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AFX

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Client:

LumCAT: ARNC17LAJD4LB

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 120.020

LampCAT:

Current(A): 0.238

Lamp flux(lm): 2560.1

Power (W): 27.930

Number of Lamps: 1

PF: 0.979

Length(mm): 400

Width(mm): 360

Phm Type: C

Height(mm): 360

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Photometric Results

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Lumens(lm): 2560.12, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 91.66

Central intensity(cd): 245.828, Maximum intensity(cd): 246.725

Angle of maximum intensity: C=180.0  $\gamma$ =5.0

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

[C90/270]Total=N.A.

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

[C90/270]Total=N.A.

Maximum s/h(1/2): C0\_180=1.43 C90\_270=1.53

Maximum s/h(1/4): C0\_180=1.59 C90\_270=1.73

Up flux rate of lamp(%): 48.07%

Down flux rate of lamp(%): 51.93%

Up flux rate of LUM(%): 48.07%

Down flux rate of LUM(%): 51.93%

CIE Type : General diffuse lighting

Output flux ratio in  $\pi$  solid angle : 27.325%

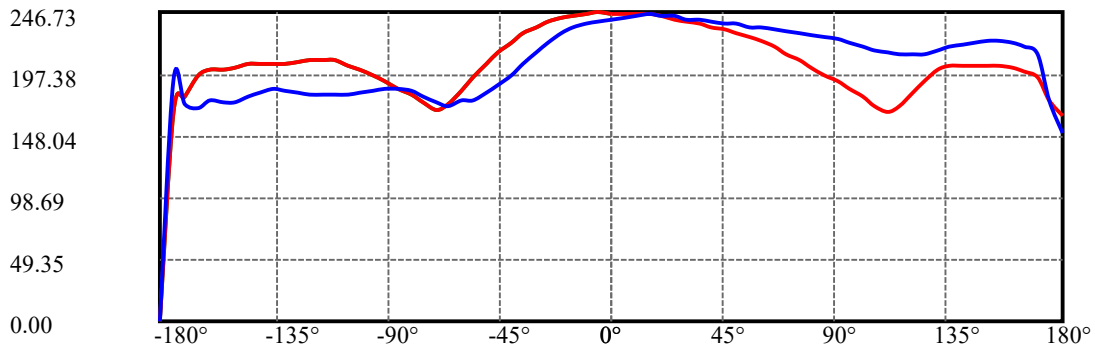
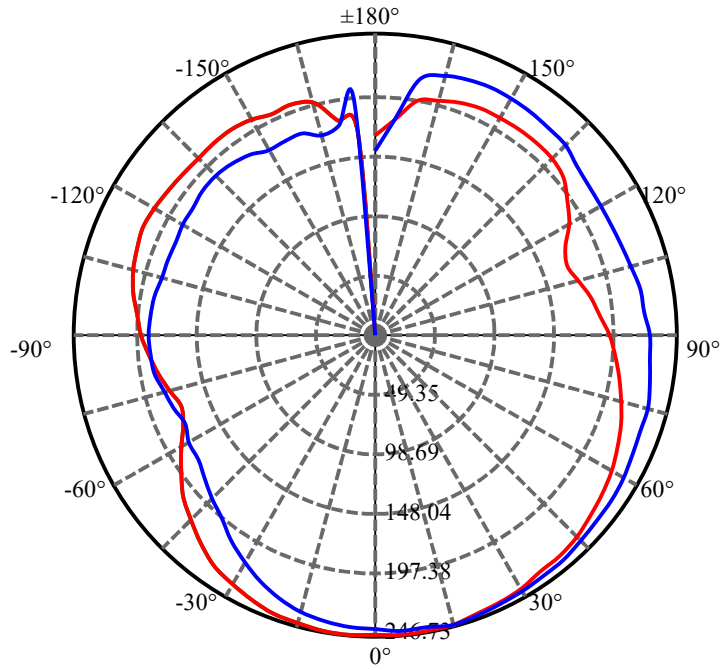
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	241.865	0.000	0	0.00%	0.00%
5.0	241.978	5.784	5.784	0.23%	0.23%
10.0	241.641	17.301	23.085	0.68%	0.90%
15.0	240.594	28.606	51.691	1.12%	2.02%
20.0	238.688	39.500	91.19	1.54%	3.56%
25.0	235.622	49.746	140.937	1.94%	5.51%
30.0	231.772	59.149	200.086	2.31%	7.82%
35.0	227.623	67.649	267.735	2.64%	10.46%
40.0	223.249	75.224	342.959	2.94%	13.40%
45.0	218.165	81.731	424.691	3.19%	16.59%
50.0	213.380	87.200	511.891	3.41%	19.99%
55.0	209.006	91.841	603.731	3.59%	23.58%
