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AFX

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Client:

LumCAT: BAYF19LAJUDBK

Luminaire: LED lamp

Report No:

Ballast type:

Test No:

Voltage(V): 120.000

LampCAT:

Current(A): 0.256

Lamp flux(lm): 1929.9

Power (W): 30.430

Number of Lamps: 1

PF: 0.991

Length(mm): -460

Width(mm): -460

Phm Type: C

Height(mm): 0

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Photometric Results

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Lumens(lm): 1929.87, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 63.42

Central intensity(cd): 660.065, Maximum intensity(cd): 660.065

Angle of maximum intensity: C=45.0  $\gamma$ =0.0

Beam Angle(50%Imax): [C0/180]Total=113.4

[C90/270]Total=115.6

Field angle(10%Imax): [C0/180]Total=163.0

[C90/270]Total=163.0

Maximum s/h(1/2): C0\_180=1.27 C90\_270=1.27

Maximum s/h(1/4): C0\_180=1.38 C90\_270=1.39

Up flux rate of lamp(%): 0.48%

Down flux rate of lamp(%): 99.52%

Up flux rate of LUM(%): 0.48%

Down flux rate of LUM(%): 99.52%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 77.740%

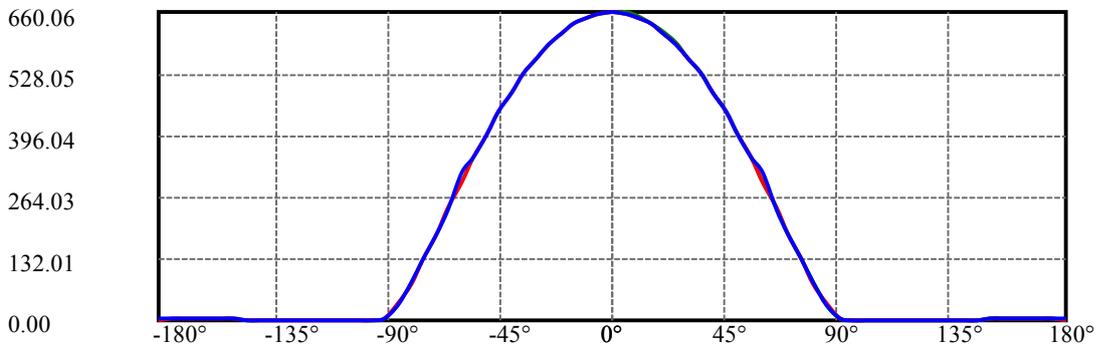
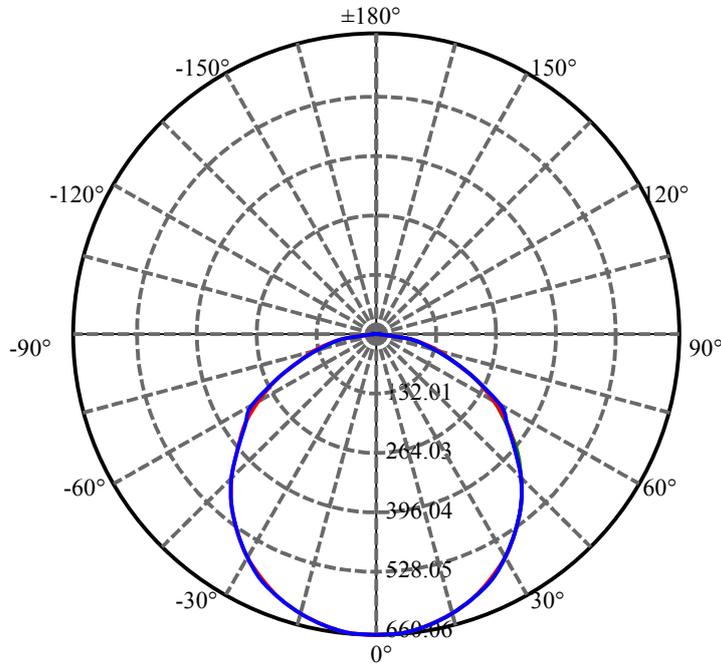
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	660.065	0.000	0	0.00%	0.00%
5.0	657.527	15.751	15.751	0.82%	0.82%
10.0	649.243	46.747	62.499	2.42%	3.24%
15.0	635.617	76.217	138.716	3.95%	7.19%
20.0	616.574	103.198	241.914	5.35%	12.54%
25.0	591.976	126.755	368.668	6.57%	19.10%
30.0	562.613	146.114	514.782	7.57%	26.67%
35.0	527.955	160.594	675.376	8.32%	35.00%
40.0	490.042	169.845	845.221	8.80%	43.80%
45.0	445.661	173.253	1018.474	8.98%	52.77%
50.0	398.297	170.534	1189.008	8.84%	61.61%
