



LiT by Cardi

Client:

LumCAT: 0028920095

Luminaire: Batten 1523mm Tricolour Dual Wattage 60W 3000K IP20 NDIM

Report No: Voltage(V):230.0400

Test No: Current(A):0.2640

LampCAT: Power (W): 59.9100

Lamp flux(lm) PF:0.9882

Number of Lamps: 1 Ballast type:

Length(mm): 1523 Width(mm): 70

Phm Type: C Height(mm): 77

Photometric Results

Lumens(lm): 6975.66

Lumens(lm)/Power(W): 116.44

Central intensity(cd): 1855.740

Maximum intensity(cd): 1861.130

Angle of maximum intensity: C=105.0 γ =10.0

Beam Angle(50%Imax): [C0/180]Total=134.1

[C90/270]Total=112.5

Field angle(10%Imax): [C0/180]Total=235.7

[C90/270]Total=159.9

Maximum s/h(1/2): C0_180=1.30 C90_270=1.26

Maximum s/h(1/4): C0_180=1.46 C90_270=1.38

Up flux rate of LUM(%): 10.04%

Down flux rate of LUM(%): 89.96%

CIE Type : Semidirect lighting

Output flux ratio in π solid angle : 62.943%

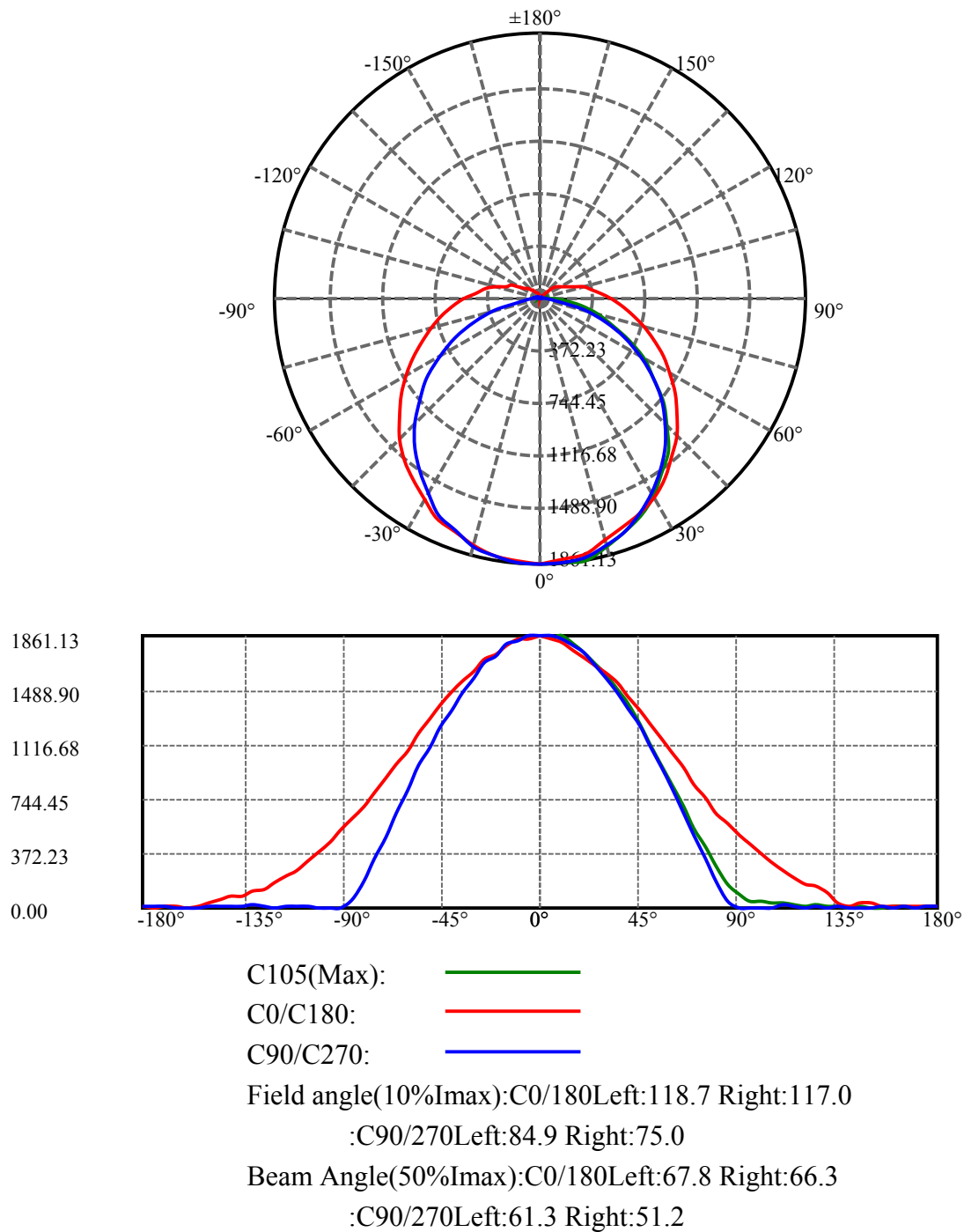
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1855.740	0.000	0	.000%	.000%
5.0	1844.836	44.239	44.239	.634%	.634%
10.0	1828.363	131.402	175.641	1.884%	2.518%
15.0	1790.302	214.657	390.298	3.077%	5.595%
20.0	1738.409	290.815	681.113	4.169%	9.764%
25.0	1674.457	357.947	1039.06	5.131%	14.896%
30.0	1604.505	414.955	1454.015	5.949%	20.844%
35.0	1517.364	459.717	1913.732	6.590%	27.434%
40.0	1423.909	490.729	2404.462	7.035%	34.469%
45.0	1317.990	507.685	2912.147	7.278%	41.747%
50.0	1202.304	509.262	3421.409	7.301%	49.048%
55.0	1083.368	496.981	3918.39	7.124%	56.172%
60.0	959.885	472.292	4390.682	6.771%	62.943%
65.0	833.625	436.006	4826.688	6.250%	69.193%
70.0	713.191	391.664	5218.352	5.615%	74.808%
75.0	593.436	341.532	5559.883	4.896%	79.704%
80.0	484.222	288.351	5848.235	4.134%	83.838%
85.0	384.932	236.170	6084.405	3.386%	87.223%
90.0	312.656	191.005	6275.41	2.738%	89.961%
95.0	255.424	155.545	6430.955	2.230%	92.191%
100.0	210.008	126.469	6557.424	1.813%	94.004%
105.0	173.677	102.663	6660.087	1.472%	95.476%
110.0	141.612	82.412	6742.499	1.181%	96.657%
115.0	117.584	65.630	6808.129	.941%	97.598%
120.0	88.594	50.122	6858.251	.719%	98.317%
125.0	72.698	37.282	6895.533	.534%	98.851%
130.0	54.138	27.578	6923.112	.395%	99.247%
135.0	35.045	18.021	6941.132	.258%	99.505%
140.0	25.439	11.199	6952.331	.161%	99.666%
145.0	24.175	8.278	6960.609	.119%	99.784%
150.0	17.652	6.159	6966.768	.088%	99.872%
155.0	9.984	3.497	6970.266	.050%	99.923%
160.0	10.396	2.137	6972.403	.031%	99.953%
165.0	9.143	1.610	6974.013	.023%	99.976%
170.0	6.638	0.936	6974.95	.013%	99.990%
175.0	7.975	0.523	6975.472	.007%	99.997%
180.0	8.023	0.191	6975.664	.003%	100.000%

