



立讯检测
Testing Laboratories

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SHENZHEN YOUWIN OPTRONICS CO., LTD

LumCAT: YWHBFM-120H-AL080

Luminaire: LED High Bay Light

Report No:

Voltage(V): 230.000

Test No:

Current(A): 0.544

LampCAT: LED

Power (W): 122.200

Lamp flux(lm)

PF: 0.977

Number of Lamps: 1

Ballast type: -

Length(mm): 420

Width(mm): 420

Phm Type: C

Height(mm): 520

Photometric Results

Lumens(lm): 11711.27

Lumens(lm)/Power(W): 95.84

Central intensity(cd): 9692.261

Maximum intensity(cd): 9718.618

Angle of maximum intensity: C=90.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Left=36.2 Right=36.4

[C90/270]Left=36.3 Right=36.2

Field angle(10%Imax): [C0/180]Left=47.5 Right=47.3

[C90/270]Left=47.6 Right=47.2

Beam angle of C90plane: 72.52

Maximum s/h: C0_180=0.98 C90_270=1.00

Up flux rate of LUM(%): 0.82%

Down flux rate of LUM(%): 99.18%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 95.233%

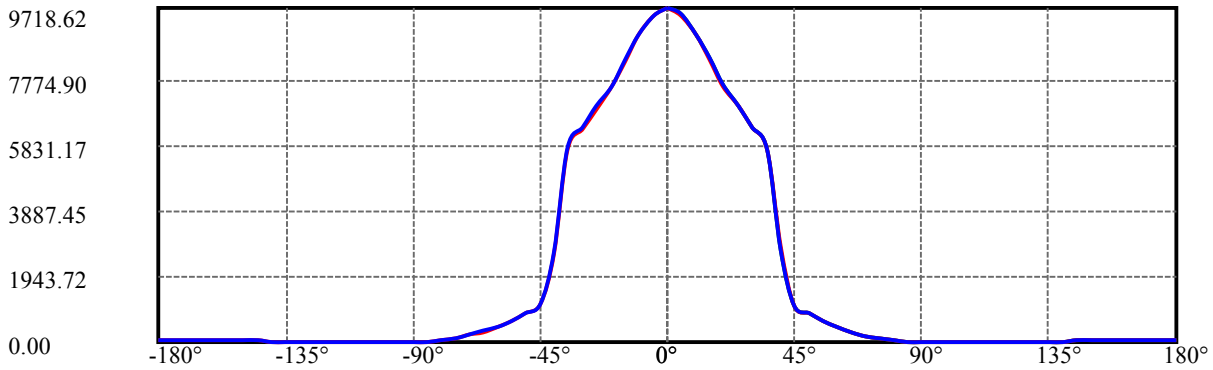
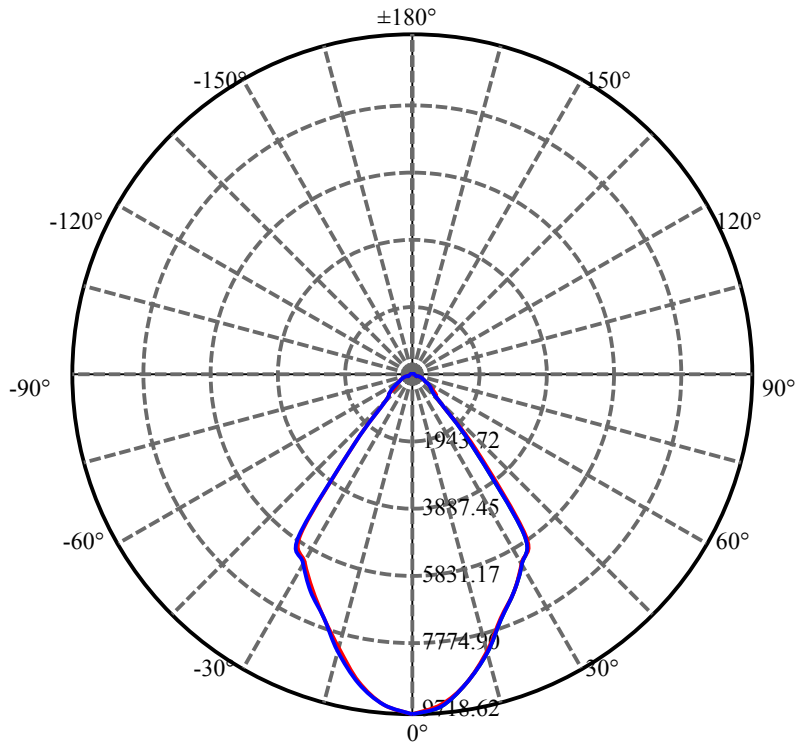
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	9705.659	.000	.000	.000%	.000%
5.0	9495.344	229.543	229.543	1.960%	1.960%
10.0	8943.690	659.622	889.165	5.632%	7.592%
15.0	8201.272	1017.028	1906.192	8.684%	16.277%
20.0	7451.934	1290.044	3196.236	11.015%	27.292%
25.0	6842.073	1499.178	4695.414	12.801%	40.093%
30.0	6236.167	1655.062	6350.477	14.132%	54.225%
35.0	5593.141	1741.948	8092.425	14.874%	69.099%
40.0	2744.875	1391.135	9483.560	11.879%	80.978%
45.0	1095.782	711.129	10194.690	6.072%	87.050%
50.0	835.244	390.192	10584.880	3.332%	90.382%
55.0	631.770	318.978	10903.860	2.724%	93.106%
60.0	446.132	249.154	11153.010	2.127%	95.233%
65.0	302.119	181.901	11334.910	1.553%	96.786%
70.0	194.336	125.706	11460.620	1.073%	97.860%
75.0	114.658	80.766	11541.380	.690%	98.549%
80.0	58.207	46.254	11587.640	.395%	98.944%
85.0	21.086	21.546	11609.180	.184%	99.128%
90.0	.999	6.047	11615.230	.052%	99.180%
95.0	1.120	.580	11615.810	.005%	99.185%
100.0	1.516	.716	11616.530	.006%	99.191%
105.0	2.087	.964	11617.490	.008%	99.199%
110.0	3.042	1.341	11618.830	.011%	99.211%
115.0	5.272	2.105	11620.940	.018%	99.229%
120.0	8.500	3.348	11624.290	.029%	99.257%
125.0	12.553	4.866	11629.150	.042%	99.299%
130.0	17.089	6.445	11635.600	.055%	99.354%
135.0	21.669	7.831	11643.430	.067%	99.421%
140.0	26.655	8.947	11652.380	.076%	99.497%
145.0	31.970	9.781	11662.160	.084%	99.581%
150.0	37.319	10.203	11672.360	.087%	99.668%
155.0	42.041	10.043	11682.400	.086%	99.754%
160.0	46.280	9.263	11691.670	.079%	99.833%
165.0	51.168	8.031	11699.700	.069%	99.901%
170.0	54.429	6.264	11705.960	.053%	99.955%
175.0	56.088	3.954	11709.910	.034%	99.988%
180.0	57.087	1.353	11711.270	.012%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-30	6350.48	54.23%
0-40	9483.56	80.98%
0-60	11153.01	95.23%
0-90	11615.23	99.18%
0-120	11624.29	99.26%
0-180	11711.27	100.00%
60-90	711.37	6.07%
90-120	15.10	0.13%
90-130	26.41	0.23%
90-150	63.18	0.54%
90-180	100.73	0.86%
0-39.59	9369.01	80.00%

