
乐达凯

Client:

LumCAT: BLKW0724LAJUDBK 3000K

Luminaire: LED 灯具

Report No:

Ballast type:

Test No: LCZP24040387

Voltage(V): 119.960

LampCAT:

Current(A): 0.227

Lamp flux(lm): 1824.3

Power (W): 27.050

Number of Lamps: 1

PF: 0.994

Length(mm): 130

Width(mm): 130

Phm Type: C

Height(mm): 460

Photometric Results

Lumens(lm): 1824.31, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 67.44

Central intensity(cd): 7.006, Maximum intensity(cd): 455.478

Angle of maximum intensity: C=105.0 γ =90.0

Beam Angle(50%Imax): [C0/180]Total=284.4

[C90/270]Total=107.0

Field angle(10%Imax): [C0/180]Total=331.0

[C90/270]Total=155.6

Maximum s/h(1/2): C0_180=7.36 C90_270=9.94

Maximum s/h(1/4): C0_180=6.91 C90_270=9.05

Up flux rate of lamp(%): 48.65%

Down flux rate of lamp(%): 51.35%

Up flux rate of LUM(%): 48.65%

Down flux rate of LUM(%): 51.35%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 19.695%

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Zonal flux distribution table

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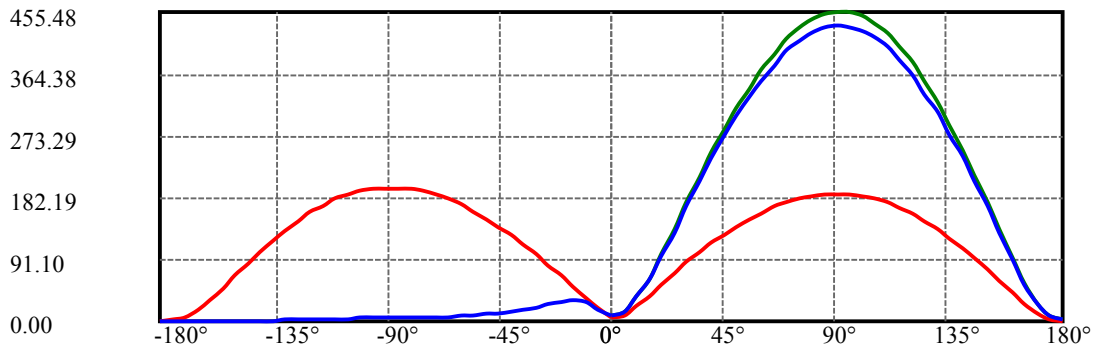
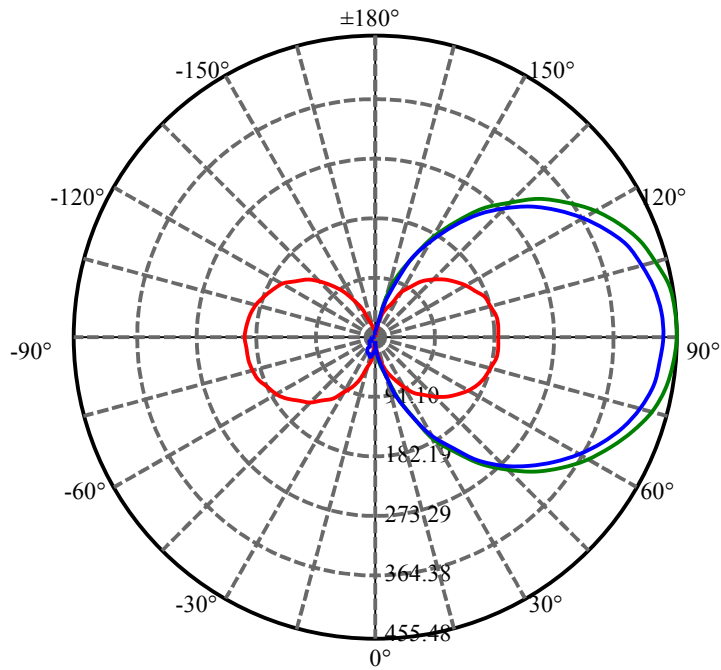
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	7.335	0.000	0	0.00%	0.00%
5.0	15.445	0.272	0.272	0.01%	0.01%
10.0	33.619	1.755	2.028	0.10%	0.11%
15.0	48.387	4.865	6.892	0.27%	0.38%
20.0	63.432	9.215	16.107	0.51%	0.88%
25.0	77.279	14.758	30.865	0.81%	1.69%
30.0	91.688	21.383	52.248	1.17%	2.86%
35.0	105.872	29.092	81.34	1.59%	4.46%
40.0	119.322	37.572	118.912	2.06%	6.52%
45.0	131.777	46.493	165.405	2.55%	9.07%
50.0	143.446	55.613	221.018	3.05%	12.12%
55.0	154.180	64.714	285.732	3.55%	15.66%
60.0	164.079	73.565	359.297	4.03%	19.69%
