	60.95	52.80	45.15	37.88	31.88	27.42
C/ γ (°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	23.78	20.10	17.84	15.31	13.65	12.33	10.96	9.86	8.92
45.0	25.60	23.56	20.54	18.66	17.18	15.25	13.76	12.77	11.45
90.0	19.49	17.12	15.31	13.82	12.22	11.12	10.19	9.30	8.53
135.0	24.11	21.75	19.55	17.56	15.91	14.42	12.94	11.62	10.68
180.0	17.95	15.97	13.98	12.55	11.12	9.91	9.03	8.15	7.32
225.0	30.06	27.03	24.28	21.58	19.21	17.45	15.80	13.98	12.66
270.0	30.94	26.37	22.63	19.82	17.34	15.36	13.82	12.33	11.23
315.0	31.16	27.58	24.89	22.41	19.60	18.00	16.35	14.48	13.16
360.0	23.78	20.10	17.84	15.31	13.65	12.33	10.96	9.86	8.92

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	8.09	7.43	6.88	6.33	5.84	5.45	5.07	4.68	4.40		
45.0	10.46	9.36	8.59	7.87	7.21	6.50	6.06	5.62	5.18		
90.0	7.93	7.32	6.83	6.39	5.95	5.62	5.23	4.90	4.57		
135.0	9.47	8.64	7.87	7.21	6.50	5.95	5.45	5.07	4.68		
180.0	6.83	6.33	5.78	5.40	5.01	4.68	4.29	3.96	3.63		
225.0	11.45	10.30	9.19	8.37	7.54	6.77	6.28	5.73	5.34		
270.0	10.19	9.25	8.53	7.93	7.27	6.77	6.28	5.84	5.51		
315.0	11.95	10.63	9.63	8.81	7.98	7.27	6.61	5.95	5.56		
360.0	8.09	7.43	6.88	6.33	5.84	5.45	5.07	4.68	4.40		
C/ γ (°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0		
0.0	4.13	3.80	3.52	3.30	3.08	2.86	2.64	2.42	2.26		
45.0	4.79	4.57	4.18	3.96	3.74	3.47	3.25	3.08	2.86		
90.0	4.29	4.02	3.80	3.52	3.25	3.03	2.81	2.64	2.48		
135.0	4.35	4.02	3.74	3.52	3.30	3.08	2.81	2.64	2.48		
180.0	3.41	3.19	2.92	2.75	2.59	2.37	2.15	1.98	1.82		
225.0	4.96	4.57	4.24	4.02	3.74	3.47	3.25	3.03	2.86		
270.0	5.12	4.79	4.46	4.18	3.91	3.69	3.47	3.19	2.97		
315.0	5.12	4.68	4.35	4.07	3.69	3.52	3.25	2.97	2.81		
360.0	4.13	3.80	3.52	3.30	3.08	2.86	2.64	2.42	2.26		
C/ γ (°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0		
0.0	2.09	1.93	1.82	1.60	1.49	1.49	1.49	1.49	1.49		
45.0	2.75	2.64	2.48	2.37	2.26	2.20	2.09	2.04	2.15		
90.0	2.26	1.98	1.93	1.98	1.98	2.04	2.04	2.04	2.09		
135.0	2.37	2.20	2.09	1.98	1.82	1.71	1.65	1.65	1.65		
180.0	1.65	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43		
225.0	2.75	2.59	2.48	2.37	2.26	2.15	2.04	1.98	2.04		
270.0	2.75	2.59	2.42	2.15	2.04	2.04	2.04	2.04	2.09		
315.0	2.64	2.48	2.37	2.20	2.04	1.93	1.82	1.76	1.65		
360.0	2.09	1.93	1.82	1.60	1.49	1.49	1.49	1.49	1.49		
C/ γ (°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0		
0.0	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49		
45.0	2.15	2.20	2.26	2.42	2.31	2.26	1.98	1.71	1.54		
90.0	2.20	2.20	2.31	2.37	2.48	1.98	1.54	1.43	1.43		
135.0	1.71	1.65	1.71	1.71	1.65	1.65	1.60	1.54	1.49		
180.0	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43		
225.0	2.09	2.09	2.20	2.15	2.09	1.87	1.65	1.49	1.49		
270.0	2.09	2.15	2.20	2.26	2.37	1.87	1.49	1.43	1.43		
315.0	1.65	1.71	1.71	1.65	1.65	1.65	1.60	1.54	1.49		
360.0	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49		
C/ γ (°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0		
0.0	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.43	1.43		
45.0	1.49	1.49	1.49	1.43	2.48	3.85	3.63	3.47	3.58		
90.0	1.43	1.43	1.43	1.43	1.54	1.54	1.60	1.60	1.60		
135.0	1.49	1.49	1.43	1.54	2.15	1.87	1.71	1.65	1.65		
180.0	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43		
225.0	1.49	1.43	1.76	3.30	3.69	3.96	4.13	4.24	4.73		
270.0	1.43	1.38	1.38	1.43	1.60	1.65	1.60	1.60	1.60		
315.0	1.49	1.43	1.43	1.49	2.26	2.53	2.20	2.42	1.82		
360.0	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.43	1.43		

Intensity data(cd)

Appendix Page: 19 Total:19

C/ γ (°)	90.0
0.0	1.43
45.0	3.74
90.0	2.15
135.0	1.82
180.0	1.43
225.0	5.07
270.0	1.60
315.0	1.76
360.0	1.43