乐达凯

Client:
LumCAT: RYNW0648LAJUDBK
Luminaire: LED lamp
Report No:
Ballast type:

Test No:	Voltage(V): 120.010
LampCAT:	Current(A): 0.324
Lamp flux(lm): 696.1	Power (W): 38.460
Number of Lamps: 1	PF: 0.991
Length(mm): 30	Width(mm): 20
Phm Type: C	Height(mm): 1160

Photometric Results

Lumens(lm): 696.06, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 18.10
Central intensity(cd): 2.747, Maximum intensity(cd): 173.061
Angle of maximum intensity: C=30.0 γ=85.0
Beam Angle(50%Imax): [C0/180]Total=291.6
[C90/270]Total=114.4
Field angle(10%Imax): [C0/180]Total=346.7
[C90/270]Total=321.6
Maximum s/h(1/2): C0_180=6.91 C90_270=6.19
Maximum s/h(1/4): C0_180=6.44 C90_270=5.67
Up flux rate of lamp(%): 48.86%
Down flux rate of lamp(%): 51.14%
Up flux rate of LUM(%): 48.86%
Down flux rate of LUM(%): 51.14%
CIE Type : General diffuse lighting
Output flux ratio in π solid angle : 19.553%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5.876	0.000	0	0.00%	0.00%
5.0	9.004	0.178	0.178	0.03%	0.03%
10.0	12.896	0.783	0.961	0.11%	0.14%
15.0	17.054	1.777	2.738	0.26%	0.39%
20.0	22.472	3.258	5.995	0.47%	0.86%
25.0	28.653	5.362	11.357	0.77%	1.63%
30.0	34.299	7.967	19.324	1.14%	2.78%
35.0	39.832	10.916	30.24	1.57%	4.34%
40.0	45.058	14.163	44.404	2.03%	6.38%
45.0	49.980	17.597	62.001	2.53%	8.91%
50.0	54.749	21.162	83.163	3.04%	11.95%
55.0	59.022	24.738	107.901	3.55%	15.50%
60.0	62.990	28.203	136.104	4.05%	19.55%
65.0	66.119	31.387	167.49	4.51%	24.06%
70.0	68.904	34.189	201.679	4.91%	28.97%
75.0	70.850	36.529	238.208	5.25%	34.22%
80.0	72.300	38.303	276.511	5.50%	39.72%
85.0	72.986	39.478	315.989	5.67%	45.40%
90.0	72.986	39.968	355.957	5.74%	51.14%
95.0	72.376	39.801	395.759	5.72%	56.86%
100.0	71.079	38.980	434.739	5.60%	62.46%
105.0	69.057	37.496	472.235	5.39%	67.84%
110.0	66.615	35.462	507.697	5.09%	72.94%
115.0	63.524	32.952	540.649	4.73%	77.67%
120.0	60.129	30.060	570.71	4.32%	81.99%
125.0	55.818	26.801	597.51	3.85%	85.84%
130.0	51.430	23.319	620.83	3.35%	89.19%
135.0	46.623	19.813	640.643	2.85%	92.04%
140.0	42.044	16.417	657.06	2.36%	94.40%
145.0	36.283	13.068	670.128	1.88%	96.27%
150.0	30.751	9.871	680	1.42%	97.69%
155.0	25.066	7.064	687.063	1.01%	98.71%
160.0	19.382	4.662	691.725	0.67%	99.38%
165.0	13.277	2.692	694.417	0.39%	99.76%
170.0	7.707	1.245	695.662	0.18%	99.94%
175.0	2.594	0.369	696.03	0.05%	100.00%
180.0	0.229	0.034	696.064	0.00%	100.00%

