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南海裕加

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Client:

LumCAT: RSKF1616L30D1PC

Luminaire: LED 灯具

Report No:

Ballast type:

Test No: LCZP23060187

Voltage(V): 119.980

LampCAT:

Current(A): 0.211

Lamp flux(lm): 1775.2

Power (W): 24.670

Number of Lamps: 1

PF: 0.975

Length(mm): 400

Width(mm): 370

Phm Type: C

Height(mm): 130

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Photometric Results

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Lumens(lm): 1775.22, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 71.96

Central intensity(cd): 177.664, Maximum intensity(cd): 182.155

Angle of maximum intensity: C=0.0  $\gamma$ =15.0

Beam Angle(50%Imax): [C0/180]Total=N.A.

[C90/270]Total=355.0

Field angle(10%Imax): [C0/180]Total=N.A.

[C90/270]Total=N.A.

Maximum s/h(1/2): C0\_180=1.36 C90\_270=1.47

Maximum s/h(1/4): C0\_180=1.54 C90\_270=1.64

Up flux rate of lamp(%): 46.91%

Down flux rate of lamp(%): 53.09%

Up flux rate of LUM(%): 46.91%

Down flux rate of LUM(%): 53.09%

CIE Type : General diffuse lighting

Output flux ratio in  $\pi$  solid angle : 28.744%

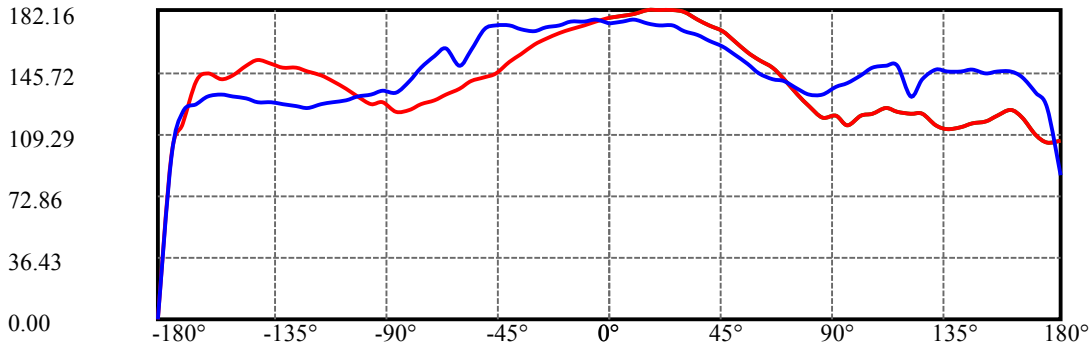
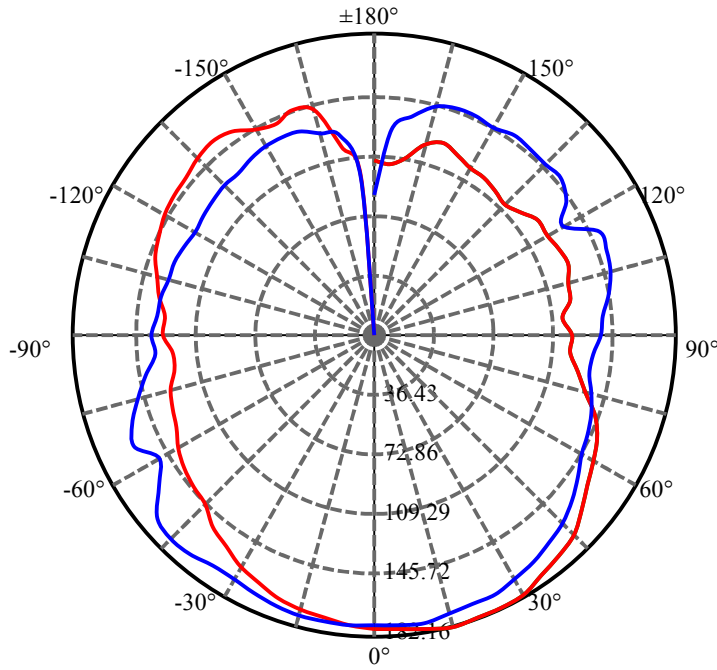
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	175.434	0.000	0	0.00%	0.00%
5.0	176.062	4.202	4.202	0.24%	0.24%
10.0	176.317	12.606	16.808	0.71%	0.95%
15.0	175.449	20.866	37.674	1.18%	2.12%
20.0	173.731	28.777	66.452	1.62%	3.74%
25.0	171.976	36.258	102.71	2.04%	5.79%
30.0	169.633	43.231	145.941	2.44%	8.22%
35.0	166.553	49.506	195.446	2.79%	11.01%
40.0	163.581	55.080	250.526	3.10%	14.11%
45.0	160.239	59.958	310.484	3.38%	17.49%
50.0	156.148	63.931	374.415	3.60%	21.09%
