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乐达凯

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Client:

LumCAT: ALDF19LAJUDBK

Luminaire: LED Lamp

Report No:

Ballast type:

Test No:

Voltage(V): 120.040

LampCAT:

Current(A): 0.348

Lamp flux(lm): 2153.6

Power (W): 41.350

Number of Lamps: 1

PF: 0.991

Length(mm): -490

Width(mm): -490

Phm Type: C

Height(mm): 80

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Photometric Results

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Lumens(lm): 2153.59, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 52.08

Central intensity(cd): 684.347, Maximum intensity(cd): 684.347

Angle of maximum intensity: C=30.0  $\gamma$ =0.0

Beam Angle(50%Imax): [C0/180]Total=115.4

[C90/270]Total=118.8

Field angle(10%Imax): [C0/180]Total=165.6

[C90/270]Total=165.4

Maximum s/h(1/2): C0\_180=1.27 C90\_270=1.27

Maximum s/h(1/4): C0\_180=1.40 C90\_270=1.39

Up flux rate of lamp(%): 4.96%

Down flux rate of lamp(%): 95.04%

Up flux rate of LUM(%): 4.96%

Down flux rate of LUM(%): 95.04%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 73.140%

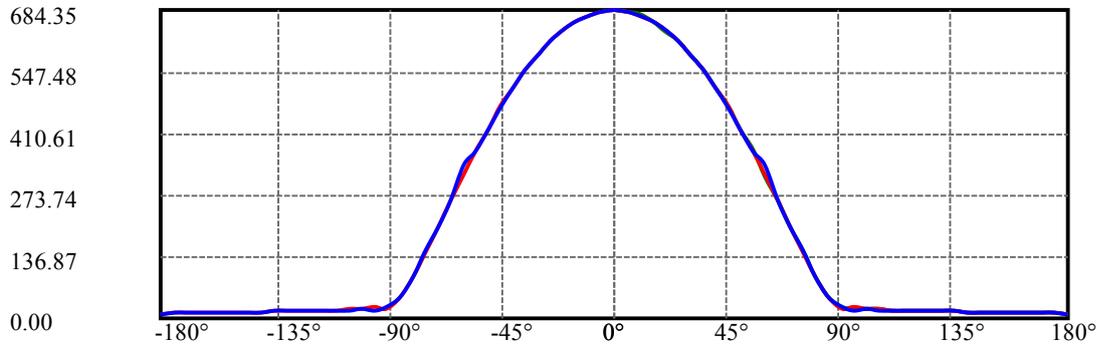
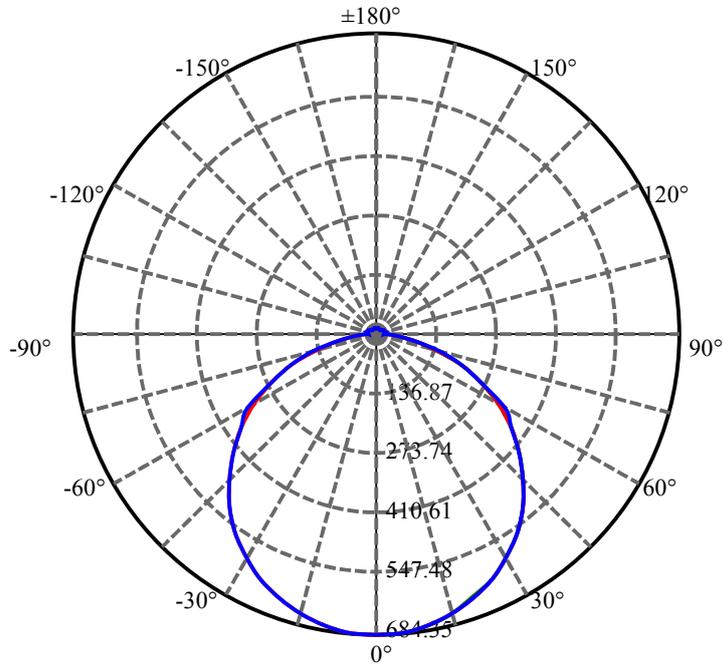
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	684.347	0.000	0	0.00%	0.00%
5.0	681.854	16.333	16.333	0.76%	0.76%
10.0	673.691	48.492	64.825	2.25%	3.01%
15.0	659.788	79.101	143.926	3.67%	6.68%