Zonal flux distribution table

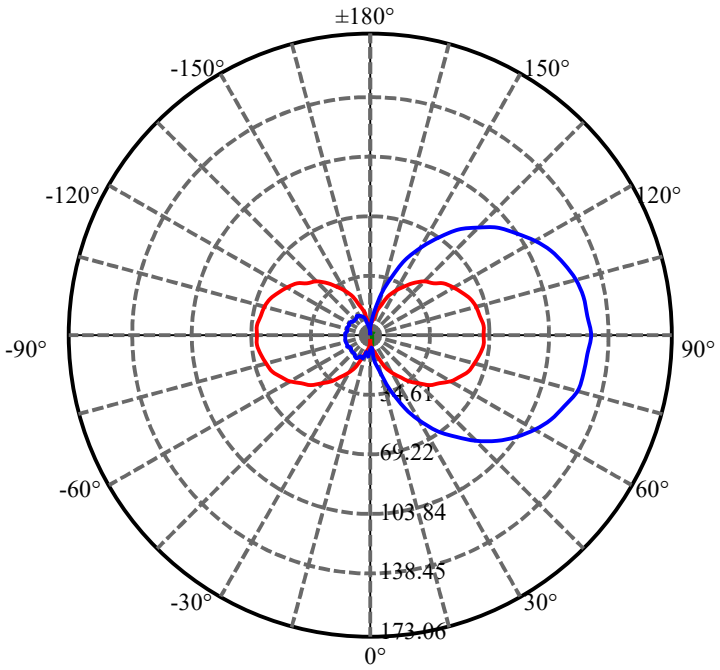
ZONAL LUMEN SUMMARY

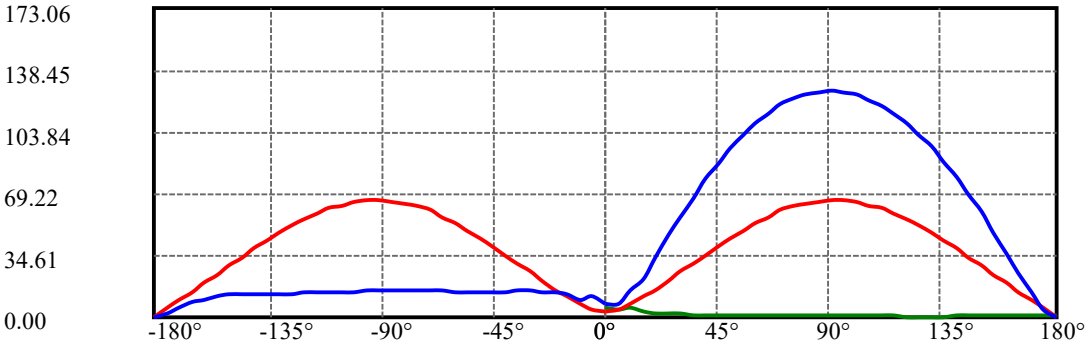
Zone	Lumens	%Lamp	%Fixt
0-30	19.32	2.78%	2.78%
0-40	44.40	6.38%	6.38%
0-60	136.10	19.55%	19.55%
0-90	355.96	51.14%	51.14%
0-120	570.71	81.99%	81.99%
0-180	696.06	100.00%	100.00%
60-90	219.85	31.59%	31.59%
90-120	214.75	30.85%	30.85%
90-130	264.87	38.05%	38.05%
90-150	324.04	46.55%	46.55%
90-180	340.07	48.86%	48.86%
0-117.69	556.85	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	0.96
10-20	5.03
20-30	13.33
30-40	25.08
40-50	38.76
50-60	52.94
60-70	65.58
70-80	74.83
80-90	79.45
90-100	78.78
100-110	72.96
110-120	63.01
120-130	50.12
130-140	36.23
140-150	22.94
150-160	11.73
160-170	3.94
170-180	0.37

Light Distribution Curve [Unit:cd]





C30(Max):