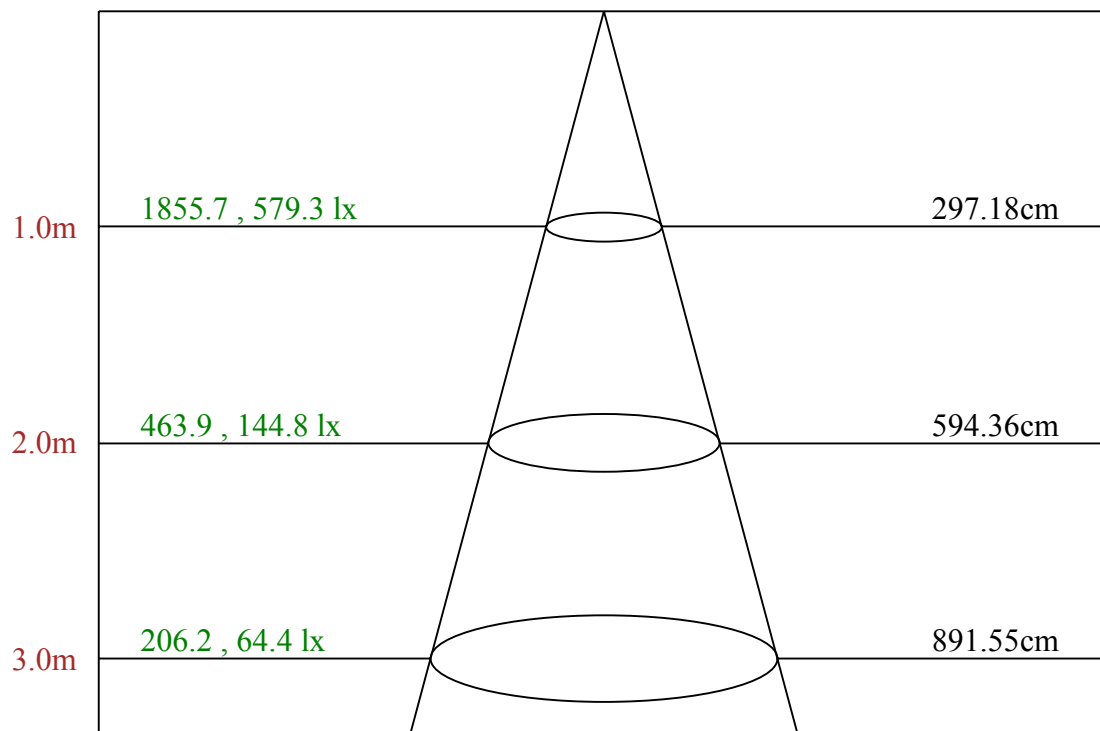
ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-30	1454.02	20.84%
0-40	2404.46	34.47%
0-60	4390.68	62.94%
0-90	6275.41	89.96%
0-120	6858.25	98.32%
0-180	6975.66	100.00%
60-90	2357.02	33.79%
90-120	773.85	11.09%
90-130	838.71	12.02%
90-150	882.36	12.65%
90-180	891.07	12.77%
0-75.36	5580.53	80.00%

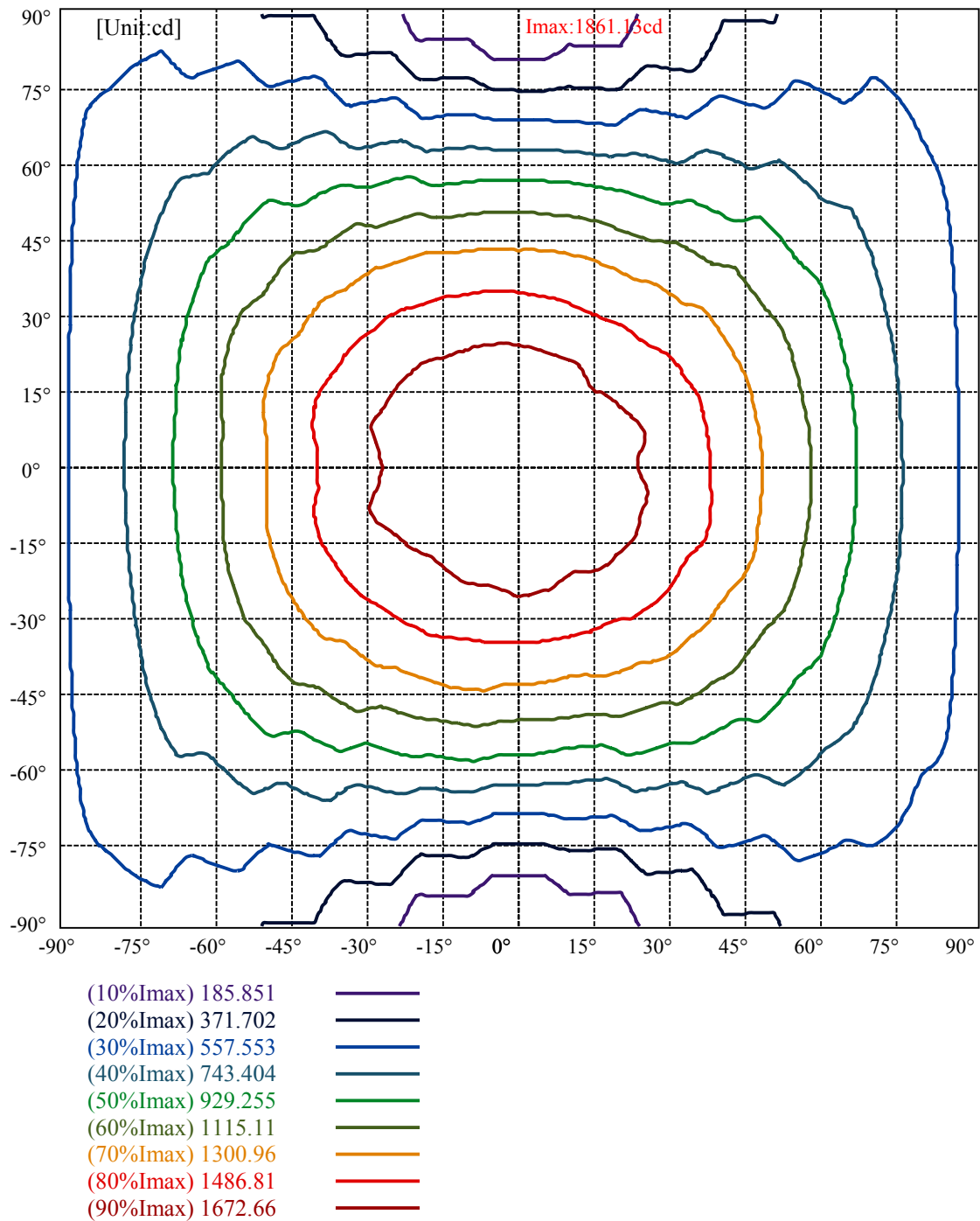
ZONAL LUMEN SUMMARY

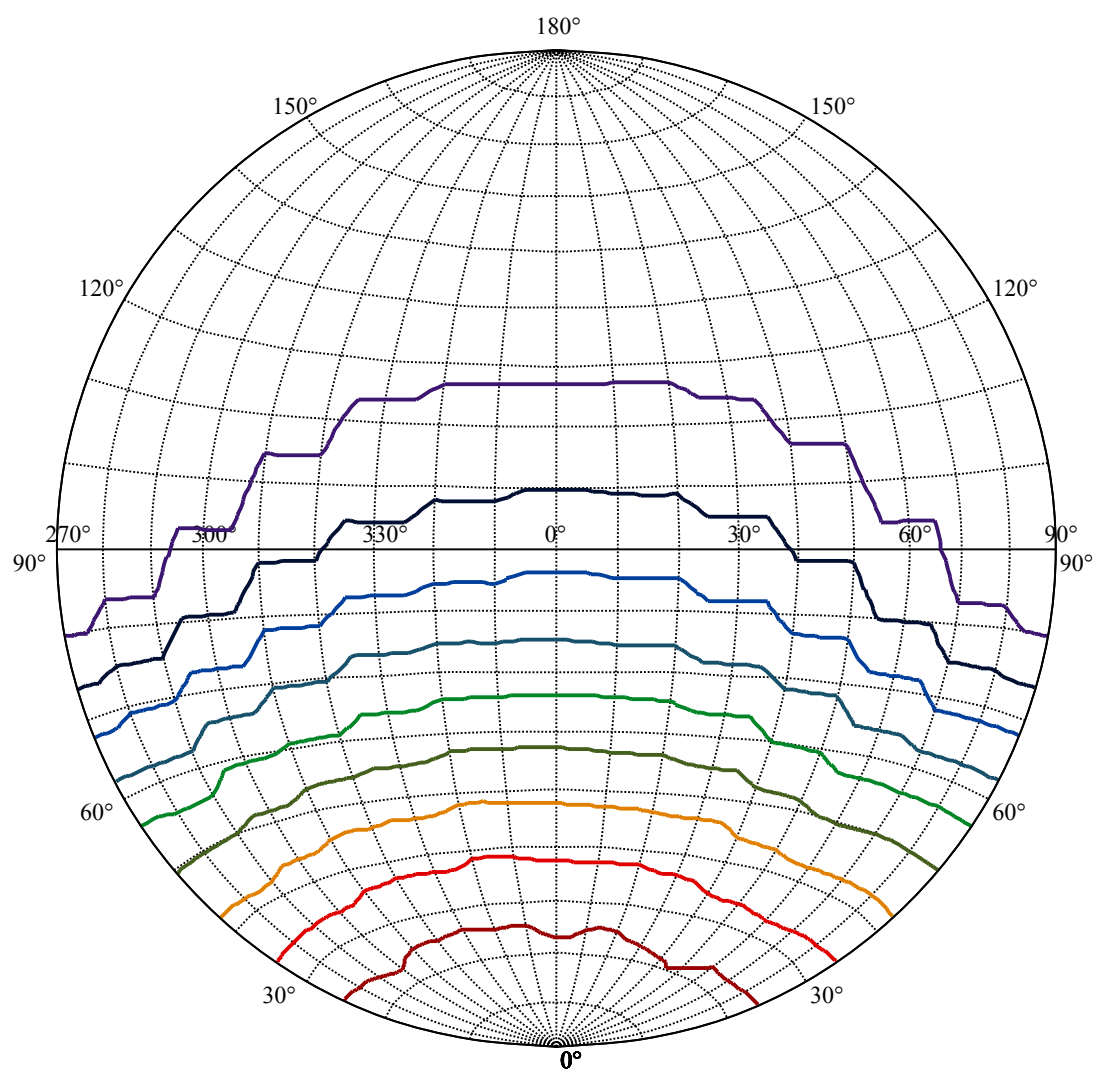
0-10	175.64
10-20	505.47
20-30	772.90
30-40	950.45
40-50	1016.95
50-60	969.27
60-70	827.67
70-80	629.88
80-90	427.18
90-100	282.01
100-110	185.07
110-120	115.75
120-130	64.86
130-140	29.22
140-150	14.44
150-160	5.63
160-170	2.55
170-180	0.52