ZONAL LUMEN SUMMARY

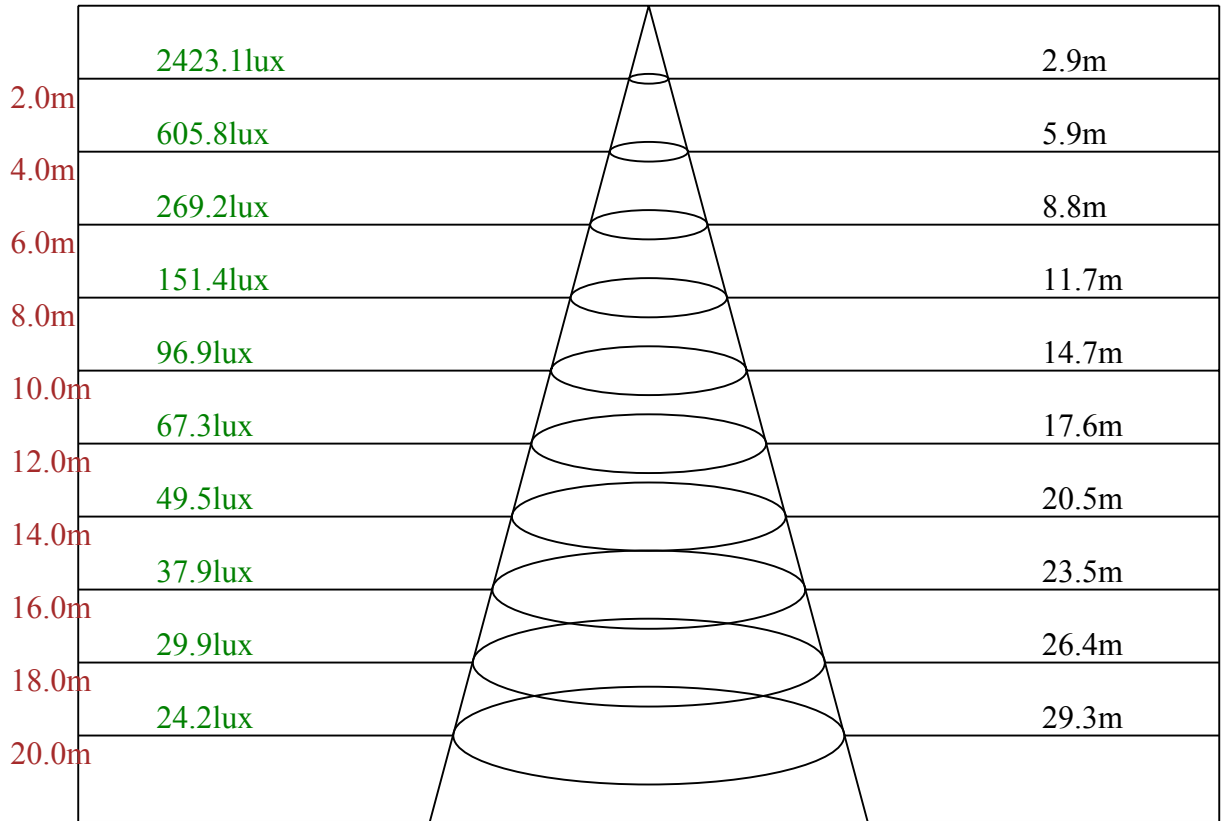
0-10	889.16
10-20	2307.07
20-30	3154.24
30-40	3133.08
40-50	1101.32
50-60	568.13
60-70	307.61
70-80	127.02
80-90	27.59
90-100	1.30
100-110	2.30
110-120	5.45
120-130	11.31
130-140	16.78
140-150	19.98
150-160	19.31
160-170	14.30
170-180	3.95



