
乐达凯

Client:

LumCAT: BLKW0724LAJUDBK 2700K

Luminaire: LED 灯具

Report No:

Ballast type:

Test No: LCZP24040387

Voltage(V): 119.960

LampCAT:

Current(A): 0.228

Lamp flux(lm): 1668.9

Power (W): 27.130

Number of Lamps: 1

PF: 0.994

Length(mm): 130

Width(mm): 130

Phm Type: C

Height(mm): 460

Photometric Results

Lumens(lm): 1668.85, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 61.51

Central intensity(cd): 5.210, Maximum intensity(cd): 414.340

Angle of maximum intensity: C=105.0 γ =90.0

Beam Angle(50%Imax): [C0/180]Total=284.5

[C90/270]Total=106.8

Field angle(10%Imax): [C0/180]Total=330.8

[C90/270]Total=155.3

Maximum s/h(1/2): C0_180=8.20 C90_270=10.65

Maximum s/h(1/4): C0_180=7.45 C90_270=10.14

Up flux rate of lamp(%): 48.40%

Down flux rate of lamp(%): 51.60%

Up flux rate of LUM(%): 48.40%

Down flux rate of LUM(%): 51.60%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 19.878%

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Zonal flux distribution table

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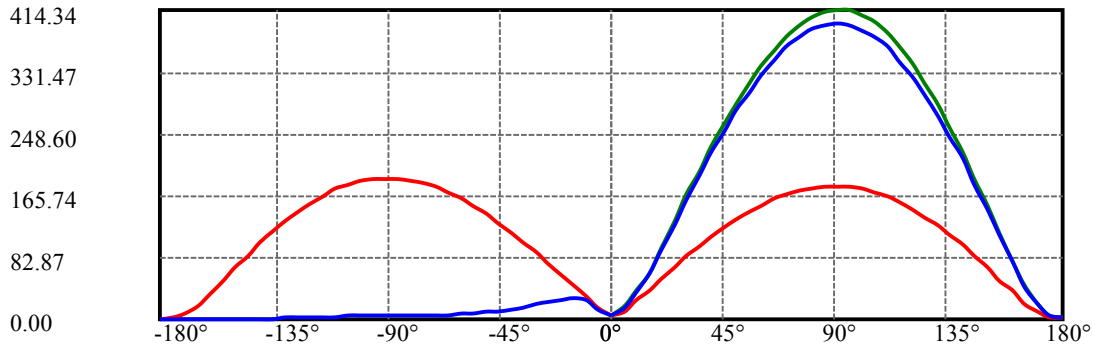
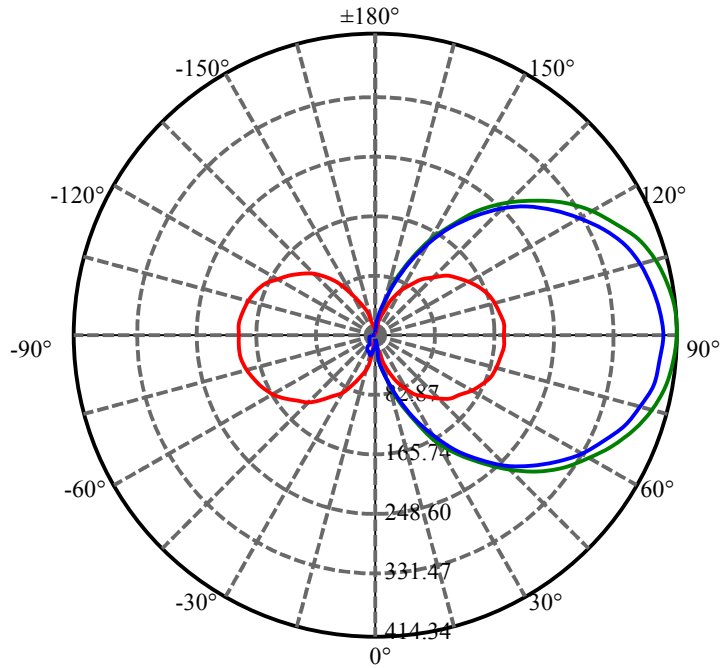
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5.427	0.000	0	0.00%	0.00%
5.0	14.783	0.242	0.242	0.01%	0.01%
10.0	31.205	1.645	1.887	0.10%	0.11%
15.0	45.284	4.537	6.424	0.27%	0.38%
20.0	59.150	8.607	15.031	0.52%	0.90%
25.0	71.968	13.752	28.783	0.82%	1.72%
30.0	85.041	19.870	48.652	1.19%	2.92%
35.0	98.095	26.968	75.62	1.62%	4.53%
40.0	110.262	34.763	110.383	2.08%	6.61%
45.0	121.403	42.895	153.278	2.57%	9.18%
50.0	132.155	51.235	204.513	3.07%	12.25%
55.0	141.837	59.575	264.088	3.57%	15.82%