Max , Ave Beam angle of C105 plane 112.12





House

[Unit:cd]

Road

Imax:1861.13

(10%Imax) 186.113

(20%Imax) 372.226

(30%Imax) 558.339

(40%Imax) 744.452

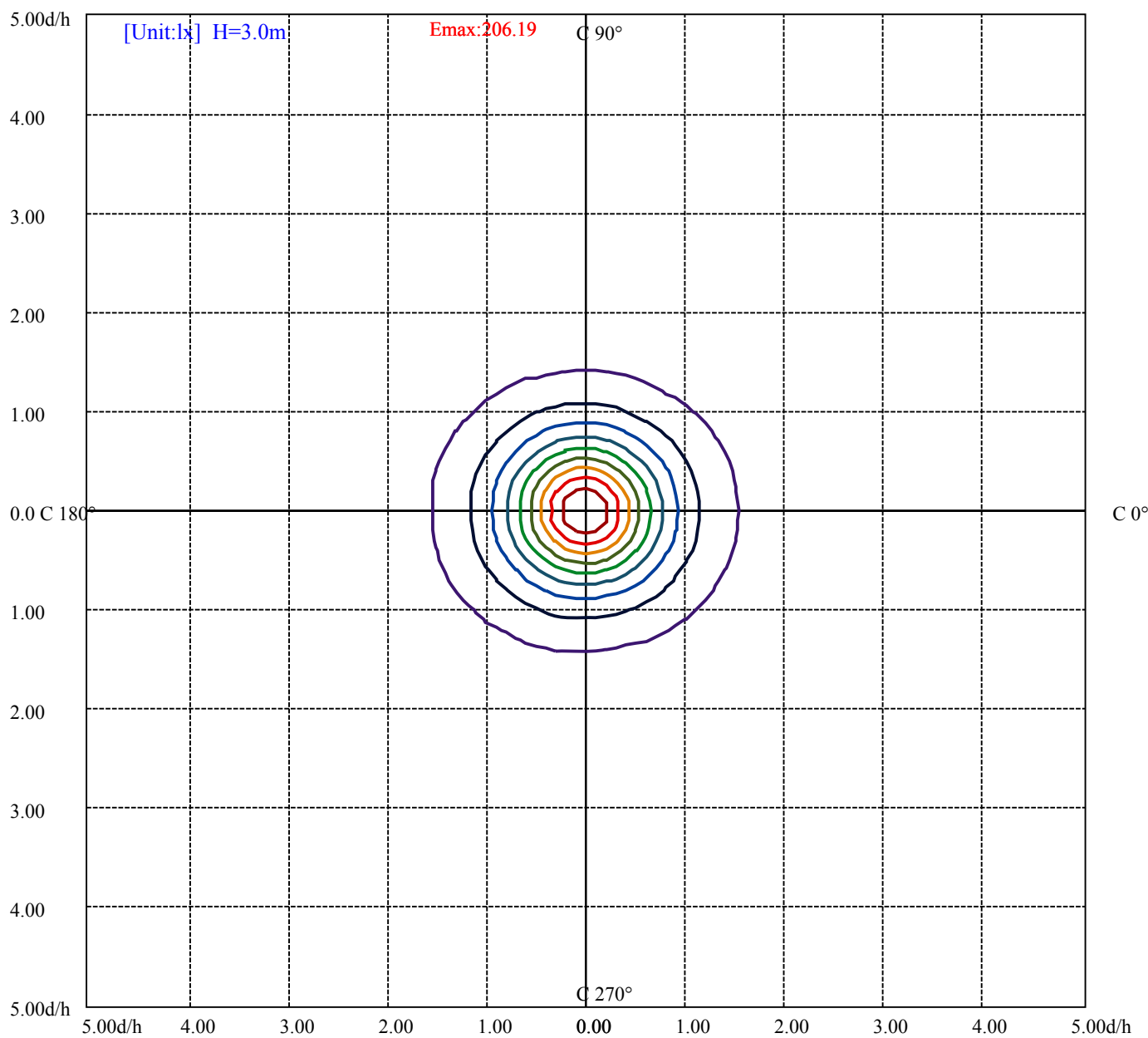
(50%Imax) 930.565

(60%Imax) 1116.68

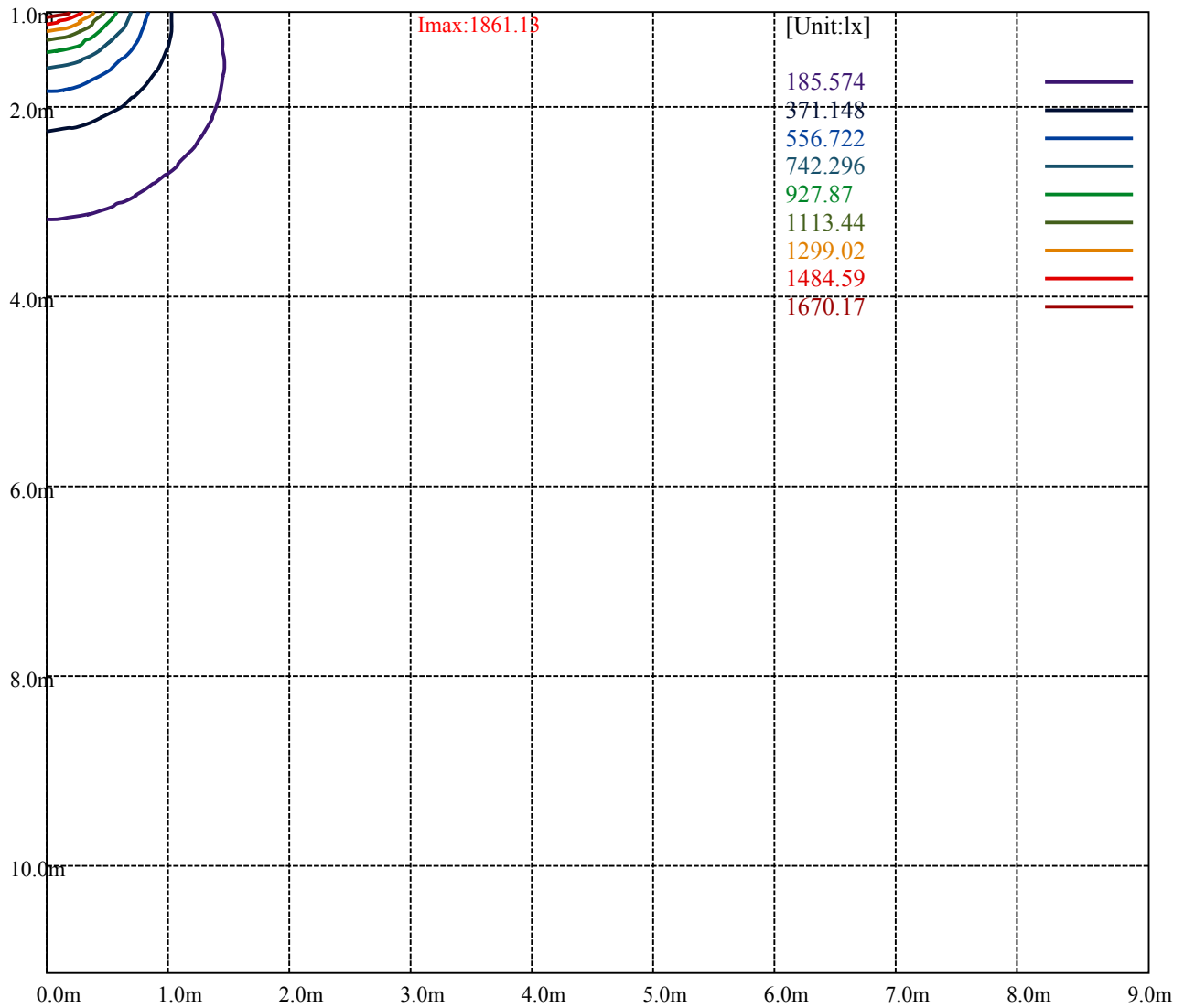
(70%Imax) 1302.79

(80%Imax) 1488.9

(90%Imax) 1675.02



(10%E _{max})	20.61933	
(20%E _{max})	41.23867	
(30%E _{max})	61.858	
(40%E _{max})	82.47733	
(50%E _{max})	103.0967	
(60%E _{max})	123.7155	
(70%E _{max})	144.3356	
(80%E _{max})	164.9544	
(90%E _{max})	185.5744	