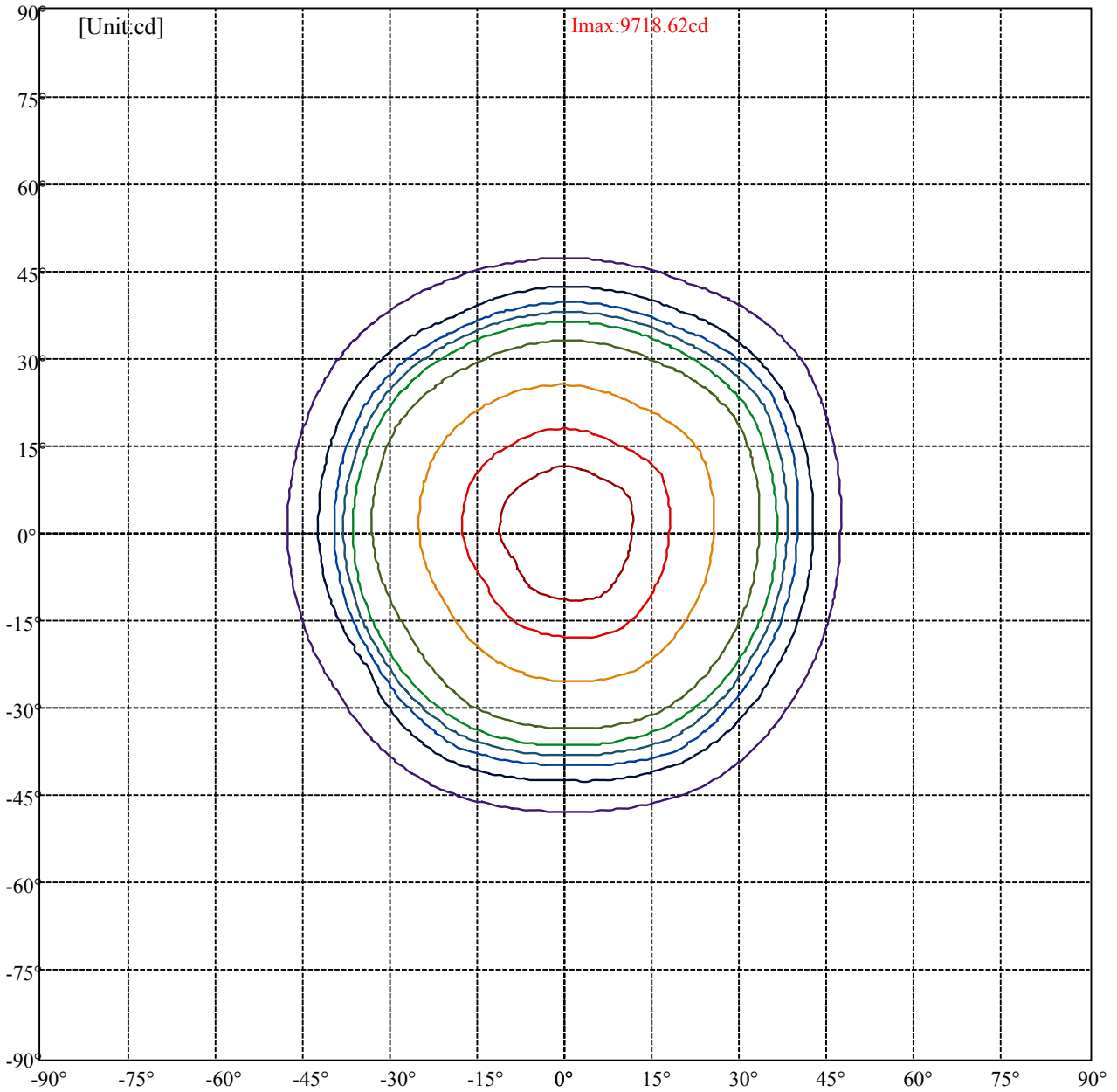
C90(Max): ———
 C0/C180: ———
 C90/C270: ———

Field angle(10%Imax):C0/180Left:47.5 Right:47.3
 :C90/270Left:47.6 Right:47.2

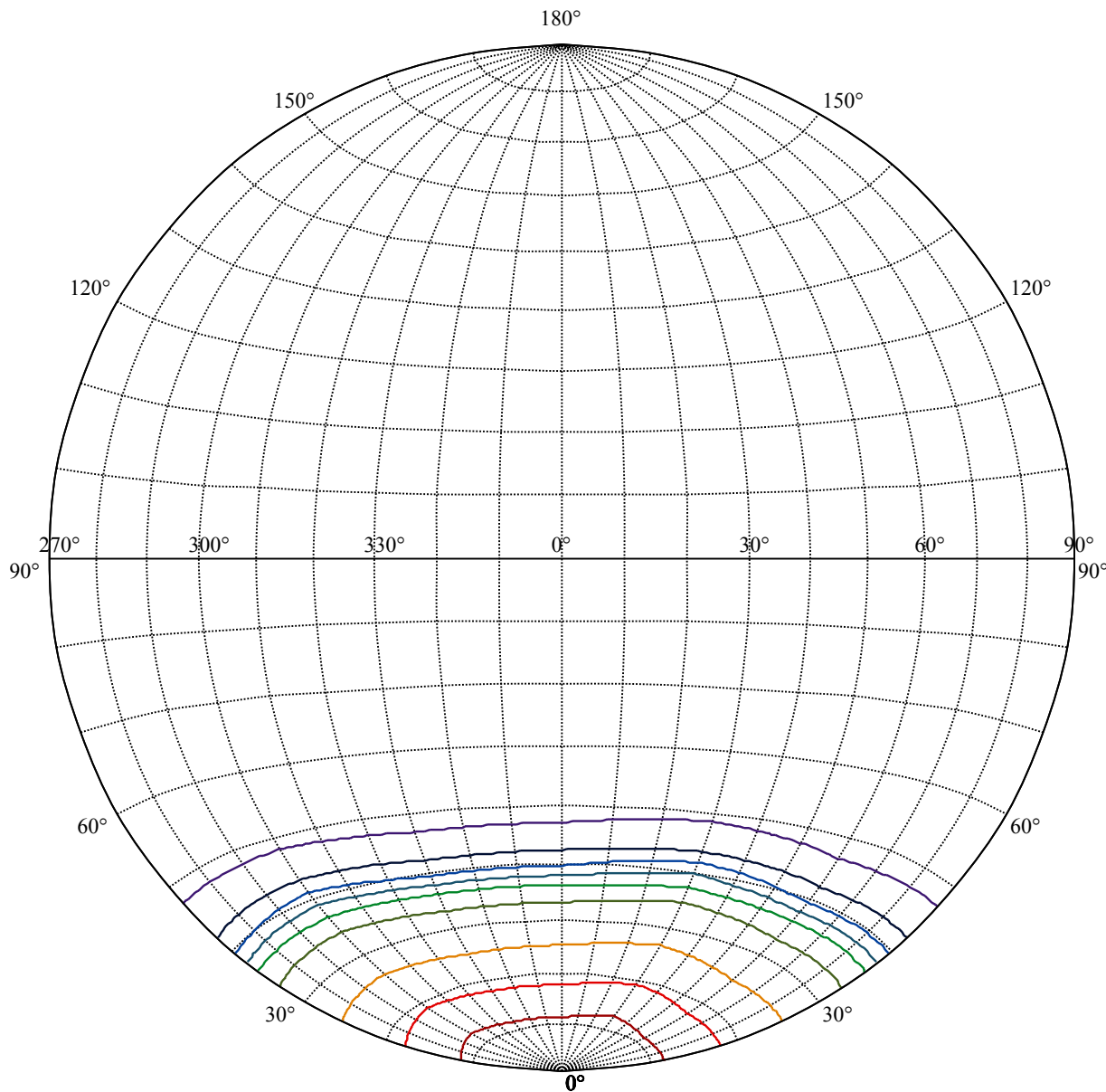
Beam Angle(50%Imax):C0/180Left:36.2 Right:36.4
 :C90/270Left:36.3 Right:36.2