65.0	172.533	81.831	441.128	4.49%	24.18%
70.0	180.246	89.326	530.454	4.90%	29.08%
75.0	186.220	95.788	626.242	5.25%	34.33%
80.0	190.411	100.776	727.018	5.52%	39.85%
85.0	192.619	104.079	831.097	5.71%	45.56%
90.0	193.345	105.680	936.777	5.79%	51.35%
95.0	192.814	105.733	1042.51	5.80%	57.15%
100.0	190.329	104.109	1146.619	5.71%	62.85%
105.0	185.722	100.621	1247.24	5.52%	68.37%
110.0	179.068	95.350	1342.59	5.23%	73.59%
115.0	170.175	88.431	1431.02	4.85%	78.44%
120.0	159.786	80.214	1511.235	4.40%	82.84%
125.0	147.623	71.057	1582.291	3.89%	86.73%
130.0	134.494	61.342	1643.633	3.36%	90.10%
135.0	120.011	51.427	1695.06	2.82%	92.91%
140.0	104.895	41.643	1736.703	2.28%	95.20%
145.0	87.997	32.183	1768.885	1.76%	96.96%
150.0	70.673	23.365	1792.251	1.28%	98.24%
155.0	52.897	15.638	1807.889	0.86%	99.10%
160.0	36.269	9.352	1817.24	0.51%	99.61%
165.0	20.891	4.711	1821.951	0.26%	99.87%
170.0	9.903	1.827	1823.778	0.10%	99.97%
175.0	3.525	0.480	1824.258	0.03%	100.00%
180.0	1.123	0.056	1824.314	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	52.25	2.86%	2.86%
0-40	118.91	6.52%	6.52%
0-60	359.30	19.69%	19.69%
0-90	936.78	51.35%	51.35%
0-120	1511.23	82.84%	82.84%
0-180	1824.31	100.00%	100.00%
60-90	577.48	31.65%	31.65%
90-120	574.46	31.49%	31.49%
90-130	706.86	38.75%	38.75%
90-150	855.47	46.89%	46.89%
90-180	887.48	48.65%	48.65%
0-116.77	1459.45	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	2.03
10-20	14.08
20-30	36.14
30-40	66.66
40-50	102.11
50-60	138.28
60-70	171.16
70-80	196.56
80-90	209.76
90-100	209.84
100-110	195.97
110-120	168.64
120-130	132.40
130-140	93.07
140-150	55.55
150-160	24.99
160-170	6.54
170-180	0.48