55.0	151.485	66.890	441.305	3.77%	24.86%
60.0	146.901	68.971	510.276	3.89%	28.74%
65.0	145.677	71.126	581.402	4.01%	32.75%
70.0	142.402	72.944	654.346	4.11%	36.86%
75.0	138.248	73.357	727.703	4.13%	40.99%
80.0	133.914	72.823	800.526	4.10%	45.09%
85.0	129.479	71.570	872.097	4.03%	49.13%
90.0	127.294	70.307	942.403	3.96%	53.09%
95.0	129.464	70.302	1012.706	3.96%	57.05%
100.0	132.410	71.158	1083.863	4.01%	61.05%
105.0	134.303	71.365	1155.228	4.02%	65.08%
110.0	135.374	70.489	1225.717	3.97%	69.05%
115.0	135.074	68.479	1294.197	3.86%	72.90%
120.0	132.140	64.960	1359.157	3.66%	76.56%
125.0	133.106	61.311	1420.468	3.45%	80.02%
130.0	133.181	57.900	1478.368	3.26%	83.28%
135.0	133.368	53.860	1532.228	3.03%	86.31%
140.0	133.727	49.455	1581.682	2.79%	89.10%
145.0	134.274	44.714	1626.396	2.52%	91.62%
150.0	134.824	39.626	1666.023	2.23%	93.85%
155.0	135.845	34.253	1700.276	1.93%	95.78%
160.0	135.318	28.440	1728.716	1.60%	97.38%
165.0	129.539	21.828	1750.544	1.23%	98.61%
170.0	117.148	14.633	1765.177	0.82%	99.43%
175.0	108.899	8.086	1773.264	0.46%	99.89%
180.0	55.090	1.960	1775.224	0.11%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	145.94	8.22%	8.22%
0-40	250.53	14.11%	14.11%
0-60	510.28	28.74%	28.74%
0-90	942.40	53.09%	53.09%
0-120	1359.16	76.56%	76.56%
0-180	1775.22	100.00%	100.00%
60-90	432.13	24.34%	24.34%
90-120	416.75	23.48%	23.48%
90-130	535.96	30.19%	30.19%
90-150	723.62	40.76%	40.76%
90-180	830.86	46.80%	46.80%
0-124.98	1420.18	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	16.81
10-20	49.64
20-30	79.49
30-40	104.59
40-50	123.89
50-60	135.86
60-70	144.07
70-80	146.18
80-90	141.88
90-100	141.46
100-110	141.85
110-120	133.44
120-130	119.21
130-140	103.31
140-150	84.34
150-160	62.69
160-170	36.46
170-180	8.09