55.0	348.122	162.296	1351.304	8.41%	70.02%
60.0	296.394	148.978	1500.282	7.72%	77.74%
65.0	240.311	130.474	1630.756	6.76%	84.50%
70.0	184.850	107.653	1738.41	5.58%	90.08%
75.0	131.055	82.572	1820.982	4.28%	94.36%
80.0	82.043	57.019	1878.001	2.95%	97.31%
85.0	34.724	31.728	1909.729	1.64%	98.96%
90.0	5.156	10.920	1920.649	0.57%	99.52%
95.0	0.793	1.629	1922.278	0.08%	99.61%
100.0	0.736	0.415	1922.693	0.02%	99.63%
105.0	0.691	0.382	1923.075	0.02%	99.65%
110.0	0.692	0.362	1923.437	0.02%	99.67%
115.0	0.766	0.369	1923.806	0.02%	99.69%
120.0	0.878	0.400	1924.206	0.02%	99.71%
125.0	1.032	0.442	1924.647	0.02%	99.73%
130.0	1.166	0.478	1925.125	0.02%	99.75%
135.0	1.222	0.483	1925.608	0.03%	99.78%
140.0	1.469	0.498	1926.106	0.03%	99.80%
145.0	1.877	0.558	1926.665	0.03%	99.83%
150.0	2.333	0.620	1927.284	0.03%	99.87%
155.0	2.792	0.649	1927.933	0.03%	99.90%
160.0	3.148	0.623	1928.556	0.03%	99.93%
165.0	3.439	0.543	1929.099	0.03%	99.96%
170.0	3.712	0.424	1929.523	0.02%	99.98%
175.0	3.977	0.275	1929.798	0.01%	100.00%
180.0	2.041	0.072	1929.87	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	514.78	26.67%	26.67%
0-40	845.22	43.80%	43.80%
0-60	1500.28	77.74%	77.74%
0-90	1920.65	99.52%	99.52%
0-120	1924.21	99.71%	99.71%
0-180	1929.87	100.00%	100.00%
60-90	420.37	21.78%	21.78%
90-120	3.56	0.18%	0.18%
90-130	4.48	0.23%	0.23%
90-150	6.64	0.34%	0.34%
90-180	9.15	0.47%	0.47%
0-61.67	1543.90	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	62.50
10-20	179.42
20-30	272.87
30-40	330.44
40-50	343.79
50-60	311.27
60-70	238.13
70-80	139.59
80-90	42.65
90-100	2.04
100-110	0.74
110-120	0.77
120-130	0.92
130-140	0.98
140-150	1.18
150-160	1.27
160-170	0.97
170-180	0.28