Luminance Table

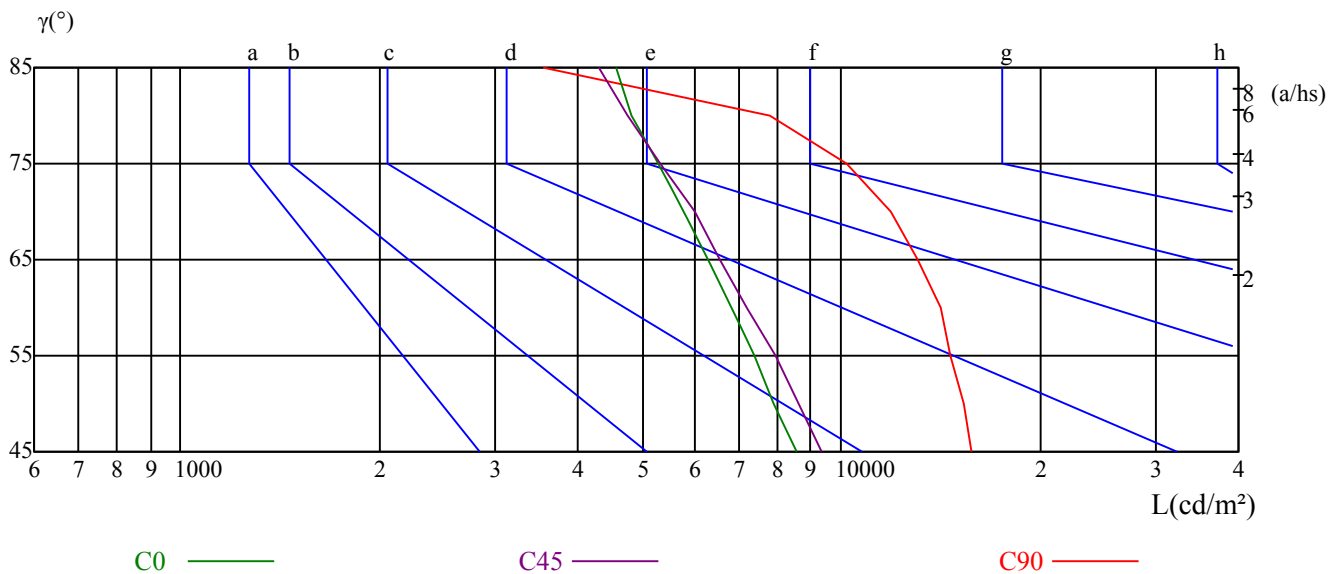
γ	45	50	55	60	65	70	75	80	85
C0	8570	7923	7386	6843	6315	5762	5308	4827	4564
C45	9336	8636	7942	7210	6572	5995	5326	4742	4291
C90	15729	15344	14690	14211	13039	11933	10228	7783	3543

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
21451	14443	18802	27702	12066	22868	63849	5720	45966

Glare Table

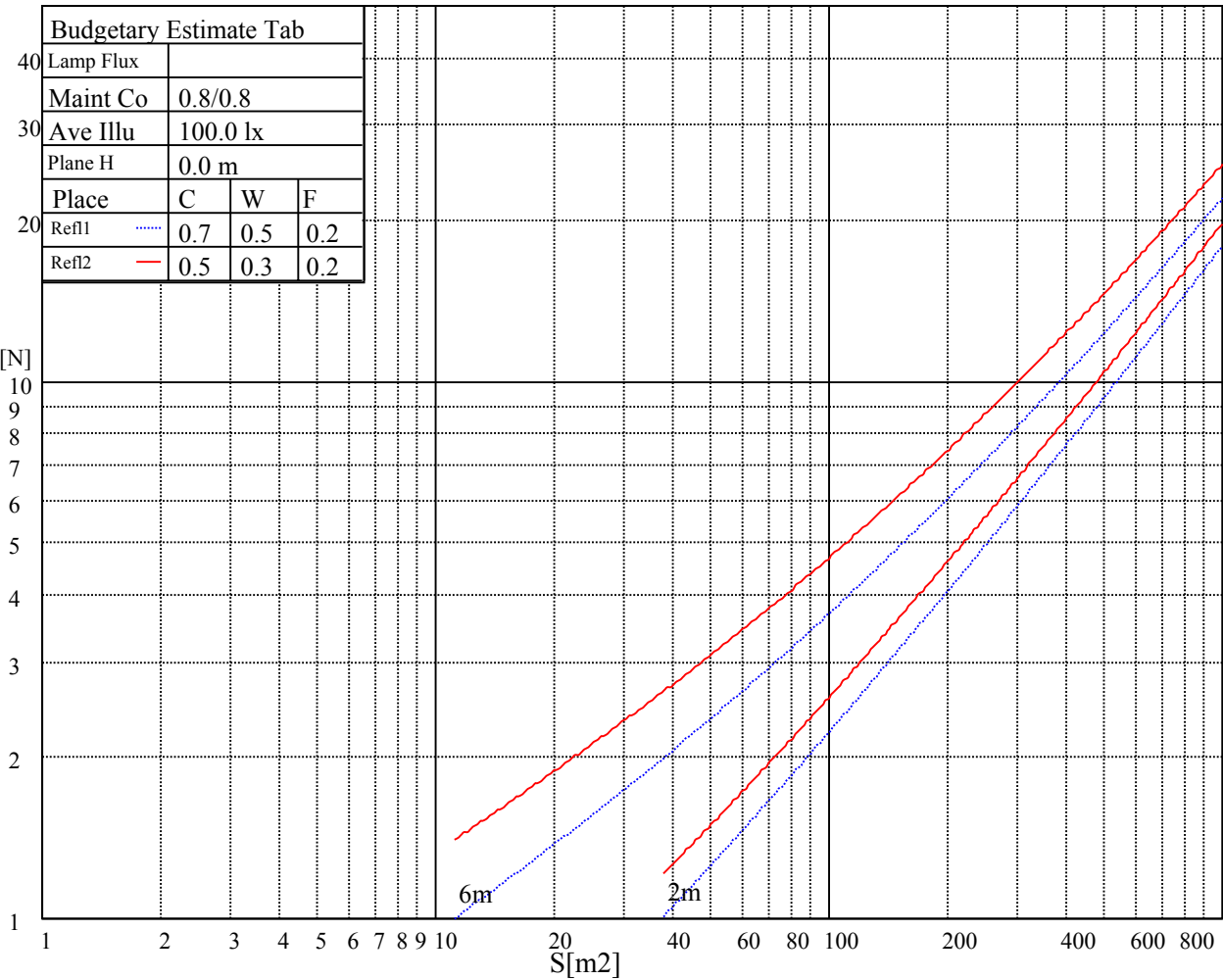
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve



Illumination assessment according UGR											
Rf of Ceiling		70	70	50	50	30	70	70	50	50	30
Rf of Wall		50	30	50	30	30	50	30	50	30	30
Rf of Floor		20	20	20	20	20	20	20	20	20	20
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	18.73	20.23	19.23	20.74	21.29	18.30	19.80	18.80	20.31	20.86
	3H	20.76	22.13	21.28	22.66	23.23	19.87	21.24	20.40	21.77	22.35
	4H	21.67	22.97	22.21	23.51	24.10	20.45	21.75	20.99	22.29	22.88
	6H	22.56	23.78	23.11	24.32	24.94	20.87	22.08	21.42	22.63	23.25
	8H	22.95	24.13	23.51	24.69	25.31	20.94	22.12	21.49	22.67	23.30
	12H	23.33	24.47	23.89	25.03	25.67	20.94	22.08	21.50	22.64	23.27
4H	2H	19.43	20.73	19.97	21.27	21.86	19.08	20.38	19.62	20.92	21.51
	3H	21.63	22.76	22.19	23.33	23.96	20.84	21.97	21.40	22.54	23.17
	4H	22.75	23.77	23.33	24.36	25.02	21.60	22.62	22.18	23.20	23.86
	6H	23.78	24.70	24.38	25.31	25.97	22.08	23.00	22.68	23.60	24.26
	8H	24.29	25.16	24.90	25.77	26.45	22.25	23.11	22.86	23.72	24.40
	12H	24.79	25.60	25.41	26.20	26.91	22.34	23.15	22.96	23.75	24.46
8H	4H	23.08	23.95	23.69	24.55	25.23	22.07	22.94	22.68	23.55	24.22
	6H	24.31	25.05	24.94	25.68	26.38	22.76	23.49	23.38	24.12	24.83
	8H	25.02	25.67	25.66	26.33	27.03	23.09	23.74	23.73	24.40	25.10
	12H	25.68	26.25	26.33	26.91	27.62	23.26	23.82	23.91	24.49	25.20
12H	4H	23.11	23.92	23.73	24.53	25.24	22.18	22.99	22.80	23.59	24.30
	6H	24.46	25.11	25.10	25.77	26.47	23.00	23.66	23.65	24.32	25.02
	8H	25.19	25.75	25.84	26.42	27.13	23.36	23.93	24.01	24.59	25.30
Variation with the observer position at spacings:											
S = 1.0H		0.2/-0.6					0.1/-0.8				
S = 1.5H		0.5/-0.5					0.5/-0.7				
S = 2.0H		0.6/-0.6					0.5/-0.6				
Standard tables:		BKBF					BKBF				
Uncorrected UGR		7.9					9.4				