C0(Max): —————

C0/C180: —————

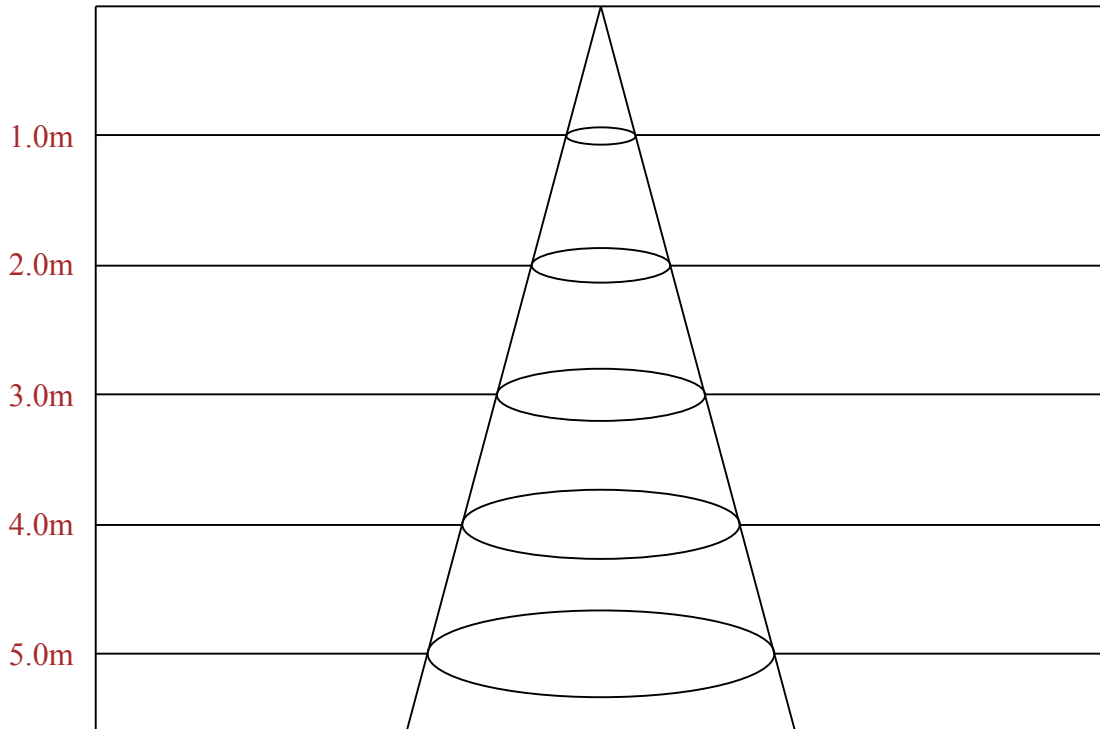
C90/C270: —————

Field angle(10%Imax):C0/180Left:0.0 Right:0.0

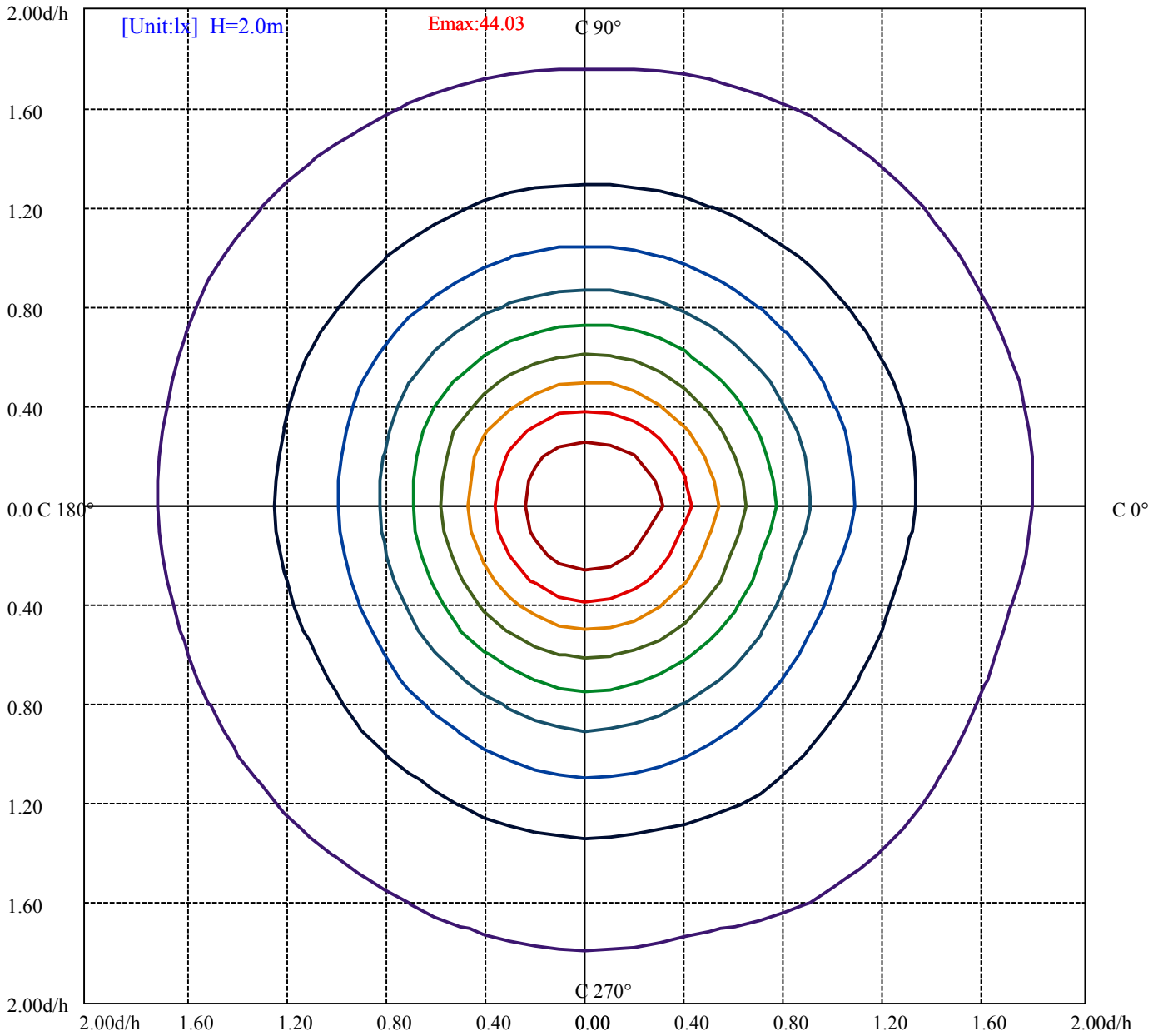
:C90/270Left:0.0 Right:0.0

Beam Angle(50%Imax):C0/180Left:0.0 Right:0.0