60.0	205.529	95.819	699.55	3.74%	27.32%
65.0	202.315	99.148	798.698	3.87%	31.20%
70.0	200.296	101.944	900.641	3.98%	35.18%
75.0	199.698	104.552	1005.193	4.08%	39.26%
80.0	199.436	106.797	1111.99	4.17%	43.44%
85.0	199.511	108.403	1220.394	4.23%	47.67%
90.0	198.988	109.112	1329.506	4.26%	51.93%
95.0	197.567	108.580	1438.085	4.24%	56.17%
100.0	196.034	106.951	1545.036	4.18%	60.35%
105.0	194.277	104.437	1649.473	4.08%	64.43%
110.0	193.455	101.347	1750.82	3.96%	68.39%
115.0	193.679	98.025	1848.845	3.83%	72.22%
120.0	194.502	94.367	1943.212	3.69%	75.90%
125.0	195.623	90.176	2033.388	3.52%	79.43%
130.0	197.343	85.444	2118.832	3.34%	82.76%
135.0	198.838	80.054	2198.886	3.13%	85.89%
140.0	199.698	73.792	2272.678	2.88%	88.77%
145.0	199.773	66.649	2339.327	2.60%	91.38%
150.0	199.735	58.830	2398.157	2.30%	93.67%
155.0	199.548	50.530	2448.687	1.97%	95.65%
160.0	197.754	41.670	2490.357	1.63%	97.28%
165.0	192.147	32.133	2522.49	1.26%	98.53%
170.0	179.137	22.024	2544.514	0.86%	99.39%
175.0	170.913	12.522	2557.037	0.49%	99.88%
180.0	86.877	3.082	2560.118	0.12%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	200.09	7.82%	7.82%
0-40	342.96	13.40%	13.40%
0-60	699.55	27.32%	27.32%
0-90	1329.51	51.93%	51.93%
0-120	1943.21	75.90%	75.90%
0-180	2560.12	100.00%	100.00%
60-90	629.96	24.61%	24.61%
90-120	613.71	23.97%	23.97%
90-130	789.33	30.83%	30.83%
90-150	1068.65	41.74%	41.74%
90-180	1227.53	47.95%	47.95%
0-125.86	2048.10	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	23.08
10-20	68.11
20-30	108.90
30-40	142.87
40-50	168.93
50-60	187.66
60-70	201.09
70-80	211.35
80-90	217.52
90-100	215.53
100-110	205.78
110-120	192.39
120-130	175.62
130-140	153.85
140-150	125.48
150-160	92.20
160-170	54.16
170-180	12.52