UGR calculation is based on CIE Publ. 117 ,S/H = 0.25



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	1.17	1.17	1.17	1.13	1.13	1.13	1.06	1.06	1.06	0.99	0.99	0.99	0.93	0.93	0.93	0.90
1	0.98	0.93	0.89	0.95	0.91	0.86	0.89	0.85	0.82	0.83	0.80	0.77	0.78	0.76	0.73	0.71
2	0.85	0.77	0.71	0.82	0.75	0.69	0.77	0.71	0.66	0.72	0.67	0.63	0.67	0.63	0.60	0.57
3	0.74	0.65	0.58	0.71	0.63	0.57	0.67	0.60	0.54	0.63	0.57	0.52	0.59	0.54	0.50	0.47
4	0.65	0.56	0.48	0.63	0.54	0.48	0.59	0.52	0.46	0.55	0.49	0.44	0.52	0.47	0.42	0.40
5	0.58	0.48	0.41	0.56	0.47	0.41	0.53	0.45	0.39	0.50	0.43	0.38	0.47	0.41	0.37	0.34
6	0.52	0.42	0.36	0.50	0.42	0.35	0.47	0.40	0.34	0.45	0.38	0.33	0.42	0.36	0.32	0.30
7	0.47	0.38	0.31	0.45	0.37	0.31	0.43	0.35	0.30	0.41	0.34	0.29	0.39	0.33	0.28	0.26
8	0.43	0.34	0.28	0.41	0.33	0.27	0.39	0.32	0.27	0.37	0.31	0.26	0.35	0.30	0.25	0.23
9	0.39	0.31	0.25	0.38	0.30	0.25	0.36	0.29	0.24	0.34	0.28	0.23	0.33	0.27	0.23	0.21
10	0.36	0.28	0.22	0.35	0.27	0.22	0.33	0.26	0.22	0.32	0.25	0.21	0.30	0.25	0.21	0.19

Intensity data(cd)										Appendix Page: 14 Total:23	
C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0		
0.0	1855.74	1837.96	1812.14	1759.56	1706.64	1654.71	1605.35	1533.56	1442.78		
5.0	1855.74	1836.54	1813.30	1770.56	1714.13	1655.20	1614.01	1535.39	1437.18		
10.0	1855.74	1828.67	1818.35	1776.90	1725.39	1671.90	1615.07	1525.65	1446.23		
15.0	1855.74	1829.69	1826.95	1783.18	1740.30	1679.99	1604.37	1525.87	1448.04		
20.0	1855.74	1831.28	1817.93	1783.05	1739.00	1672.37	1599.19	1527.90	1446.74		
25.0	1855.74	1836.10	1816.04	1775.63	1722.05	1655.81	1596.80	1511.58	1381.62		
30.0	1855.74	1830.04	1811.78	1762.66	1714.12	1646.91	1583.78	1512.49	1424.81		
35.0	1855.74	1833.78	1803.88	1758.36	1702.36	1639.37	1572.74	1502.19	1419.79		
40.0	1855.74	1822.89	1798.36	1744.76	1703.08	1621.52	1565.97	1475.56	1388.63		
45.0	1855.74	1833.11	1796.47	1748.19	1680.48	1615.71	1556.12	1465.61	1381.62		
50.0	1855.74	1839.60	1795.39	1749.92	1693.11	1621.59	1558.47	1470.00	1376.27		
55.0	1855.74	1836.42	1799.85	1767.12	1704.29	1635.82	1556.96	1456.65	1364.31		
60.0	1855.74	1838.65	1813.79	1774.39	1719.45	1653.30	1546.19	1449.05	1369.82		
65.0	1855.74	1845.14	1823.15	1772.47	1718.44	1643.70	1545.45	1451.10	1373.50		
70.0	1855.74	1843.49	1828.47	1770.95	1721.71	1640.39	1560.25	1451.27	1367.98		
75.0	1855.74	1846.50	1835.57	1763.40	1729.96	1638.63	1565.56	1460.80	1365.51		
80.0	1855.74	1847.82	1831.90	1772.27	1734.37	1645.93	1566.64	1460.43	1366.16		
85.0	1855.74	1858.44	1840.67	1782.26	1742.75	1648.56	1572.50	1464.84	1364.66		
90.0	1855.74	1857.43	1843.38	1786.41	1745.69	1654.98	1573.05	1473.20	1360.48		
95.0	1855.74	1860.44	1850.19	1796.83	1748.34	1662.34	1583.32	1480.01	1367.24		
100.0	1855.74	1851.62	1849.05	1806.48	1747.33	1664.99	1599.20	1483.98	1389.74		
105.0	1855.74	1853.41	1861.13	1806.99	1744.60	1669.19	1599.24	1491.51	1393.05		
110.0	1855.74	1850.48	1840.63	1797.45	1741.09	1674.28	1600.64	1493.65	1400.18		
115.0	1855.74	1854.33	1840.53	1786.82	1737.96	1674.54	1605.70	1511.14	1410.64		
120.0	1855.74	1852.83	1835.24	1792.88	1725.10	1680.26	1606.16	1513.37	1415.13		
125.0	1855.74	1859.45	1837.26	1787.90	1743.86	1682.03	1608.64	1519.15	1426.18		
130.0	1855.74	1847.22	1833.07	1790.70	1750.16	1698.78	1625.46	1547.05	1442.87		
135.0	1855.74	1854.41	1839.23	1793.66	1755.28	1714.13	1636.75	1559.44	1449.42		
140.0	1855.74	1852.62	1846.49	1807.67	1760.41	1708.68	1642.89	1555.56	1453.94		
145.0	1855.74	1850.96	1839.88	1810.39	1767.36	1711.85	1648.40	1562.19	1472.90		
150.0	1855.74	1850.56	1852.22	1815.97	1775.14	1715.85	1651.32	1567.34	1484.06		
155.0	1855.74	1848.16	1845.43	1817.09	1781.34	1715.78	1656.39	1570.08	1485.57		
160.0	1855.74	1849.36	1842.76	1816.25	1784.71	1728.37	1660.90	1598.19	1503.26		
165.0	1855.74	1852.20	1838.95	1813.86	1789.69	1733.28	1674.65	1616.39	1513.79		
170.0	1855.74	1843.12	1833.29	1808.34	1770.24	1724.30	1653.48	1596.29	1507.52		
175.0	1855.74	1844.45	1820.61	1797.20	1755.85	1711.00	1630.17	1559.07	1483.64		
180.0	1855.74	1841.02	1833.11	1792.58	1736.87	1697.64	1622.42	1548.74	1480.23		
185.0	1855.74	1846.81	1834.94	1790.77	1755.00	1709.46	1632.20	1561.14	1477.44		
190.0	1855.74	1841.64	1833.58	1803.57	1769.64	1715.18	1662.49	1589.35	1502.02		
195.0	1855.74	1839.96	1834.27	1815.05	1792.29	1728.56	1678.13	1603.50	1506.97		
200.0	1855.74	1843.51	1842.60	1819.53	1783.75	1717.52	1667.89	1589.04	1496.86		
205.0	1855.74	1837.03	1839.19	1821.92	1771.70	1697.94	1650.00	1575.69	1485.80		
210.0	1855.74	1845.79	1824.47	1812.33	1765.63	1688.40	1641.57	1573.89	1479.40		
215.0	1855.74	1847.85	1821.60	1805.36	1754.85	1681.81	1637.87	1560.97	1467.07		
220.0	1855.74	1845.30	1813.03	1786.25	1742.60	1673.10	1620.29	1533.04	1454.57		
225.0	1855.74	1842.75	1815.03	1788.96	1735.53	1658.30	1613.13	1530.02	1440.09		
230.0	1855.74	1841.21	1814.77	1789.94	1741.51	1658.42	1598.04	1530.12	1432.41		
235.0	1855.74	1834.98	1818.05	1787.66	1743.11	1660.86	1597.97	1520.10	1420.82		
240.0	1855.74	1831.10	1828.46	1792.71	1746.37	1667.57	1608.65	1519.67	1417.35		
245.0	1855.74	1836.56	1832.34	1803.58	1740.54	1667.99	1607.11	1504.46	1410.20		
250.0	1855.74	1841.99	1831.76	1792.67	1730.16	1662.02	1596.52	1488.18	1398.95		
255.0	1855.74	1847.75	1820.88	1793.24	1730.87	1652.89	1581.46	1482.33	1392.72		
260.0	1855.74	1851.87	1831.52	1797.50	1730.66	1660.49	1575.49	1481.89	1373.61		
265.0	1855.74	1849.38	1827.17	1798.41	1724.66	1666.78	1572.57	1473.97	1361.29		
270.0	1855.74	1855.93	1831.18	1801.02	1726.18	1676.94	1569.16	1471.12	1357.72		
275.0	1855.74	1859.60	1838.26	1800.67	1719.71	1674.43	1565.58	1473.13	1362.19		
280.0	1855.74	1854.20	1837.73	1795.35	1724.73	1668.43	1585.01	1470.74	1352.09		
285.0	1855.74	1859.85	1836.30	1792.45	1727.51	1667.47	1590.14	1471.29	1339.42		