C45(Max): ———

C0/C180: ———

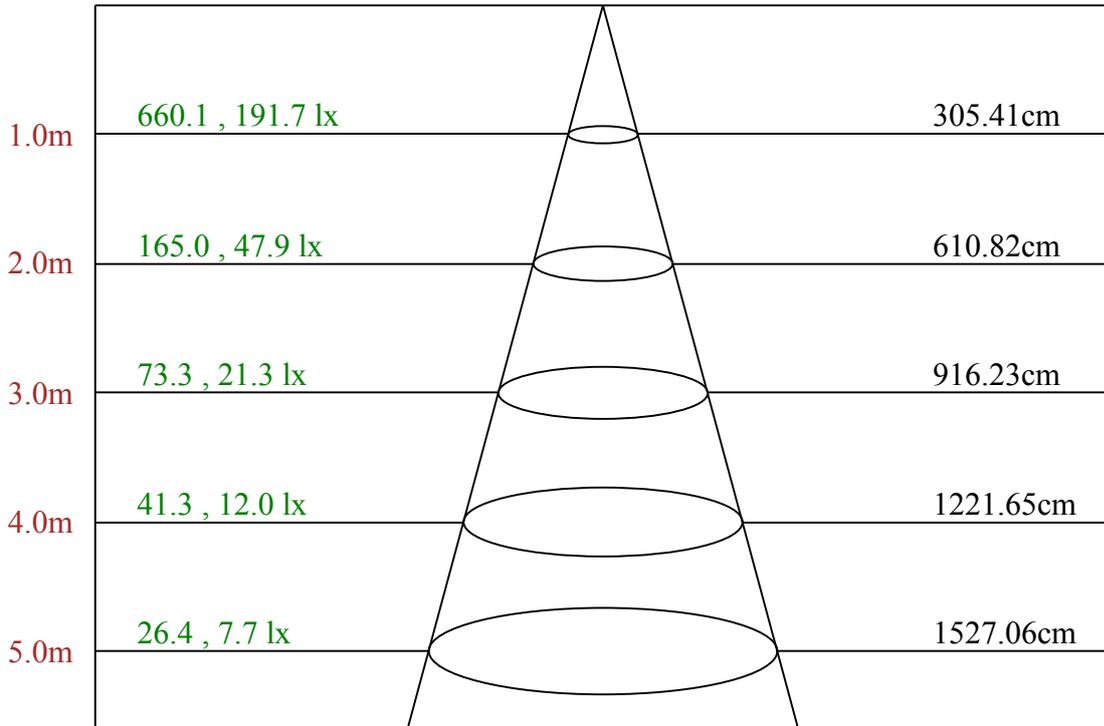
C90/C270: ———

Field angle(10%Imax):C0/180Left:81.5 Right:81.5

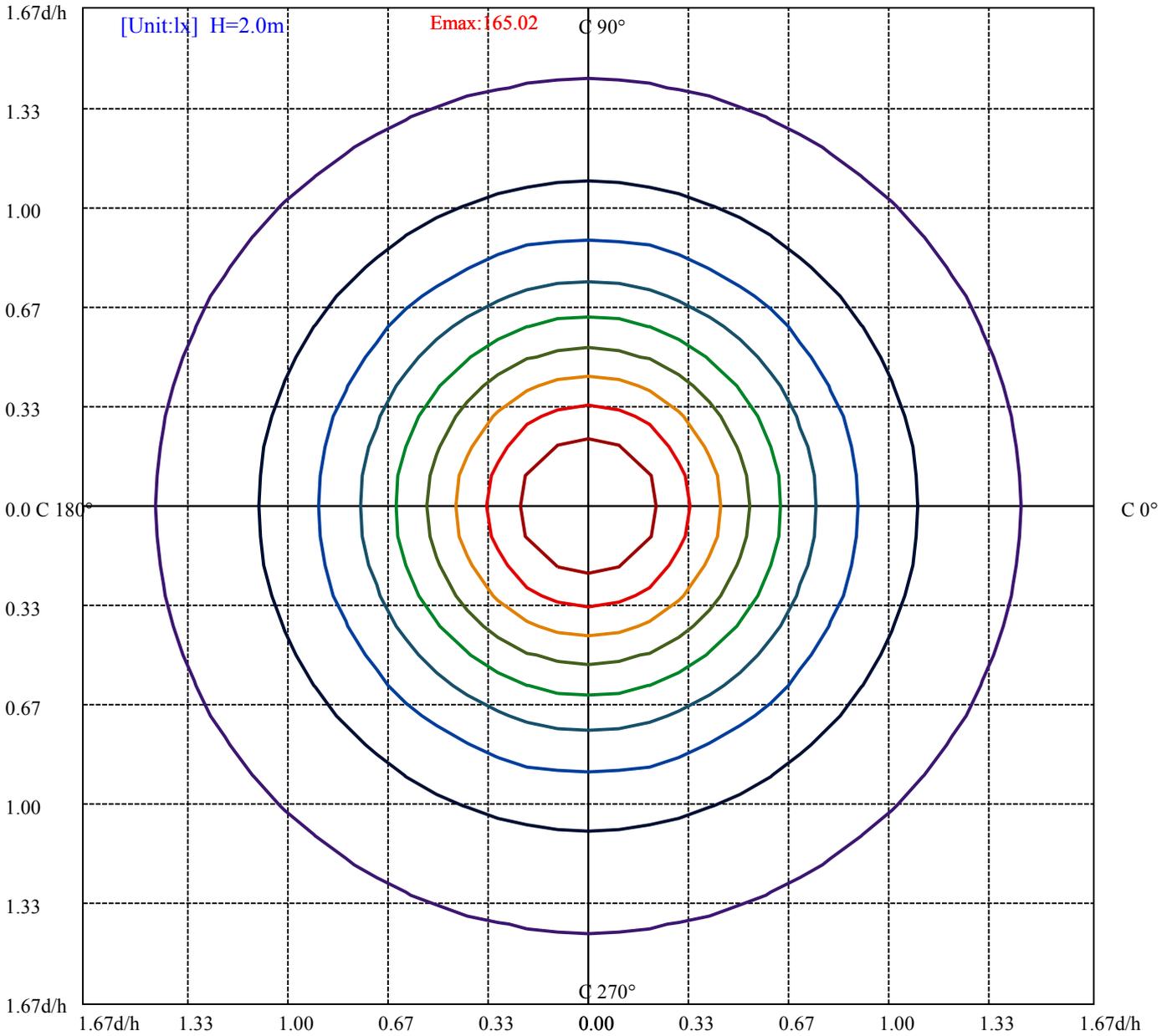
:C90/270Left:81.5 Right:81.5

Beam Angle(50%Imax):C0/180Left:56.7 Right:56.7