Beam angle of C90plane72.52













- (10%Imax) 971.862
- (20%Imax) 1943.72
- (30%Imax) 2915.59
- (40%Imax) 3887.45
- (50%Imax) 4859.31
- (60%Imax) 5831.17
- (70%Imax) 6803.03
- (80%Imax) 7774.89
- (90%Imax) 8746.76

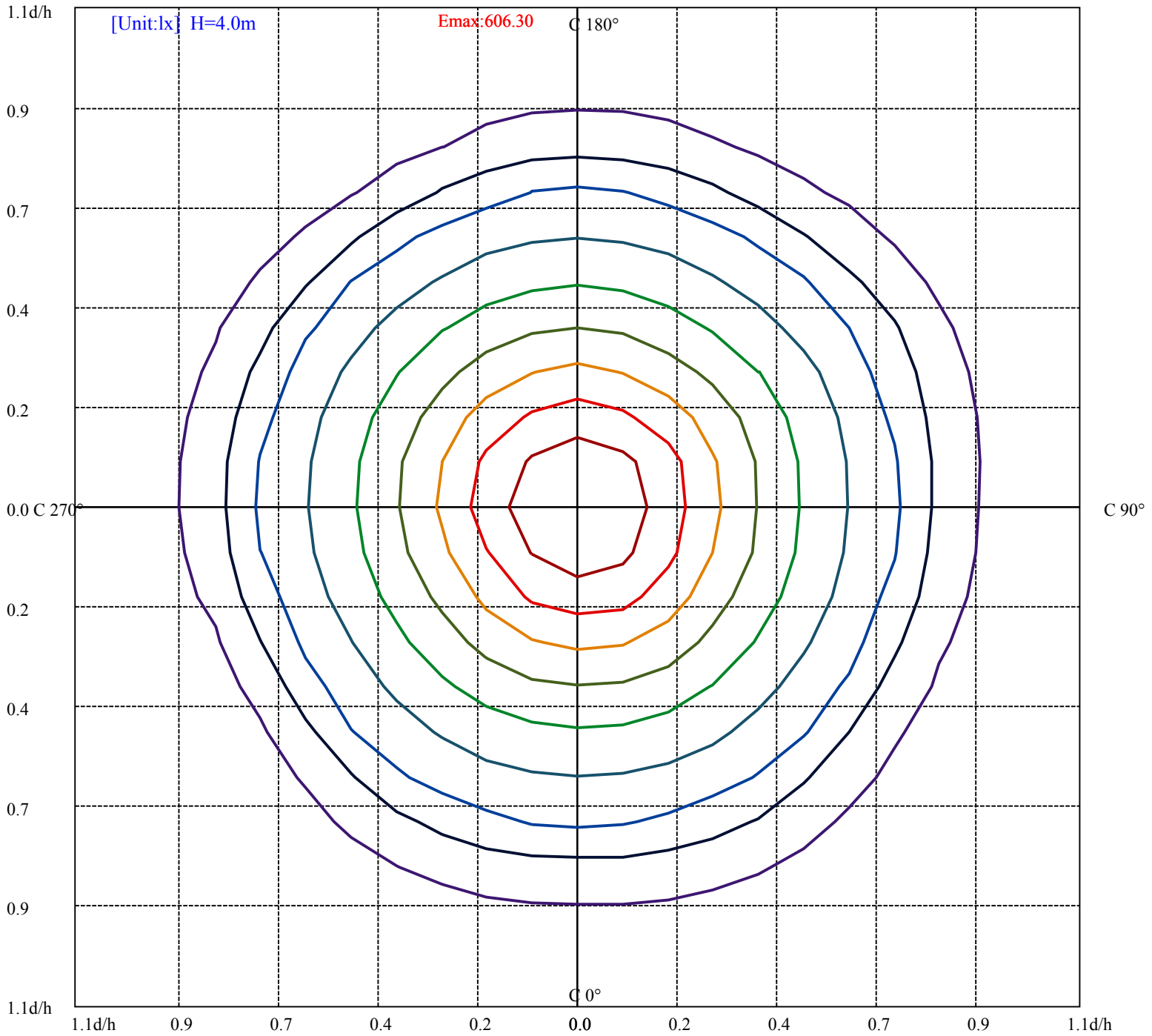


House

[Unit:cd]

Road

Imax:9718.62	
(10%Imax) 971.862	
(20%Imax) 1943.72	
(30%Imax) 2915.59	
(40%Imax) 3887.45	
(50%Imax) 4859.31	
(60%Imax) 5831.17	
(70%Imax) 6803.03	
(80%Imax) 7774.89	
(90%Imax) 8746.76	