Intensity data(cd)

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
290.0	1855.74	1860.24	1828.26	1793.11	1725.23	1656.01	1586.44	1473.84	1351.99
295.0	1855.74	1858.85	1833.47	1784.91	1714.37	1649.39	1587.35	1480.92	1391.37
300.0	1855.74	1853.40	1826.45	1794.78	1709.54	1649.53	1583.62	1479.00	1403.45
305.0	1855.74	1852.76	1828.51	1799.68	1715.58	1668.48	1586.01	1484.81	1402.74
310.0	1855.74	1849.89	1826.54	1802.55	1722.68	1676.27	1602.23	1511.44	1419.34
315.0	1855.74	1842.58	1823.52	1814.20	1736.95	1681.97	1605.64	1518.22	1412.95
320.0	1855.74	1845.11	1827.11	1801.02	1750.11	1677.85	1597.82	1528.95	1425.29
325.0	1855.74	1841.76	1820.59	1799.67	1748.03	1686.84	1603.75	1528.91	1431.98
330.0	1855.74	1838.80	1828.44	1800.24	1755.04	1695.82	1606.77	1523.36	1430.51
335.0	1855.74	1837.36	1828.60	1790.73	1743.23	1687.56	1612.61	1522.89	1427.03
340.0	1855.74	1833.45	1831.01	1783.15	1739.86	1678.63	1609.70	1544.35	1463.33
345.0	1855.74	1838.45	1818.53	1779.14	1735.02	1684.78	1607.08	1546.29	1468.82
350.0	1855.74	1834.82	1825.19	1764.86	1729.83	1683.06	1609.17	1541.03	1460.56
355.0	1855.74	1835.48	1822.33	1763.69	1710.31	1666.49	1610.69	1536.29	1448.25
360.0	1855.74	1837.96	1812.14	1759.56	1706.64	1654.71	1605.35	1533.56	1442.78

Intensity data(cd)

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	1356.77	1254.70	1161.14	1059.75	955.65	845.09	747.73	646.87	575.56
5.0	1355.50	1251.90	1159.25	1059.45	958.20	842.13	742.85	648.69	576.09
10.0	1341.29	1251.10	1146.51	1046.60	947.80	828.51	733.43	638.34	561.30
15.0	1346.60	1247.07	1148.90	1038.56	946.90	823.45	735.03	635.46	562.74
20.0	1340.43	1238.18	1145.46	1039.32	938.81	824.18	733.75	634.03	564.56
25.0	1336.75	1210.58	1120.81	1016.96	901.13	788.75	674.81	588.96	505.10
30.0	1334.77	1208.90	1113.13	1006.72	902.68	785.85	668.05	589.32	503.52
35.0	1334.24	1209.88	1113.88	1001.13	903.03	783.84	669.58	587.87	507.23
40.0	1286.81	1174.91	1059.71	931.53	819.10	710.51	600.68	492.07	412.61
45.0	1276.39	1165.65	1049.97	925.86	812.66	707.24	593.13	492.78	410.67
50.0	1274.65	1157.31	1041.07	913.54	812.29	702.87	593.65	490.94	410.78
55.0	1238.18	1117.69	976.20	852.26	722.46	615.33	475.26	368.13	280.00
60.0	1230.11	1105.07	972.28	849.77	719.39	613.32	474.86	365.85	281.00
65.0	1228.80	1109.11	976.35	845.54	715.04	609.23	472.68	366.17	281.22
70.0	1242.44	1116.40	966.63	830.56	652.44	508.30	367.59	237.55	148.84
75.0	1249.62	1116.67	971.09	826.57	650.96	504.77	367.08	237.23	149.05
80.0	1248.99	1111.12	966.83	829.36	650.43	503.90	365.32	236.23	148.70
85.0	1249.25	1113.75	963.93	824.84	651.34	497.32	334.75	185.66	52.16
90.0	1245.69	1114.83	963.17	823.86	651.18	495.56	335.45	185.39	51.94
95.0	1246.00	1124.24	967.34	819.76	653.55	497.55	337.64	186.49	51.99
100.0	1253.32	1125.74	967.99	841.39	684.37	544.68	413.17	284.71	162.38
105.0	1256.98	1123.70	968.00	845.36	692.53	546.70	414.63	285.81	162.39
110.0	1269.27	1136.00	974.45	844.89	695.88	544.27	417.89	287.91	162.73
115.0	1300.64	1183.73	1044.99	916.62	774.83	655.11	533.09	419.87	311.69
120.0	1309.19	1185.99	1056.24	922.97	780.96	656.09	532.66	419.68	313.73
125.0	1319.22	1187.38	1056.60	928.30	788.20	657.71	534.48	420.39	311.86
130.0	1342.69	1217.63	1118.66	987.05	857.75	765.38	659.72	551.75	436.97
135.0	1346.76	1225.59	1117.57	989.00	867.75	771.38	660.83	554.54	438.38
140.0	1353.79	1236.74	1119.88	996.72	867.45	773.91	664.82	555.79	437.58
145.0	1391.73	1271.61	1166.75	1068.49	956.38	851.69	741.90	635.60	541.04
150.0	1391.84	1275.80	1172.27	1070.80	969.13	848.24	744.84	633.78	539.22
155.0	1395.74	1278.93	1175.30	1070.68	966.49	850.03	742.56	640.39	540.03
160.0	1412.57	1318.65	1222.68	1111.37	1006.20	890.09	789.99	687.54	593.37
165.0	1424.23	1326.57	1228.87	1115.20	1002.22	893.78	786.43	690.16	595.78
170.0	1417.86	1325.11	1219.99	1110.42	1001.39	893.55	786.31	691.37	598.74
175.0	1392.78	1294.96	1188.01	1077.13	981.86	884.79	780.48	697.45	610.94
180.0	1388.84	1289.36	1187.46	1074.62	977.28	888.89	781.01	696.83	610.97
185.0	1391.39	1292.90	1182.88	1082.16	976.90	883.15	777.07	694.59	610.75
190.0	1415.31	1306.77	1207.43	1091.39	977.89	888.80	780.26	699.38	596.20
195.0	1411.99	1308.74	1202.53	1094.87	977.91	886.57	785.93	704.13	593.43
200.0	1410.20	1304.22	1198.60	1096.06	979.02	887.83	782.66	701.72	593.02
205.0	1390.51	1297.96	1184.88	1071.83	971.03	843.98	725.32	620.15	538.90
210.0	1375.14	1291.17	1183.93	1069.57	966.25	842.93	723.45	620.09	538.92
215.0	1367.41	1285.29	1174.93	1068.41	964.54	842.57	729.12	624.41	535.09
220.0	1334.55	1235.47	1128.04	1000.77	877.99	760.25	655.90	544.19	444.59
225.0	1335.06	1228.39	1122.11	993.57	869.15	760.81	653.83	545.35	441.10
230.0	1332.66	1224.79	1119.75	986.82	865.98	756.12	651.00	543.08	441.67
235.0	1300.83	1177.45	1049.31	906.77	778.72	651.48	543.87	429.61	314.74
240.0	1291.19	1171.91	1039.79	910.47	776.37	649.02	541.39	426.60	315.28
245.0	1290.29	1157.30	1038.58	904.02	770.18	651.85	540.99	427.78	314.53
250.0	1294.41	1149.17	1016.18	872.13	716.76	563.75	411.93	283.30	163.88
255.0	1287.95	1146.68	1013.31	872.49	715.86	554.50	410.74	284.25	163.61
260.0	1284.18	1143.57	1009.61	870.61	710.61	556.11	409.80	283.01	163.45
265.0	1246.82	1112.98	974.81	815.53	650.57	487.26	334.14	183.21	54.75
270.0	1237.45	1101.20	968.44	814.34	650.27	487.42	330.43	182.21	54.36
275.0	1234.08	1103.25	964.07	814.75	646.57	486.58	332.80	182.38	54.55
280.0	1235.69	1106.69	945.99	805.97	662.72	537.43	378.06	269.14	154.76
285.0	1237.76	1107.06	946.03	804.17	663.14	537.00	378.61	268.46	154.79

Intensity data(cd)

