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乐达凯

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Client:

LumCAT: ONEP18LAJUDLB

Luminaire: LED Lamp

Report No:

Ballast type:

Test No: LCZP25090322

Voltage(V): 120.020

LampCAT:

Current(A): 0.253

Lamp flux(lm): 2187.0

Power (W): 29.890

Number of Lamps: 1

PF: 0.985

Length(mm): -440

Width(mm): -440

Phm Type: C

Height(mm): 0

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Photometric Results

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Lumens(lm): 2187.04, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 73.17

Central intensity(cd): 766.303, Maximum intensity(cd): 766.303

Angle of maximum intensity: C=60.0  $\gamma$ =0.0

Beam Angle(50%Imax): [C0/180]Total=112.6

[C90/270]Total=112.2

Field angle(10%Imax): [C0/180]Total=161.0

[C90/270]Total=160.2

Maximum s/h(1/2): C0\_180=1.26 C90\_270=1.26

Maximum s/h(1/4): C0\_180=1.38 C90\_270=1.38

Up flux rate of lamp(%): 0.41%

Down flux rate of lamp(%): 99.59%

Up flux rate of LUM(%): 0.41%

Down flux rate of LUM(%): 99.59%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 78.840%

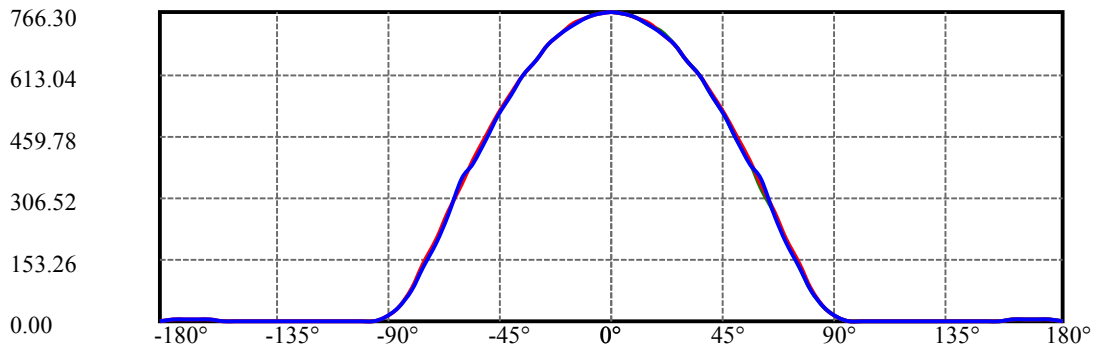
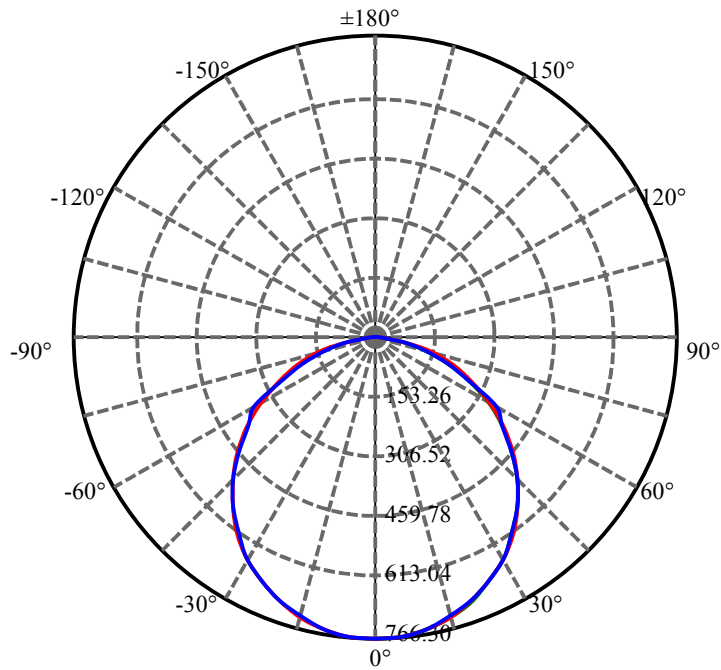
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	766.303	0.000	0	0.00%	0.00%
5.0	762.554	18.277	18.277	0.84%	0.84%
10.0	752.039	54.182	72.459	2.48%	3.31%