60.0	150.808	67.644	331.732	4.05%	19.88%
65.0	158.360	75.159	406.891	4.50%	24.38%
70.0	165.385	81.974	488.866	4.91%	29.29%
75.0	170.737	87.857	576.723	5.26%	34.56%
80.0	174.476	92.369	669.092	5.53%	40.09%
85.0	176.365	95.332	764.424	5.71%	45.81%
90.0	176.923	96.733	861.157	5.80%	51.60%
95.0	176.279	96.710	957.867	5.79%	57.40%
100.0	173.880	95.147	1053.013	5.70%	63.10%
105.0	169.517	91.884	1144.897	5.51%	68.60%
110.0	163.383	87.015	1231.912	5.21%	73.82%
115.0	155.000	80.616	1312.528	4.83%	78.65%
120.0	145.449	73.040	1385.567	4.38%	83.03%
125.0	134.225	64.646	1450.213	3.87%	86.90%
130.0	122.174	55.750	1505.963	3.34%	90.24%
135.0	108.780	46.668	1552.63	2.80%	93.04%
140.0	94.981	37.728	1590.358	2.26%	95.30%
145.0	79.311	29.079	1619.438	1.74%	97.04%
150.0	63.379	21.012	1640.45	1.26%	98.30%
155.0	47.159	13.989	1654.439	0.84%	99.14%
160.0	32.006	8.303	1662.742	0.50%	99.63%
165.0	17.972	4.119	1666.86	0.25%	99.88%
170.0	8.222	1.554	1668.414	0.09%	99.97%
175.0	2.848	0.396	1668.81	0.02%	100.00%
180.0	0.820	0.044	1668.854	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	48.65	2.92%	2.92%
0-40	110.38	6.61%	6.61%
0-60	331.73	19.88%	19.88%
0-90	861.16	51.60%	51.60%
0-120	1385.57	83.03%	83.03%
0-180	1668.85	100.00%	100.00%
60-90	529.42	31.72%	31.72%
90-120	524.41	31.42%	31.42%
90-130	644.81	38.64%	38.64%
90-150	779.29	46.70%	46.70%
90-180	807.65	48.40%	48.40%
0-116.54	1335.08	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	1.89
10-20	13.14
20-30	33.62
30-40	61.73
40-50	94.13
50-60	127.22
60-70	157.13
70-80	180.23
80-90	192.07
90-100	191.86
100-110	178.90
110-120	153.66
120-130	120.40
130-140	84.40
140-150	50.09
150-160	22.29
160-170	5.67
170-180	0.40