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
290.0	1241.43	1115.74	960.42	815.95	667.99	542.18	380.42	269.77	155.37
295.0	1268.11	1154.92	1023.42	903.49	759.53	639.65	497.07	380.77	300.10
300.0	1271.36	1159.36	1029.76	911.28	764.62	644.64	499.95	382.11	300.24
305.0	1274.43	1164.69	1033.45	913.13	769.07	649.32	500.69	384.21	300.80
310.0	1311.04	1199.52	1087.41	946.72	837.42	727.91	613.07	521.89	415.95
315.0	1326.28	1204.09	1097.06	951.83	838.95	731.24	616.20	522.63	418.25
320.0	1321.05	1199.81	1102.01	956.68	844.56	736.46	620.69	522.04	416.65
325.0	1339.02	1217.95	1120.97	1005.71	910.74	802.98	714.09	604.61	510.29
330.0	1333.38	1214.95	1120.06	1010.94	910.67	804.20	715.45	607.27	514.64
335.0	1339.23	1223.99	1127.69	1014.39	909.62	806.53	714.78	608.51	512.34
340.0	1360.97	1263.95	1162.98	1048.81	947.00	834.47	738.86	642.21	547.80
345.0	1359.46	1272.89	1167.91	1056.43	949.37	829.58	742.50	645.22	551.80
350.0	1356.53	1261.78	1161.95	1057.55	949.23	839.88	739.72	644.17	547.05
355.0	1357.40	1256.75	1166.84	1059.20	958.16	841.35	748.50	643.99	578.66
360.0	1356.77	1254.70	1161.14	1059.75	955.65	845.09	747.73	646.87	575.56

Intensity data(cd)

Appendix Page: 18 Total:23

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	499.49	433.69	367.45	313.41	259.88	203.20	158.78	147.42	108.30
5.0	499.00	432.67	366.62	315.27	257.64	203.94	159.01	146.13	107.79
10.0	479.68	417.49	358.36	299.28	237.12	206.62	158.06	137.34	98.77
15.0	479.22	415.58	357.80	298.04	237.66	205.84	158.25	136.41	96.80
20.0	478.74	419.67	355.72	297.11	236.63	204.94	157.01	133.78	92.06
25.0	437.07	373.26	312.43	258.99	211.88	180.17	134.78	110.95	61.73
30.0	435.65	373.90	312.71	257.32	211.71	178.50	133.11	108.98	57.15
35.0	436.08	371.29	313.38	256.31	209.60	175.26	130.38	102.77	53.06
40.0	349.35	284.82	221.27	193.65	157.30	117.91	96.52	44.81	26.97
45.0	351.70	283.91	221.06	193.56	154.09	115.47	94.04	38.27	23.05
50.0	348.15	284.46	220.79	191.19	151.97	112.64	88.95	37.33	23.76
55.0	217.44	177.23	137.78	96.91	81.30	55.63	21.18	30.17	28.82
60.0	216.94	177.43	138.03	95.22	79.69	52.71	15.98	29.24	29.55
65.0	217.32	176.12	136.44	93.45	77.88	50.73	15.68	27.84	28.14
70.0	87.85	63.72	41.70	23.92	26.54	18.12	10.89	15.76	18.91
75.0	87.51	63.38	40.88	22.62	24.86	16.37	10.53	14.42	17.55
80.0	87.76	63.50	40.61	22.26	24.75	16.19	9.90	13.92	15.55
85.0	0.00	0.19	0.32	1.93	18.54	13.67	2.18	9.09	2.05
90.0	0.00	0.00	0.00	1.55	18.22	13.68	1.58	8.62	0.02
95.0	0.00	0.11	0.31	2.07	18.60	14.41	1.95	9.83	0.90
100.0	95.01	47.07	44.72	30.67	29.29	28.10	6.68	21.65	6.57
105.0	95.75	46.88	45.20	31.17	29.58	28.85	7.08	22.98	7.46
110.0	95.51	47.29	45.81	32.49	30.83	30.27	9.54	24.84	9.56
115.0	229.49	171.89	129.92	102.29	65.67	60.62	41.26	42.55	23.50
120.0	229.65	173.13	130.14	103.65	66.50	62.17	43.79	44.51	25.80
125.0	228.95	172.35	131.54	104.94	69.11	65.10	47.59	47.76	29.83
130.0	353.25	292.88	242.61	190.54	151.45	121.20	95.30	77.58	56.64
135.0	354.67	292.26	243.49	193.08	154.37	123.73	98.97	81.26	60.67
140.0	353.64	292.90	244.36	193.27	155.83	127.39	102.50	84.95	65.33
145.0	453.74	386.14	318.47	269.05	218.55	189.77	142.43	118.09	94.98
150.0	454.36	387.48	317.97	270.13	220.85	191.71	145.93	121.48	99.46
155.0	452.46	388.59	317.74	270.95	222.46	194.13	148.30	122.51	100.52
160.0	508.40	431.14	358.25	299.98	245.72	225.67	170.90	131.01	109.21
165.0	506.12	428.69	358.62	299.81	247.42	226.41	172.60	131.96	110.16
170.0	506.63	430.00	359.92	300.78	248.09	225.78	172.56	132.23	109.77
175.0	526.71	447.94	381.66	322.36	256.42	217.67	175.48	129.82	110.39
180.0	528.76	449.30	383.69	323.04	255.45	217.05	175.06	129.93	110.99
185.0	527.05	446.23	382.29	322.72	255.40	217.65	175.42	131.42	110.34
190.0	518.82	450.45	377.20	310.75	257.68	217.68	172.93	141.59	107.09
195.0	518.65	450.41	376.76	311.49	255.95	219.53	171.89	143.16	106.67
200.0	518.61	449.60	374.34	310.10	255.78	218.62	170.46	140.54	104.87
205.0	458.27	372.58	327.48	280.57	222.96	194.88	148.18	114.30	92.56
210.0	456.79	372.86	325.11	281.57	222.47	195.27	145.63	111.61	90.32
215.0	458.12	372.22	324.50	280.45	220.71	190.89	142.30	108.68	86.89
220.0	362.00	288.24	227.14	200.59	164.70	129.63	97.19	88.04	64.39
225.0	362.12	288.84	224.89	198.57	162.81	126.75	93.78	85.69	61.21
230.0	360.43	288.61	225.90	197.12	159.87	123.48	91.08	81.13	58.46
235.0	227.43	177.55	139.97	99.37	83.26	68.74	54.52	39.45	39.55
240.0	227.94	177.54	139.67	98.15	80.47	65.70	51.68	35.01	36.59
245.0	225.45	177.50	139.04	96.62	78.71	64.26	48.71	33.11	34.22
250.0	98.24	55.63	36.26	30.72	23.56	30.83	14.78	14.89	19.40
255.0	98.67	55.35	35.47	29.62	21.75	29.26	12.12	12.84	17.10
260.0	98.07	55.29	35.06	29.17	21.33	28.20	11.66	12.29	18.38
265.0	4.67	4.36	0.28	9.64	8.97	7.67	5.90	7.19	26.33
270.0	4.70	4.28	0.00	9.35	8.56	6.65	5.45	6.59	27.58
275.0	4.65	4.43	0.26	9.40	8.50	6.79	6.10	6.84	25.03
280.0	90.10	54.88	31.66	13.23	6.68	9.92	14.56	8.41	8.05
285.0	89.96	54.92	31.97	13.27	6.64	10.17	15.20	8.60	5.46

Intensity data(cd)

Appendix Page: 19 Total:23

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
290.0	89.52	55.27	32.64	14.83	8.65	11.43	15.67	10.11	7.39
295.0	220.38	159.18	116.40	101.02	74.55	34.86	22.10	24.53	20.23
300.0	219.88	158.90	117.35	102.65	76.24	36.23	22.66	26.01	22.27
305.0	220.45	159.83	117.63	104.69	78.26	40.30	27.50	28.98	22.51
310.0	345.14	275.56	227.91	176.62	151.31	117.77	88.59	56.48	24.73
315.0	343.24	274.95	228.71	177.26	152.38	121.80	93.51	59.19	25.13
320.0	344.13	273.97	229.75	178.32	154.31	123.80	96.26	64.13	28.78
325.0	451.14	358.84	300.68	250.89	213.31	173.78	129.03	105.89	53.83
330.0	453.48	358.42	302.52	252.32	214.53	175.90	131.37	110.79	57.58
335.0	449.68	359.07	300.82	253.62	214.79	177.24	133.29	112.53	63.00
340.0	495.91	409.23	342.75	292.71	236.60	198.39	163.99	128.63	97.47
345.0	492.22	407.62	341.40	291.25	237.21	198.33	165.83	130.60	102.29
350.0	494.63	408.47	341.50	290.43	236.38	198.62	165.20	131.24	102.70
355.0	498.68	431.13	367.52	313.40	257.39	203.46	159.56	145.61	107.74
360.0	499.49	433.69	367.45	313.41	259.88	203.20	158.78	147.42	108.30