C105(Max): ——

C0/C180: ——

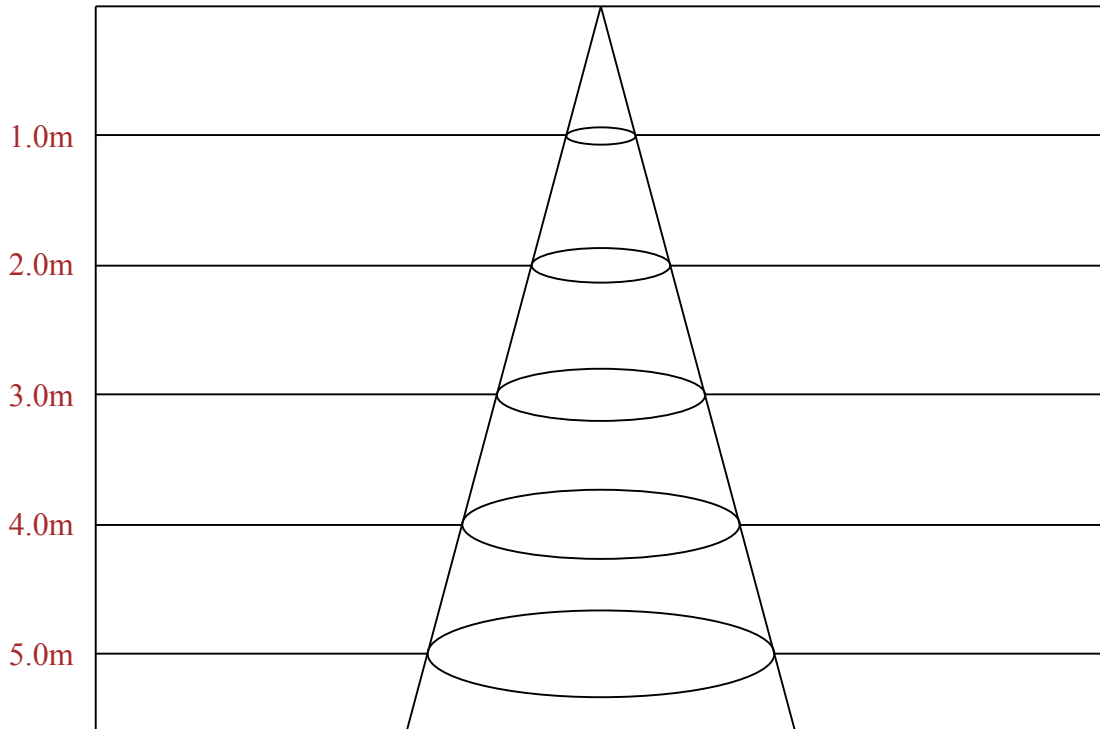
C90/C270: ——

Field angle(10%Imax):C0/180Left:73.7 Right:257.3

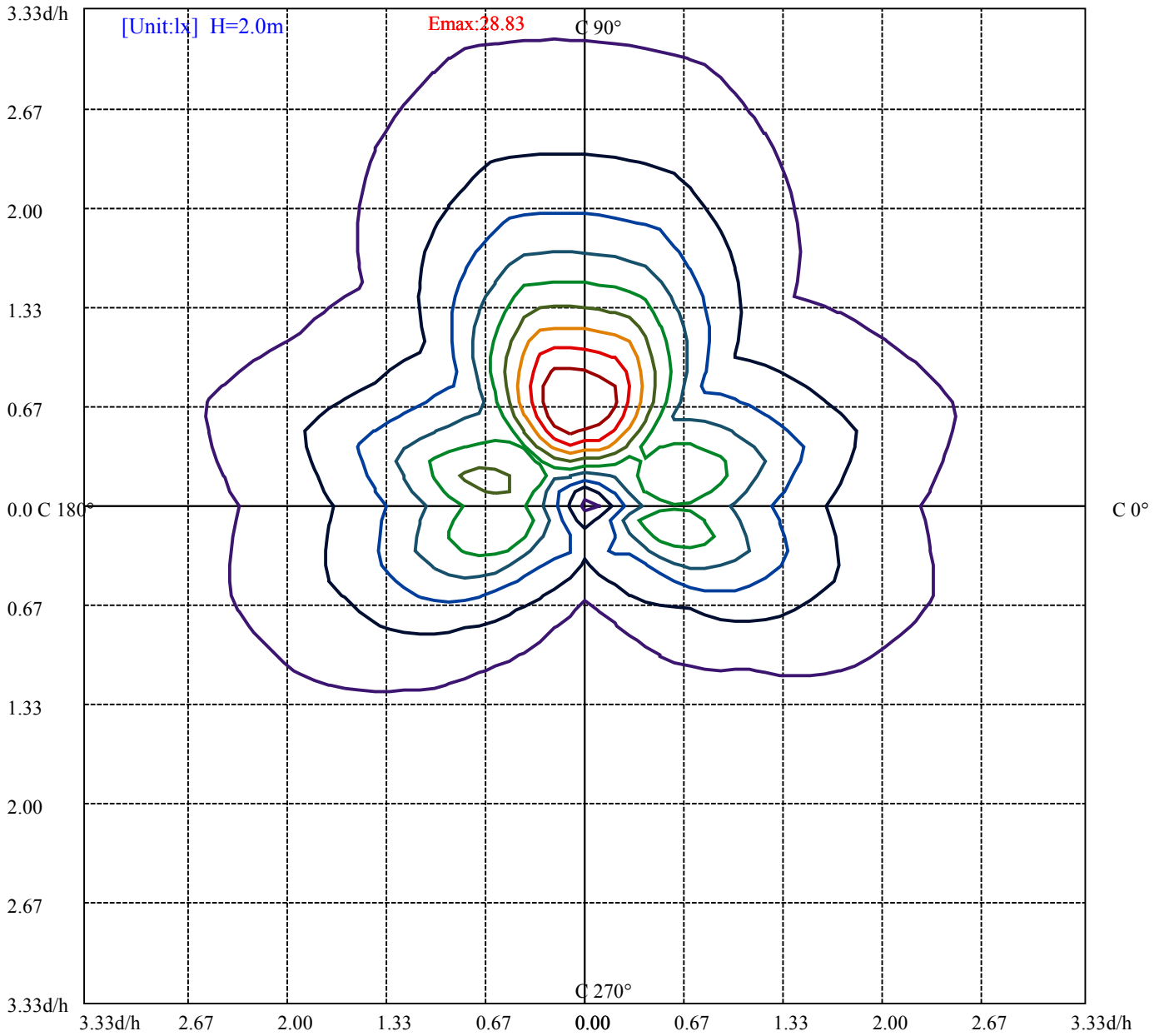
:C90/270Left:78.7 Right:76.9

Beam Angle(50%Imax):C0/180Left:51.2 Right:233.2

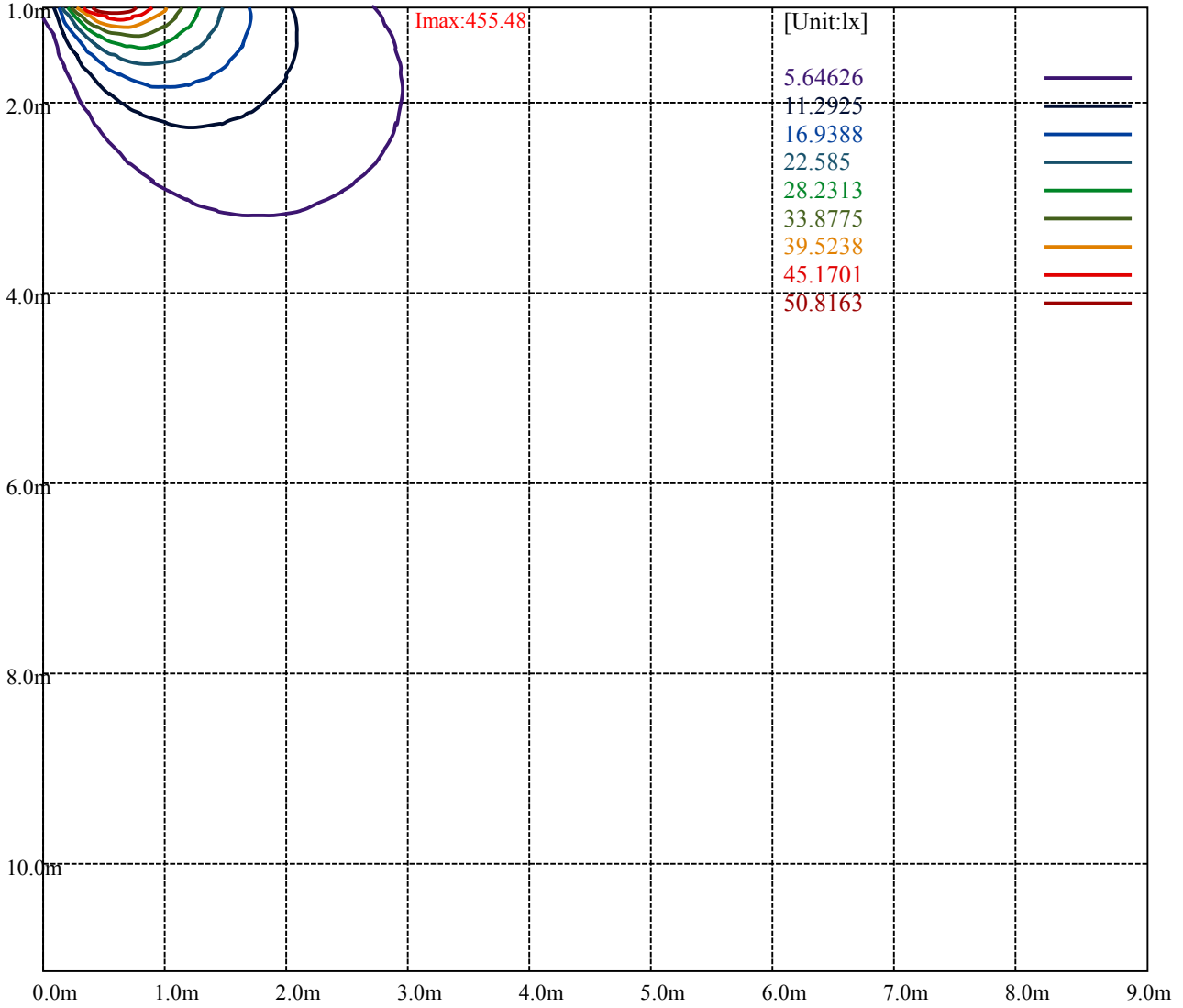
:C90/270Left:53.5 Right:53.5