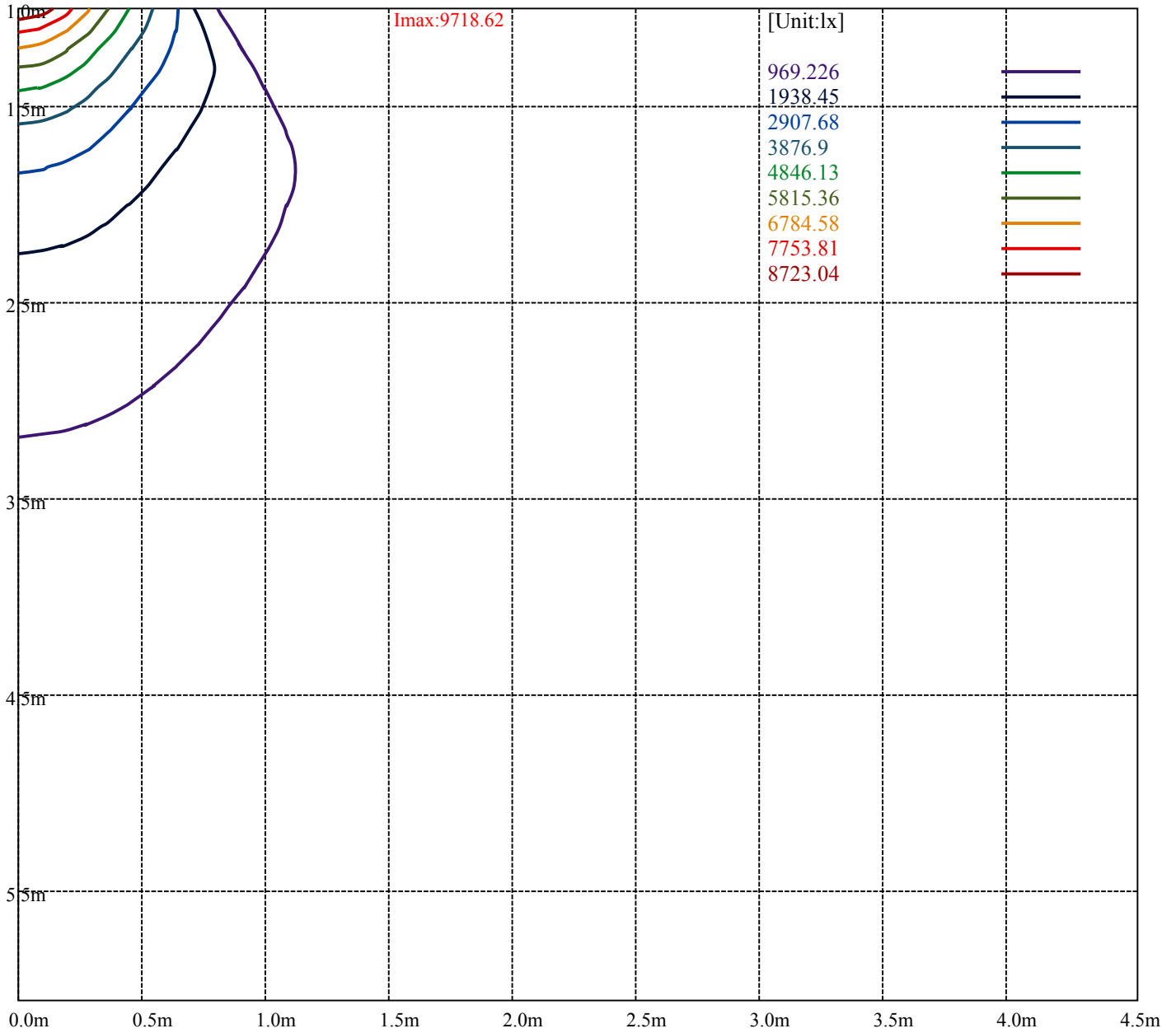


(10%Emax) 60.63019	—
(20%Emax) 121.2606	—
(30%Emax) 181.8906	—
(40%Emax) 242.5206	—
(50%Emax) 303.1506	—
(60%Emax) 363.7813	—
(70%Emax) 424.4113	—
(80%Emax) 485.0413	—
(90%Emax) 545.6713	—