15.0	735.449	88.237	160.696	4.03%	7.35%
20.0	712.893	119.364	280.059	5.46%	12.81%
25.0	683.839	146.491	426.551	6.70%	19.50%
30.0	649.346	168.716	595.266	7.71%	27.22%
35.0	608.446	185.219	780.485	8.47%	35.69%
40.0	563.738	195.570	976.055	8.94%	44.63%
45.0	511.694	199.125	1175.18	9.10%	53.73%
50.0	455.084	195.352	1370.532	8.93%	62.67%
55.0	395.546	184.955	1555.487	8.46%	71.12%
60.0	334.616	168.775	1724.262	7.72%	78.84%
65.0	267.158	146.292	1870.555	6.69%	85.53%
70.0	200.594	118.438	1988.992	5.42%	90.94%
75.0	135.999	87.980	2076.972	4.02%	94.97%
80.0	80.688	57.979	2134.952	2.65%	97.62%
85.0	33.871	31.129	2166.08	1.42%	99.04%
90.0	10.305	12.096	2178.176	0.55%	99.59%
95.0	0.911	3.071	2181.247	0.14%	99.74%
100.0	0.603	0.411	2181.658	0.02%	99.75%
105.0	0.489	0.292	2181.951	0.01%	99.77%
110.0	0.452	0.246	2182.197	0.01%	99.78%
115.0	0.467	0.233	2182.429	0.01%	99.79%
120.0	0.626	0.266	2182.695	0.01%	99.80%
125.0	0.732	0.314	2183.009	0.01%	99.82%
130.0	0.785	0.330	2183.339	0.02%	99.83%
135.0	0.782	0.317	2183.656	0.01%	99.85%
140.0	1.009	0.332	2183.987	0.02%	99.86%
145.0	1.328	0.390	2184.377	0.02%	99.88%
150.0	1.768	0.456	2184.833	0.02%	99.90%
155.0	2.250	0.509	2185.342	0.02%	99.92%
160.0	2.721	0.521	2185.863	0.02%	99.95%
165.0	3.059	0.476	2186.34	0.02%	99.97%
170.0	3.374	0.382	2186.721	0.02%	99.99%
175.0	3.624	0.250	2186.971	0.01%	100.00%
180.0	1.878	0.066	2187.037	0.00%	100.00%

## ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	595.27	27.22%	27.22%
0-40	976.06	44.63%	44.63%
0-60	1724.26	78.84%	78.84%
0-90	2178.18	99.59%	99.59%
0-120	2182.70	99.80%	99.80%
0-180	2187.04	100.00%	100.00%
60-90	453.91	20.75%	20.75%
90-120	4.52	0.21%	0.21%
90-130	5.16	0.24%	0.24%
90-150	6.66	0.30%	0.30%
90-180	8.80	0.40%	0.40%
0-60.87	1749.63	80.00%	80.00%

## ZONAL LUMEN SUMMARY

0-10	72.46
10-20	207.60
20-30	315.21
30-40	380.79
40-50	394.48
50-60	353.73
60-70	264.73
70-80	145.96
80-90	43.22
90-100	3.48
100-110	0.54
110-120	0.50
120-130	0.64
130-140	0.65
140-150	0.85
150-160	1.03
160-170	0.86
170-180	0.25



C60(Max): ———

C0/C180: ———

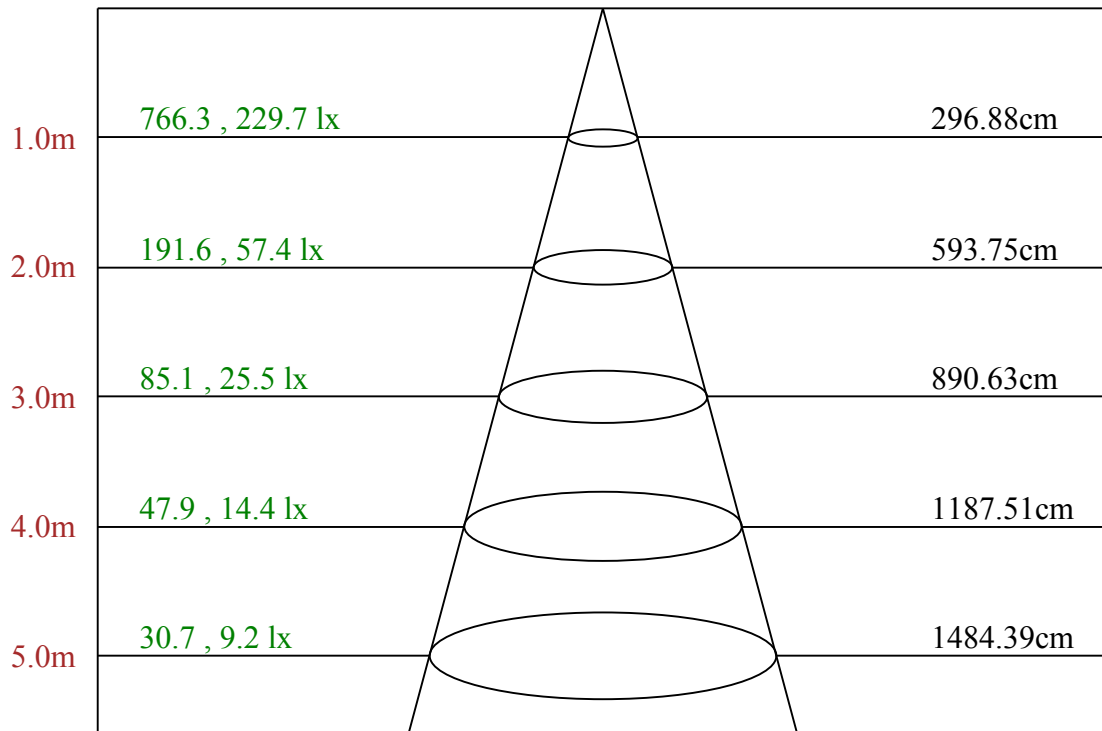
C90/C270: ———

Field angle(10%Imax):C0/180Left:80.5 Right:80.5

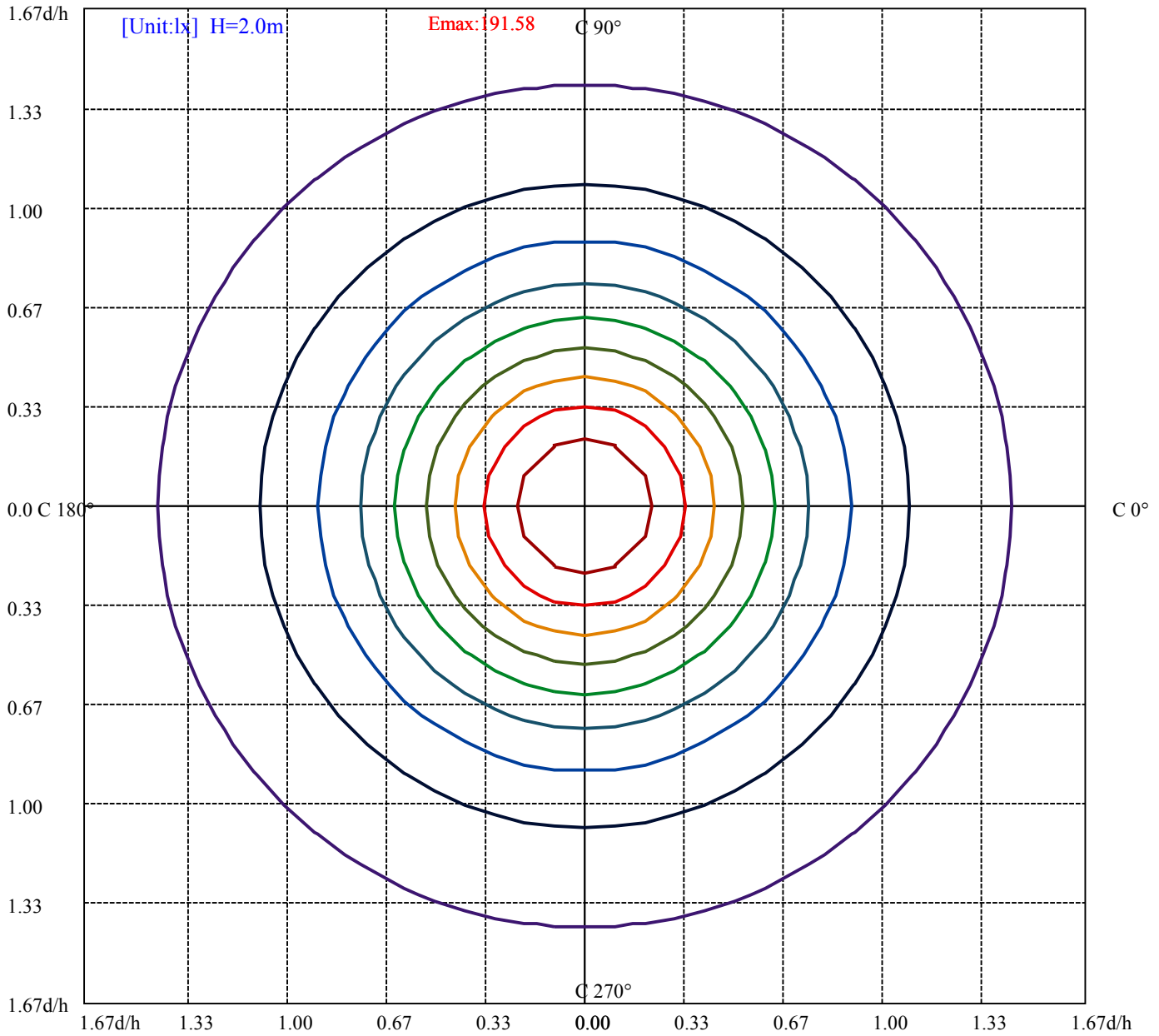
:C90/270Left:80.1 Right:80.1

Beam Angle(50%Imax):C0/180Left:56.3 Right:56.3

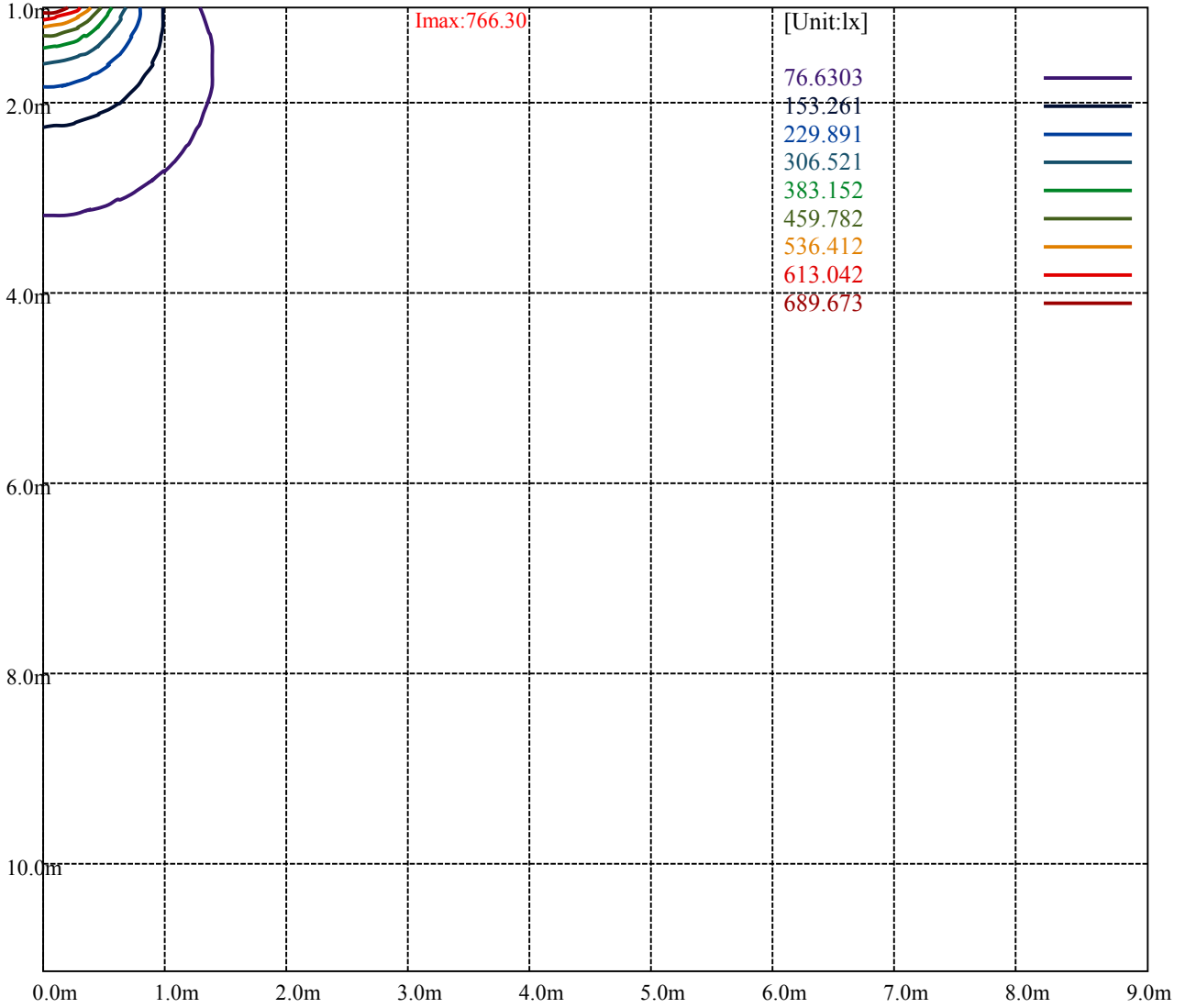
:C90/270Left:56.1 Right:56.1