C105(Max): ——

C0/C180: ——

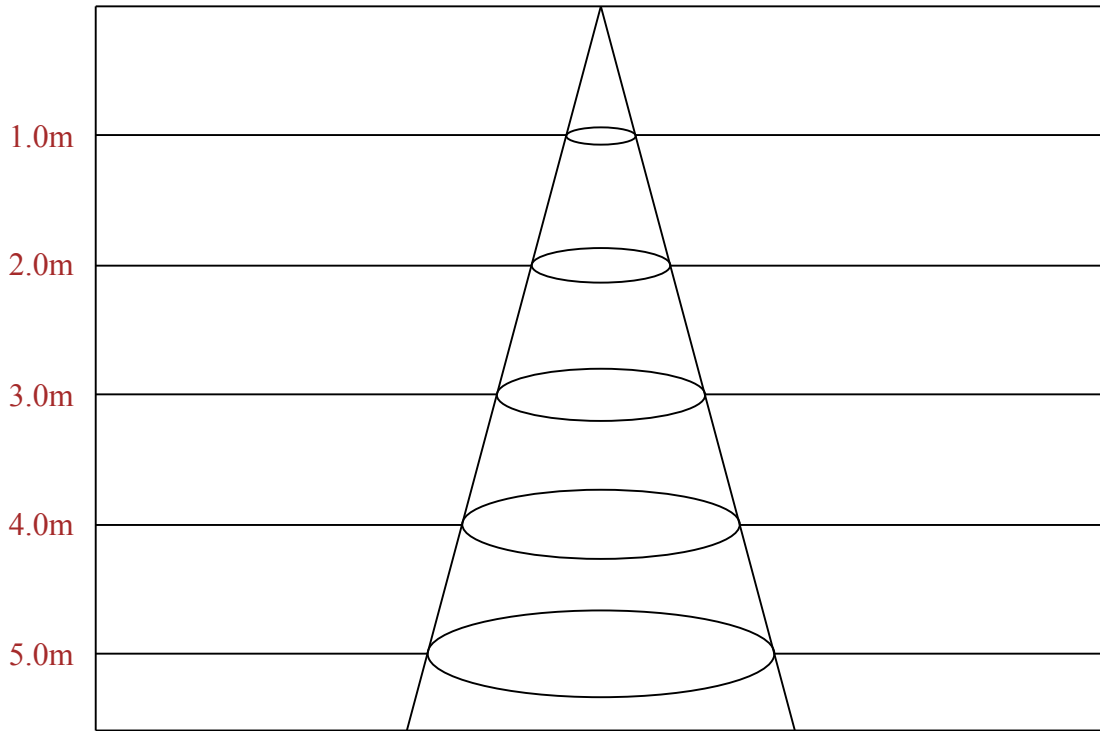
C90/C270: ——

Field angle(10%Imax):C0/180Left:74.7 Right:256.1

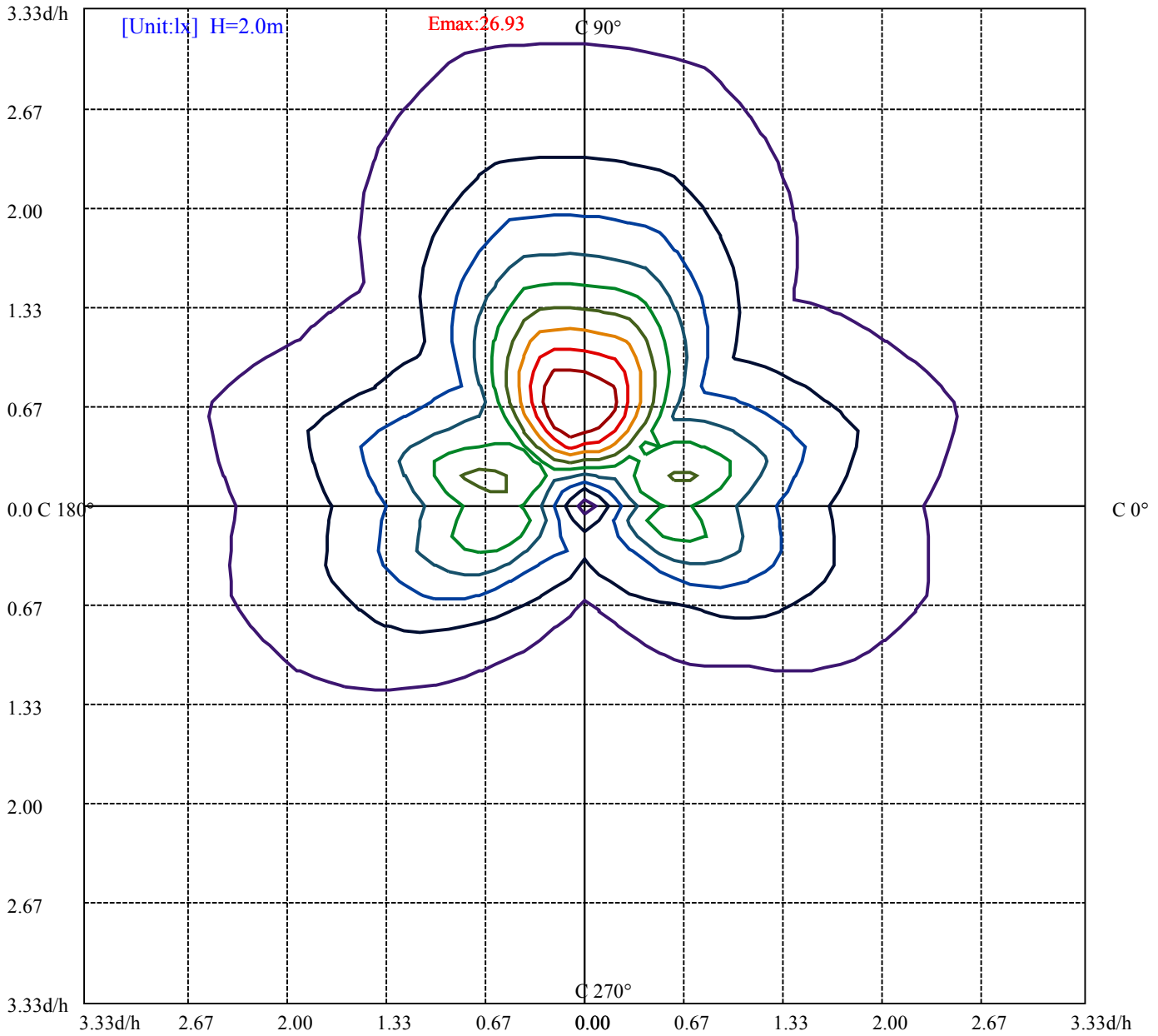
:C90/270Left:79.4 Right:75.9

Beam Angle(50%Imax):C0/180Left:52.5 Right:232.0