Equipment: GMS-1800B
 Temperature(°C): 25.0

Date: 2015-4-29
 Humidity(%): 50.0%

Operator: Marine
 Distance(m): 11.48



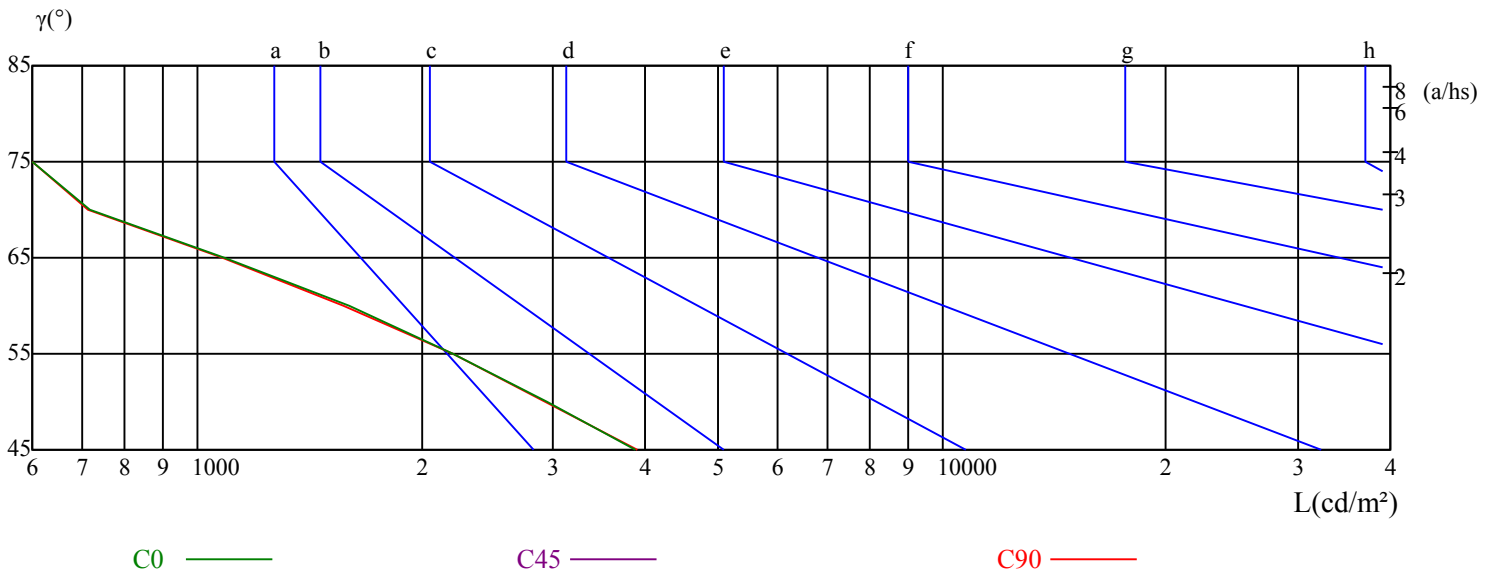
Luminance Table

γ	45	50	55	60	65	70	75	80	85
C0	3882	2955	2201	1597	1085	715	440	235	86
C45	0	0	0	0	0	0	0	0	0
C90	3887	2931	2200	1568	1080	712	437	232	84

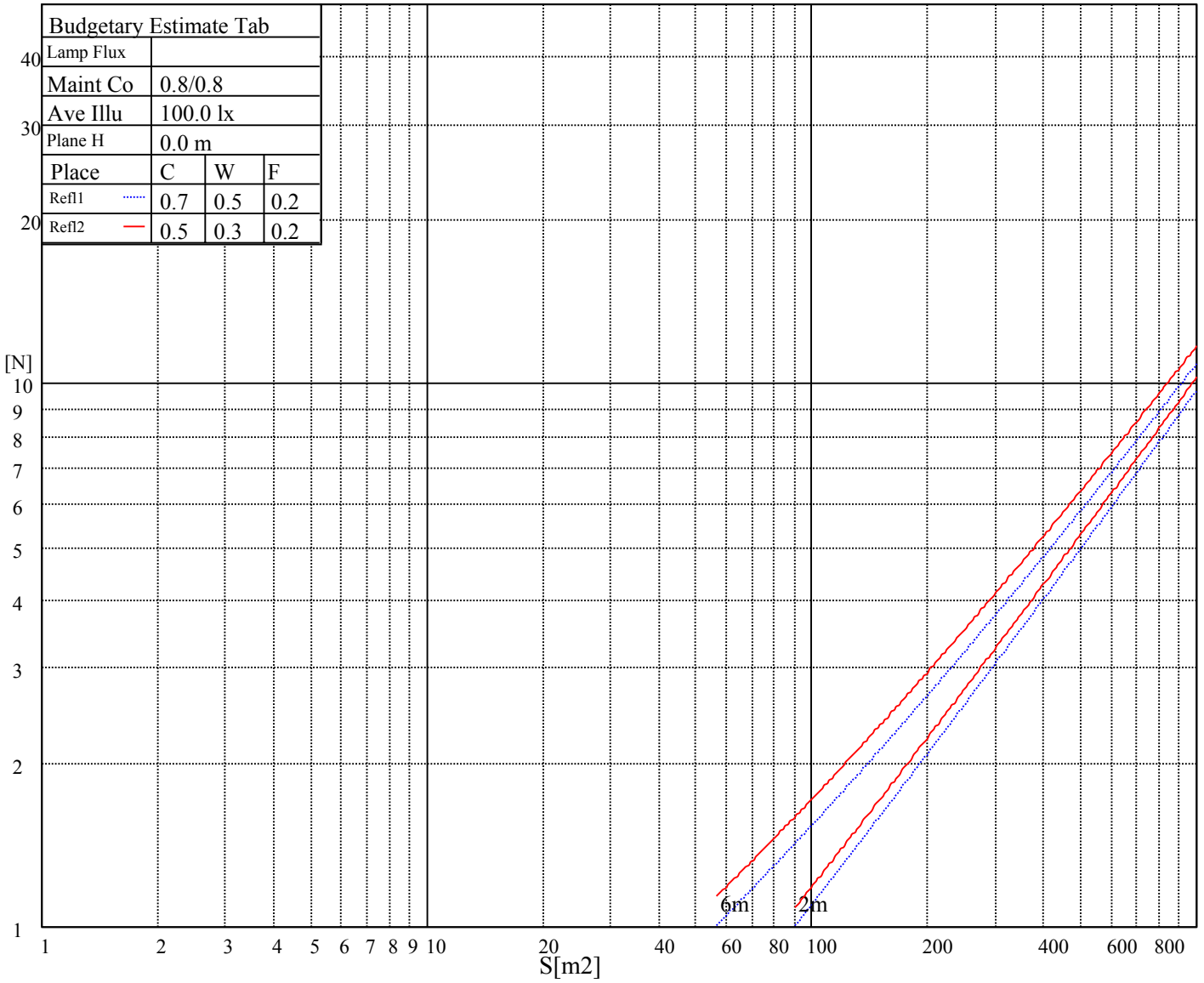
Glare Table

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



Illuminatin 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	5.6	6.6	5.9	6.9	7.1	5.2	6.2	5.5	6.4	6.6
	3H	5.7	6.6	6.0	6.9	7.1	5.3	6.2	5.6	6.4	6.7
	4H	5.6	6.3	6.0	6.7	7.0	5.2	5.9	5.5	6.2	6.5
	6H	5.6	6.4	6.0	6.7	7.0	5.2	5.9	5.6	6.3	6.6
	8H	5.7	6.4	6.0	6.7	7.1	5.2	5.9	5.6	6.3	6.6
	12H	5.5	6.0	5.9	6.4	6.8	5.0	5.6	5.4	6.0	6.4
4H	2H	5.5	6.2	5.8	6.5	6.8	5.0	5.8	5.4	6.1	6.4
	3H	5.6	6.2	6.0	6.5	7.0	5.2	5.7	5.6	6.1	6.5
	4H	5.7	6.3	6.1	6.7	7.1	5.3	5.8	5.7	6.2	6.6
	6H	5.8	6.3	6.2	6.7	7.1	5.3	5.9	5.8	6.3	6.7
	8H	5.6	5.9	6.1	6.4	6.9	5.2	5.5	5.7	5.9	6.5
	12H	5.6	5.9	6.1	6.4	6.9	5.2	5.5	5.7	6.0	6.5
8H	4H	5.6	5.9	6.1	6.4	6.9	5.1	5.4	5.7	5.9	6.5
	6H	5.7	6.0	6.2	6.5	7.0	5.2	5.5	5.7	6.0	6.5
	8H	5.7	6.0	6.2	6.5	7.0	5.2	5.6	5.8	6.0	6.6
	12H	5.7	6.0	6.2	6.5	7.0	5.3	5.6	5.8	6.0	6.6
12H	4H	5.6	5.9	6.1	6.4	6.9	5.1	5.5	5.7	5.9	6.5
	6H	5.7	6.0	6.2	6.5	7.0	5.2	5.5	5.7	6.0	6.5
	8H	5.7	6.0	6.2	6.5	7.0	5.3	5.6	5.8	6.0	6.6
Variation with the observer position at spacings:											
S = 1.0H		2.7/-3.4					2.9/-3.3				
S = 1.5H		4.8/-4.4					5.2/-4.3				
S = 2.0H		6.9/-5.3					7.2/-5.2				
Standard tables:		BK1					BK1				
Uncorrected UGR		-12.1					-12.6				
According 1000lm											