Max , Ave Beam angle of C105 plane 314.51



- (10%Emax) 2.883
- (20%Emax) 5.766025
- (30%Emax) 8.649025
- (40%Emax) 11.53203
- (50%Emax) 14.41505
- (60%Emax) 17.29805
- (70%Emax) 20.18105
- (80%Emax) 23.06405
- (90%Emax) 25.947



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Luminance Limiting Curve(no luminous side)

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Luminance Table

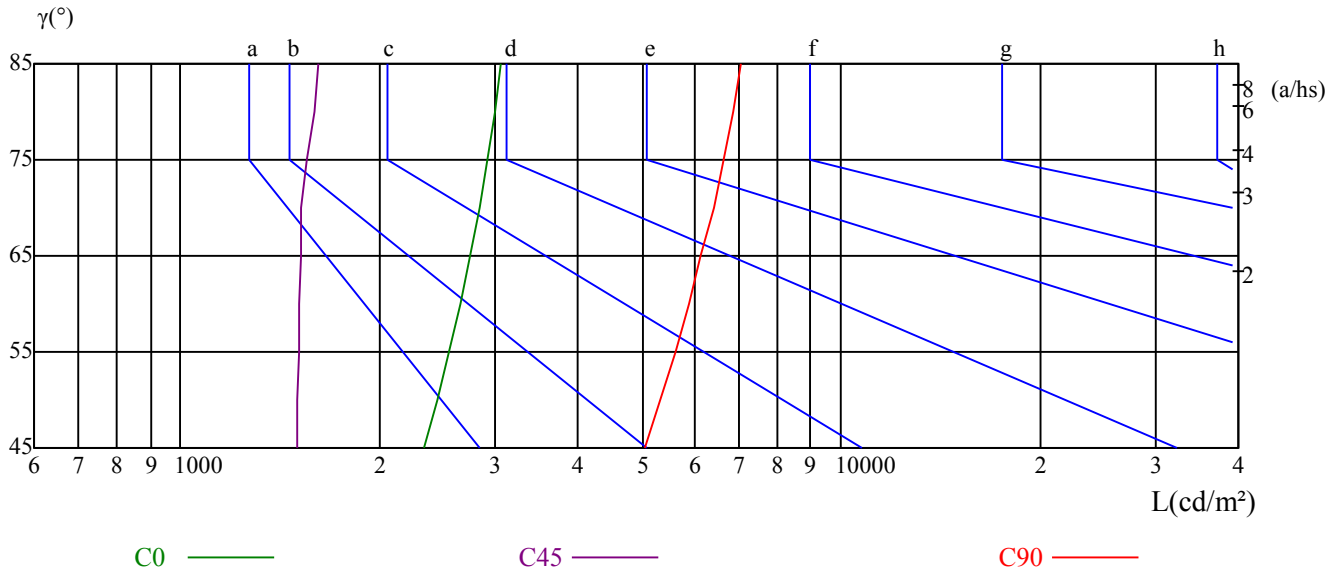
γ	45	50	55	60	65	70	75	80	85
C0	2343	2453	2552	2651	2746	2844	2920	2988	3053
C45	1505	1506	1509	1513	1518	1527	1557	1592	1619
C90	5053	5333	5621	5885	6150	6432	6652	6886	7077