Max , Ave      Beam angle of C60 plane 112.07



- (10%Emax) 19.15758
- (20%Emax) 38.31525
- (30%Emax) 57.47275
- (40%Emax) 76.63025
- (50%Emax) 95.78775
- (60%Emax) 114.9455
- (70%Emax) 134.103
- (80%Emax) 153.2605
- (90%Emax) 172.4182



Luminance Table

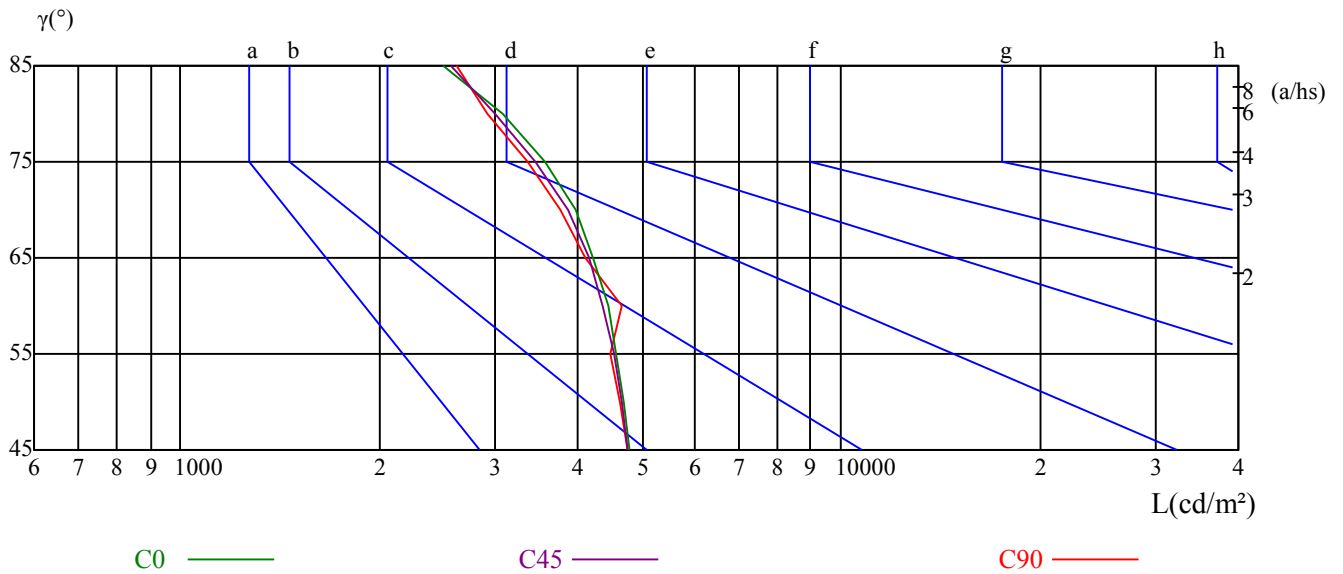
$\gamma$	45	50	55	60	65	70	75	80	85
C0	4777	4704	4569	4446	4216	3964	3572	3079	2506
C45	4763	4651	4537	4368	4164	3859	3450	3003	2565
C90	4751	4624	4482	4663	4091	3763	3349	2919	2627