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	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.01	1.01	1.01	0.99
1	1.09	1.06	1.04	1.07	1.04	1.02	1.02	1.00	0.98	0.99	0.97	0.95	0.95	0.94	0.92	0.91
2	1.00	0.95	0.91	0.98	0.94	0.90	0.95	0.91	0.88	0.91	0.88	0.86	0.88	0.86	0.84	0.82
3	0.92	0.86	0.81	0.90	0.85	0.80	0.87	0.83	0.79	0.85	0.81	0.78	0.82	0.79	0.76	0.75
4	0.84	0.78	0.73	0.83	0.77	0.72	0.81	0.76	0.72	0.79	0.74	0.71	0.76	0.73	0.70	0.68
5	0.78	0.71	0.66	0.77	0.71	0.66	0.75	0.69	0.65	0.73	0.68	0.64	0.71	0.67	0.64	0.62
6	0.72	0.65	0.60	0.71	0.65	0.60	0.70	0.64	0.60	0.68	0.63	0.59	0.67	0.62	0.59	0.57
7	0.67	0.60	0.55	0.66	0.60	0.55	0.65	0.59	0.55	0.63	0.58	0.54	0.62	0.58	0.54	0.52
8	0.62	0.56	0.51	0.62	0.55	0.51	0.61	0.55	0.51	0.59	0.54	0.50	0.58	0.54	0.50	0.49
9	0.58	0.52	0.47	0.58	0.51	0.47	0.57	0.51	0.47	0.56	0.50	0.47	0.55	0.50	0.46	0.45
10	0.55	0.48	0.44	0.54	0.48	0.44	0.53	0.48	0.44	0.52	0.47	0.43	0.52	0.47	0.43	0.42
RCR	COEFFICIENTS OF UTILIZATION RHOFC=20 WLC															
1	0.21	0.12	0.04	0.20	0.11	0.04	0.19	0.11	0.03	0.18	0.10	0.03	0.16	0.10	0.03	
2	0.20	0.11	0.03	0.19	0.11	0.03	0.18	0.10	0.03	0.17	0.10	0.03	0.16	0.09	0.03	
3	0.19	0.10	0.03	0.19	0.10	0.03	0.18	0.10	0.03	0.17	0.09	0.03	0.16	0.09	0.03	
4	0.18	0.09	0.03	0.18	0.09	0.03	0.17	0.09	0.03	0.16	0.09	0.03	0.15	0.08	0.03	
5	0.17	0.09	0.03	0.17	0.09	0.03	0.16	0.08	0.02	0.15	0.08	0.02	0.15	0.08	0.02	
6	0.16	0.08	0.02	0.16	0.08	0.02	0.15	0.08	0.02	0.15	0.08	0.02	0.14	0.07	0.02	
7	0.15	0.08	0.02	0.15	0.08	0.02	0.15	0.07	0.02	0.14	0.07	0.02	0.13	0.07	0.02	
8	0.15	0.07	0.02	0.14	0.07	0.02	0.14	0.07	0.02	0.13	0.07	0.02	0.13	0.07	0.02	
9	0.14	0.07	0.02	0.14	0.07	0.02	0.13	0.07	0.02	0.13	0.06	0.02	0.12	0.06	0.02	
10	0.13	0.06	0.02	0.13	0.06	0.02	0.13	0.06	0.02	0.12	0.06	0.02	0.12	0.06	0.02	
RCR	COEFFICIENTS OF UTILIZATION RHOFC=20 CCLU															
0	0.20	0.20	0.20	0.17	0.17	0.17	0.11	0.11	0.11	0.07	0.07	0.07	0.02	0.02	0.02	
1	0.16	0.15	0.15	0.14	0.13	0.13	0.10	0.09	0.09	0.06	0.06	0.05	0.02	0.02	0.02	
2	0.14	0.12	0.11	0.12	0.11	0.10	0.09	0.08	0.07	0.05	0.05	0.04	0.02	0.02	0.01	
3	0.12	0.10	0.09	0.10	0.09	0.08	0.08	0.07	0.05	0.05	0.04	0.03	0.02	0.01	0.01	
4	0.10	0.08	0.07	0.09	0.07	0.06	0.07	0.06	0.04	0.05	0.04	0.03	0.02	0.01	0.01	
5	0.09	0.07	0.05	0.08	0.06	0.05	0.07	0.05	0.04	0.04	0.03	0.02	0.02	0.01	0.01	
6	0.08	0.06	0.04	0.07	0.05	0.04	0.06	0.04	0.03	0.04	0.03	0.02	0.02	0.01	0.01	
7	0.07	0.05	0.04	0.07	0.05	0.03	0.06	0.04	0.03	0.04	0.03	0.02	0.02	0.01	0.01	
8	0.06	0.04	0.03	0.06	0.04	0.03	0.05	0.04	0.02	0.04	0.02	0.01	0.01	0.01	0.01	
9	0.06	0.04	0.03	0.06	0.04	0.03	0.05	0.03	0.02	0.04	0.02	0.01	0.01	0.01	0.00	
10	0.05	0.04	0.02	0.05	0.03	0.02	0.05	0.03	0.02	0.03	0.02	0.01	0.01	0.01	0.00	