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
24435	26774	15566	42764	47815	26983	129766	148274	82430

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	1.07	1.07	1.07	0.99	0.99	0.99	0.84	0.84	0.84	0.70	0.70	0.70	0.57	0.57	0.57	0.51
1	0.85	0.79	0.74	0.78	0.73	0.68	0.65	0.61	0.57	0.53	0.49	0.46	0.41	0.39	0.37	0.31
2	0.71	0.63	0.56	0.65	0.58	0.51	0.54	0.48	0.43	0.43	0.38	0.34	0.33	0.30	0.27	0.22
3	0.61	0.51	0.44	0.55	0.47	0.40	0.45	0.39	0.33	0.36	0.31	0.27	0.27	0.24	0.20	0.16
4	0.53	0.43	0.35	0.48	0.39	0.32	0.39	0.32	0.27	0.31	0.26	0.21	0.24	0.19	0.16	0.12
5	0.46	0.36	0.29	0.42	0.33	0.27	0.34	0.27	0.22	0.27	0.22	0.17	0.21	0.16	0.13	0.09
6	0.41	0.31	0.24	0.37	0.29	0.22	0.30	0.24	0.18	0.24	0.19	0.14	0.18	0.14	0.11	0.07
7	0.36	0.27	0.21	0.33	0.25	0.19	0.27	0.20	0.16	0.22	0.16	0.12	0.16	0.12	0.09	0.06
8	0.33	0.24	0.18	0.30	0.22	0.16	0.25	0.18	0.13	0.20	0.14	0.10	0.15	0.11	0.08	0.05
9	0.30	0.21	0.16	0.27	0.19	0.14	0.22	0.16	0.12	0.18	0.13	0.09	0.14	0.10	0.07	0.04
10	0.27	0.19	0.14	0.25	0.17	0.12	0.20	0.14	0.10	0.16	0.11	0.08	0.12	0.09	0.06	0.04