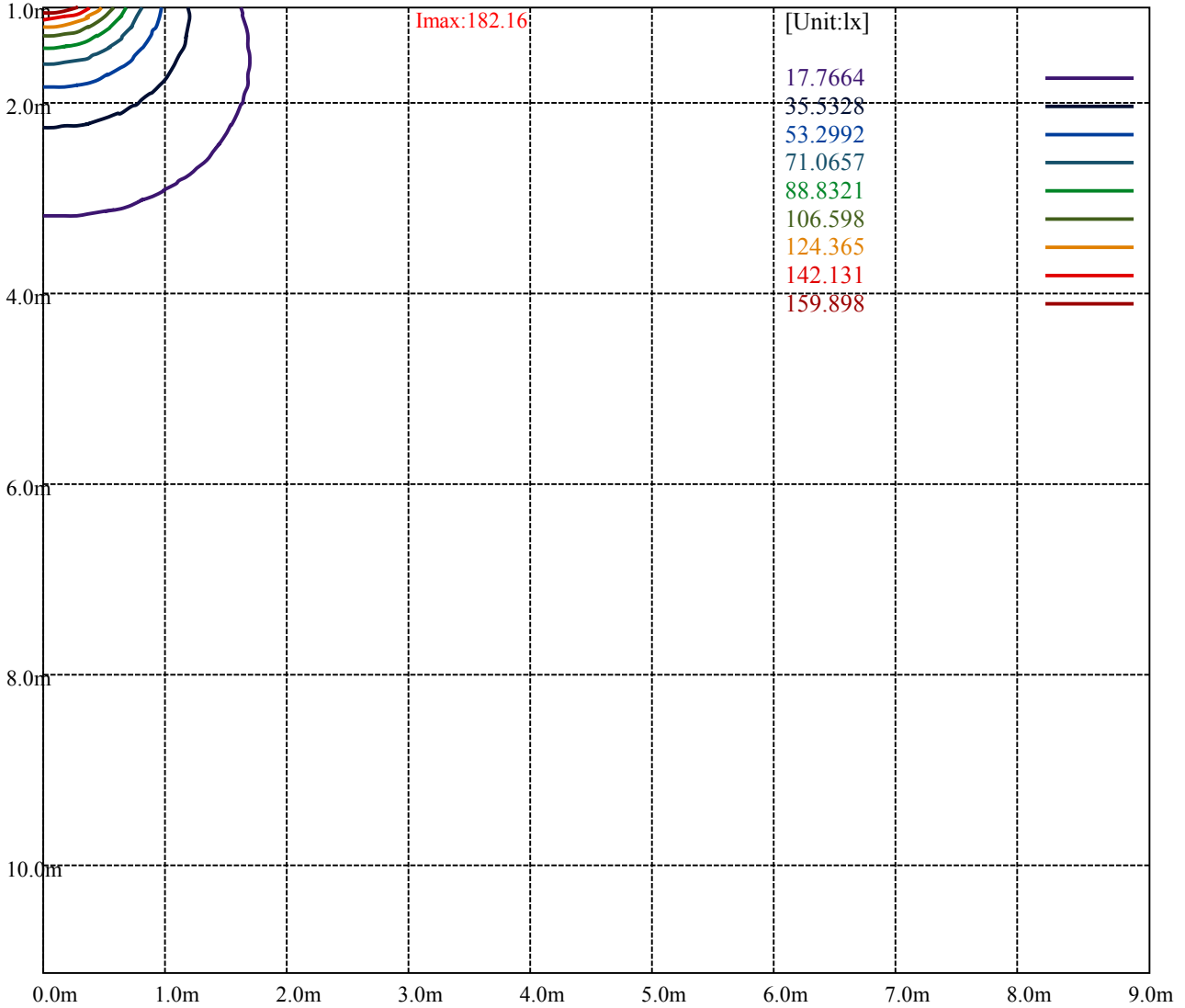
:C90/270Left:185.4 Right:169.6



Max , Ave      Beam angle of C0 plane 180.00



(10%Emax) 4.402625	—
(20%Emax) 8.80525	—
(30%Emax) 13.20788	—
(40%Emax) 17.61048	—
(50%Emax) 22.0131	—
(60%Emax) 26.41575	—
(70%Emax) 30.81825	—
(80%Emax) 35.221	—