C180(Max): ———

C0/C180: ———

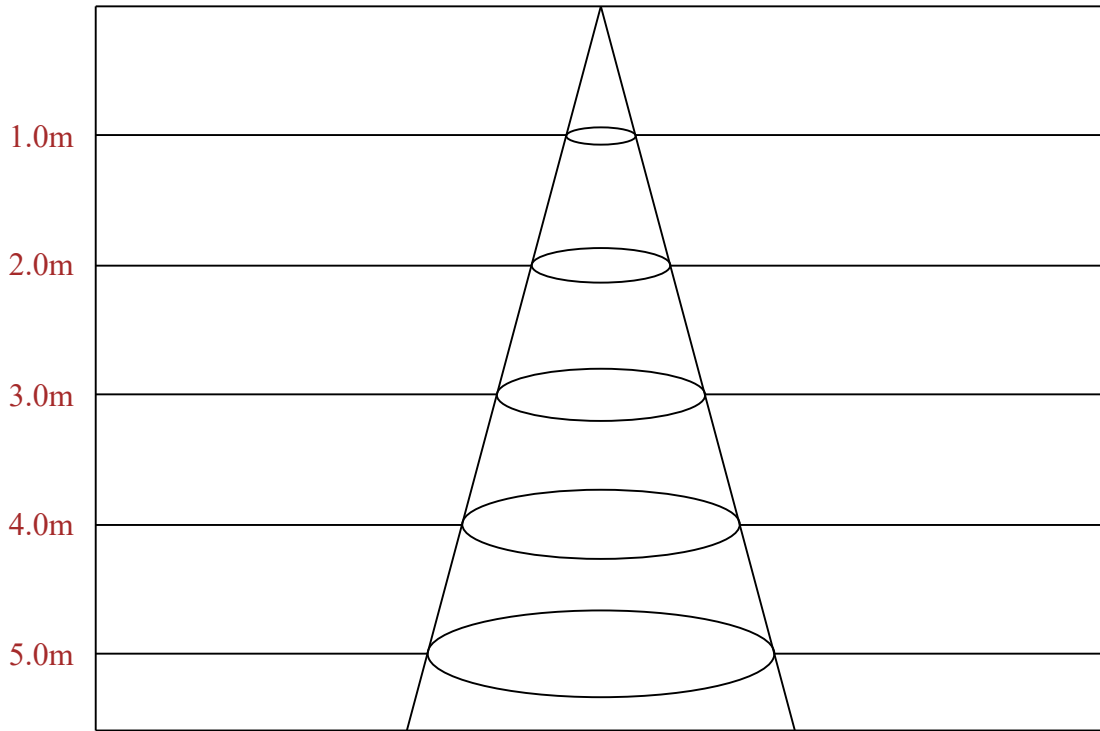
C90/C270: ———

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

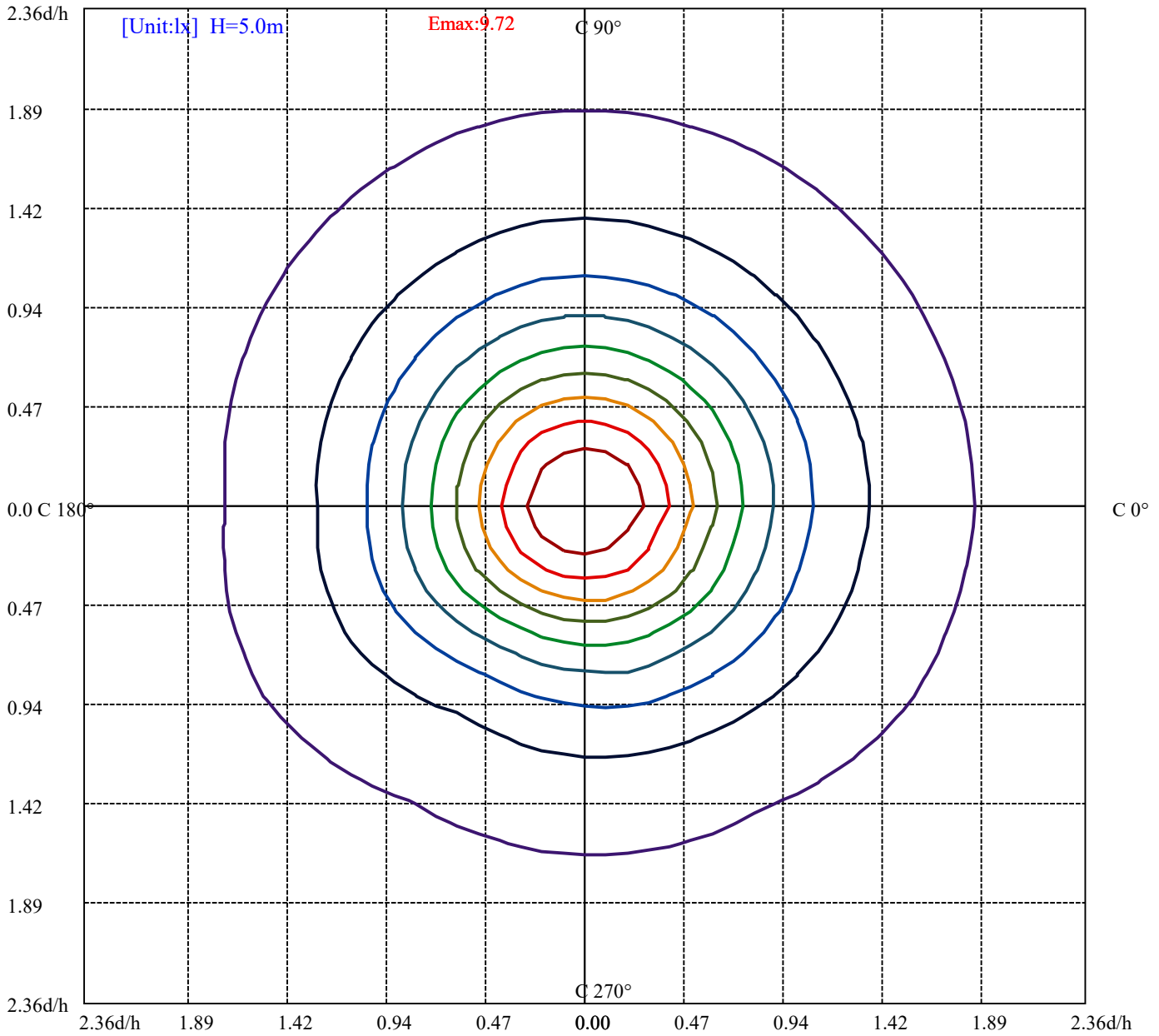
:C90/270Left:0.0 Right:0.0

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