20.0	640.385	107.153	251.078	4.98%	11.66%
25.0	615.983	131.770	382.848	6.12%	17.78%
30.0	586.468	152.171	535.019	7.07%	24.84%
35.0	552.521	167.724	702.743	7.79%	32.63%
40.0	514.593	178.040	880.783	8.27%	40.90%
45.0	469.764	182.262	1063.045	8.46%	49.36%
50.0	422.278	180.250	1243.295	8.37%	57.73%
55.0	371.096	172.506	1415.801	8.01%	65.74%
60.0	318.252	159.341	1575.142	7.40%	73.14%
65.0	260.012	140.577	1715.719	6.53%	79.67%
70.0	202.591	117.134	1832.853	5.44%	85.11%
75.0	146.404	91.222	1924.075	4.24%	89.34%
80.0	94.514	64.463	1988.538	2.99%	92.34%
85.0	47.448	38.574	2027.112	1.79%	94.13%
90.0	24.179	19.612	2046.724	0.91%	95.04%
95.0	18.811	11.771	2058.495	0.55%	95.58%
100.0	20.202	10.601	2069.096	0.49%	96.08%
105.0	18.836	10.446	2079.541	0.49%	96.56%
110.0	18.168	9.672	2089.214	0.45%	97.01%
115.0	17.793	9.106	2098.319	0.42%	97.43%
120.0	17.330	8.538	2106.858	0.40%	97.83%
125.0	16.662	7.857	2114.715	0.36%	98.19%
130.0	15.907	7.082	2121.796	0.33%	98.52%
135.0	15.114	6.268	2128.065	0.29%	98.81%
140.0	14.522	5.487	2133.552	0.25%	99.07%
145.0	13.979	4.755	2138.307	0.22%	99.29%
150.0	13.570	4.057	2142.364	0.19%	99.48%
155.0	13.406	3.414	2145.778	0.16%	99.64%
160.0	13.285	2.799	2148.577	0.13%	99.77%
165.0	13.171	2.180	2150.757	0.10%	99.87%
170.0	13.452	1.579	2152.337	0.07%	99.94%
175.0	14.302	0.993	2153.33	0.05%	99.99%
180.0	7.426	0.260	2153.589	0.01%	100.00%

## ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	535.02	24.84%	24.84%
0-40	880.78	40.90%	40.90%
0-60	1575.14	73.14%	73.14%
0-90	2046.72	95.04%	95.04%
0-120	2106.86	97.83%	97.83%
0-180	2153.59	100.00%	100.00%
60-90	471.58	21.90%	21.90%
90-120	60.13	2.79%	2.79%
90-130	75.07	3.49%	3.49%
90-150	95.64	4.44%	4.44%
90-180	106.61	4.95%	4.95%
0-65.31	1722.87	80.00%	80.00%

## ZONAL LUMEN SUMMARY

0-10	64.82
10-20	186.25
20-30	283.94
30-40	345.76
40-50	362.51
50-60	331.85
60-70	257.71
70-80	155.68
80-90	58.19
90-100	22.37
100-110	20.12
110-120	17.64
120-130	14.94
130-140	11.76
140-150	8.81
150-160	6.21
160-170	3.76
170-180	0.99



C30(Max): ——

C0/C180: ——

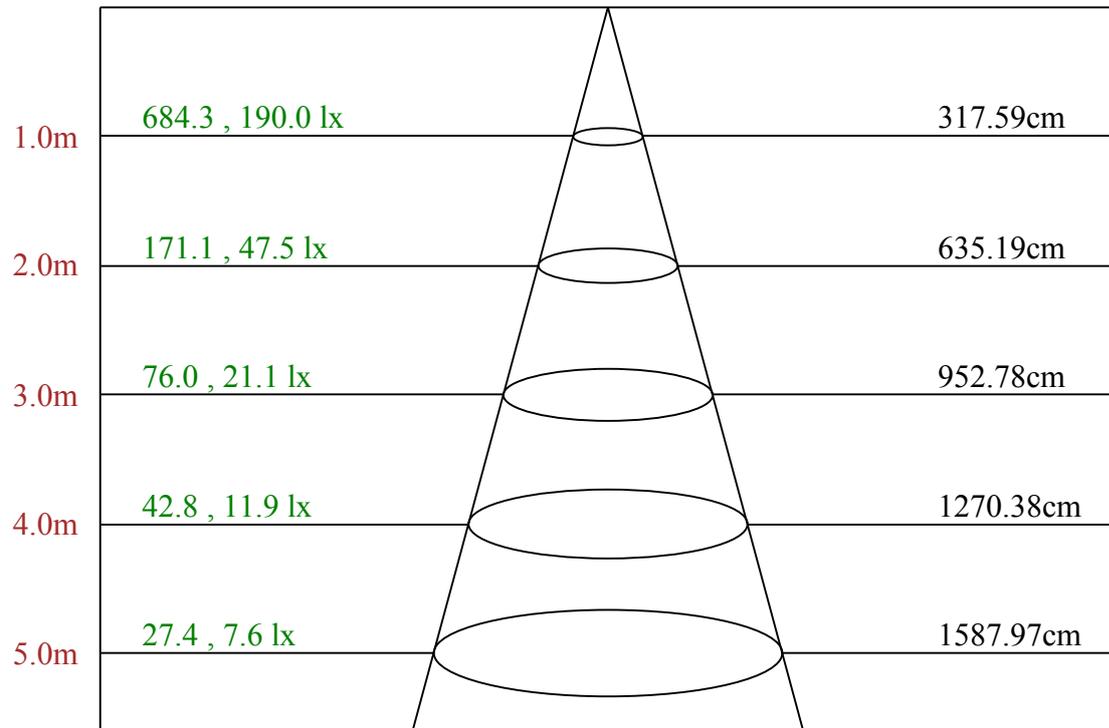
C90/C270: ——

Field angle(10%Imax):C0/180Left:82.8 Right:82.8

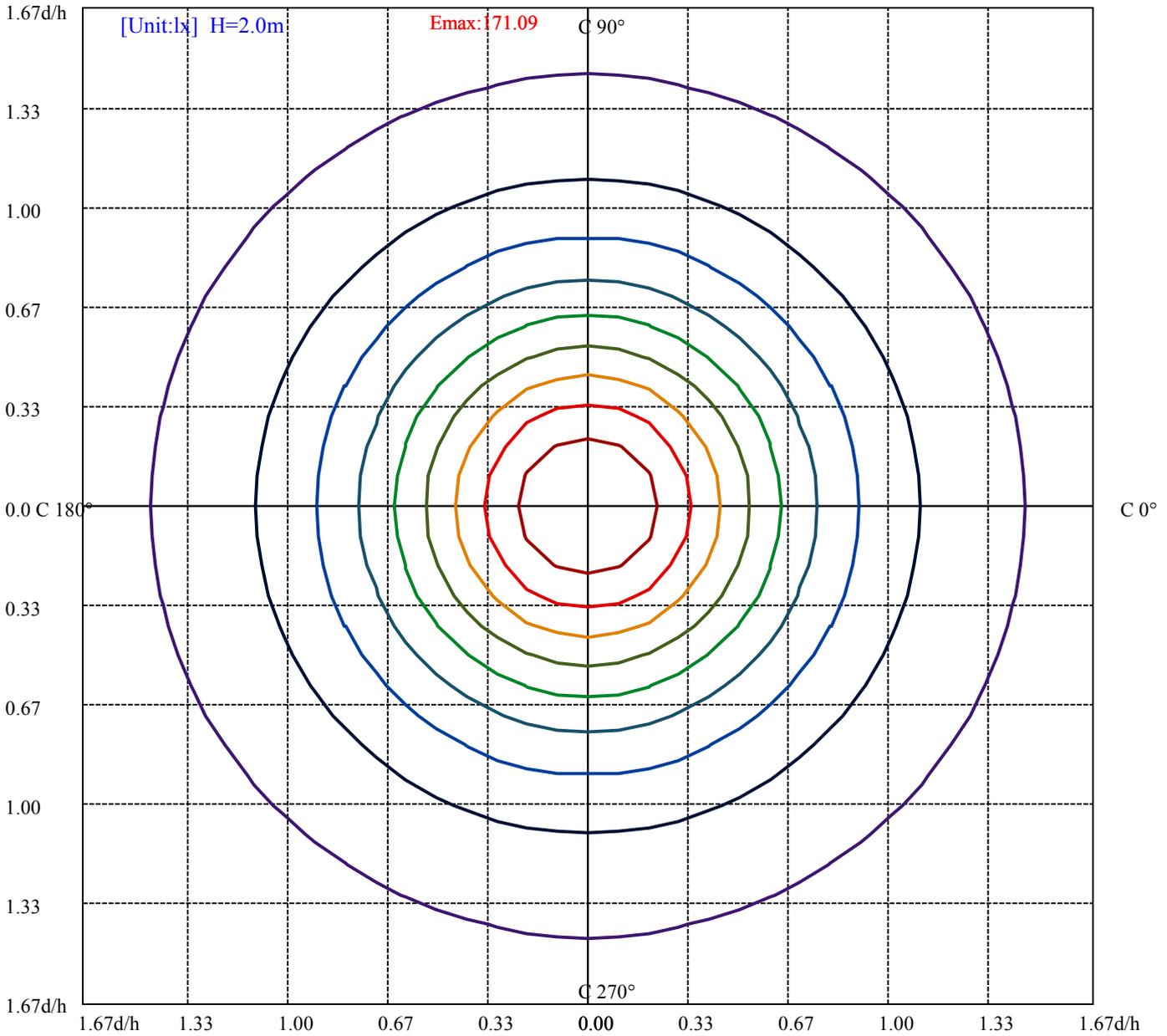
:C90/270Left:82.7 Right:82.7

Beam Angle(50%Imax):C0/180Left:57.7 Right:57.7

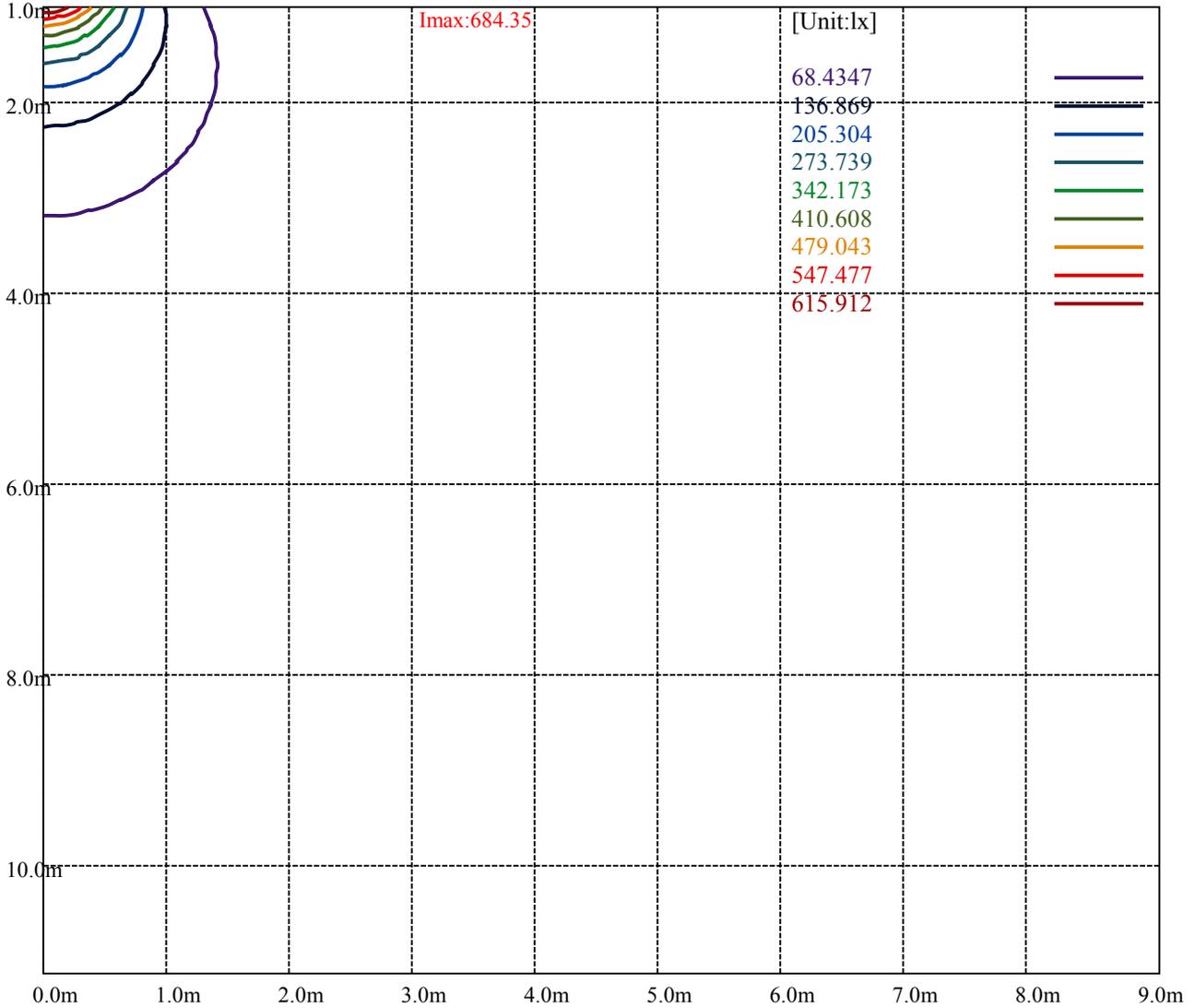
:C90/270Left:59.4 Right:59.4