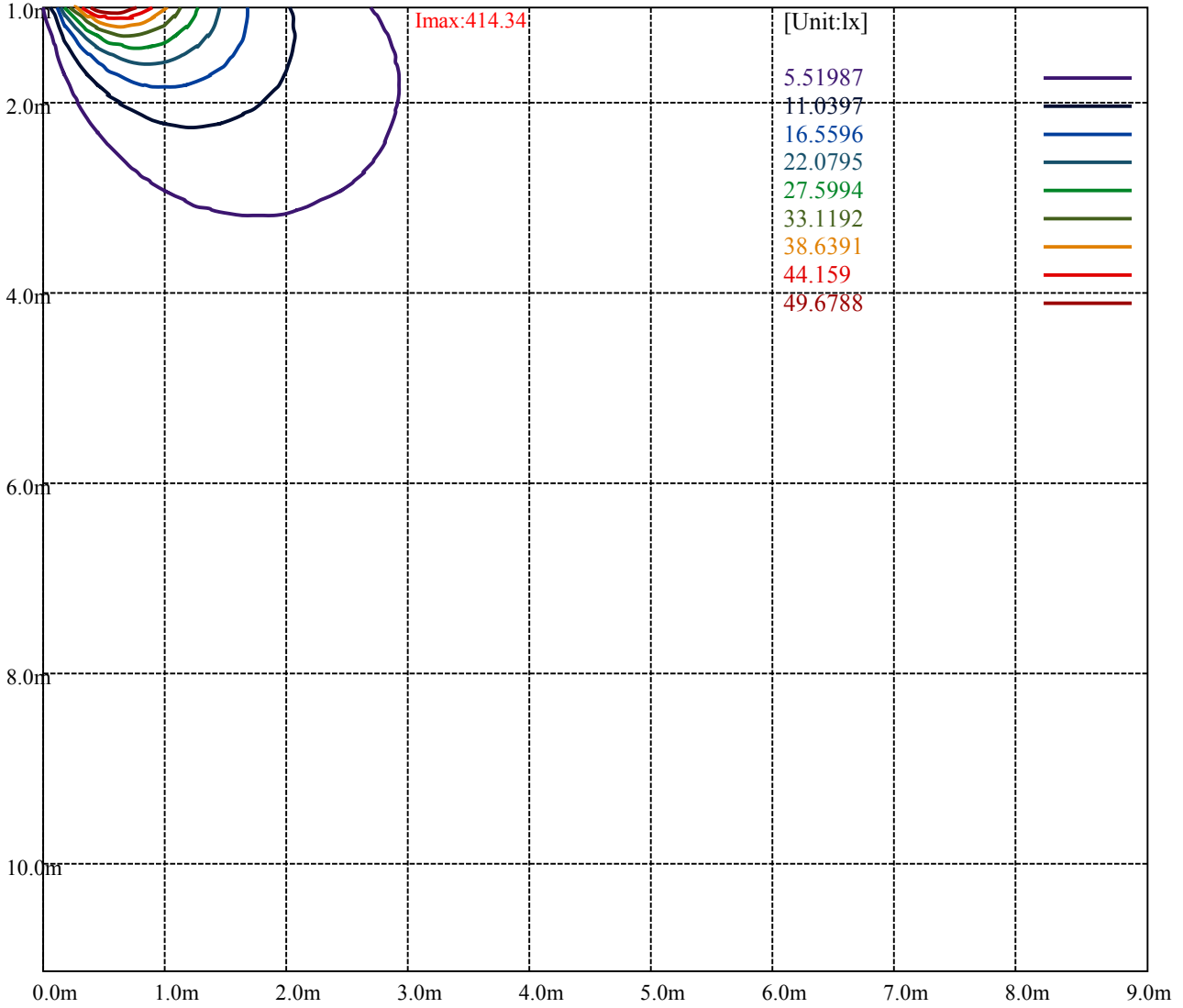
:C90/270Left:54.3 Right:52.5



Max , Ave Beam angle of C105 plane 318.54



(10%Emax) 2.693175	—
(20%Emax) 5.38635	—
(30%Emax) 8.07955	—
(40%Emax) 10.77273	—
(50%Emax) 13.4659	—