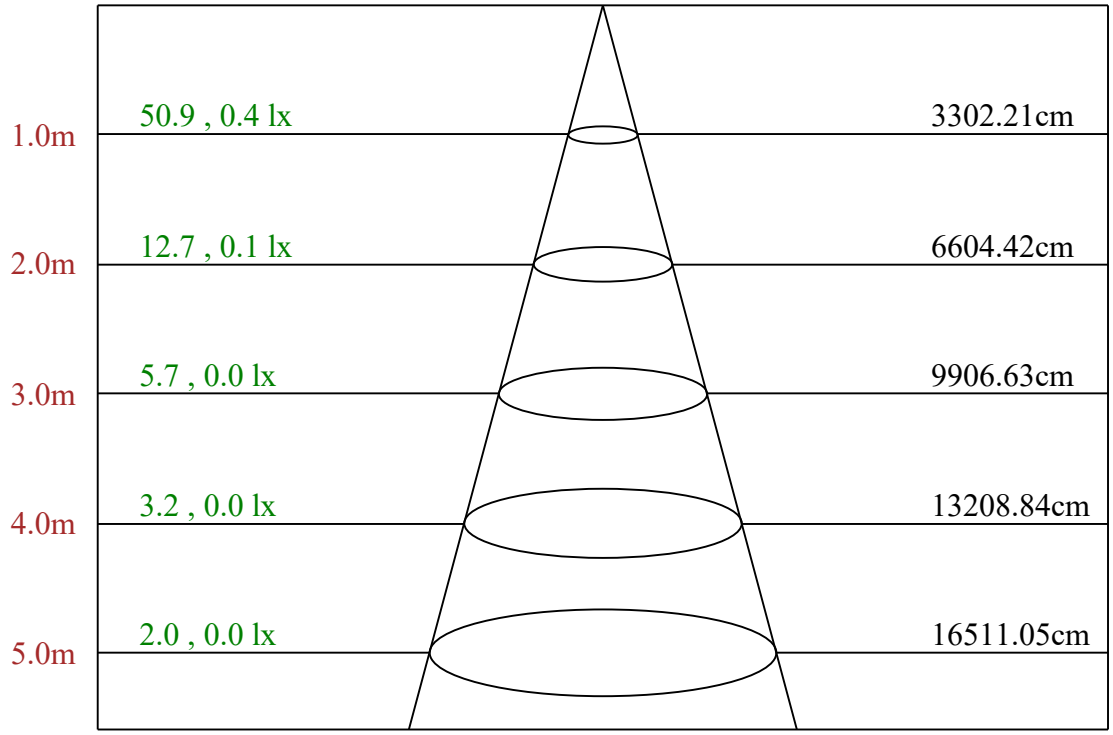
C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:268.4 Right:78.4
:C90/270Left:241.0 Right:80.6