Max , Ave      Beam angle of C30 plane 115.60



(10%Emax) 17.10868	—
(20%Emax) 34.21725	—
(30%Emax) 51.326	—
(40%Emax) 68.43475	—
(50%Emax) 85.54325	—
(60%Emax) 102.652	—
(70%Emax) 119.7607	—
(80%Emax) 136.8692	—
(90%Emax) 153.978	—



Luminance Table

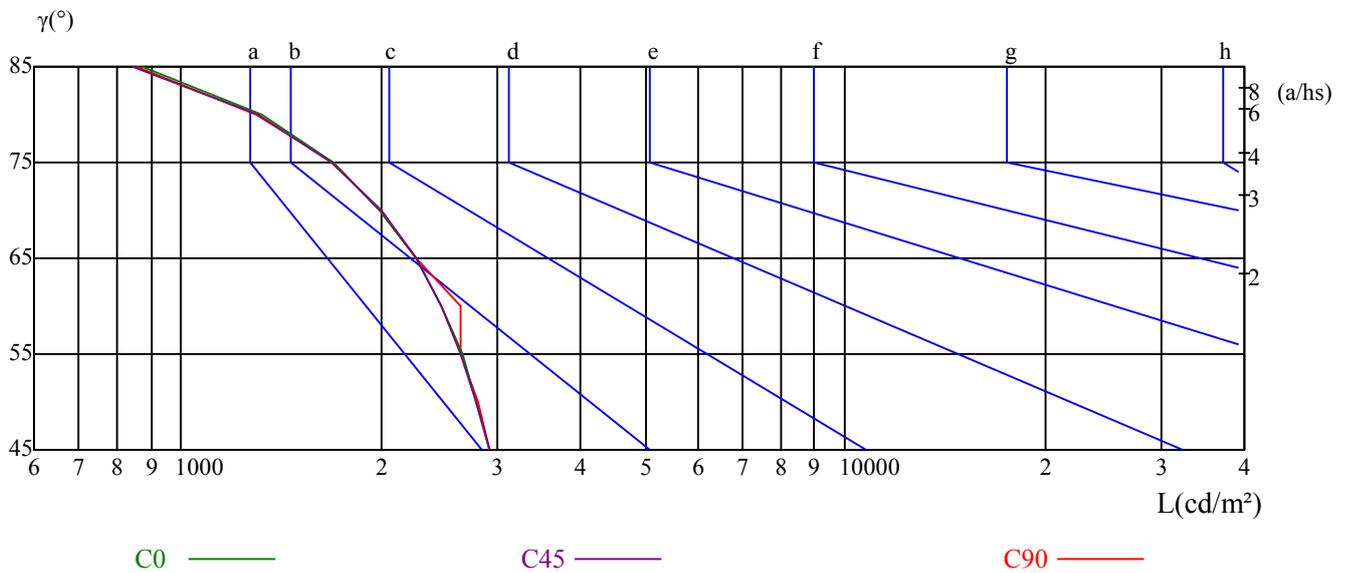
$\gamma$	45	50	55	60	65	70	75	80	85
C0	2924	2786	2650	2472	2257	1994	1690	1321	874
C45	2917	2791	2645	2461	2255	2006	1682	1306	845
C90	2915	2794	2645	2638	2257	1996	1696	1297	853

