
Light Blue USA-Rayhil

Client:

LumCAT: LB75950

Luminaire: LED lamp

Report No:

Ballast type:

Test No: LCZP24040387

Voltage(V): 120.050

LampCAT:

Current(A): 0.134

Lamp flux(lm): 1322.2

Power (W): 15.680

Number of Lamps: 1

PF: 0.978

Length(mm): -90

Width(mm): -90

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1322.19, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 84.32

Central intensity(cd): 3920.573, Maximum intensity(cd): 3920.573

Angle of maximum intensity: C=60.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=24.0

[C90/270]Total=22.8

Field angle(10%Imax): [C0/180]Total=74.2

[C90/270]Total=73.8

Maximum s/h(1/2): C0_180=0.41 C90_270=0.38

Maximum s/h(1/4): C0_180=0.44 C90_270=0.43

Up flux rate of lamp(%): 0.19%

Down flux rate of lamp(%): 99.81%

Up flux rate of LUM(%): 0.19%

Down flux rate of LUM(%): 99.81%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.625%

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Zonal flux distribution table

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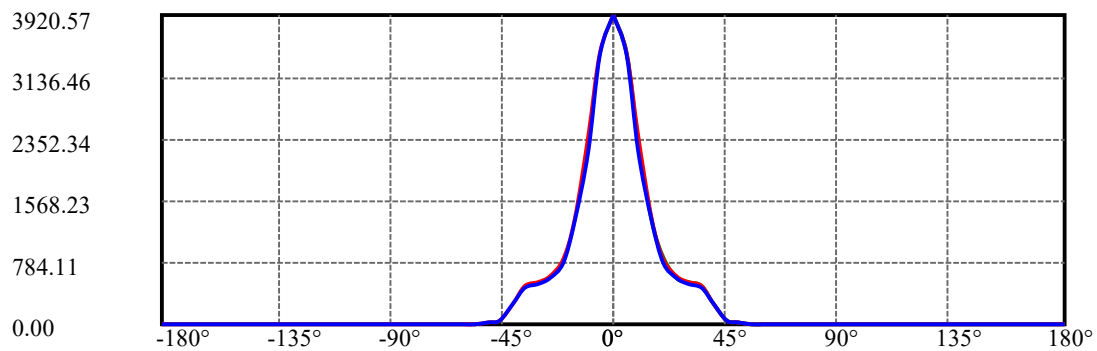
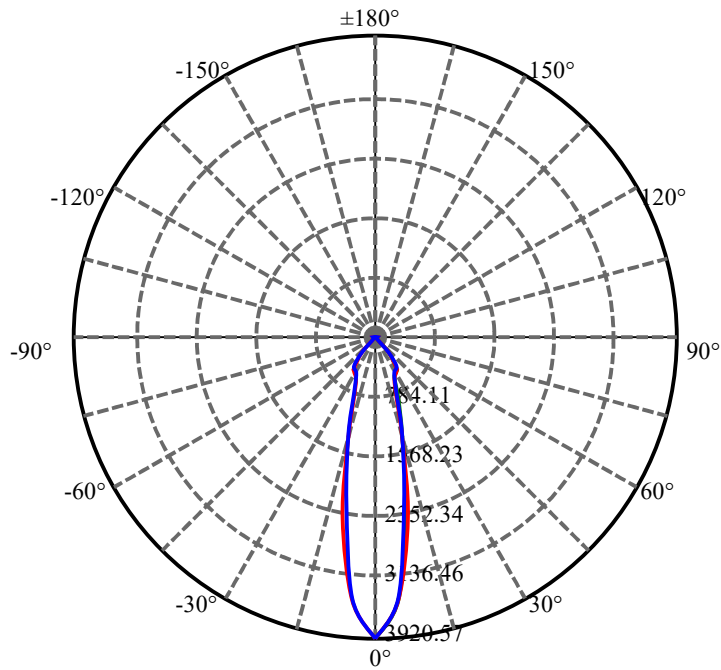
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3920.573	0.000	0	0.00%	0.00%
5.0	3419.672	87.751	87.751	6.64%	6.64%
10.0	2285.703	204.099	291.85	15.44%	22.07%
15.0	1324.604	214.161	506.011	16.20%	38.27%
20.0	790.735	174.334	680.344	13.19%	51.46%
25.0	589.477	144.759	825.103	10.95%	62.40%
30.0	523.825	140.889	965.992	10.66%	73.06%
35.0	475.124	147.102	1113.095	11.13%	84.19%
40.0	274.098	125.002	1238.097	9.45%	93.64%
45.0	43.002	58.714	1296.81	4.44%	98.08%
50.0	16.856	12.095	1308.906	0.91%	99.00%