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4216	4091	4164	3572	3349	3450	2506	2627	2565

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



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	1.02	1.02	1.02	1.00
1	1.04	1.00	0.96	1.02	0.98	0.94	0.97	0.94	0.91	0.93	0.91	0.88	0.90	0.87	0.85	0.83
2	0.90	0.84	0.78	0.89	0.82	0.77	0.85	0.80	0.75	0.82	0.77	0.73	0.78	0.75	0.72	0.69
3	0.79	0.71	0.65	0.78	0.70	0.64	0.75	0.68	0.63	0.72	0.66	0.62	0.69	0.65	0.61	0.58
4	0.70	0.62	0.55	0.69	0.61	0.54	0.66	0.59	0.54	0.64	0.58	0.53	0.62	0.56	0.52	0.50
5	0.63	0.54	0.47	0.62	0.53	0.47	0.59	0.52	0.46	0.57	0.51	0.46	0.56	0.50	0.45	0.43
6	0.57	0.48	0.41	0.56	0.47	0.41	0.54	0.46	0.40	0.52	0.45	0.40	0.50	0.44	0.40	0.38
7	0.51	0.42	0.36	0.50	0.42	0.36	0.49	0.41	0.36	0.47	0.41	0.36	0.46	0.40	0.35	0.33
8	0.47	0.38	0.32	0.46	0.38	0.32	0.45	0.37	0.32	0.43	0.37	0.32	0.42	0.36	0.32	0.30
9	0.43	0.35	0.29	0.42	0.34	0.29	0.41	0.34	0.29	0.40	0.33	0.29	0.39	0.33	0.28	0.27
10	0.40	0.32	0.26	0.39	0.31	0.26	0.38	0.31	0.26	0.37	0.31	0.26	0.36	0.30	0.26	0.24