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3263	3263	3260	3002	3011	2988	2951	2881	2853

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	1.18	1.18	1.18	1.15	1.15	1.15	1.08	1.08	1.08	1.03	1.03	1.03	0.97	0.97	0.97	0.95
1	1.02	0.98	0.94	0.99	0.95	0.92	0.94	0.91	0.88	0.89	0.87	0.84	0.85	0.83	0.81	0.78
2	0.89	0.82	0.76	0.86	0.80	0.74	0.82	0.77	0.72	0.78	0.73	0.70	0.74	0.71	0.67	0.65
3	0.78	0.69	0.63	0.76	0.68	0.62	0.72	0.65	0.60	0.69	0.63	0.58	0.65	0.61	0.57	0.54
4	0.69	0.60	0.53	0.67	0.59	0.52	0.64	0.57	0.51	0.61	0.55	0.50	0.58	0.53	0.49	0.46
5	0.61	0.52	0.45	0.60	0.51	0.45	0.57	0.50	0.44	0.55	0.48	0.43	0.52	0.47	0.42	0.40
6	0.55	0.46	0.39	0.54	0.45	0.39	0.51	0.44	0.38	0.49	0.43	0.38	0.47	0.41	0.37	0.35
7	0.50	0.41	0.35	0.49	0.40	0.34	0.47	0.39	0.34	0.45	0.38	0.33	0.43	0.37	0.33	0.31
8	0.45	0.37	0.31	0.44	0.36	0.31	0.43	0.35	0.30	0.41	0.34	0.30	0.40	0.34	0.29	0.27
9	0.42	0.33	0.28	0.41	0.33	0.28	0.39	0.32	0.27	0.38	0.31	0.27	0.36	0.31	0.26	0.24
10	0.38	0.30	0.25	0.38	0.30	0.25	0.36	0.29	0.25	0.35	0.29	0.24	0.34	0.28	0.24	0.22