(90%Emax) 39.6235	—



Luminance Table

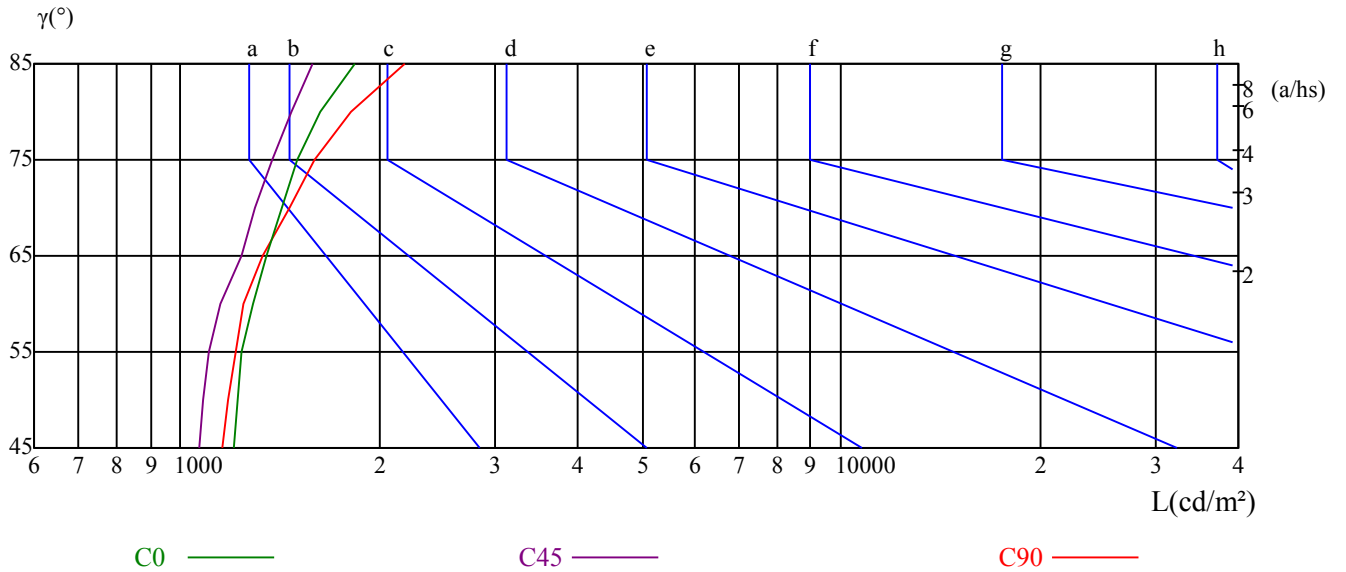
$\gamma$	45	50	55	60	65	70	75	80	85
C0	1203	1217	1236	1284	1349	1425	1498	1630	1834
C45	1069	1084	1105	1148	1234	1301	1381	1475	1585
C90	1157	1181	1210	1248	1334	1460	1600	1809	2178