(60%Emax) 16.15907	—
(70%Emax) 18.85228	—
(80%Emax) 21.54545	—
(90%Emax) 24.23862	—



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Luminance Limiting Curve(no luminous side)

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Luminance Table

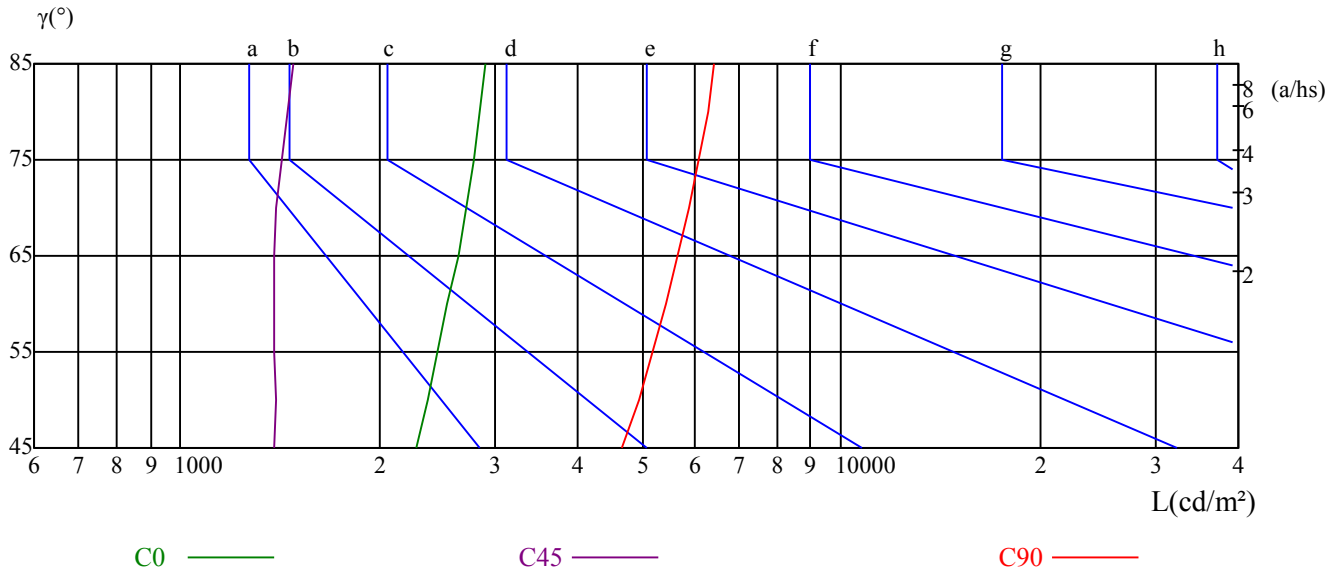
γ	45	50	55	60	65	70	75	80	85
C0	2276	2363	2443	2541	2630	2712	2778	2837	2896
C45	1388	1394	1388	1389	1387	1396	1428	1456	1477
C90	4674	4948	5177	5422	5645	5887	6074	6280	6443