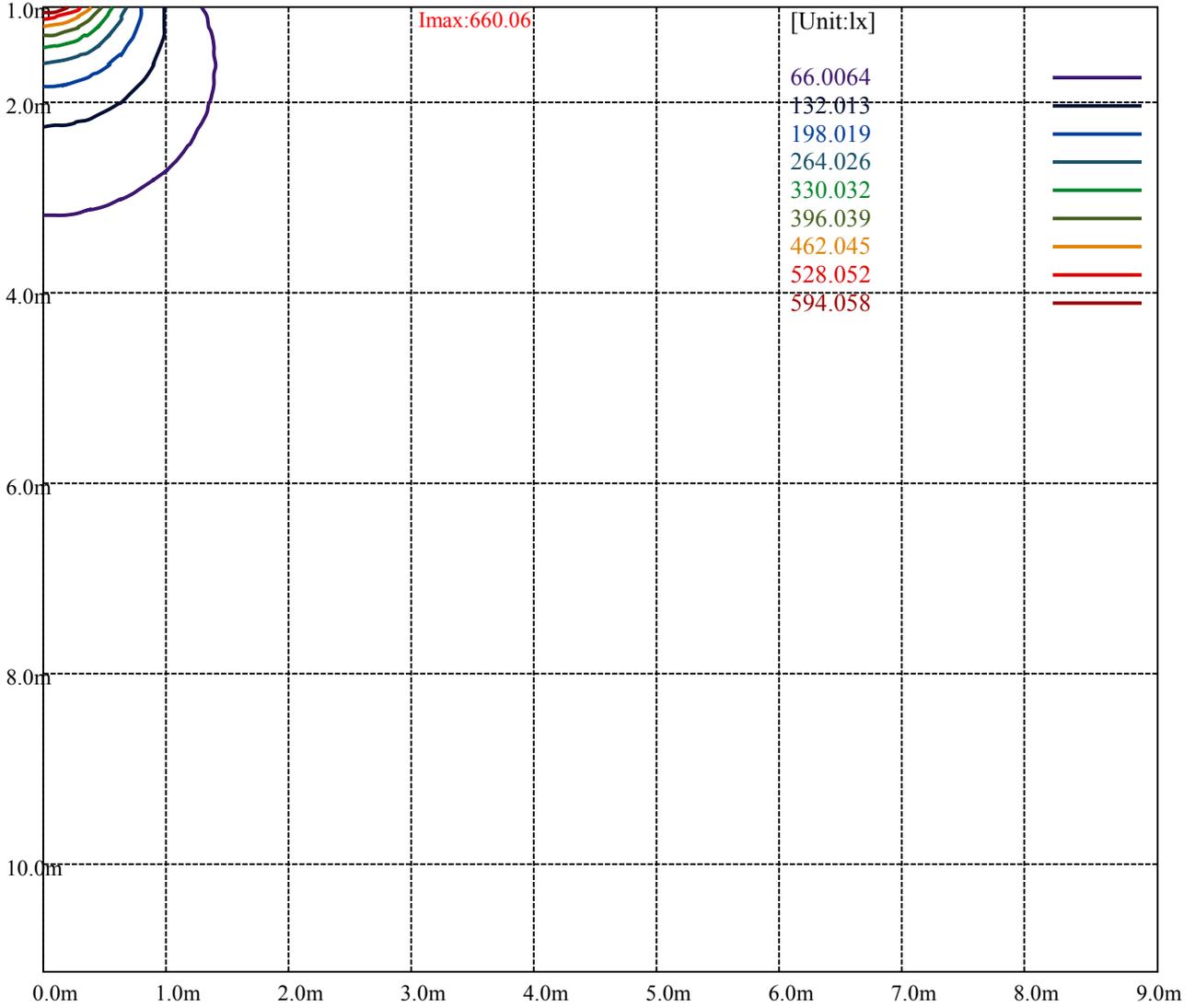
:C90/270Left:57.8 Right:57.8



Max , Ave      Beam angle of C45 plane 113.56



- (10%Emax) 16.5016
- (20%Emax) 33.00325
- (30%Emax) 49.50475
- (40%Emax) 66.0065
- (50%Emax) 82.508
- (60%Emax) 99.00975
- (70%Emax) 115.5113
- (80%Emax) 132.013