55.0	8.416	5.495	1314.401	0.42%	99.41%
60.0	3.810	2.826	1317.227	0.21%	99.62%
65.0	1.489	1.288	1318.515	0.10%	99.72%
70.0	0.756	0.568	1319.083	0.04%	99.76%
75.0	0.408	0.304	1319.387	0.02%	99.79%
80.0	0.273	0.182	1319.57	0.01%	99.80%
85.0	0.022	0.080	1319.65	0.01%	99.81%
90.0	0.000	0.006	1319.656	0.00%	99.81%
95.0	0.000	0.000	1319.656	0.00%	99.81%
100.0	0.000	0.000	1319.656	0.00%	99.81%
105.0	0.000	0.000	1319.656	0.00%	99.81%
110.0	0.000	0.000	1319.656	0.00%	99.81%
115.0	0.000	0.000	1319.656	0.00%	99.81%
120.0	0.000	0.000	1319.656	0.00%	99.81%
125.0	0.000	0.000	1319.656	0.00%	99.81%
130.0	0.011	0.002	1319.659	0.00%	99.81%
135.0	0.034	0.009	1319.668	0.00%	99.81%
140.0	0.112	0.027	1319.695	0.00%	99.81%
145.0	0.359	0.079	1319.773	0.01%	99.82%
150.0	0.868	0.181	1319.954	0.01%	99.83%
155.0	1.822	0.340	1320.294	0.03%	99.86%
160.0	2.987	0.504	1320.799	0.04%	99.89%
165.0	3.907	0.568	1321.367	0.04%	99.94%
170.0	4.053	0.472	1321.839	0.04%	99.97%
175.0	3.844	0.282	1322.122	0.02%	99.99%
180.0	1.943	0.069	1322.191	0.01%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	965.99	73.06%	73.06%
0-40	1238.10	93.64%	93.64%
0-60	1317.23	99.62%	99.62%
0-90	1319.66	99.81%	99.81%
0-120	1319.66	99.81%	99.81%
0-180	1322.19	100.00%	100.00%
60-90	2.43	0.18%	0.18%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.30	0.02%	0.02%
90-180	2.47	0.19%	0.19%
0-33.12	1057.75	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	291.85
10-20	388.49
20-30	285.65
30-40	272.10
40-50	70.81
50-60	8.32
60-70	1.86
70-80	0.49
80-90	0.09
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.04
140-150	0.26
150-160	0.84
160-170	1.04
170-180	0.28



C60(Max):

C0/C180:

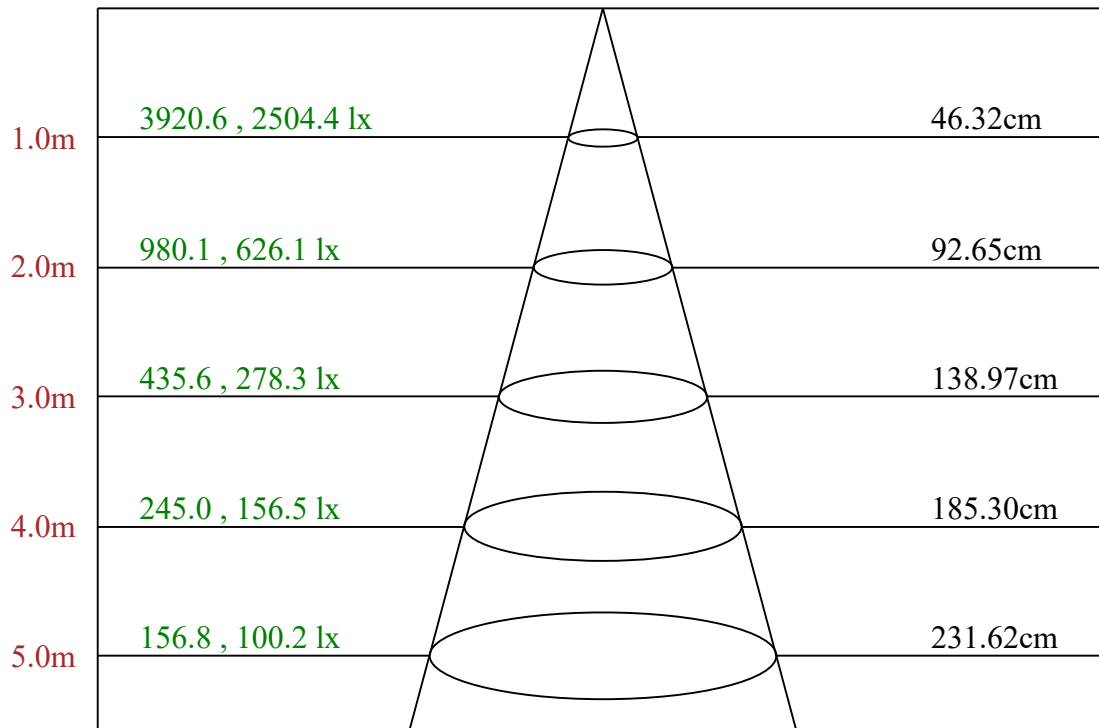
C90/C270:

Field angle(10%Imax):C0/180Left:37.1 Right:37.1

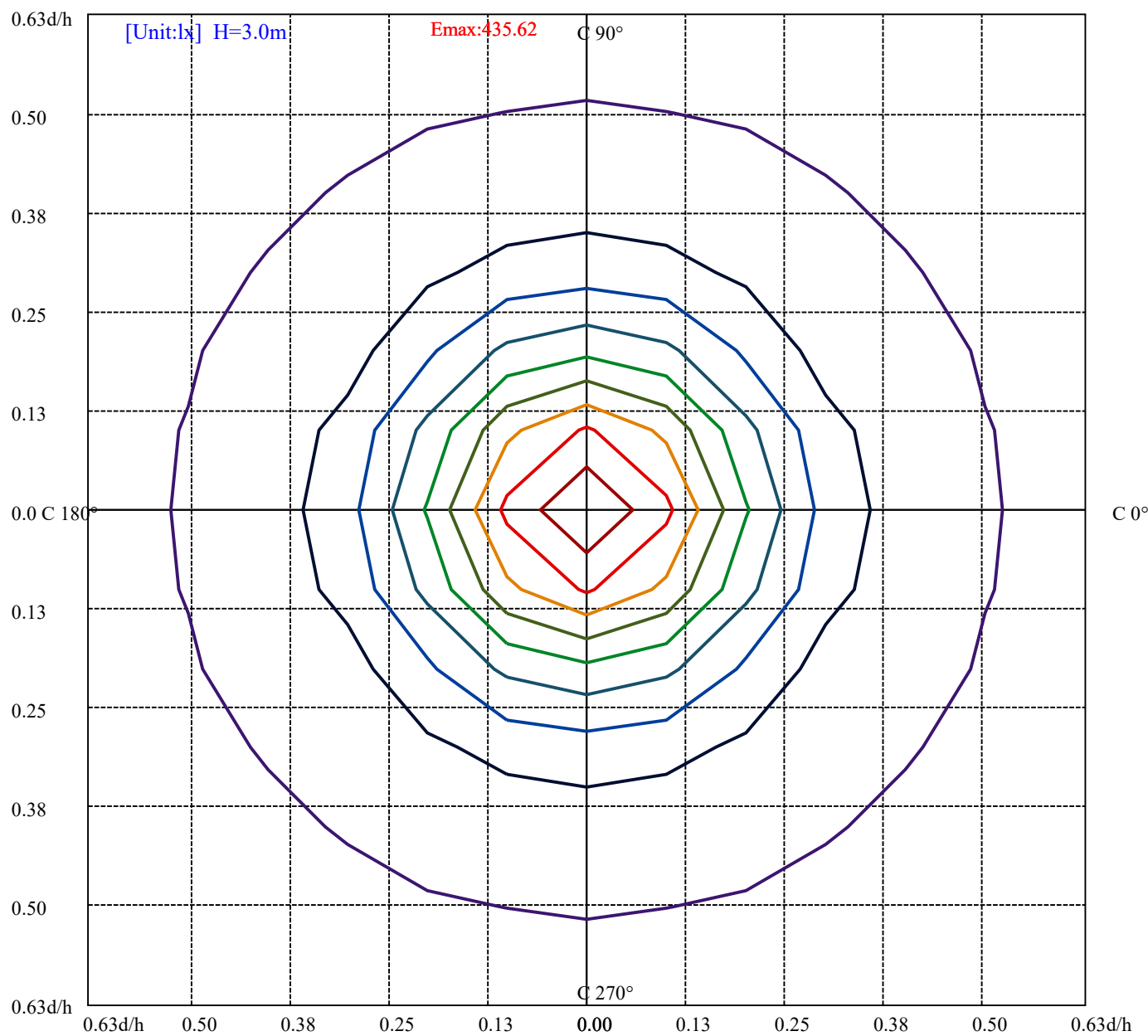
:C90/270Left:36.9 Right:36.9

Beam Angle(50%Imax):C0/180Left:12.0 Right:12.0

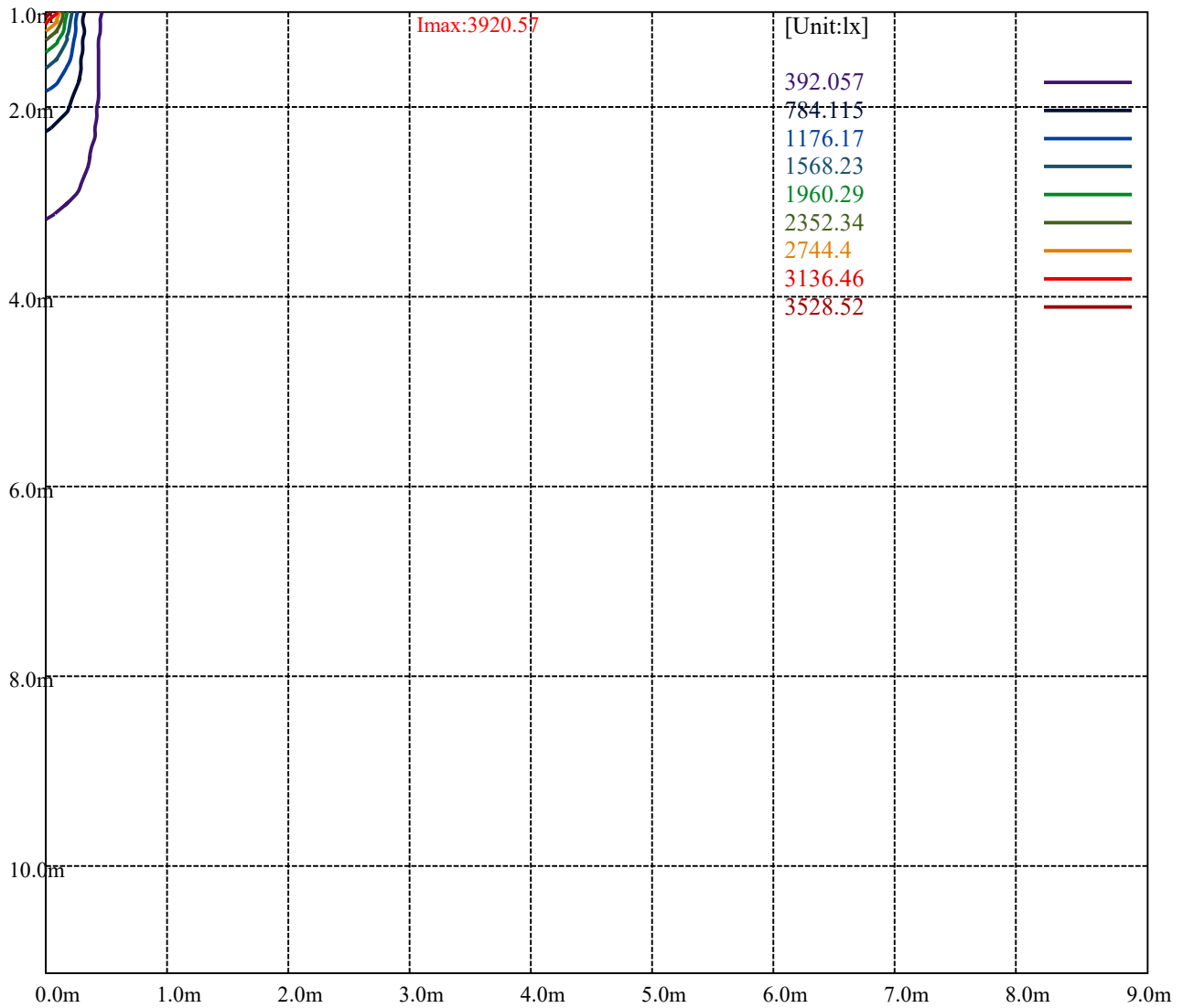
:C90/270Left:11.4 Right:11.4



Max , Ave Beam angle of C60 plane 26.08



(10%Emax)	43.56178	
(20%Emax)	87.12344	
(30%Emax)	130.6856	
(40%Emax)	174.2467	
(50%Emax)	217.8089	
(60%Emax)	261.37	
(70%Emax)	304.9322	
(80%Emax)	348.4944	
(90%Emax)	392.0555	



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Luminance Limiting Curve(no luminous side)