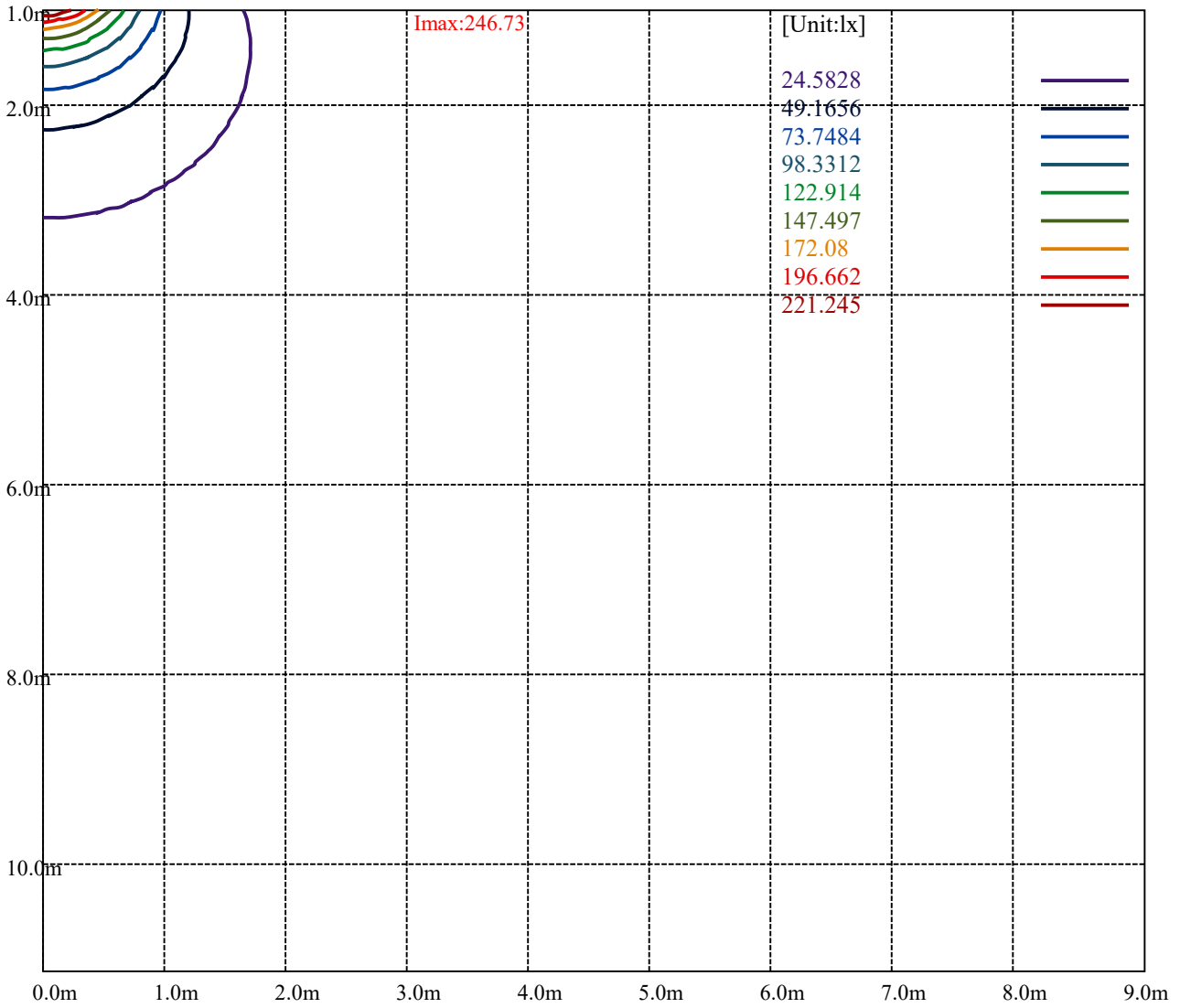
:C90/270Left:0.0 Right:0.0



Max , Ave      Beam angle of C180 plane 339.56



- (10%Emax) 0.971772
- (20%Emax) 1.943544
- (30%Emax) 2.915316
- (40%Emax) 3.887092
- (50%Emax) 4.85888
- (60%Emax) 5.83064
- (70%Emax) 6.8024