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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	684.35	684.89	681.25	670.14	655.84	634.35	607.66	575.97	538.90
15.0	684.35	685.44	681.25	671.12	655.26	635.20	606.84	576.84	540.09
30.0	684.35	685.35	680.79	671.58	655.54	634.30	607.68	575.96	541.22
45.0	684.35	685.44	681.25	670.78	654.75	633.16	606.39	576.06	539.26
60.0	684.35	685.35	680.70	669.96	653.93	632.44	605.85	574.52	537.73
75.0	684.35	685.26	680.43	669.86	653.72	632.13	605.15	575.89	539.35
90.0	684.35	684.80	679.34	669.87	653.75	632.36	605.59	574.17	537.48
105.0	684.35	685.07	679.80	668.78	652.49	630.73	604.70	573.29	536.97
120.0	684.35	684.62	678.70	667.69	651.22	629.56	602.89	571.31	534.81
135.0	684.35	683.89	677.89	666.43	649.43	627.33	600.42	571.14	534.86
150.0	684.35	684.98	678.43	666.77	633.16	628.24	601.19	569.59	532.98
165.0	684.35	683.62	677.06	666.77	647.83	627.35	600.03	568.35	529.01
180.0	684.35	678.06	665.95	648.01	625.15	597.55	565.22	528.42	488.71
195.0	684.35	677.60	665.11	649.33	624.07	598.63	566.17	529.15	487.66
210.0	684.35	677.69	665.66	648.16	625.18	597.38	564.74	529.28	485.89
225.0	684.35	677.79	666.40	648.01	625.88	598.01	565.49	528.15	486.53
240.0	684.35	678.43	666.59	649.01	626.07	597.84	567.15	527.53	488.01
255.0	684.35	678.88	667.21	650.53	626.66	599.77	567.05	529.41	487.31
270.0	684.35	679.16	667.78	650.48	627.71	600.31	567.44	531.20	487.67
285.0	684.35	679.16	668.96	650.67	629.73	600.15	569.74	532.33	522.95
300.0	684.35	679.61	668.51	651.95	646.94	602.89	570.40	533.17	491.12
315.0	684.35	679.71	668.98	652.70	630.52	603.42	571.14	534.95	491.66
330.0	684.35	679.79	670.87	652.74	632.71	605.75	573.60	536.53	494.54
345.0	684.35	679.89	669.69	653.57	631.72	604.77	572.72	537.30	495.50
360.0	684.35	684.89	681.25	670.14	655.84	634.35	607.66	575.97	538.90
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	498.55	450.37	401.74	347.91	291.08	232.34	176.32	119.40	67.76
15.0	498.33	451.92	401.40	350.79	290.61	235.26	176.35	119.36	67.75
30.0	497.38	453.89	403.57	349.88	293.17	234.74	178.68	119.06	70.01
45.0	498.00	452.19	402.10	348.64	294.63	236.52	177.96	121.22	69.67
60.0	496.39	453.23	403.51	350.05	293.86	235.86	177.48	123.85	72.12
75.0	497.97	452.40	402.64	352.24	293.19	238.32	180.09	123.67	72.00
90.0	496.23	452.62	403.27	350.46	294.64	237.01	181.74	122.83	73.66
105.0	496.19	450.86	401.71	348.91	296.02	238.58	180.60	124.34	72.82
120.0	496.76	448.80	402.56	349.86	294.34	237.00	179.03	125.69	74.09
135.0	494.12	449.02	399.82	347.27	291.71	237.15	179.50	123.48	72.38
150.0	491.99	446.82	399.64	346.91	291.63	234.43	179.69	121.04	72.68
165.0	491.04	445.79	396.53	343.81	291.64	234.37	176.64	120.92	70.29
180.0	443.45	392.45	341.72	286.16	229.06	171.86	116.67	69.13	29.24
195.0	442.07	392.55	339.57	283.77	229.24	171.70	116.53	66.66	27.36
210.0	441.95	392.27	339.39	283.42	225.90	168.47	113.40	64.00	25.71
225.0	440.26	390.44	339.44	280.88	225.78	168.22	113.21	63.75	23.13
240.0	438.93	391.76	338.21	281.84	223.93	166.28	113.74	61.83	23.13
255.0	440.83	390.61	336.84	280.34	225.47	167.60	112.28	100.16	22.42
270.0	442.88	392.62	338.71	326.06	225.44	167.54	112.18	62.19	21.03
285.0	441.58	394.06	340.26	283.46	224.93	166.76	113.88	61.17	21.66
300.0	444.88	397.01	340.13	285.97	227.54	169.02	113.13	62.62	21.02
315.0	447.11	396.73	342.72	285.71	227.15	171.31	112.57	64.29	22.37
330.0	448.00	397.27	345.91	285.80	230.15	171.31	114.85	64.03	22.31
345.0	449.43	398.99	344.90	287.91	229.18	170.54	117.18	63.65	24.13
360.0	498.55	450.37	401.74	347.91	291.08	232.34	176.32	119.40	67.76