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Luminance Table

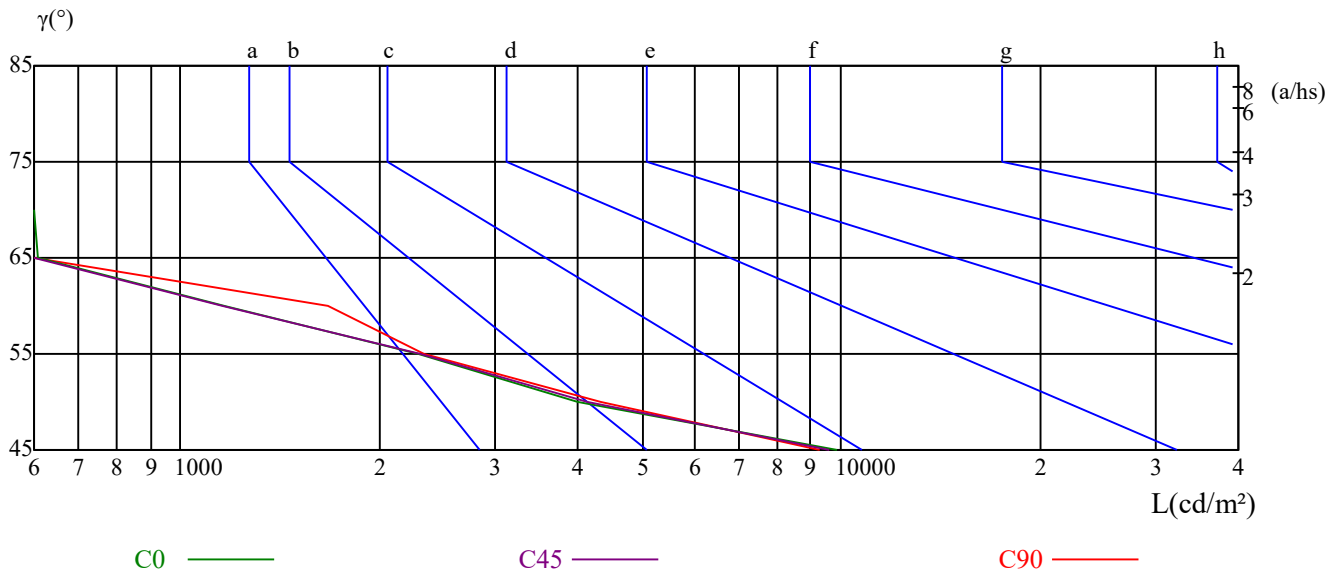
γ	45	50	55	60	65	70	75	80	85
C0	9886	3996	2287	1166	608	386	322	360	80
C45	9593	4122	2307	1160	553	352	260	184	41
C90	9306	4337	2331	1670	552	352	219	244	0

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
608	552	553	322	219	260	80	0	41

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



RHOC	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	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1	1.11	1.09	1.07	1.09	1.07	1.05	1.05	1.04	1.02	1.01	1.00	0.99	0.98	0.97	0.96	0.94
2	1.04	1.01	0.98	1.03	0.99	0.97	1.00	0.97	0.94	0.97	0.94	0.92	0.94	0.92	0.90	0.89
3	0.98	0.94	0.90	0.97	0.93	0.89	0.94	0.91	0.88	0.92	0.89	0.87	0.90	0.87	0.85	0.84
4	0.93	0.88	0.84	0.91	0.87	0.83	0.89	0.85	0.82	0.87	0.84	0.81	0.86	0.83	0.80	0.79
5	0.88	0.82	0.78	0.87	0.82	0.78	0.85	0.81	0.77	0.83	0.80	0.77	0.82	0.78	0.76	0.75
6	0.83	0.78	0.74	0.82	0.77	0.73	0.81	0.76	0.73	0.79	0.75	0.72	0.78	0.75	0.72	0.71
7	0.79	0.73	0.70	0.78	0.73	0.69	0.77	0.72	0.69	0.76	0.72	0.69	0.75	0.71	0.68	0.67
8	0.75	0.70	0.66	0.74	0.69	0.66	0.73	0.69	0.66	0.72	0.68	0.65	0.71	0.68	0.65	0.64
9	0.72	0.66	0.63	0.71	0.66	0.63	0.70	0.66	0.62	0.69	0.65	0.62	0.69	0.65	0.62	0.61
10	0.68	0.63	0.60	0.68	0.63	0.60	0.67	0.63	0.60	0.67	0.62	0.59	0.66	0.62	0.59	0.58