- (90%Emax) 148.5145



Luminance Table

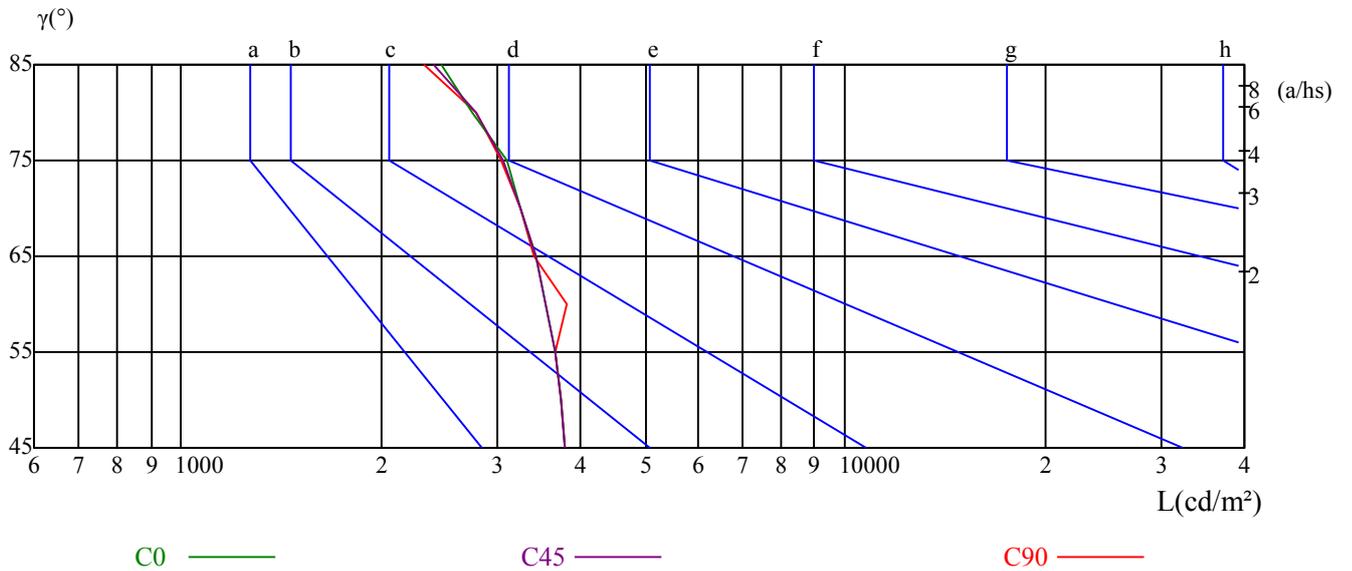
$\gamma$	45	50	55	60	65	70	75	80	85
C0	3787	3723	3652	3549	3418	3246	3089	2743	2473
C45	3795	3731	3656	3543	3434	3242	3049	2789	2403
C90	3796	3723	3653	3803	3403	3250	3031	2784	2321