Beam Angle(50%Imax):C0/180Left:240.8 Right:50.8
:C90/270Left:56.7 Right:57.7

Lux distance Curve



Max , Ave

Beam angle of C30 plane 173.07

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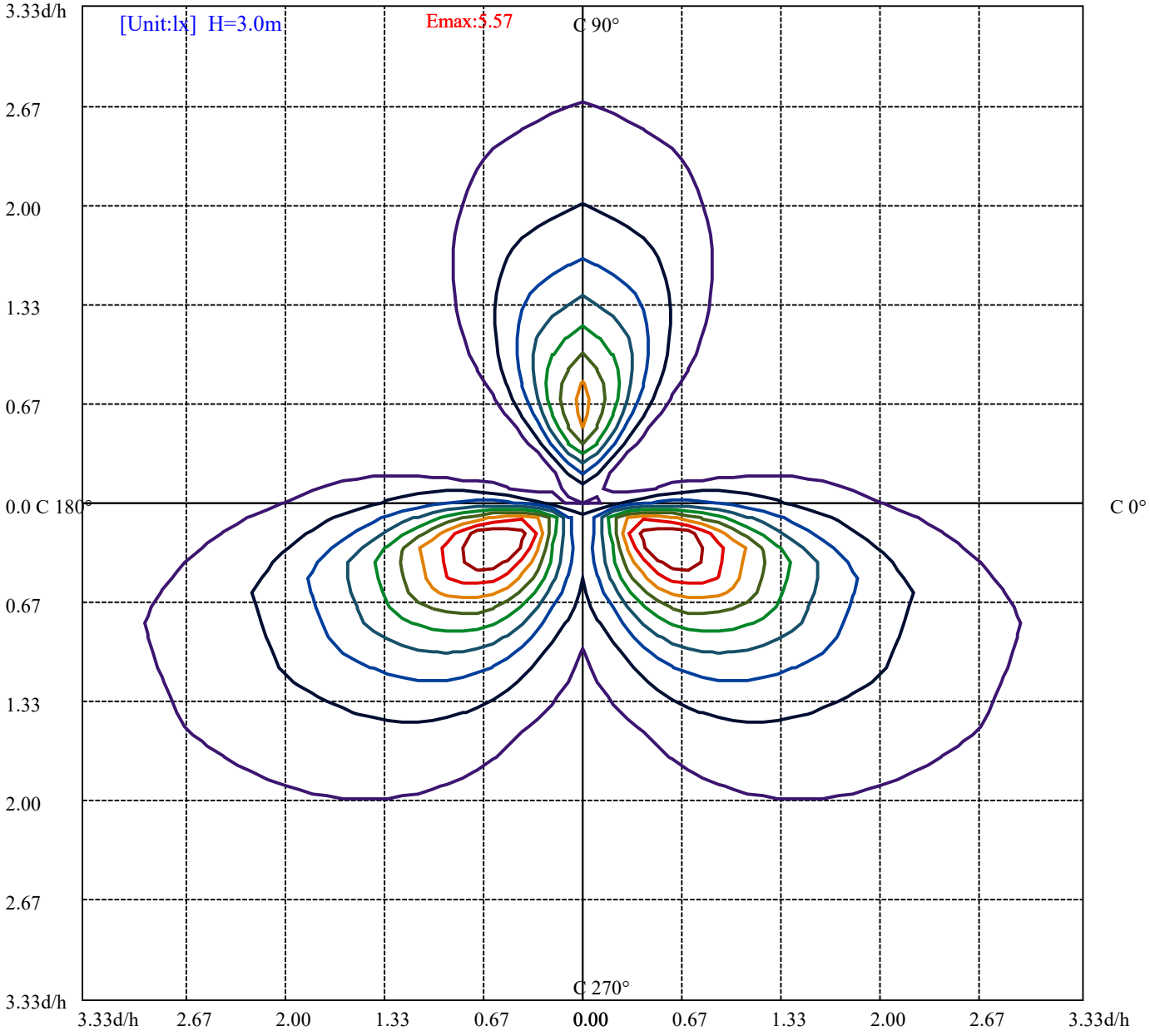
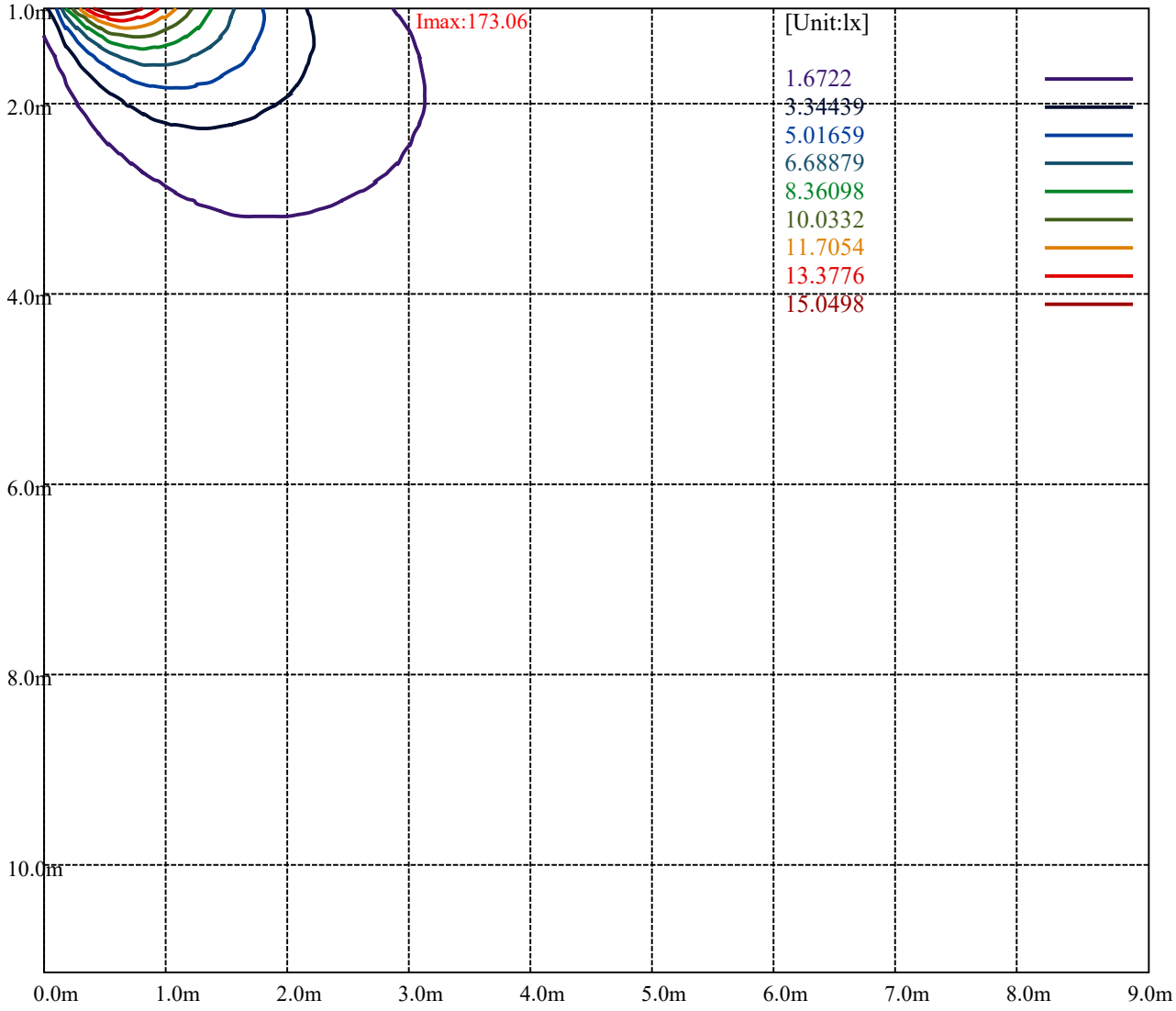
ISO illuminance diagram