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	25.32	17.40	17.58	17.12	16.58	16.12	16.03	15.76	15.57
15.0	26.99	17.05	17.33	17.05	16.41	15.96	15.68	15.50	15.14
30.0	26.89	16.77	16.96	16.86	16.32	15.86	15.50	15.32	14.95
45.0	28.60	16.39	16.67	16.39	15.94	15.85	15.57	15.39	15.03
60.0	28.32	16.21	16.85	16.30	16.03	15.75	15.75	15.75	15.30
75.0	27.98	16.13	18.41	16.68	16.13	15.95	15.95	15.86	15.58
90.0	29.41	16.39	21.94	17.21	16.84	16.75	16.75	16.30	15.84
105.0	31.68	16.57	24.94	18.48	17.66	17.39	17.20	16.66	16.20
120.0	32.95	17.11	26.39	19.84	18.84	18.29	17.93	17.38	16.38
135.0	32.19	18.00	27.28	22.10	20.19	19.46	18.73	17.91	16.82
150.0	32.15	18.76	26.41	24.04	21.13	20.22	19.31	18.22	17.03
165.0	32.14	19.21	25.49	25.68	21.22	20.58	19.76	18.67	17.39
180.0	20.04	29.69	23.32	21.22	20.67	19.95	18.67	17.40	16.12
195.0	19.79	26.53	21.88	20.33	19.97	19.15	18.15	17.05	15.96
210.0	18.96	24.07	20.15	19.60	19.05	18.51	17.69	16.77	15.68
225.0	18.31	19.85	19.22	18.76	18.40	17.76	17.67	16.48	15.48
240.0	18.12	18.85	18.76	18.49	18.12	17.85	17.12	16.30	15.30
255.0	18.32	18.50	18.41	18.50	18.50	18.14	17.41	16.50	15.58
270.0	18.03	18.21	18.12	18.39	18.48	18.39	17.94	17.03	16.12
285.0	18.75	17.93	17.93	18.21	18.66	18.75	18.21	17.20	16.48
300.0	19.48	17.66	17.57	17.84	18.02	17.93	17.75	17.20	16.56
315.0	19.10	17.73	17.55	17.82	17.91	17.73	17.46	16.73	16.28
330.0	18.67	18.12	17.76	17.49	17.58	17.67	17.03	16.48	15.67
345.0	18.12	18.30	17.94	17.66	17.39	17.03	16.66	16.03	15.30
360.0	25.32	17.40	17.58	17.12	16.58	16.12	16.03	15.76	15.57
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	14.94	14.66	14.66	14.48	14.30	14.48	13.75	13.66	14.66
15.0	14.59	14.32	14.41	14.32	14.32	14.13	13.68	13.59	14.41
30.0	14.49	14.40	14.31	14.22	14.40	14.40	13.77	13.58	14.04
45.0	14.57	14.48	14.48	14.21	14.30	14.30	14.30	13.66	13.75
60.0	14.93	14.66	14.39	14.21	13.93	14.11	14.30	13.75	13.66
75.0	15.04	14.86	14.49	14.13	13.94	13.94	14.13	14.31	13.85
90.0	15.02	14.66	14.57	14.20	13.84	13.84	13.93	14.20	14.39
105.0	15.20	14.47	14.38	14.11	13.93	13.65	13.56	13.75	14.29
120.0	15.38	14.56	14.29	13.83	13.65	13.38	12.83	12.92	14.29
135.0	15.55	14.91	14.28	13.55	13.09	13.00	12.55	12.73	13.82
150.0	15.94	15.21	14.66	14.03	13.57	13.30	12.75	12.66	13.48
165.0	16.12	15.21	14.57	14.02	13.48	13.20	13.38	12.66	13.02
180.0	14.85	13.75	12.57	11.84	11.66	12.20	12.20	12.57	14.12
195.0	14.95	13.77	12.67	12.31	12.04	12.04	11.95	12.77	14.95
210.0	14.77	14.49	13.04	12.49	12.12	12.03	12.03	13.13	14.95
225.0	14.85	13.93	13.21	12.66	12.66	11.93	12.30	13.93	14.85
240.0	14.66	14.02	13.11	12.75	12.75	12.29	12.66	14.11	14.66
255.0	14.76	14.04	13.31	12.76	12.85	12.67	13.12	14.04	14.67
270.0	15.48	14.57	14.11	13.75	13.66	13.48	13.66	13.84	14.48
285.0	15.75	15.11	14.29	14.02	13.56	13.56	13.75	13.65	14.11
300.0	15.75	15.02	14.38	13.56	13.56	13.65	13.29	13.02	14.29
315.0	15.64	14.82	14.00	13.46	13.46	13.46	12.73	13.09	14.82
330.0	15.03	14.48	13.93	13.39	13.30	13.11	12.66	13.39	14.85
345.0	14.48	14.11	13.38	13.38	13.38	12.66	12.84	13.84	14.84
360.0	14.94	14.66	14.66	14.48	14.30	14.48	13.75	13.66	14.66

Intensity data(cd)

C/γ(°)	180.0
0.0	14.66
15.0	15.23
30.0	15.04
45.0	14.94
60.0	14.75
75.0	14.40
90.0	14.39
105.0	14.93
120.0	15.02
135.0	15.00
150.0	14.94
165.0	14.93
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	14.66