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3418	3403	3434	3089	3031	3049	2473	2321	2403

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	0.99	0.95	1.01	0.97	0.94	0.97	0.94	0.91	0.93	0.90	0.88	0.89	0.87	0.85	0.83
2	0.90	0.83	0.77	0.88	0.82	0.76	0.84	0.79	0.74	0.81	0.77	0.73	0.78	0.74	0.71	0.69
3	0.79	0.71	0.64	0.77	0.70	0.63	0.74	0.68	0.62	0.71	0.66	0.61	0.69	0.64	0.60	0.58
4	0.70	0.61	0.54	0.68	0.60	0.54	0.66	0.59	0.53	0.63	0.57	0.52	0.61	0.56	0.51	0.49
5	0.62	0.53	0.46	0.61	0.53	0.46	0.59	0.51	0.46	0.57	0.50	0.45	0.55	0.49	0.45	0.42
6	0.56	0.47	0.41	0.55	0.47	0.40	0.53	0.46	0.40	0.51	0.45	0.40	0.50	0.44	0.39	0.37
7	0.51	0.42	0.36	0.50	0.42	0.36	0.48	0.41	0.35	0.47	0.40	0.35	0.45	0.39	0.35	0.33
8	0.46	0.38	0.32	0.46	0.37	0.32	0.44	0.37	0.31	0.43	0.36	0.31	0.42	0.36	0.31	0.29
9	0.42	0.34	0.29	0.42	0.34	0.29	0.41	0.33	0.28	0.40	0.33	0.28	0.38	0.32	0.28	0.26
10	0.39	0.31	0.26	0.39	0.31	0.26	0.38	0.31	0.26	0.37	0.30	0.26	0.36	0.30	0.25	0.24

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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	660.06	658.91	652.50	640.13	623.58	600.97	572.85	539.75	501.57
15.0	660.06	659.17	652.65	640.59	622.72	600.39	572.34	539.20	501.15
30.0	660.06	658.54	651.56	639.83	621.93	598.56	570.09	536.61	498.29
45.0	660.06	659.08	651.64	639.17	620.88	597.48	570.14	536.52	498.50
60.0	660.06	657.73	650.30	637.21	619.20	595.99	567.50	533.89	495.72
75.0	660.06	658.09	650.63	637.52	619.19	595.57	568.89	533.23	497.29
90.0	660.06	658.00	650.09	638.67	620.43	596.88	568.21	534.68	496.49
105.0	660.06	658.36	651.08	637.97	619.65	596.11	568.27	534.05	497.23
120.0	660.06	658.09	650.99	637.86	620.60	597.23	568.74	535.39	497.54
135.0	660.06	659.97	652.86	640.34	622.23	598.99	572.24	537.02	501.35
150.0	660.06	658.72	651.88	639.56	605.20	599.63	571.65	538.92	501.14
165.0	660.06	659.16	652.41	640.07	624.30	599.62	573.40	540.70	501.06
180.0	660.06	655.26	645.38	629.54	608.54	582.28	550.87	514.65	475.49
195.0	660.06	656.67	645.50	632.01	611.29	585.21	554.03	518.12	477.56
210.0	660.06	656.13	646.64	631.69	611.27	585.49	554.52	520.85	480.30
225.0	660.06	657.02	647.69	632.99	612.72	587.17	556.51	520.74	480.12
240.0	660.06	656.57	647.43	632.82	612.48	586.85	556.03	522.07	479.32
255.0	660.06	656.29	647.49	632.76	614.43	588.47	557.57	521.73	480.95
270.0	660.06	656.83	648.11	633.28	613.06	587.26	556.53	520.57	481.21
285.0	660.06	656.47	647.22	633.48	613.18	587.49	556.51	520.58	511.33
300.0	660.06	656.20	647.12	632.29	628.33	586.08	554.89	518.85	477.86
315.0	660.06	657.81	648.44	633.22	612.60	586.38	554.77	519.73	478.74
330.0	660.06	655.57	646.48	631.55	610.78	584.61	553.22	516.52	475.42
345.0	660.06	656.01	645.74	630.25	609.17	582.68	552.95	516.56	475.39
360.0	660.06	658.91	652.50	640.13	623.58	600.97	572.85	539.75	501.57