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2239	2406	2353	3387	3701	3673	9324	10299	10299

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	1.00	1.00	1.00	0.85	0.85	0.85	0.71	0.71	0.71	0.59	0.59	0.59	0.53
1	0.89	0.83	0.78	0.82	0.77	0.73	0.69	0.65	0.62	0.57	0.54	0.52	0.46	0.44	0.42	0.37
2	0.75	0.68	0.61	0.69	0.63	0.57	0.58	0.53	0.48	0.48	0.44	0.40	0.38	0.35	0.33	0.28
3	0.65	0.56	0.49	0.60	0.52	0.46	0.50	0.44	0.39	0.41	0.37	0.33	0.33	0.29	0.26	0.22
4	0.57	0.48	0.41	0.52	0.44	0.38	0.44	0.38	0.32	0.36	0.31	0.27	0.29	0.25	0.22	0.18
5	0.50	0.41	0.34	0.46	0.38	0.32	0.39	0.32	0.27	0.32	0.27	0.23	0.26	0.22	0.18	0.15
6	0.45	0.36	0.29	0.41	0.33	0.27	0.35	0.28	0.23	0.29	0.24	0.20	0.23	0.19	0.16	0.13
7	0.40	0.32	0.25	0.37	0.29	0.24	0.31	0.25	0.20	0.26	0.21	0.17	0.21	0.17	0.14	0.11
8	0.36	0.28	0.22	0.34	0.26	0.21	0.29	0.22	0.18	0.24	0.19	0.15	0.19	0.15	0.12	0.10
9	0.33	0.25	0.20	0.31	0.23	0.18	0.26	0.20	0.16	0.22	0.17	0.13	0.18	0.14	0.11	0.09
10	0.30	0.23	0.17	0.28	0.21	0.16	0.24	0.18	0.14	0.20	0.15	0.12	0.16	0.13	0.10	0.08