- (80%Emax) 7.7742
- (90%Emax) 8.74596



Luminance Table

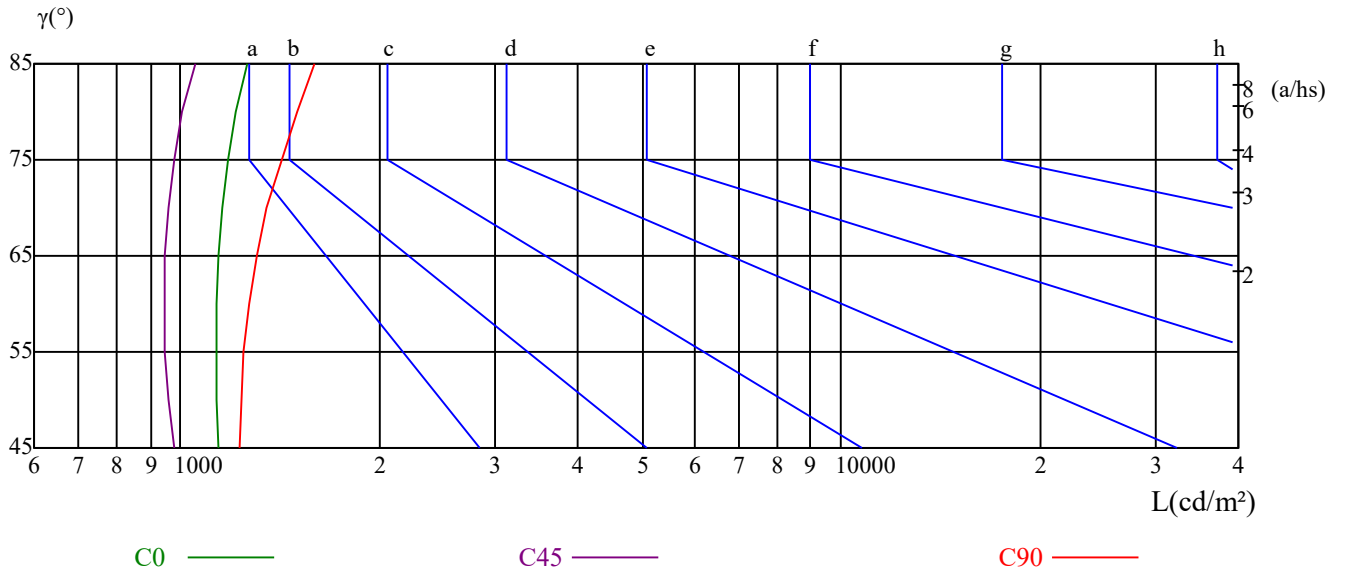
$\gamma$	45	50	55	60	65	70	75	80	85
C0	1141	1132	1132	1136	1144	1157	1180	1210	1259
C45	981	961	949	944	946	959	977	1007	1053
C90	1229	1235	1245	1271	1303	1353	1419	1499	1596