(10%Emax) 0.5571855
(20%Emax) 1.114367
(30%Emax) 1.671556
(40%Emax) 2.228745
(50%Emax) 2.785922
(60%Emax) 3.343111
(70%Emax) 3.9003
(80%Emax) 4.457489
(90%Emax) 5.014667

Equipment: LC-I-902 GMS-2000
Temperature(°C): 25.1
Date: 2024/11/30
Humidity(%): 62.1%
Operator: JUN WANG
Distance(m): 30.26

Space ISO Lux diagram



Equipment: LC-I-902 GMS-2000
Temperature(°C): 25.1

Date: 2024/11/30
Humidity(%): 62.1%

Operator: JUN WANG
Distance(m): 30.26

Luminance Limitting Curve(no luminous side)

Luminance Table

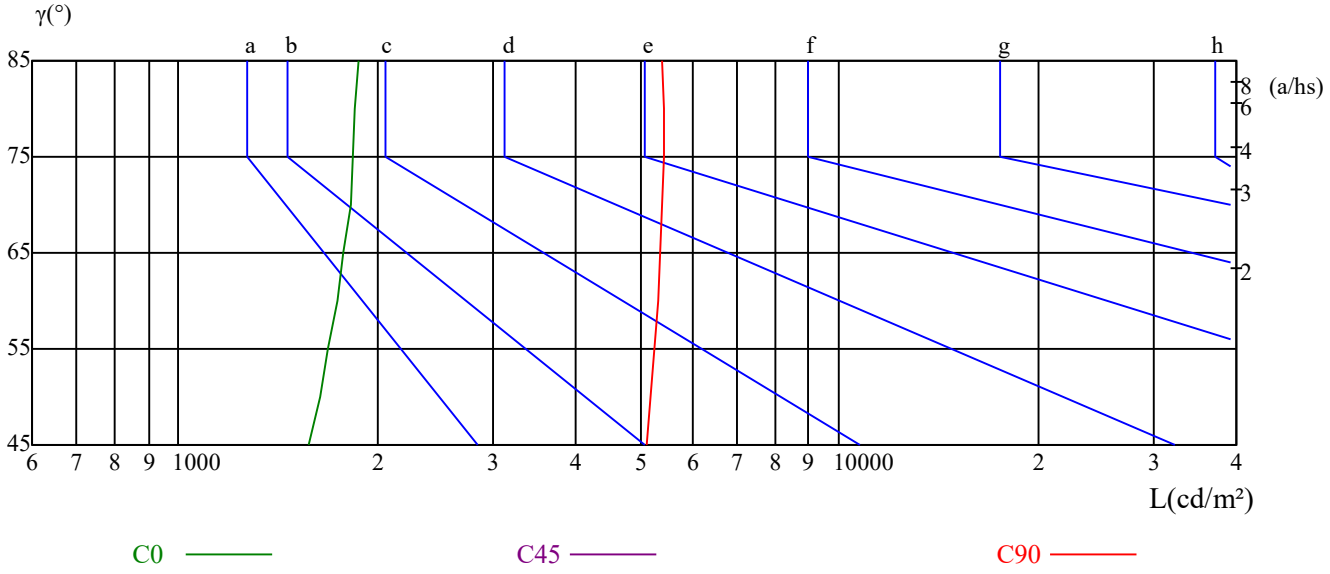
γ	45	50	55	60	65	70	75	80	85
C0	1573	1642	1682	1745	1771	1823	1830	1851	1872
C45	124	130	121	115	122	118	115	113	112
C90	5115	5194	5253	5344	5379	5409	5438	5426	5416

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
222082	254582	239235	398010	442234	415700	1243223	1339528	1265110

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 Limitting Curve



Utilization factor table for indoor luminaire

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	COEFFCIENTS 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	0.57	0.51	0.54	0.48	0.42	0.43	0.38	0.34	0.33	0.30	0.26	0.21
3	0.61	0.51	0.44	0.55	0.47	0.40	0.45	0.39	0.33	0.36	0.31	0.26	0.27	0.23	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	0.23	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	0.20	0.16	0.13	0.09
6	0.41	0.31	0.24	0.37	0.29	0.22	0.30	0.23	0.18	0.24	0.19	0.14	0.18	0.14	0.10	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	0.24	0.18	0.13	0.19	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	0.13	0.09	0.06	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	0.08	0.06	0.04

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	2.75	3.66	8.24	13.74	19.23	25.64	32.96	39.37	45.78
15.0	3.66	3.66	4.58	2.75	2.75	2.75	2.75	2.75	2.75
30.0	6.41	5.49	6.41	2.75	1.83	1.83	1.83	0.92	0.92
45.0	8.24	8.24	9.16	2.75	1.83	1.83	1.83	0.92	0.92
60.0	10.99	10.99	13.74	7.33	10.07	12.82	15.57	17.40	20.14
75.0	11.90	12.82	17.40	15.57	23.81	32.05	40.29	46.70	54.02
90.0	7.33	7.33	14.65	21.98	32.96	45.78	55.86	66.84	76.92
105.0	2.75	2.75	10.07	20.14	29.30	39.37	48.53	58.60	66.84
120.0	2.75	2.75	7.33	11.90	17.40	22.89	27.47	32.05	36.63
135.0	1.83	1.83	3.66	4.58	5.49	5.49	5.49	6.41	6.41
150.0	4.58	3.66	4.58	2.75	1.83	1.83	1.83	1.83	0.92
165.0	7.33	7.33	7.33	2.75	2.75	2.75	1.83	1.83	0.92
180.0	2.75	4.58	7.33	9.16	11.90	15.57	18.31	21.06	23.81
195.0	3.66	10.99	19.23	30.22	41.21	52.19	65.01	76.92	88.82
210.0	6.41	15.57	24.72	38.46	52.19	66.84	80.58	95.23	108.05
225.0	8.24	14.65	20.14	30.22	41.21	52.19	63.18	74.17	85.16
240.0	10.99	15.57	15.57	22.89	30.22	38.46	44.87	51.28	58.60
255.0	11.90	15.57	12.82	17.40	21.06	24.72	27.47	30.22	32.96
270.0	7.33	11.90	10.07	12.82	13.74	13.74	14.65	14.65	13.74
285.0	2.75	7.33	11.90	15.57	18.31	20.14	21.06	22.89	22.89
300.0	2.75	8.24	14.65	21.06	22.89	33.88	39.37	43.95	48.53
315.0	1.83	10.07	18.31	28.39	37.54	47.61	56.77	66.84	75.08
330.0	4.58	14.65	23.81	36.63	49.45	62.27	76.00	88.82	101.64
345.0	7.33	16.48	23.81	37.54	50.36	65.01	79.66	94.31	108.96
360.0	2.75	3.66	8.24	13.74	19.23	25.64	32.96	39.37	45.78