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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	177.66	178.47	180.45	182.16	181.89	181.62	180.72	176.59	173.62
15.0	176.68	177.57	180.00	181.71	180.00	178.47	176.14	174.16	172.27
30.0	175.87	177.04	178.83	180.54	179.19	177.30	174.97	172.19	171.02
45.0	175.24	176.59	177.75	178.83	177.75	174.43	172.19	170.48	169.22
60.0	174.61	176.23	177.04	176.23	175.15	174.07	171.56	169.67	167.07
75.0	174.88	175.69	176.14	174.16	173.26	173.53	172.63	169.85	165.63
90.0	174.70	175.60	176.23	174.07	172.90	172.54	170.21	167.07	163.74
105.0	175.06	175.33	175.96	174.88	173.26	172.90	170.03	165.90	163.56
120.0	174.79	175.15	176.50	175.42	172.72	170.93	169.76	167.33	164.46
135.0	175.51	174.79	175.78	175.24	173.08	170.48	168.59	165.81	163.29
150.0	175.06	174.97	174.70	173.26	171.20	170.84	169.58	165.36	160.15
165.0	175.15	174.52	173.26	171.47	168.50	166.08	162.66	158.44	153.59
180.0	177.66	175.78	173.44	171.38	168.68	165.45	161.32	156.29	151.17
195.0	176.68	175.24	173.89	171.38	168.86	164.91	160.42	155.30	149.91
210.0	175.87	175.60	173.89	172.10	168.41	165.18	161.50	156.02	151.26
225.0	175.24	175.69	174.88	173.26	170.30	167.07	163.65	161.32	156.92
240.0	174.61	175.69	175.42	173.17	171.29	168.77	165.90	162.57	159.97
255.0	174.88	176.41	176.50	175.06	173.98	170.66	168.23	166.71	165.63
270.0	174.70	175.96	175.78	175.15	173.62	171.74	169.94	170.30	172.63
285.0	175.06	176.77	176.41	175.51	174.43	172.45	170.66	169.67	170.21
300.0	174.79	176.50	176.41	176.14	175.33	174.25	171.83	169.49	167.60
315.0	175.51	176.59	177.75	176.23	175.15	173.53	172.36	169.40	166.08
330.0	175.06	176.77	177.48	176.68	175.78	175.24	173.71	168.86	164.19
345.0	175.15	176.59	177.13	176.77	174.79	174.97	172.63	168.50	162.75
360.0	177.66	178.47	180.45	182.16	181.89	181.62	180.72	176.59	173.62
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	170.12	164.19	157.63	152.87	147.93	141.74	132.66	125.39	118.65
15.0	170.21	167.07	161.68	155.21	153.05	146.77	136.53	128.71	124.94
30.0	168.32	164.01	158.26	153.86	154.58	151.08	144.61	138.50	132.30
45.0	165.45	161.95	157.90	155.30	156.38	152.33	147.30	140.75	132.22
60.0	163.38	159.16	155.66	155.12	154.94	151.80	147.04	141.02	140.93
75.0	161.41	157.10	152.60	150.72	150.09	146.50	144.97	142.81	142.28
90.0	160.42	155.93	150.45	144.34	141.56	139.85	135.63	132.22	132.48
105.0	160.60	155.84	150.72	147.39	144.16	140.66	136.53	132.57	131.86
120.0	158.44	152.33	148.11	146.41	142.81	138.68	137.42	136.44	134.55
135.0	157.81	149.55	147.22	147.39	143.71	138.95	134.37	133.02	132.66
150.0	155.30	148.02	145.33	145.42	139.49	134.46	131.32	127.99	119.19
165.0	147.93	142.72	141.29	138.23	133.29	129.16	125.75	121.35	109.58
180.0	144.97	142.01	139.85	136.08	132.22	129.07	126.83	122.96	121.89
195.0	143.89	140.30	137.07	132.84	129.52	126.56	124.58	126.38	119.91
210.0	145.87	140.21	137.07	134.82	129.97	125.30	122.25	118.47	112.54
225.0	153.68	150.18	144.07	138.14	135.63	133.20	128.71	124.13	120.18
240.0	158.44	154.22	148.38	140.84	138.86	139.31	141.29	137.07	129.34
255.0	166.44	164.64	157.10	146.05	152.87	148.11	142.54	137.96	135.81
270.0	173.17	170.75	158.35	149.55	159.43	155.21	147.93	139.85	133.20
285.0	170.75	169.94	159.70	146.68	162.13	157.72	155.03	145.15	138.41
300.0	168.05	169.58	167.33	159.79	161.23	160.69	156.29	150.27	147.04
315.0	165.00	160.15	159.97	158.62	152.87	155.66	152.33	151.80	146.32
330.0	158.17	154.13	151.62	146.68	142.81	143.80	142.01	137.25	132.75
345.0	157.90	153.59	148.29	143.26	136.71	131.05	124.04	121.89	118.47
360.0	170.12	164.19	157.63	152.87	147.93	141.74	132.66	125.39	118.65