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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	7.01	9.43	22.90	37.99	54.43	70.60	86.68	101.59	114.61
15.0	7.72	8.71	23.98	42.84	63.05	85.51	105.54	126.56	147.04
30.0	7.81	8.80	30.00	50.12	66.92	82.81	98.80	114.07	126.92
45.0	8.17	10.42	35.48	50.93	62.51	72.66	83.08	92.60	100.87
60.0	7.81	12.13	37.28	55.78	77.34	99.79	122.87	144.88	166.80
75.0	7.72	12.13	37.37	60.81	92.69	126.83	160.69	195.81	229.58
90.0	7.19	13.20	36.65	62.87	94.94	130.96	169.31	206.68	241.26
105.0	7.19	12.84	38.17	63.50	98.89	135.00	176.05	212.78	248.89
120.0	6.92	13.20	40.24	58.29	83.44	108.32	135.09	161.59	186.38
135.0	7.19	11.68	37.45	52.37	64.85	76.89	87.39	98.98	108.41
150.0	6.92	10.42	31.62	52.28	83.08	85.87	100.24	113.98	127.19
165.0	6.38	10.06	26.68	47.69	69.88	92.87	113.44	135.72	158.62
180.0	7.01	19.49	34.76	50.93	66.56	82.45	97.90	112.28	125.93
195.0	7.72	21.83	36.83	54.97	72.39	89.82	107.25	124.49	140.66
210.0	7.81	21.92	37.28	50.30	63.23	76.62	90.18	103.20	114.97
225.0	8.17	22.01	33.86	40.60	46.98	53.08	59.46	66.11	72.31
240.0	7.81	20.57	34.58	41.59	43.92	44.28	44.82	45.63	45.81
255.0	7.72	19.04	33.86	40.15	39.52	35.48	32.07	29.01	26.77
270.0	7.19	16.62	29.10	30.36	27.57	24.07	20.93	17.16	14.10
285.0	7.19	16.71	32.43	37.90	37.28	32.78	29.10	25.60	24.70
300.0	6.92	18.59	33.23	41.86	42.84	43.74	43.83	44.19	44.28
315.0	7.19	20.39	31.71	38.08	42.04	46.80	50.66	55.06	58.92
330.0	6.92	20.30	35.21	46.08	57.66	69.07	80.75	92.16	102.39
345.0	6.38	20.21	36.20	52.99	70.33	88.38	104.37	120.81	136.35
360.0	7.01	9.43	22.90	37.99	54.43	70.60	86.68	101.59	114.61
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	127.10	139.04	149.73	159.70	168.41	176.23	181.44	184.76	186.38
15.0	166.71	185.39	202.10	218.62	232.45	244.76	254.64	261.20	265.33
30.0	139.40	149.46	159.07	167.78	173.80	179.64	184.13	187.81	190.15
45.0	107.96	113.89	119.19	123.59	127.19	130.15	134.01	137.25	138.77
60.0	185.93	203.89	219.70	233.89	246.29	257.87	268.29	275.39	279.97
75.0	261.11	290.57	317.06	340.06	361.97	382.18	398.26	409.94	416.14
90.0	274.04	302.24	329.82	354.52	377.24	398.62	413.35	425.75	432.03
105.0	282.75	314.37	343.56	369.52	392.24	414.97	431.77	444.52	452.60
120.0	208.65	228.41	248.26	265.60	281.77	296.41	308.89	317.60	323.53
135.0	117.39	125.21	132.22	138.32	142.99	148.20	153.41	157.63	160.06
150.0	138.23	148.02	155.84	163.02	169.22	174.61	178.38	181.89	183.14
165.0	177.57	197.16	215.03	231.38	245.57	257.78	267.30	274.13	277.90
180.0	138.32	150.99	161.50	172.01	180.63	187.63	192.66	195.18	195.90
195.0	156.20	170.66	183.50	196.71	206.68	214.76	220.96	224.64	226.26
210.0	126.92	138.32	148.20	157.81	166.08	172.54	177.04	179.19	180.36
225.0	78.23	83.71	89.10	93.77	97.99	101.32	103.83	104.91	105.00
240.0	46.17	46.35	46.80	47.43	47.43	47.96	48.41	48.41	48.05
255.0	25.78	25.78	25.69	25.78	26.05	26.50	26.77	26.86	26.86
270.0	11.50	9.97	8.62	8.17	5.21	4.94	4.94	4.85	4.76
285.0	21.02	20.30	20.30	20.21	20.30	20.75	21.02	21.11	21.38
300.0	44.46	44.73	45.27	45.81	46.26	46.71	47.16	47.25	46.98
315.0	62.51	66.29	69.88	73.47	76.53	79.04	80.84	81.92	81.83
330.0	113.35	122.69	131.86	140.39	148.29	154.22	158.08	160.51	161.05
345.0	151.35	165.27	178.02	190.33	200.21	208.11	213.68	217.18	218.44
360.0	127.10	139.04	149.73	159.70	168.41	176.23	181.44	184.76	186.38