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3221	3324	3365	5127	5489	5446	15227	16370	16174

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	0.84	0.84	0.84	0.71	0.71	0.71	0.58	0.58	0.58	0.52
1	0.88	0.83	0.78	0.81	0.76	0.72	0.68	0.64	0.61	0.56	0.53	0.51	0.45	0.43	0.41	0.35
2	0.75	0.67	0.61	0.69	0.62	0.56	0.57	0.52	0.48	0.47	0.43	0.39	0.37	0.34	0.32	0.27
3	0.65	0.56	0.49	0.59	0.52	0.45	0.50	0.43	0.38	0.40	0.36	0.32	0.32	0.28	0.25	0.21
4	0.57	0.47	0.40	0.52	0.44	0.37	0.43	0.37	0.32	0.35	0.30	0.26	0.28	0.24	0.21	0.17
5	0.50	0.41	0.34	0.46	0.38	0.32	0.38	0.32	0.27	0.31	0.26	0.22	0.25	0.21	0.18	0.14
6	0.45	0.36	0.29	0.41	0.33	0.27	0.34	0.28	0.23	0.28	0.23	0.19	0.22	0.18	0.15	0.12
7	0.40	0.31	0.25	0.37	0.29	0.23	0.31	0.25	0.20	0.25	0.20	0.17	0.20	0.16	0.13	0.11
8	0.36	0.28	0.22	0.33	0.26	0.20	0.28	0.22	0.18	0.23	0.18	0.15	0.19	0.15	0.12	0.09
9	0.33	0.25	0.19	0.30	0.23	0.18	0.26	0.20	0.15	0.21	0.16	0.13	0.17	0.13	0.10	0.08
10	0.30	0.22	0.17	0.28	0.21	0.16	0.24	0.18	0.14	0.20	0.15	0.12	0.16	0.12	0.09	0.07

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	245.83	245.83	245.83	244.93	243.14	241.34	239.55	236.86	235.06
15.0	244.93	244.93	244.93	244.03	243.14	241.34	238.65	236.86	235.06
30.0	244.03	244.03	244.93	244.03	243.14	241.34	240.44	237.75	235.96
45.0	242.24	243.14	244.03	244.93	244.03	242.24	241.34	239.55	237.75
60.0	241.34	243.14	244.03	244.93	244.03	243.14	241.34	239.55	237.75
75.0	240.44	242.24	244.03	244.93	244.03	243.14	241.34	239.55	238.65
90.0	240.44	242.24	243.14	244.93	244.03	243.14	241.34	240.44	239.55
105.0	240.44	242.24	244.03	244.03	244.03	243.14	241.34	240.44	238.65
120.0	240.44	242.24	243.14	244.03	244.03	243.14	241.34	238.65	236.86
135.0	241.34	241.34	242.24	243.14	243.14	242.24	240.44	237.75	234.16
150.0	240.44	241.34	241.34	242.24	240.44	239.55	236.86	235.06	230.58
165.0	240.44	240.44	241.34	240.44	239.55	237.75	235.06	230.58	225.19
180.0	245.83	246.73	245.83	244.03	242.24	239.55	234.16	229.68	222.50
195.0	244.93	244.93	243.14	242.24	240.44	236.86	233.27	228.78	223.40
210.0	244.03	243.14	242.24	240.44	237.75	234.16	229.68	224.30	218.02
225.0	242.24	242.24	240.44	237.75	234.16	227.88	220.71	212.63	204.56
240.0	241.34	240.44	239.55	235.96	230.58	223.40	213.53	202.76	191.10
255.0	240.44	239.55	237.75	235.06	229.68	221.60	212.63	201.87	191.10
270.0	240.44	239.55	237.75	234.16	229.68	222.50	214.43	205.45	195.59
285.0	240.44	239.55	237.75	235.06	231.47	226.09	218.02	210.84	209.04
300.0	240.44	239.55	237.75	235.06	234.16	226.09	220.71	215.32	209.04
315.0	241.34	239.55	237.75	235.96	233.27	231.47	226.99	223.40	218.02
330.0	240.44	239.55	237.75	235.96	234.16	231.47	228.78	226.99	224.30
345.0	240.44	239.55	238.65	235.96	234.16	232.37	230.58	227.88	226.09
360.0	245.83	245.83	245.83	244.93	243.14	241.34	239.55	236.86	235.06