Intensity data(cd)

Appendix Page: 20 Total:23

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	36.68	16.46	30.65	33.44	11.80	11.35	16.38	8.77	9.33
5.0	37.33	17.98	30.93	37.00	12.12	14.46	16.25	8.02	9.94
10.0	41.18	23.58	31.47	44.64	12.48	17.69	13.96	8.51	10.33
15.0	41.96	25.08	31.64	48.45	12.72	20.80	12.59	10.44	10.59
20.0	38.88	24.72	32.05	40.68	12.27	19.53	13.90	12.33	11.04
25.0	24.25	24.00	34.02	25.35	11.80	18.13	16.20	13.46	11.53
30.0	21.19	23.79	34.74	17.95	11.33	16.75	17.29	13.35	11.91
35.0	25.07	24.96	31.18	14.30	9.75	16.40	15.34	13.31	11.70
40.0	44.79	29.25	21.72	6.92	7.42	16.17	12.41	12.42	11.33
45.0	48.96	30.61	18.34	3.20	5.82	15.85	9.87	11.44	10.85
50.0	43.90	27.51	18.11	6.72	7.65	13.13	9.61	10.41	10.45
55.0	19.05	16.34	17.40	13.71	10.28	10.22	10.59	10.04	10.05
60.0	13.81	13.24	17.12	17.11	12.07	7.52	10.68	9.55	9.92
65.0	13.33	11.71	14.67	17.56	10.85	7.26	9.01	9.05	10.07
70.0	11.40	6.22	8.21	18.33	9.07	7.15	6.92	7.83	10.22
75.0	10.91	4.70	5.82	18.60	7.87	6.97	5.99	5.80	10.26
80.0	10.51	4.68	4.85	13.98	7.23	5.75	7.90	3.77	10.14
85.0	8.55	4.70	2.18	4.64	6.42	4.42	10.78	2.83	10.21
90.0	8.14	4.71	1.18	0.01	5.82	3.26	13.02	3.02	10.43
95.0	8.52	3.87	2.89	0.80	4.35	6.38	12.91	3.38	10.87
100.0	10.47	0.87	7.57	2.35	2.22	9.89	11.61	4.13	11.20
105.0	10.87	0.03	9.32	3.17	0.79	13.18	9.70	5.04	11.33
110.0	12.07	3.13	9.04	3.43	3.02	16.39	7.80	5.92	10.88
115.0	17.92	14.43	8.15	4.01	6.30	19.68	6.44	6.41	10.23
120.0	18.99	17.59	7.81	4.30	8.51	22.66	5.56	6.90	9.48
125.0	23.88	22.61	12.66	8.19	9.00	20.91	6.12	7.49	8.88
130.0	47.93	40.96	25.35	15.87	9.72	19.01	7.37	7.54	8.40
135.0	52.99	45.83	30.16	19.56	10.22	17.15	8.46	6.65	8.09
140.0	55.97	46.44	33.85	20.00	8.88	15.73	8.88	5.72	7.74
145.0	70.48	48.26	43.86	20.99	6.92	14.40	8.75	4.29	7.25
150.0	73.22	48.28	47.48	21.55	5.56	13.22	9.91	2.58	6.66
155.0	75.02	51.42	47.88	26.30	6.88	15.00	12.71	0.91	6.15
160.0	83.06	63.42	48.57	36.04	8.88	16.88	15.73	0.95	5.66
165.0	84.62	66.61	48.69	41.02	10.35	18.50	17.89	2.67	5.23
170.0	84.16	68.51	51.17	39.59	11.11	14.11	17.42	4.53	4.89
175.0	81.66	76.12	58.04	36.31	12.32	9.32	15.70	5.87	4.69
180.0	81.09	78.33	60.31	34.91	13.09	4.95	13.82	6.37	4.70
185.0	80.53	75.07	59.21	36.23	13.86	7.69	12.66	6.72	5.02
190.0	77.95	62.21	56.43	38.70	15.11	10.73	12.25	5.85	5.29
195.0	77.39	58.92	55.44	39.74	15.83	13.59	11.38	4.04	5.27
200.0	76.93	58.72	51.14	35.33	12.13	13.09	9.99	2.25	4.84
205.0	73.97	59.15	38.73	26.69	6.86	12.53	8.78	1.28	4.34
210.0	73.71	59.50	34.09	22.34	3.24	11.90	7.96	0.80	3.98
215.0	70.53	52.94	31.23	18.81	8.01	10.15	8.45	0.32	3.94
220.0	53.12	29.14	24.13	12.07	15.06	8.18	9.44	0.15	4.15
225.0	49.38	22.69	21.50	8.61	19.80	6.36	9.22	0.09	4.55
230.0	43.32	19.20	17.97	7.80	18.06	6.16	6.84	0.11	5.06
235.0	14.89	6.89	8.56	6.23	15.37	6.07	4.02	0.79	5.42
240.0	9.07	3.53	5.06	5.44	13.61	5.96	2.28	2.69	5.62
245.0	9.90	2.94	4.91	6.97	9.71	7.40	3.64	4.48	5.95
250.0	14.02	0.69	4.45	10.12	3.95	8.95	6.17	5.95	6.44
255.0	14.79	0.04	4.26	11.64	0.08	10.26	7.65	6.72	7.26
260.0	14.53	2.06	5.26	10.48	1.29	7.74	6.18	7.43	8.49
265.0	12.90	9.31	7.94	8.13	3.10	4.98	3.66	7.10	9.72
270.0	12.57	11.32	9.01	7.03	4.31	2.47	2.41	6.34	10.59
275.0	11.85	12.56	9.05	5.89	10.30	4.21	4.35	5.53	10.64
280.0	8.78	17.00	9.24	3.55	19.17	6.11	7.36	5.78	10.32
285.0	8.17	18.35	9.39	2.38	25.04	7.87	10.20	6.98	9.80

Intensity data(cd)

Appendix Page: 21 Total:23

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
290.0	7.80	17.20	10.99	5.17	20.52	6.84	11.03	8.28	9.19
295.0	5.85	13.11	15.45	10.84	13.85	5.79	10.64	8.57	8.58
300.0	5.50	12.01	17.18	13.67	9.37	4.68	9.63	7.67	8.03
305.0	7.99	14.12	16.06	11.86	9.55	3.20	8.03	6.73	7.39
310.0	19.84	21.71	12.83	8.40	9.86	1.63	6.63	6.22	6.75
315.0	22.16	23.76	11.68	6.65	10.09	0.13	4.72	6.94	6.09
320.0	22.01	22.02	15.45	7.38	10.76	0.61	2.92	7.84	5.75
325.0	21.00	16.05	25.49	8.73	11.74	1.12	1.71	9.67	5.51
330.0	20.81	14.46	29.14	9.40	12.39	1.74	0.54	11.86	5.32
335.0	24.24	13.86	31.53	15.45	11.73	5.17	0.08	13.96	5.28
340.0	40.43	11.61	37.80	27.65	10.63	8.90	0.10	14.05	5.52
345.0	43.84	10.97	40.17	33.66	9.88	12.39	2.29	12.54	6.07
350.0	42.92	11.99	38.11	33.53	10.48	12.06	7.32	10.90	7.13
355.0	37.71	15.51	32.63	33.39	11.23	11.69	12.33	9.65	8.27
360.0	36.68	16.46	30.65	33.44	11.80	11.35	16.38	8.77	9.33

Intensity data(cd)

C/γ(°)	180.0
0.0	8.02
5.0	8.02
10.0	8.02
15.0	8.02
20.0	8.02
25.0	8.02
30.0	8.02
35.0	8.02
40.0	8.02
45.0	8.02
50.0	8.02
55.0	8.02
60.0	8.02
65.0	8.02
70.0	8.02
75.0	8.02
80.0	8.02
85.0	8.02
90.0	8.02
95.0	8.02
100.0	8.02
105.0	8.02
110.0	8.02
115.0	8.02
120.0	8.02
125.0	8.02
130.0	8.02
135.0	8.02
140.0	8.02
145.0	8.02
150.0	8.02
155.0	8.02
160.0	8.02
165.0	8.02
170.0	8.02
175.0	8.02
180.0	8.02
185.0	8.02
190.0	8.02
195.0	8.02
200.0	8.02
205.0	8.02
210.0	8.02
215.0	8.02
220.0	8.02
225.0	8.02
230.0	8.02
235.0	8.02
240.0	8.02
245.0	8.02
250.0	8.02
255.0	8.02
260.0	8.02
265.0	8.02
270.0	8.02
275.0	8.02
280.0	8.02
285.0	8.02

Intensity data(cd)

C/ $\gamma(^{\circ})$	180.0
290.0	8.02
295.0	8.02
300.0	8.02
305.0	8.02
310.0	8.02
315.0	8.02
320.0	8.02
325.0	8.02
330.0	8.02
335.0	8.02
340.0	8.02
345.0	8.02
350.0	8.02
355.0	8.02
360.0	8.02