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	52.19	59.52	65.01	71.42	76.00	81.49	84.24	86.99	88.82
15.0	2.75	2.75	2.75	2.75	2.75	3.66	3.66	3.66	3.66
30.0	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
45.0	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
60.0	21.98	23.81	25.64	27.47	28.39	29.30	30.22	31.13	31.13
75.0	60.43	65.93	71.42	76.00	80.58	83.33	86.07	87.90	88.82
90.0	86.07	94.31	101.64	108.96	114.46	119.04	122.70	124.53	125.45
105.0	74.17	81.49	88.82	94.31	98.89	102.55	105.30	107.13	108.96
120.0	40.29	43.95	47.61	50.36	52.19	54.02	55.86	56.77	57.69
135.0	6.41	7.33	7.33	7.33	8.24	8.24	8.24	8.24	8.24
150.0	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
165.0	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
180.0	26.55	29.30	32.05	34.80	36.63	38.46	39.37	40.29	41.21
195.0	99.81	110.80	120.87	130.94	138.27	145.59	151.09	154.75	156.58
210.0	120.87	133.69	144.68	154.75	162.07	170.31	174.89	179.47	180.39
225.0	94.31	103.47	110.80	118.12	124.53	129.11	132.77	135.52	136.43
240.0	64.10	69.59	75.08	78.75	82.41	85.16	86.99	88.82	88.82
255.0	35.71	37.54	39.37	41.21	42.12	43.04	43.95	43.95	44.87
270.0	13.74	13.74	13.74	13.74	14.65	14.65	14.65	14.65	14.65
285.0	23.81	24.72	25.64	26.55	26.55	27.47	27.47	28.39	28.39
300.0	53.11	56.77	60.43	64.10	66.84	68.68	70.51	71.42	71.42
315.0	84.24	91.57	97.98	104.39	108.96	113.54	116.29	118.12	119.04
330.0	112.63	123.62	134.60	142.84	151.09	156.58	161.16	163.90	165.74
345.0	122.70	136.43	147.42	159.33	167.57	175.81	181.30	185.88	187.71
360.0	52.19	59.52	65.01	71.42	76.00	81.49	84.24	86.99	88.82