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	232.37	229.68	226.99	223.40	218.91	213.53	208.15	201.87	196.48
15.0	233.27	230.58	226.99	223.40	218.91	213.53	208.15	202.76	198.28
30.0	234.16	230.58	226.99	223.40	220.71	217.12	213.53	210.84	207.25
45.0	234.16	231.47	228.78	226.09	223.40	221.60	218.91	217.12	216.22
60.0	235.96	234.16	231.47	229.68	227.88	226.09	224.30	223.40	222.50
75.0	236.86	235.06	234.16	232.37	231.47	229.68	228.78	227.88	227.88
90.0	237.75	236.86	235.06	234.16	232.37	231.47	230.58	228.78	226.09
105.0	236.86	235.96	234.16	232.37	230.58	227.88	224.30	220.71	216.22
120.0	233.27	230.58	227.88	225.19	223.40	219.81	215.32	209.94	204.56
135.0	230.58	226.09	221.60	217.12	213.53	209.94	205.45	200.97	196.48
150.0	225.19	218.91	211.74	206.35	199.17	194.69	192.00	189.31	188.41
165.0	220.71	212.63	203.66	194.69	185.72	178.54	174.95	174.95	177.64
180.0	214.43	205.45	194.69	183.92	173.16	168.67	174.05	180.33	185.72
195.0	218.02	210.84	203.66	196.48	192.00	189.31	190.20	192.00	194.69
210.0	213.53	209.04	205.45	202.76	200.97	200.97	201.87	203.66	205.45
225.0	195.59	190.20	188.41	188.41	189.31	192.00	195.59	200.07	202.76
240.0	178.54	167.77	165.08	169.57	174.05	178.54	183.92	188.41	192.89
255.0	182.13	174.95	172.26	171.36	173.16	175.85	180.33	181.23	189.31
270.0	188.41	182.13	176.74	175.85	172.26	174.95	178.54	183.92	184.82
285.0	195.59	188.41	181.23	176.74	171.36	169.57	171.36	174.05	177.64
300.0	201.87	193.79	184.82	175.85	168.67	167.77	172.26	177.64	182.13
315.0	212.63	206.35	200.07	195.59	192.89	191.10	192.00	192.89	196.48
330.0	220.71	218.02	214.43	211.74	209.04	206.35	204.56	203.66	202.76
345.0	223.40	221.60	219.81	216.22	212.63	208.15	203.66	200.07	195.59
360.0	232.37	229.68	226.99	223.40	218.91	213.53	208.15	201.87	196.48