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
23259	24586	14129	40649	43647	24575	123607	135011	74960

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	1.08	1.08	1.08	0.99	0.99	0.99	0.84	0.84	0.84	0.70	0.70	0.70	0.58	0.58	0.58	0.52
1	0.85	0.79	0.74	0.78	0.73	0.68	0.65	0.61	0.57	0.53	0.50	0.47	0.42	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	0.28	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	0.21	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	0.11	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	0.13	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	5.21	11.14	25.24	38.80	54.25	69.79	84.88	98.71	110.84
15.0	5.48	9.61	25.15	42.93	61.98	82.72	101.59	122.07	140.12
30.0	5.48	11.59	30.99	48.95	64.22	79.04	94.13	107.78	120.18
45.0	5.57	14.01	36.20	48.59	58.92	68.80	77.69	86.32	93.32
60.0	5.39	14.91	37.37	55.06	75.00	93.59	115.51	135.99	155.12
75.0	5.57	16.26	36.92	59.82	89.46	120.81	151.71	184.94	212.33
90.0	5.21	16.08	36.38	62.07	91.44	126.56	159.79	193.11	224.55
105.0	5.12	17.07	37.54	62.69	95.48	130.60	166.17	198.77	232.54
120.0	4.85	15.99	38.26	56.32	79.67	102.31	126.65	150.72	173.08
135.0	8.53	14.10	37.28	49.40	60.72	71.23	81.02	91.17	99.70
150.0	4.31	13.56	31.89	50.03	75.90	79.04	91.98	104.91	116.23
165.0	4.40	12.22	27.04	46.71	66.47	87.04	105.45	125.48	146.86
180.0	5.21	16.08	30.45	45.63	60.45	75.63	89.91	103.92	117.04
195.0	5.48	17.87	32.07	48.32	64.58	80.75	97.10	113.35	128.71
210.0	5.48	17.87	31.71	44.28	56.23	68.26	80.30	93.14	104.01
225.0	5.57	17.78	29.01	36.47	41.86	47.69	53.53	59.55	65.30
240.0	5.39	16.44	29.73	37.37	39.79	40.33	40.78	41.59	41.77
255.0	5.57	14.37	28.56	36.29	36.74	32.87	29.64	26.95	24.88
270.0	5.21	12.93	25.78	27.75	25.60	22.37	19.40	16.08	13.29
285.0	5.12	12.93	27.31	33.77	34.40	30.36	26.68	23.62	22.90
300.0	4.85	14.64	28.02	36.83	37.99	39.52	39.52	39.88	39.97
315.0	8.53	15.72	26.95	33.50	37.28	41.50	45.09	48.86	52.45
330.0	4.31	15.90	29.46	39.52	50.48	60.36	70.87	81.11	90.81
345.0	4.40	15.72	29.64	45.72	60.72	76.08	91.62	106.26	120.27
360.0	5.21	11.14	25.24	38.80	54.25	69.79	84.88	98.71	110.84
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	123.41	133.92	143.35	153.05	161.32	168.05	172.63	175.42	176.77
15.0	158.35	175.87	191.86	206.41	218.98	230.03	238.92	244.67	248.17
30.0	130.42	140.48	148.56	156.02	162.30	167.33	171.38	174.70	176.23
45.0	99.61	105.45	109.58	113.44	116.23	119.01	122.87	125.57	126.65
60.0	172.10	188.89	202.54	214.94	225.90	236.50	245.48	251.68	254.73
75.0	242.33	268.38	291.92	313.47	331.98	350.66	364.04	373.65	378.95
90.0	253.47	280.42	303.77	326.59	346.26	364.85	377.42	388.29	393.32
105.0	261.92	289.49	315.99	339.43	359.28	379.22	394.13	404.73	411.91
120.0	192.66	210.54	229.40	243.95	257.51	271.44	281.95	290.03	295.06
135.0	107.69	114.52	120.81	126.02	130.42	134.82	139.76	143.26	145.24
150.0	125.48	134.64	141.47	148.02	153.05	157.45	160.96	163.56	164.55
165.0	163.20	180.63	196.35	210.54	223.02	234.07	241.89	247.10	250.06
180.0	129.43	141.56	152.16	162.57	170.93	177.93	182.96	186.29	187.36
195.0	142.81	157.10	169.31	181.35	191.59	199.58	205.60	209.73	211.35
210.0	115.15	125.84	135.45	144.79	152.33	158.53	162.84	165.63	166.53
225.0	70.78	75.63	80.66	85.33	89.10	92.34	94.94	96.02	96.38
240.0	42.13	42.40	42.84	43.20	43.38	43.74	44.19	44.19	44.01
255.0	23.80	23.53	23.62	23.80	24.07	24.34	24.61	24.61	24.61
270.0	10.87	9.25	8.08	7.81	4.94	4.58	4.40	4.40	4.40
285.0	19.13	18.41	18.23	18.05	18.14	18.41	18.77	18.77	19.04
300.0	40.06	40.42	40.87	41.32	41.68	42.13	42.40	42.57	42.40
315.0	55.51	58.92	61.98	65.30	67.90	70.51	72.39	73.29	73.38
330.0	99.61	108.95	117.13	124.76	131.95	137.69	141.74	144.07	144.88
345.0	133.74	146.50	158.17	169.22	178.38	186.02	191.41	195.18	196.80
360.0	123.41	133.92	143.35	153.05	161.32	168.05	172.63	175.42	176.77