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Intensity data(cd)										Appendix Page: 10 Total:12	
C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0		
0.0	3920.57	3075.34	1914.80	1016.58	689.79	562.61	508.73	468.10	242.09		
15.0	3920.57	3173.12	1962.07	1072.24	695.84	563.26	510.76	467.16	270.95		
30.0	3920.57	3262.82	2084.06	1145.70	722.09	565.70	511.18	462.03	275.88		
45.0	3920.57	3321.00	2176.60	1200.94	751.26	569.96	512.51	465.84	253.20		
60.0	3920.57	3441.73	2335.81	1309.85	778.01	579.46	514.78	468.06	252.00		
75.0	3920.57	3523.93	2508.48	1384.21	816.67	583.72	514.47	465.90	239.52		
90.0	3920.57	3626.19	2612.51	1544.82	844.43	602.26	518.54	465.43	230.82		
105.0	3920.57	3699.13	2731.76	1581.50	896.54	609.65	520.89	466.20	246.73		
120.0	3920.57	3779.13	2844.32	1662.89	907.61	622.90	529.51	477.83	242.27		
135.0	3920.57	3807.70	2810.86	1700.24	891.20	624.84	532.74	473.14	251.47		
150.0	3920.57	3773.43	2831.88	1679.99	646.36	617.47	529.90	473.94	266.58		
165.0	3920.57	3753.55	2765.91	1608.53	902.30	613.64	531.94	481.11	229.48		
180.0	3920.57	3801.34	2850.12	1686.05	951.31	630.97	541.76	488.95	299.85		
195.0	3920.57	3721.25	2685.49	1567.07	900.15	625.37	538.08	487.27	290.97		
210.0	3920.57	3572.93	2583.63	1487.53	855.16	612.17	535.76	487.77	283.65		
225.0	3920.57	3477.17	2413.56	1363.13	826.57	598.41	532.35	488.28	298.35		
240.0	3920.57	3349.20	2292.69	1279.22	772.71	586.11	530.95	485.04	303.48		
255.0	3920.57	3280.19	1748.29	1182.02	732.40	572.75	523.19	486.68	324.33		
270.0	3920.57	3183.27	1786.63	1109.01	705.43	570.58	522.95	479.20	298.97		
285.0	3920.57	3089.48	1788.96	1072.17	692.76	565.81	518.56	474.99	453.83		
300.0	3920.57	3129.02	1792.46	1041.44	930.18	567.87	527.16	471.48	267.84		
315.0	3920.57	3044.72	1775.45	1029.35	684.70	566.05	520.64	472.60	247.77		
330.0	3920.57	3073.81	1768.27	1019.73	679.58	564.93	523.22	468.88	248.43		
345.0	3920.57	3112.68	1792.26	1046.27	704.60	570.97	521.23	477.11	259.89		
360.0	3920.57	3075.34	1914.80	1016.58	689.79	562.61	508.73	468.10	242.09		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	38.15	14.66	7.24	2.74	1.24	0.88	0.53	0.62	0.09		
15.0	38.08	16.82	7.65	3.03	1.33	0.80	0.44	0.53	0.00		
30.0	37.98	18.05	8.04	3.13	1.34	0.71	0.45	0.27	0.00		
45.0	37.16	17.95	8.71	3.59	1.35	0.81	0.36	0.00	0.00		
60.0	36.03	17.52	8.98	3.95	1.44	0.72	0.36	0.09	0.00		
75.0	38.77	18.98	9.26	4.14	1.53	0.72	0.27	0.09	0.00		
90.0	37.63	19.54	9.27	4.23	1.53	0.72	0.27	0.09	0.00		
105.0	38.01	17.48	9.50	4.21	1.70	0.72	0.27	0.09	0.00		
120.0	38.44	17.95	9.34	4.44	1.63	0.63	0.18	0.00	0.00		
135.0	35.58	17.79	9.03	4.51	1.81	0.72	0.27	0.00	0.00		
150.0	36.02	16.70	8.94	4.33	1.72	0.63	0.27	0.09	0.00		
165.0	38.22	16.52	8.90	4.27	1.63	0.64	0.27	0.09	0.00		
180.0	50.78	18.02	9.45	4.68	2.03	0.79	0.53	0.18	0.00		
195.0	50.63	17.00	9.52	4.36	1.78	0.71	0.36	0.09	0.00		
210.0	59.07	17.25	9.03	4.20	1.61	0.71	0.45	0.09	0.00		
225.0	57.09	16.52	8.53	3.77	1.53	0.72	0.45	0.18	0.00		
240.0	54.08	17.16	8.09	3.59	1.44	0.81	0.36	0.27	0.00		
255.0	56.39	15.11	8.00	3.51	1.44	0.81	0.54	0.36	0.00		
270.0	46.09	15.93	7.74	6.39	1.44	0.81	0.45	0.45	0.00		
285.0	42.94	15.15	7.53	2.96	1.34	0.81	0.45	0.45	0.09		
300.0	40.71	14.51	7.34	2.81	1.27	0.82	0.45	0.54	0.09		
315.0	42.80	15.17	7.40	2.89	1.26	0.81	0.63	0.63	0.09		
330.0	39.72	15.08	7.22	2.80	1.17	0.81	0.63	0.72	0.09		
345.0	41.67	17.70	7.26	2.90	1.18	0.82	0.54	0.64	0.09		
360.0	38.15	14.66	7.24	2.74	1.24	0.88	0.53	0.62	0.09		