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	459.03	412.75	364.87	312.10	257.46	201.57	149.15	93.89	48.50
15.0	458.53	412.08	362.33	309.62	254.86	202.16	147.04	94.60	46.90
30.0	456.04	412.53	362.75	310.02	255.41	199.82	145.03	95.34	45.57
45.0	456.09	410.01	360.43	307.71	255.88	198.06	145.87	93.60	46.44
60.0	455.40	409.52	360.14	307.81	253.68	198.57	144.18	92.21	47.58
75.0	455.16	408.90	359.41	307.04	252.87	200.86	146.24	93.96	46.80
90.0	456.22	408.41	361.22	309.09	254.98	199.98	145.51	95.81	46.29
105.0	455.28	409.57	360.53	311.04	254.45	202.09	147.57	95.57	48.14
120.0	458.17	412.51	363.43	311.20	257.18	202.16	147.78	98.07	48.00
135.0	459.29	413.44	364.17	312.02	260.31	202.67	150.69	98.18	50.26
150.0	460.58	413.27	366.14	311.73	260.01	205.15	150.38	100.46	49.92
165.0	461.87	416.20	367.01	314.85	260.62	208.19	150.44	100.36	52.07
180.0	431.08	382.67	331.32	277.75	222.66	167.49	116.58	64.43	23.14
195.0	432.63	383.94	332.22	281.12	225.74	170.09	116.40	66.28	22.60
210.0	435.27	386.75	335.00	280.75	224.89	169.11	115.31	67.68	23.63
225.0	435.20	386.52	337.29	280.18	227.10	170.89	116.65	66.44	22.50
240.0	436.76	388.01	336.04	281.46	225.46	169.27	115.06	67.21	23.21
255.0	435.76	386.62	337.58	279.82	226.91	170.50	116.06	104.11	22.55
270.0	436.00	387.10	335.16	322.93	223.08	169.51	115.22	64.89	20.94
285.0	435.07	385.94	333.94	279.33	226.07	167.06	115.59	65.12	21.20
300.0	432.64	383.65	334.03	276.86	223.47	167.47	113.35	63.10	19.60
315.0	433.44	384.44	332.19	277.61	221.58	165.47	111.42	63.77	20.00
330.0	430.18	383.32	328.73	277.01	221.25	165.40	111.70	61.70	18.44
345.0	430.16	380.98	329.00	274.40	221.52	162.88	112.07	62.25	19.10
360.0	459.03	412.75	364.87	312.10	257.46	201.57	149.15	93.89	48.50