## 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	766.30	766.21	758.61	746.48	725.58	699.79	667.48	633.10	590.74
15.0	766.30	764.77	757.08	742.60	723.88	698.55	666.98	629.25	586.46
30.0	766.30	764.85	756.50	742.25	724.19	698.24	668.20	630.63	587.43
45.0	766.30	765.12	757.54	744.58	725.31	700.12	668.53	631.19	589.29
60.0	766.30	765.11	756.05	742.49	724.64	700.09	669.69	631.78	589.20
75.0	766.30	765.76	756.99	742.74	725.21	700.37	668.49	630.69	587.12
90.0	766.30	765.39	756.64	743.06	725.01	699.95	670.50	632.31	589.02
105.0	766.30	765.85	757.38	744.35	725.95	700.54	670.57	631.59	588.41
120.0	766.30	764.85	757.65	744.08	725.59	700.27	671.13	634.88	591.71
135.0	766.30	765.21	758.20	744.90	727.15	702.10	673.14	634.26	591.73
150.0	766.30	767.49	761.74	748.97	711.55	705.62	674.05	637.00	594.67
165.0	766.30	768.22	763.29	750.59	732.78	707.93	677.06	639.06	595.30
180.0	766.30	759.52	747.21	727.75	701.60	669.66	631.74	587.31	537.72
195.0	766.30	759.97	747.31	727.04	700.45	668.88	629.16	587.55	536.62
210.0	766.30	760.31	747.15	728.10	701.42	668.93	630.54	585.98	536.88
225.0	766.30	760.19	746.95	728.14	702.03	668.89	632.29	586.00	539.08
240.0	766.30	761.27	746.89	729.31	701.01	670.70	631.23	586.72	536.54
255.0	766.30	759.82	746.85	728.04	701.46	668.59	628.95	586.67	536.53
270.0	766.30	759.19	746.98	727.20	700.31	667.13	628.48	584.09	533.50
285.0	766.30	760.66	746.63	726.32	698.99	665.74	627.85	583.31	570.01
300.0	766.30	759.02	745.45	725.50	719.13	664.03	624.96	579.33	531.60
315.0	766.30	757.01	743.36	723.69	695.18	663.13	624.33	579.35	530.45
330.0	766.30	757.36	743.76	722.14	695.86	662.46	625.32	581.16	529.15
345.0	766.30	758.17	742.74	720.45	695.14	660.43	623.62	579.50	530.54
360.0	766.30	766.21	758.61	746.48	725.58	699.79	667.48	633.10	590.74
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	543.33	490.66	433.38	374.01	307.14	244.24	177.01	114.75	57.19
15.0	538.16	485.24	430.33	369.45	305.22	239.09	175.22	110.18	59.34
30.0	539.43	485.61	428.35	367.54	305.38	236.86	172.43	111.90	59.81
45.0	541.36	485.40	430.08	369.18	304.82	241.56	170.53	113.48	62.17
60.0	541.39	487.00	429.67	370.88	306.41	239.56	172.25	112.36	61.81
75.0	542.01	488.13	429.96	372.06	304.93	240.91	171.32	114.06	63.47
90.0	543.62	486.65	428.77	371.26	307.09	240.27	174.28	113.57	64.81
105.0	542.60	486.94	432.38	370.81	306.96	240.10	177.71	115.95	63.67
120.0	543.90	491.08	433.70	375.14	311.02	244.44	178.51	115.30	64.85
135.0	546.84	490.83	436.83	375.55	311.99	245.51	182.31	117.93	63.38
150.0	547.22	494.47	437.63	380.23	315.90	250.20	183.41	122.64	61.05
165.0	547.99	498.29	441.38	380.46	319.99	249.92	186.62	121.67	61.93
180.0	483.87	428.94	363.51	302.07	234.65	168.05	104.16	47.87	9.23
195.0	484.06	425.99	363.84	298.25	231.49	167.63	100.96	48.13	7.87
210.0	485.97	422.90	363.37	297.66	230.69	162.90	99.64	45.01	6.35
225.0	484.30	424.42	360.60	294.05	228.59	157.75	97.96	44.37	5.93
240.0	481.60	421.52	359.62	289.74	223.90	156.23	93.68	41.48	4.85
255.0	481.55	420.82	356.35	288.86	219.91	152.15	93.06	77.26	4.47
270.0	477.99	417.20	353.03	337.80	218.67	151.13	89.33	40.56	4.83
285.0	476.10	416.17	352.41	289.65	217.15	153.48	90.99	39.62	4.37
300.0	477.41	418.40	355.19	285.52	221.04	153.73	89.80	41.44	4.92
315.0	475.99	417.62	355.33	289.49	225.02	157.90	92.34	41.34	4.46
330.0	477.96	419.38	357.24	289.62	225.38	158.95	93.26	41.52	5.75
345.0	476.00	418.37	360.18	291.49	228.46	161.68	97.19	44.12	6.39
360.0	543.33	490.66	433.38	374.01	307.14	244.24	177.01	114.75	57.19