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	89.74	89.74	87.90	86.07	83.33	79.66	75.08	70.51	64.10
15.0	3.66	3.66	3.66	3.66	3.66	3.66	3.66	3.66	3.66
30.0	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
45.0	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
60.0	31.13	31.13	31.13	30.22	29.30	28.39	26.55	24.72	22.89
75.0	88.82	88.82	86.99	85.16	83.33	79.66	76.00	72.34	66.84
90.0	126.36	125.45	124.53	121.78	118.12	114.46	108.96	102.55	95.23
105.0	108.96	108.05	107.13	104.39	101.64	97.98	93.40	87.90	81.49
120.0	57.69	57.69	56.77	54.94	53.11	51.28	48.53	45.78	43.04
135.0	8.24	8.24	8.24	8.24	7.33	7.33	6.41	6.41	5.49
150.0	0.92	0.92	0.92	0.92	0.92	0.92	0.00	0.00	0.00
165.0	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
180.0	41.21	41.21	40.29	39.37	38.46	36.63	34.80	32.05	30.22
195.0	156.58	154.75	151.09	146.51	139.18	131.86	123.62	113.54	102.55
210.0	180.39	178.56	173.98	168.48	162.07	152.92	142.84	131.86	120.87
225.0	135.52	134.60	131.86	128.19	122.70	117.21	115.37	101.64	93.40
240.0	88.82	88.82	87.90	84.24	81.49	77.83	74.17	68.68	63.18
255.0	44.87	44.87	43.95	43.04	42.12	40.29	38.46	36.63	34.80
270.0	14.65	14.65	13.74	13.74	13.74	13.74	13.74	12.82	12.82
285.0	28.39	27.47	27.47	26.55	26.55	25.64	24.72	23.81	22.89
300.0	71.42	70.51	69.59	67.76	65.93	63.18	59.52	55.86	52.19
315.0	119.04	117.21	115.37	111.71	108.05	102.55	96.15	89.74	82.41
330.0	164.82	162.99	159.33	154.75	148.34	140.10	131.86	121.78	110.80
345.0	187.71	184.96	181.30	174.89	166.65	156.58	146.51	134.60	122.70
360.0	89.74	89.74	87.90	86.07	83.33	79.66	75.08	70.51	64.10

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	58.60	52.19	45.78	39.37	32.96	26.55	20.14	13.74	8.24
15.0	3.66	3.66	3.66	3.66	3.66	3.66	3.66	3.66	2.75
30.0	0.92	0.92	0.92	0.92	0.92	0.92	0.92	1.83	0.92
45.0	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
60.0	21.06	19.23	16.48	13.74	10.99	8.24	5.49	3.66	0.92
75.0	61.35	54.94	47.61	40.29	32.96	24.72	17.40	9.16	2.75
90.0	86.99	78.75	68.68	58.60	47.61	35.71	24.72	13.74	4.58
105.0	75.08	66.84	58.60	49.45	40.29	31.13	21.06	11.90	3.66
120.0	38.46	34.80	30.22	25.64	21.06	15.57	10.99	5.49	1.83
135.0	5.49	4.58	3.66	3.66	2.75	1.83	1.83	0.92	0.92
150.0	0.00	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
165.0	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
180.0	27.47	24.72	21.06	18.31	14.65	11.90	8.24	5.49	1.83
195.0	91.57	80.58	68.68	57.69	45.78	42.12	22.89	12.82	3.66
210.0	108.05	104.39	82.41	67.76	54.02	39.37	26.55	13.74	3.66
225.0	84.24	74.17	64.10	53.11	42.12	31.13	21.06	10.99	2.75
240.0	57.69	51.28	44.87	38.46	31.13	22.89	15.57	9.16	1.83
255.0	32.05	29.30	26.55	23.81	20.14	16.48	11.90	6.41	1.83
270.0	12.82	12.82	12.82	12.82	11.90	10.07	8.24	5.49	1.83
285.0	21.98	20.14	19.23	18.31	16.48	13.74	10.07	6.41	1.83
300.0	47.61	43.04	38.46	32.96	27.47	21.06	14.65	8.24	2.75
315.0	74.17	65.93	56.77	47.61	38.46	28.39	19.23	10.99	2.75
330.0	98.89	87.90	75.08	62.27	49.45	36.63	24.72	13.74	3.66
345.0	108.96	96.15	82.41	66.84	54.02	40.29	26.55	14.65	4.58
360.0	58.60	52.19	45.78	39.37	32.96	26.55	20.14	13.74	8.24

Intensity data(cd)

C/γ(°)	180.0
0.0	0.92
15.0	0.92
30.0	0.92
45.0	0.92
60.0	0.00
75.0	0.00
90.0	0.00
105.0	0.00
120.0	0.00
135.0	0.00
150.0	0.92
165.0	0.92
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	0.92