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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	8.37	0.53	0.44	0.44	0.36	0.44	0.62	0.89	1.16
15.0	7.68	0.45	0.45	0.27	0.27	0.45	0.45	0.89	1.07
30.0	8.42	0.54	0.45	0.36	0.36	0.36	0.54	0.81	1.07
45.0	7.71	0.45	0.45	0.27	0.36	0.36	0.54	0.81	1.17
60.0	8.33	0.45	0.36	0.36	0.36	0.36	0.54	0.90	1.16
75.0	7.73	0.36	0.36	0.36	0.36	0.36	0.54	0.90	1.17
90.0	8.63	0.45	0.36	0.36	0.36	0.36	0.63	0.90	1.17
105.0	10.06	0.45	0.36	0.36	0.27	0.45	0.54	0.90	1.17
120.0	9.80	0.45	0.45	0.36	0.27	0.45	0.54	0.90	1.17
135.0	9.64	0.54	0.36	0.27	0.27	0.36	0.54	0.90	1.17
150.0	11.24	0.45	0.45	0.27	0.27	0.45	0.54	0.90	1.08
165.0	11.08	0.54	0.36	0.27	0.36	0.36	0.54	0.90	1.17
180.0	1.25	1.16	1.07	1.07	1.07	1.16	1.16	1.16	1.07
195.0	1.25	1.07	1.07	1.16	1.07	1.07	1.25	1.16	1.25
210.0	1.25	1.07	1.07	1.07	1.07	1.16	1.25	1.16	1.16
225.0	1.26	1.08	1.08	0.99	1.17	1.17	1.17	1.26	1.17
240.0	1.25	1.08	1.16	1.08	0.99	1.08	1.25	1.16	1.25
255.0	1.26	1.17	1.17	0.99	0.99	1.17	1.17	1.17	1.26
270.0	1.26	1.08	1.17	0.99	0.99	1.17	1.26	1.17	1.17
285.0	1.26	1.17	0.99	1.08	1.08	1.08	1.17	1.08	1.17
300.0	1.26	1.08	0.99	1.08	0.99	1.17	1.17	1.17	1.17
315.0	1.26	1.08	0.99	0.99	1.08	1.17	1.26	1.17	1.17
330.0	1.26	1.17	0.99	1.08	1.08	1.08	1.26	1.26	1.26
345.0	1.26	1.17	1.08	1.08	1.17	1.17	1.17	1.26	1.17
360.0	8.37	0.53	0.44	0.44	0.36	0.44	0.62	0.89	1.16
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	1.25	1.51	2.22	2.67	3.20	3.56	3.92	4.00	3.92
15.0	1.16	1.61	2.23	2.68	3.22	3.57	3.84	3.93	4.02
30.0	1.16	1.52	2.15	2.51	3.04	3.67	3.85	3.85	4.03
45.0	1.17	1.61	2.06	2.60	3.05	3.50	3.77	3.94	3.94
60.0	1.25	1.52	2.15	2.60	3.14	3.58	3.76	3.85	4.03
75.0	1.26	1.80	2.07	2.69	3.14	3.59	3.77	3.77	3.95
90.0	1.26	1.71	2.25	2.61	3.24	3.51	3.95	3.86	3.86
105.0	1.35	1.71	2.16	2.69	3.23	3.59	3.86	3.86	3.95
120.0	1.26	1.62	2.25	2.70	3.15	3.51	3.78	3.87	3.87
135.0	1.26	1.62	2.16	2.70	3.24	3.60	3.78	3.87	3.96
150.0	1.26	1.53	2.16	2.61	2.97	3.51	3.78	3.78	3.96
165.0	1.17	1.62	2.16	2.61	2.97	3.42	3.69	3.87	4.05
180.0	1.16	1.33	1.51	2.05	2.49	2.76	3.03	3.56	4.09
195.0	1.16	1.43	1.70	2.05	2.50	2.68	3.04	3.57	4.02
210.0	1.25	1.25	1.61	1.97	2.51	2.69	3.13	3.67	3.94
225.0	1.26	1.34	1.61	1.97	2.33	2.78	3.23	3.59	4.03
240.0	1.16	1.34	1.52	2.06	2.42	2.78	2.96	3.49	4.03
255.0	1.26	1.35	1.53	2.07	2.61	2.78	2.96	3.50	4.04
270.0	1.17	1.26	1.53	1.98	2.43	2.70	2.97	3.51	4.04
285.0	1.17	1.17	1.53	1.98	2.34	2.69	3.05	3.59	3.95
300.0	1.17	1.35	1.53	1.98	2.34	2.70	3.06	3.51	4.05
315.0	1.26	1.26	1.62	2.07	2.43	2.79	3.06	3.60	3.87
330.0	1.26	1.35	1.71	2.07	2.52	2.79	3.15	3.51	3.87
345.0	1.26	1.44	1.62	2.07	2.52	2.79	3.15	3.51	3.96
360.0	1.25	1.51	2.22	2.67	3.20	3.56	3.92	4.00	3.92

Intensity data(cd)

C/ $\gamma$ (°)	180.0
0.0	4.09
15.0	4.02
30.0	4.12
45.0	4.03
60.0	4.12
75.0	4.13
90.0	4.13
105.0	4.13
120.0	3.96
135.0	4.05
150.0	4.05
165.0	4.14
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	4.09