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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	119.91	114.70	119.91	121.53	124.49	122.60	120.72	120.54	114.70
15.0	118.92	113.44	119.55	117.31	117.48	115.33	113.08	111.20	108.95
30.0	116.86	117.13	119.10	121.98	121.53	124.40	124.31	121.89	120.36
45.0	121.89	127.10	131.77	135.45	137.60	136.35	132.93	133.47	134.46
60.0	133.11	141.38	147.66	149.01	149.19	148.11	148.20	149.73	149.46
75.0	142.19	148.11	146.86	149.19	153.50	155.57	146.14	157.01	159.07
90.0	136.71	139.04	143.53	147.84	149.46	149.19	131.23	141.38	147.13
105.0	134.28	135.63	142.90	146.77	147.75	147.04	129.61	140.39	147.39
120.0	134.01	136.53	139.49	140.12	140.21	137.60	130.06	140.84	142.72
135.0	130.33	135.72	139.58	138.50	137.42	130.33	133.20	130.87	131.41
150.0	122.87	124.67	127.54	132.57	135.90	137.16	136.80	135.27	135.45
165.0	111.38	116.50	121.17	125.12	130.96	135.09	137.07	136.44	134.64
180.0	127.54	127.19	131.68	135.90	140.57	143.53	145.69	147.75	148.20
195.0	125.39	130.06	133.74	137.16	139.67	140.93	138.95	139.76	140.03
210.0	108.95	121.98	124.85	126.56	127.72	129.34	127.99	128.89	131.86
225.0	116.95	124.31	126.11	127.10	128.17	126.47	121.35	121.44	122.16
240.0	124.22	125.84	121.44	121.89	122.69	122.16	119.55	116.23	118.20
255.0	132.30	132.13	127.45	125.57	121.26	120.54	118.47	119.28	121.89
270.0	134.19	132.13	131.23	128.80	128.35	126.38	124.67	125.93	126.92
285.0	136.62	134.10	134.64	135.45	133.38	133.29	135.18	134.64	131.86
300.0	143.71	143.62	143.89	142.81	142.28	143.80	143.53	141.20	140.30
315.0	137.25	139.94	138.23	143.17	144.97	146.68	145.87	142.45	139.76
330.0	128.44	125.21	135.99	140.57	143.35	142.90	141.47	139.04	134.64
345.0	117.04	120.72	129.52	132.93	131.05	127.01	125.30	118.92	114.79
360.0	119.91	114.70	119.91	121.53	124.49	122.60	120.72	120.54	114.70
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	111.56	113.62	115.87	116.77	119.64	123.77	118.38	108.68	103.83
15.0	109.94	113.71	117.31	118.56	123.41	123.05	115.60	107.16	101.68
30.0	120.36	121.53	120.90	125.39	128.98	132.57	130.60	114.79	101.23
45.0	134.73	134.46	136.17	136.98	142.54	144.25	144.07	134.01	100.06
60.0	150.54	151.53	151.80	150.54	148.74	146.59	144.70	141.56	104.28
75.0	156.02	153.50	150.99	148.92	149.28	148.02	145.78	144.43	127.19
90.0	146.32	146.50	146.95	144.43	145.69	146.23	142.54	133.92	124.58
105.0	147.30	143.53	137.33	135.99	137.07	134.10	128.35	126.38	119.55
120.0	140.93	136.44	133.56	133.74	130.42	129.07	129.25	119.37	112.90
135.0	131.86	131.59	131.23	132.57	135.81	135.90	123.05	109.22	100.33
150.0	133.20	132.30	133.02	133.47	132.93	131.41	124.85	114.70	100.06
165.0	134.55	135.09	134.82	136.44	137.51	138.32	132.57	123.59	101.50
180.0	150.99	152.25	149.46	143.35	141.29	144.52	140.12	115.69	96.65
195.0	141.47	143.53	143.98	145.51	145.24	142.72	138.68	112.45	107.07
210.0	133.65	134.91	138.59	139.58	139.04	134.64	123.68	104.46	114.88
225.0	122.96	124.67	125.66	126.83	127.90	128.08	120.36	105.90	127.19
240.0	122.25	126.56	130.42	130.69	127.63	126.83	110.12	106.89	130.60
255.0	123.77	126.74	131.50	133.65	132.22	124.49	120.18	113.98	125.93
270.0	127.45	127.54	130.33	131.59	132.30	130.87	126.20	122.60	95.48
285.0	130.60	129.70	131.95	136.08	139.31	141.02	136.89	126.47	84.79
300.0	142.10	142.81	141.83	139.76	141.47	141.92	142.81	125.39	94.40
315.0	140.21	141.56	142.54	141.29	137.51	136.80	135.45	101.05	102.57
330.0	132.84	128.08	127.36	127.54	135.00	135.81	125.75	99.07	112.81
345.0	115.24	117.31	119.01	126.11	129.34	126.65	108.95	99.79	124.04
360.0	111.56	113.62	115.87	116.77	119.64	123.77	118.38	108.68	103.83

Intensity data(cd)

C/ $\gamma$ ( $^{\circ}$ )	180.0
0.0	105.63
15.0	126.65
30.0	122.78
45.0	110.39
60.0	101.14
75.0	90.45
90.0	85.15
105.0	98.62
120.0	121.53
135.0	125.30
150.0	121.08
165.0	113.44
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	105.63