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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	186.20	185.93	184.76	180.63	174.88	167.16	157.81	146.59	135.09
15.0	267.30	266.50	263.80	257.33	248.35	235.96	221.14	205.78	187.10
30.0	190.33	190.06	187.81	183.68	178.02	169.94	160.33	149.19	136.62
45.0	139.04	139.40	138.50	135.99	132.13	126.74	119.55	112.19	102.84
60.0	281.41	281.59	278.44	272.24	263.89	250.96	235.87	218.98	199.13
75.0	418.56	417.21	411.56	401.94	388.29	368.80	345.00	320.21	291.74
90.0	434.46	432.84	427.18	417.66	403.29	384.25	360.99	335.03	307.81
105.0	455.48	455.48	450.00	439.76	425.30	405.45	380.84	353.89	322.99
120.0	326.14	326.59	323.44	317.69	307.09	293.44	276.74	256.89	234.79
135.0	160.87	161.50	160.42	157.90	152.87	146.23	138.32	128.89	118.83
150.0	183.23	182.51	179.91	175.78	169.94	161.32	152.07	141.02	129.16
165.0	278.98	277.90	274.31	267.48	257.78	245.12	229.31	211.44	192.48
180.0	196.35	195.63	192.57	187.10	180.00	171.11	159.88	147.30	133.65
195.0	226.26	223.56	219.34	211.44	202.63	190.42	177.30	160.96	145.06
210.0	180.27	179.10	175.69	170.84	163.29	154.13	143.35	131.32	118.38
225.0	104.91	104.73	103.02	100.15	95.84	90.54	89.28	77.60	69.52
240.0	47.96	47.69	47.51	45.72	43.92	41.77	39.25	36.65	33.59
255.0	26.77	26.41	25.60	24.52	23.08	21.29	19.31	17.16	14.91
270.0	4.85	4.76	4.49	4.22	3.86	3.23	2.78	2.16	1.71
285.0	21.38	21.11	20.57	19.76	18.50	17.07	15.45	13.65	11.77
300.0	46.89	46.62	45.81	44.55	42.66	40.51	37.90	35.03	31.98
315.0	82.28	82.63	81.92	80.03	77.07	73.02	68.71	63.41	57.84
330.0	161.77	161.05	158.62	154.13	147.22	139.40	130.42	119.37	108.86
345.0	218.62	216.74	212.60	206.77	197.69	186.38	173.26	158.26	142.01
360.0	186.20	185.93	184.76	180.63	174.88	167.16	157.81	146.59	135.09

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	121.44	108.23	92.60	75.99	58.74	42.13	25.69	12.40	3.95
15.0	167.16	145.87	123.23	99.97	74.55	52.37	31.26	15.09	5.48
30.0	123.59	108.95	92.96	76.08	59.10	40.78	25.60	13.20	5.57
45.0	92.96	82.37	71.32	58.11	45.81	32.87	21.11	11.77	5.84
60.0	178.56	155.12	131.68	107.34	81.47	56.23	34.94	17.16	6.29
75.0	260.57	227.24	191.77	156.74	119.91	82.72	49.22	23.71	7.01
90.0	274.49	242.33	206.32	168.68	130.24	90.72	53.80	26.50	7.46
105.0	288.95	252.48	214.13	174.70	135.81	94.67	56.68	26.23	7.63
120.0	212.07	184.22	158.08	129.34	98.17	67.99	41.86	19.94	6.92
135.0	106.98	94.40	81.83	67.10	51.20	37.10	23.44	12.57	5.57
150.0	115.42	101.95	85.87	70.33	53.44	37.19	22.37	11.95	5.21
165.0	171.47	148.74	124.67	99.43	74.19	50.93	29.73	14.10	4.67
180.0	119.01	101.95	86.23	67.90	48.95	30.99	15.72	5.93	1.53
195.0	127.19	107.87	87.48	66.38	45.54	41.14	13.83	4.40	1.08
210.0	103.65	100.33	72.84	55.06	37.63	22.01	10.42	3.50	0.90
225.0	61.44	51.92	42.66	32.51	22.28	12.84	6.11	2.25	0.99
240.0	30.09	26.14	21.56	16.71	11.05	6.11	3.05	1.71	0.81
255.0	12.75	10.33	8.26	6.20	4.22	2.60	1.53	1.17	0.81
270.0	1.26	0.99	0.81	0.72	0.63	0.54	0.45	0.54	0.72
285.0	9.79	8.26	6.47	4.94	3.41	2.34	1.44	1.08	0.81
300.0	28.47	24.70	20.75	15.54	10.51	5.75	2.96	1.80	1.17
315.0	51.38	44.28	36.65	28.29	19.85	11.86	5.84	2.51	1.26
330.0	96.02	82.01	67.01	51.92	36.11	21.56	10.60	3.50	1.35
345.0	125.57	106.80	86.77	66.20	46.71	27.04	13.74	4.67	1.62
360.0	121.44	108.23	92.60	75.99	58.74	42.13	25.69	12.40	3.95

Intensity data(cd)

C/γ(°)	180.0
0.0	1.08
15.0	1.53
30.0	2.07
45.0	2.43
60.0	2.69
75.0	2.78
90.0	2.60
105.0	2.34
120.0	2.34
135.0	2.43
150.0	2.34
165.0	2.34
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	1.08