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Intensity data(cd)								Appendix Page: 11 Total:12	
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09
15.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09
30.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09
165.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
195.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
210.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
225.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
240.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
255.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
270.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
285.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
315.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
330.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
345.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
360.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.09	0.26	0.62	1.41	2.74	3.97	4.86	4.95	4.15
15.0	0.00	0.18	0.53	1.25	2.67	3.92	4.72	4.89	4.27
30.0	0.09	0.27	0.54	1.16	2.59	3.66	4.65	4.74	4.20
45.0	0.09	0.09	0.45	1.26	2.24	3.68	4.67	4.85	4.22
60.0	0.09	0.18	0.45	1.17	2.25	3.50	4.49	4.67	4.13
75.0	0.00	0.18	0.45	1.08	2.07	3.51	4.41	4.68	4.14
90.0	0.09	0.09	0.45	0.99	2.07	3.51	4.41	4.59	4.23
105.0	0.09	0.09	0.45	1.08	1.97	3.23	4.39	4.66	4.12
120.0	0.09	0.09	0.45	1.09	2.09	3.26	4.35	4.62	4.17
135.0	0.00	0.18	0.45	0.99	2.08	3.34	4.42	4.70	4.24
150.0	0.09	0.09	0.54	0.99	2.08	3.34	4.42	4.60	4.24
165.0	0.09	0.09	0.54	1.09	2.09	3.45	4.45	4.72	4.27
180.0	0.00	0.09	0.26	0.53	1.15	2.21	3.00	3.27	3.62
195.0	0.00	0.09	0.27	0.53	1.16	1.42	3.11	3.29	3.47
210.0	0.00	0.00	0.18	0.54	1.25	2.32	3.13	3.31	3.40
225.0	0.00	0.00	0.18	0.54	1.26	2.33	3.23	3.32	3.50
240.0	0.00	0.09	0.27	0.63	1.35	2.52	3.23	3.32	3.41
255.0	0.00	0.09	0.18	0.63	1.44	2.52	3.33	3.42	3.42
270.0	0.00	0.09	0.18	0.63	1.44	2.61	3.33	3.33	3.42
285.0	0.00	0.09	0.18	0.63	1.52	2.60	3.32	3.32	3.41
300.0	0.00	0.09	0.27	0.63	1.63	2.63	3.45	3.54	3.54
315.0	0.00	0.09	0.18	0.72	1.54	2.71	3.52	3.43	3.52
330.0	0.00	0.09	0.27	0.63	1.53	2.71	3.43	3.52	3.52
345.0	0.00	0.09	0.27	0.64	1.54	2.72	3.45	3.54	3.63
360.0	0.09	0.26	0.62	1.41	2.74	3.97	4.86	4.95	4.15

Intensity data(cd)

C/ γ (°)	180.0
0.0	3.62
15.0	4.00
30.0	3.93
45.0	3.86
60.0	3.86
75.0	3.87
90.0	3.96
105.0	3.86
120.0	3.90
135.0	3.88
150.0	3.97
165.0	3.90
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	3.62