Intensity data(cd)

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	9692.26	9489.30	8951.60	8209.62	7447.87	6860.09	6240.67	5610.71	2796.99
30.0	9686.99	9617.14	9130.83	8431.03	7670.60	7038.00	6438.36	5811.03	3848.68
60.0	9714.67	9503.80	8931.83	8159.54	7416.24	6798.14	6194.54	5579.08	2603.52
90.0	9718.62	9524.89	8962.14	8238.61	7465.00	6857.45	6247.26	5575.13	2677.06
120.0	9713.35	9435.27	8872.52	8155.58	7449.19	6874.58	6216.95	5447.29	2143.44
150.0	9708.08	9493.26	8954.23	8246.52	7504.54	6906.21	6297.34	5652.89	2796.99
180.0	9692.26	9473.49	8910.74	8147.68	7410.97	6779.69	6185.32	5594.90	2580.85
210.0	9686.99	9316.66	8698.56	7884.10	7194.83	6614.96	6017.94	5231.16	1854.16
240.0	9714.67	9482.71	8904.15	8125.27	7363.52	6752.02	6197.18	5625.21	3026.30
270.0	9718.62	9505.12	8948.96	8191.17	7428.10	6842.95	6238.04	5635.75	2604.84
300.0	9713.35	9588.15	9083.39	8382.27	7615.24	6948.39	6346.10	5738.55	3449.35
330.0	9708.08	9514.34	8975.32	8243.89	7457.10	6832.41	6214.31	5615.98	2556.34
360.0	9692.26	9489.30	8951.60	8209.62	7447.87	6860.09	6240.67	5610.71	2796.99

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	1083.71	829.36	616.38	442.82	295.74	189.91	112.81	57.72	20.03
30.0	1203.64	892.62	676.48	492.63	338.44	220.75	132.19	70.90	28.60
60.0	1058.94	814.33	605.97	435.44	291.65	190.57	110.97	56.41	20.30
90.0	1085.03	822.77	616.12	434.91	294.42	188.99	112.15	57.07	19.64
120.0	1063.15	809.19	593.72	418.70	280.58	175.15	102.53	49.16	15.55
150.0	1102.16	834.63	648.01	440.84	298.37	192.55	113.21	58.25	21.22
180.0	1094.92	842.93	635.36	451.78	307.07	198.74	117.29	60.76	21.75
210.0	1021.64	786.00	581.59	411.85	276.76	172.51	99.77	46.79	14.37
240.0	1108.75	855.72	677.80	464.17	312.21	201.38	119.80	59.70	23.46
270.0	1106.51	847.68	638.13	454.15	309.44	198.87	115.45	58.78	21.88
300.0	1154.88	870.21	677.80	469.57	322.10	209.55	124.28	65.24	25.04
330.0	1066.05	817.50	613.88	436.75	298.64	193.07	115.45	57.72	21.22
360.0	1083.71	829.36	616.38	442.82	295.74	189.91	112.81	57.72	20.03

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.92	1.19	1.45	1.98	2.90	4.88	8.04	12.39	17.26
30.0	1.98	1.05	1.45	1.98	2.77	4.74	7.64	11.47	15.42
60.0	0.92	1.19	1.58	2.11	3.16	5.67	8.83	12.78	16.87
90.0	0.92	1.19	1.58	2.11	3.29	5.67	8.96	12.65	17.00
120.0	0.92	1.19	1.58	2.24	3.43	6.19	9.49	13.31	17.66
150.0	0.92	1.19	1.58	2.11	3.16	5.67	9.09	12.78	17.00
180.0	0.92	1.05	1.58	2.11	3.16	5.67	8.96	12.78	17.00
210.0	0.92	1.19	1.58	2.24	3.29	5.80	9.36	14.10	18.98
240.0	0.92	1.05	1.45	2.11	2.90	4.88	8.04	12.39	17.26
270.0	0.92	1.05	1.45	2.11	2.90	4.88	8.04	12.39	17.40
300.0	0.79	1.05	1.45	1.98	2.77	4.48	7.51	11.47	16.21
330.0	0.92	1.05	1.45	1.98	2.77	4.74	8.04	12.12	17.00
360.0	0.92	1.19	1.45	1.98	2.90	4.88	8.04	12.39	17.26

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	21.88	26.75	32.29	38.09	42.96	47.31	52.06	55.35	56.41
30.0	19.64	24.38	29.39	34.53	39.80	44.02	48.76	52.85	55.22
60.0	21.09	25.96	30.97	36.37	41.12	45.20	50.08	53.51	55.75
90.0	21.35	26.23	31.37	36.51	41.38	45.34	50.08	53.51	55.48
120.0	22.14	27.28	32.29	37.43	41.78	45.60	50.48	53.51	55.62
150.0	21.48	26.49	31.63	37.16	41.91	45.60	50.21	53.11	55.09
180.0	21.48	26.36	32.03	37.82	42.30	46.26	50.48	53.51	55.09
210.0	23.72	28.99	34.53	39.93	44.28	48.89	53.51	55.75	56.67
240.0	22.01	27.28	32.68	37.69	42.57	47.05	52.32	55.62	56.93
270.0	22.14	27.15	32.68	38.09	42.70	47.44	52.72	56.01	57.20
300.0	21.22	26.09	31.63	36.51	41.38	45.99	51.53	55.22	56.93
330.0	21.88	26.89	32.16	37.69	42.30	46.65	51.79	55.22	56.67
360.0	21.88	26.75	32.29	38.09	42.96	47.31	52.06	55.35	56.41

Intensity data(cd)

C/γ(°)	180.0
0.0	56.67
30.0	57.07
60.0	57.33
90.0	57.20
120.0	57.33
150.0	56.93
180.0	56.67
210.0	57.07
240.0	57.33
270.0	57.20
300.0	57.33
330.0	56.93
360.0	56.67