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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	176.41	176.32	174.34	170.21	164.55	156.56	147.48	136.89	125.75
15.0	249.43	248.35	245.12	238.74	229.85	218.08	204.61	188.17	171.56
30.0	176.50	175.96	173.71	169.40	163.92	155.57	146.68	136.17	124.94
45.0	126.74	126.92	125.84	123.77	119.64	114.34	108.32	100.78	92.42
60.0	256.53	255.81	252.39	246.47	238.38	225.54	211.89	195.90	178.74
75.0	380.93	378.41	372.84	363.05	349.76	332.15	309.70	286.71	259.22
90.0	395.12	393.23	387.03	377.06	364.49	345.09	324.52	300.36	273.41
105.0	414.34	413.17	407.24	397.99	383.80	364.85	341.59	315.36	288.86
120.0	296.86	296.95	293.62	287.15	277.45	264.61	248.62	230.39	210.09
135.0	145.87	146.05	145.15	142.63	137.78	131.59	123.95	115.42	106.17
150.0	164.28	163.47	160.87	157.10	151.62	143.35	134.91	124.76	113.53
165.0	251.05	249.61	245.48	238.92	230.21	218.44	203.89	187.27	170.39
180.0	187.63	187.10	184.67	180.36	173.98	165.54	155.30	143.53	130.60
195.0	211.53	209.64	205.87	199.49	190.96	180.45	167.69	154.13	138.68
210.0	166.62	165.63	163.38	158.53	152.51	143.62	134.46	123.95	112.36
225.0	96.11	96.20	95.03	92.42	88.56	83.98	82.37	72.04	64.76
240.0	43.74	43.65	43.38	41.86	40.24	38.44	36.20	33.77	31.08
255.0	24.52	24.25	23.62	22.63	21.29	19.67	17.96	15.99	14.10
270.0	4.40	4.31	4.04	3.86	3.50	3.05	2.60	2.07	1.53
285.0	19.22	18.95	18.50	17.78	16.71	15.54	14.10	12.48	10.78
300.0	42.31	42.13	41.50	40.51	38.80	36.92	34.49	32.07	29.37
315.0	73.65	74.01	73.65	72.13	69.79	66.38	62.42	57.75	52.90
330.0	145.15	144.79	143.08	139.22	133.92	127.10	118.92	109.76	99.61
345.0	197.24	195.81	192.75	187.10	179.46	169.13	158.08	145.69	131.32
360.0	176.41	176.32	174.34	170.21	164.55	156.56	147.48	136.89	125.75
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	112.45	99.88	84.79	68.89	52.54	37.90	21.20	9.97	2.96
15.0	152.60	132.57	110.93	89.37	65.75	45.00	26.05	12.48	3.86
30.0	111.65	98.44	83.26	66.65	51.02	34.94	21.47	10.69	4.40
45.0	83.35	73.38	62.60	51.56	39.70	28.11	17.69	9.52	4.67
60.0	158.17	137.25	115.87	93.59	70.06	47.43	28.56	13.56	4.85
75.0	231.65	201.11	168.32	134.91	102.75	69.52	40.06	19.13	5.12
90.0	244.58	214.94	179.82	147.57	112.01	76.08	43.83	20.21	5.84
105.0	257.24	223.74	188.44	152.33	116.77	77.78	46.08	19.76	5.66
120.0	187.63	163.20	139.22	112.54	84.34	57.31	33.05	15.36	5.03
135.0	95.30	83.80	71.23	57.75	44.10	31.35	19.31	9.88	4.58
150.0	101.59	88.74	75.27	60.63	45.45	30.90	18.14	8.98	4.04
165.0	149.91	130.60	108.59	85.87	63.14	43.56	23.98	10.78	3.59
180.0	117.57	101.68	85.96	68.44	50.30	32.78	17.96	7.10	1.98
195.0	122.33	104.28	86.23	65.75	46.89	42.13	14.73	5.39	1.08
210.0	98.44	94.58	68.80	53.44	37.19	21.83	11.14	3.95	1.17
225.0	57.48	49.22	40.51	31.26	22.37	13.56	6.56	2.51	1.08
240.0	27.93	24.43	20.48	16.08	10.96	6.11	3.14	1.71	0.90
255.0	11.95	9.88	7.90	5.93	4.04	2.60	1.53	1.08	0.72
270.0	1.17	0.99	0.72	0.63	0.63	0.45	0.45	0.54	0.63
285.0	9.16	7.63	6.11	4.67	3.32	2.25	1.53	0.90	0.81
300.0	26.32	22.99	19.40	14.91	10.33	5.84	2.96	1.71	1.08
315.0	47.34	40.96	34.31	26.86	19.76	12.04	6.11	2.60	1.35
330.0	88.92	76.08	63.23	48.59	34.94	21.56	11.50	4.22	1.44
345.0	115.96	99.16	81.47	62.87	43.47	27.13	14.28	5.30	1.53
360.0	112.45	99.88	84.79	68.89	52.54	37.90	21.20	9.97	2.96

Intensity data(cd)

C/γ(°)	180.0
0.0	1.35
15.0	0.72
30.0	1.35
45.0	1.80
60.0	1.80
75.0	2.07
90.0	2.07
105.0	1.98
120.0	1.71
135.0	1.62
150.0	1.62
165.0	1.62
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	1.35