## 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	191.10	184.82	178.54	172.26	166.88	172.26	183.03	192.00	200.97
15.0	192.89	188.41	184.82	181.23	178.54	180.33	183.92	189.31	192.89
30.0	203.66	200.07	195.59	189.31	184.82	181.23	182.13	183.92	184.82
45.0	213.53	207.25	199.17	192.89	187.51	183.03	179.44	178.54	178.54
60.0	218.91	213.53	207.25	200.97	193.79	187.51	180.33	174.05	176.74
75.0	226.99	223.40	218.91	213.53	209.04	205.45	202.76	201.87	203.66
90.0	225.19	221.60	219.81	216.22	214.43	212.63	212.63	213.53	216.22
105.0	211.74	206.35	200.97	196.48	192.89	192.89	196.48	200.97	205.45
120.0	198.28	192.00	184.82	177.64	171.36	171.36	176.74	182.13	187.51
135.0	192.89	189.31	185.72	183.03	180.33	179.44	179.44	179.44	179.44
150.0	187.51	187.51	186.61	187.51	188.41	188.41	185.72	183.92	181.23
165.0	180.33	183.92	187.51	190.20	194.69	196.48	196.48	193.79	192.00
180.0	191.10	195.59	200.97	204.56	208.15	209.04	208.15	206.35	205.45
195.0	198.28	201.87	205.45	208.15	210.84	212.63	212.63	211.74	210.84
210.0	206.35	207.25	208.15	208.15	209.04	209.04	209.94	210.84	211.74
225.0	204.56	204.56	203.66	202.76	202.76	202.76	201.87	204.56	206.35
240.0	196.48	197.38	196.48	193.79	193.79	193.79	194.69	194.69	196.48
255.0	192.00	189.31	187.51	185.72	184.82	184.82	183.92	184.82	185.72
270.0	184.82	183.92	183.03	181.23	181.23	180.33	181.23	182.13	183.92
285.0	180.33	182.13	183.92	186.61	188.41	190.20	191.10	190.20	191.10
300.0	186.61	190.20	193.79	196.48	200.07	202.76	203.66	204.56	204.56
315.0	198.28	200.97	202.76	205.45	208.15	210.84	211.74	212.63	214.43
330.0	201.87	201.87	202.76	203.66	205.45	208.15	210.84	213.53	215.32
345.0	192.00	188.41	186.61	184.82	187.51	192.89	199.17	205.45	210.84
360.0	191.10	184.82	178.54	172.26	166.88	172.26	183.03	192.00	200.97
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	204.56	204.56	204.56	204.56	204.56	201.87	199.17	194.69	176.74
15.0	192.89	192.00	190.20	189.31	188.41	185.72	183.03	176.74	170.46
30.0	183.03	181.23	180.33	180.33	181.23	177.64	173.16	166.88	158.80
45.0	180.33	181.23	183.03	186.61	188.41	186.61	184.82	172.26	154.32
60.0	183.92	191.10	196.48	200.97	203.66	202.76	200.97	186.61	157.90
75.0	207.25	210.84	213.53	215.32	216.22	216.22	213.53	200.97	165.08
90.0	218.91	220.71	222.50	223.40	223.40	222.50	218.91	212.63	176.74
105.0	209.04	212.63	214.43	217.12	218.02	215.32	212.63	209.04	183.92
120.0	192.00	195.59	199.17	200.97	201.87	200.97	199.17	195.59	185.72
135.0	180.33	182.13	184.82	186.61	185.72	183.03	182.13	177.64	174.95
150.0	180.33	179.44	181.23	183.03	179.44	174.05	173.16	165.98	160.60
165.0	189.31	187.51	187.51	187.51	184.82	181.23	181.23	169.57	156.11
180.0	205.45	205.45	205.45	202.76	200.07	200.07	196.48	178.54	165.08
195.0	210.84	211.74	210.84	211.74	209.94	208.15	202.76	174.05	156.11
210.0	212.63	211.74	212.63	212.63	211.74	209.94	196.48	166.88	168.67
225.0	208.15	209.94	208.15	205.45	205.45	206.35	183.92	161.49	183.92
240.0	198.28	198.28	195.59	193.79	195.59	192.89	174.05	160.60	195.59
255.0	187.51	186.61	183.92	181.23	182.13	179.44	166.88	164.18	199.17
270.0	184.82	183.03	179.44	174.95	174.95	175.85	169.57	173.16	192.00
285.0	192.00	192.00	190.20	187.51	189.31	188.41	184.82	185.72	177.64
300.0	205.45	206.35	204.56	202.76	203.66	203.66	200.07	186.61	161.49
315.0	215.32	217.12	217.12	215.32	213.53	213.53	209.94	183.03	149.83
330.0	217.12	218.91	218.02	218.91	217.12	213.53	209.04	174.05	156.11
345.0	212.63	212.63	210.84	210.84	209.94	206.35	195.59	162.39	174.95
360.0	204.56	204.56	204.56	204.56	204.56	201.87	199.17	194.69	176.74

Intensity data(cd)

C/ $\gamma$ (°)	180.0
0.0	163.29
15.0	179.44
30.0	188.41
45.0	191.10
60.0	182.13
75.0	163.29
90.0	150.73
105.0	148.93
120.0	162.39
135.0	176.74
150.0	187.51
165.0	191.10
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	163.29