## Intensity data(cd)

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	16.56	1.00	0.45	0.18	0.09	0.09	0.27	0.63	0.90
15.0	16.28	0.72	0.36	0.18	0.18	0.18	0.36	0.72	0.90
30.0	18.69	0.91	0.36	0.18	0.09	0.18	0.36	0.73	0.82
45.0	19.17	0.82	0.37	0.18	0.18	0.09	0.37	0.73	0.91
60.0	21.25	0.73	0.37	0.18	0.18	0.09	0.37	0.73	0.82
75.0	20.91	0.82	0.27	0.18	0.18	0.18	0.46	0.82	0.91
90.0	20.33	0.91	0.27	0.18	0.09	0.09	0.46	0.64	0.91
105.0	21.31	1.09	0.36	0.18	0.18	0.18	0.46	0.73	0.82
120.0	20.13	1.00	0.36	0.18	0.18	0.18	0.36	0.73	0.91
135.0	20.31	0.82	0.46	0.18	0.18	0.09	0.46	0.73	0.91
150.0	19.89	1.00	0.55	0.18	0.09	0.09	0.46	0.64	0.91
165.0	17.81	1.00	0.46	0.18	0.09	0.18	0.37	0.73	0.91
180.0	1.27	1.00	0.90	0.81	0.72	0.90	0.90	0.81	0.81
195.0	1.27	0.90	0.81	0.81	0.72	0.72	0.90	0.72	0.72
210.0	1.18	0.91	0.82	0.82	0.73	0.82	0.91	0.82	0.73
225.0	1.19	0.91	0.73	0.73	0.82	0.73	0.82	0.64	0.64
240.0	1.19	0.82	0.82	0.73	0.73	0.73	0.73	0.73	0.55
255.0	1.19	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.55
270.0	1.09	0.82	0.73	0.73	0.73	0.73	0.82	0.73	0.64
285.0	1.09	0.82	0.82	0.82	0.73	0.73	0.82	0.73	0.64
300.0	1.09	0.91	0.82	0.73	0.82	0.82	0.82	0.73	0.73
315.0	1.27	1.00	0.91	0.82	0.73	0.91	0.91	0.73	0.64
330.0	1.37	1.09	0.82	0.91	0.82	0.82	0.91	0.82	0.73
345.0	1.46	1.10	0.91	0.91	0.82	0.91	1.00	0.82	0.82
360.0	16.56	1.00	0.45	0.18	0.09	0.09	0.27	0.63	0.90
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.72	1.18	1.63	2.26	2.81	3.26	3.44	3.62	3.71
15.0	0.81	1.27	1.81	2.35	2.80	3.35	3.53	3.71	3.71
30.0	0.91	1.36	1.82	2.27	2.90	3.27	3.54	3.63	3.81
45.0	0.91	1.28	1.83	2.28	2.92	3.38	3.65	3.83	3.83
60.0	0.92	1.28	1.65	2.29	2.93	3.48	3.66	3.85	3.85
75.0	0.91	1.28	1.83	2.37	2.92	3.47	3.65	3.84	3.84
90.0	0.91	1.28	1.64	2.28	2.92	3.46	3.55	3.83	3.74
105.0	0.91	1.28	1.73	2.28	2.91	3.46	3.64	3.83	3.73
120.0	0.91	1.18	1.64	2.28	2.91	3.37	3.64	3.73	3.64
135.0	0.91	1.27	1.73	2.19	2.82	3.28	3.55	3.73	3.64
150.0	0.91	1.28	1.73	2.19	2.74	3.28	3.56	3.74	3.65
165.0	0.82	1.28	1.74	2.19	2.83	3.29	3.47	3.75	3.65
180.0	0.72	0.81	1.09	1.27	1.63	2.17	2.53	2.99	3.53
195.0	0.72	0.72	0.90	1.27	1.54	1.81	2.53	2.99	3.53
210.0	0.73	0.73	0.91	1.27	1.63	2.09	2.45	2.99	3.54
225.0	0.64	0.73	0.91	1.19	1.64	2.10	2.56	3.01	3.65
240.0	0.64	0.73	0.92	1.28	1.56	2.01	2.47	3.02	3.48
255.0	0.64	0.73	0.91	1.28	1.64	2.10	2.56	3.11	3.65
270.0	0.64	0.73	0.91	1.28	1.55	2.10	2.55	2.92	3.46
285.0	0.64	0.73	0.91	1.28	1.64	2.09	2.55	2.91	3.46
300.0	0.64	0.73	0.91	1.28	1.64	2.09	2.55	3.01	3.46
315.0	0.73	0.73	0.91	1.18	1.73	2.09	2.46	2.91	3.37
330.0	0.73	0.82	0.91	1.28	1.73	2.10	2.65	2.92	3.56
345.0	0.73	0.82	0.91	1.37	1.64	2.19	2.65	3.11	3.47
360.0	0.72	1.18	1.63	2.26	2.81	3.26	3.44	3.62	3.71

Intensity data(cd)

C/ $\gamma$ ( $^{\circ}$ )	180.0
0.0	3.62
15.0	3.71
30.0	3.81
45.0	3.83
60.0	3.85
75.0	3.84
90.0	3.83
105.0	3.64
120.0	3.64
135.0	3.82
150.0	3.74
165.0	3.75
180.0	0.00
195.0	0.00
210.0	0.00
225.0	0.00
240.0	0.00
255.0	0.00
270.0	0.00
285.0	0.00
300.0	0.00
315.0	0.00
330.0	0.00
345.0	0.00
360.0	3.62