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Nata

LumCAT: 12-0080-M

Luminaire: LM07126060EM

Report No: 220514-B009

Test No: 220514-C009

LampCAT: LUMILEDS 5050

Lamp flux(lm): 1696.5

Number of Lamps: 1

Length(mm): 570

Phm Type: C

Voltage(V): 12.4900

Current(A): 1.1140

Power (W): 13.9130

PF: 0.0000

Ballast type: DC

Width(mm): 47

Height(mm): 20

Photometric Results

Lumens(lm): 1367.83

Efficiency(%): 80.63%

Lumens(lm)/Power(W): 98.31

Central intensity(cd): 1539.235

Maximum intensity(cd): 1587.635

Angle of maximum intensity: C=90.0 γ =3.0

Beam Angle(50%Imax): [C0/180]Total=53.9

[C90/270]Total=57.1

Field angle(10%Imax): [C0/180]Total=80.3

[C90/270]Total=83.3

Maximum s/h(1/2): C0_180=0.82 C90_270=0.94

Maximum s/h(1/4): C0_180=0.78 C90_270=0.87

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 80.63%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.479%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1555.667	0.000	0	.000%	.000%
1.0	1555.331	1.489	1.489	.088%	.109%
2.0	1554.024	4.463	5.951	.263%	.435%
3.0	1551.745	7.428	13.379	.438%	.978%
4.0	1548.907	10.379	23.758	.612%	1.737%
5.0	1545.023	13.310	37.068	.785%	2.710%
6.0	1539.272	16.209	53.277	.955%	3.895%
7.0	1532.251	19.065	72.342	1.124%	5.289%
8.0	1523.998	21.873	94.215	1.289%	6.888%
9.0	1513.205	24.615	118.83	1.451%	8.687%
10.0	1499.648	27.265	146.095	1.607%	10.681%
11.0	1484.374	29.817	175.911	1.758%	12.861%
12.0	1466.560	32.258	208.169	1.901%	15.219%
13.0	1444.862	34.551	242.721	2.037%	17.745%
14.0	1420.700	36.679	279.4	2.162%	20.426%
15.0	1395.193	38.658	318.057	2.279%	23.253%
16.0	1365.130	40.446	358.504	2.384%	26.210%
17.0	1329.577	41.964	400.468	2.474%	29.278%
18.0	1291.454	43.215	443.683	2.547%	32.437%
19.0	1248.933	44.198	487.88	2.605%	35.668%
20.0	1206.908	44.949	532.829	2.649%	38.954%
21.0	1162.063	45.489	578.318	2.681%	42.280%
22.0	1114.168	45.742	624.06	2.696%	45.624%
23.0	1062.862	45.680	669.74	2.693%	48.964%
24.0	1008.793	45.294	715.034	2.670%	52.275%
25.0	951.307	44.568	759.602	2.627%	55.533%
26.0	894.202	43.563	803.166	2.568%	58.718%
27.0	835.846	42.326	845.492	2.495%	61.813%
28.0	771.477	40.694	886.186	2.399%	64.788%
29.0	709.454	38.745	924.931	2.284%	67.620%
30.0	651.157	36.736	961.667	2.165%	70.306%
31.0	588.577	34.500	996.167	2.034%	72.828%
32.0	531.196	32.080	1028.247	1.891%	75.174%
33.0	479.823	29.785	1058.032	1.756%	77.351%
34.0	429.452	27.517	1085.55	1.622%	79.363%
35.0	382.381	25.213	1110.762	1.486%	81.206%
36.0	341.241	23.040	1133.802	1.358%	82.891%
37.0	306.517	21.126	1154.929	1.245%	84.435%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	273.993	19.377	1174.305	1.142%	85.852%
39.0	237.283	17.451	1191.757	1.029%	87.128%
40.0	206.517	15.478	1207.235	.912%	88.259%
41.0	181.679	13.823	1221.058	.815%	89.270%
42.0	158.450	12.357	1233.416	.728%	90.173%
43.0	137.984	10.981	1244.397	.647%	90.976%
44.0	122.213	9.821	1254.217	.579%	91.694%
45.0	107.951	8.845	1263.063	.521%	92.341%
46.0	95.593	7.960	1271.023	.469%	92.923%
47.0	85.536	7.204	1278.227	.425%	93.449%
48.0	77.163	6.577	1284.804	.388%	93.930%
49.0	69.694	6.031	1290.835	.355%	94.371%
50.0	62.561	5.514	1296.349	.325%	94.774%
51.0	56.997	5.058	1301.407	.298%	95.144%
52.0	52.067	4.680	1306.087	.276%	95.486%
53.0	47.533	4.333	1310.42	.255%	95.803%
54.0	43.586	4.016	1314.436	.237%	96.096%
55.0	40.202	3.740	1318.176	.220%	96.370%
56.0	37.099	3.493	1321.669	.206%	96.625%
57.0	34.037	3.252	1324.922	.192%	96.863%
58.0	31.277	3.020	1327.942	.178%	97.084%
59.0	28.767	2.807	1330.749	.165%	97.289%
60.0	26.131	2.594	1333.343	.153%	97.479%
61.0	23.737	2.380	1335.723	.140%	97.653%
62.0	21.814	2.195	1337.917	.129%	97.813%
63.0	20.182	2.042	1339.96	.120%	97.962%
64.0	18.736	1.910	1341.87	.113%	98.102%
65.0	17.541	1.795	1343.665	.106%	98.233%
66.0	16.454	1.696	1345.361	.100%	98.357%
67.0	15.427	1.603	1346.964	.094%	98.474%
68.0	14.453	1.514	1348.478	.089%	98.585%
69.0	13.538	1.428	1349.906	.084%	98.690%
70.0	12.709	1.348	1351.254	.079%	98.788%
71.0	11.924	1.273	1352.527	.075%	98.881%
72.0	11.163	1.200	1353.727	.071%	98.969%
73.0	10.509	1.133	1354.861	.067%	99.052%
74.0	9.900	1.073	1355.934	.063%	99.130%
75.0	9.303	1.015	1356.948	.060%	99.204%

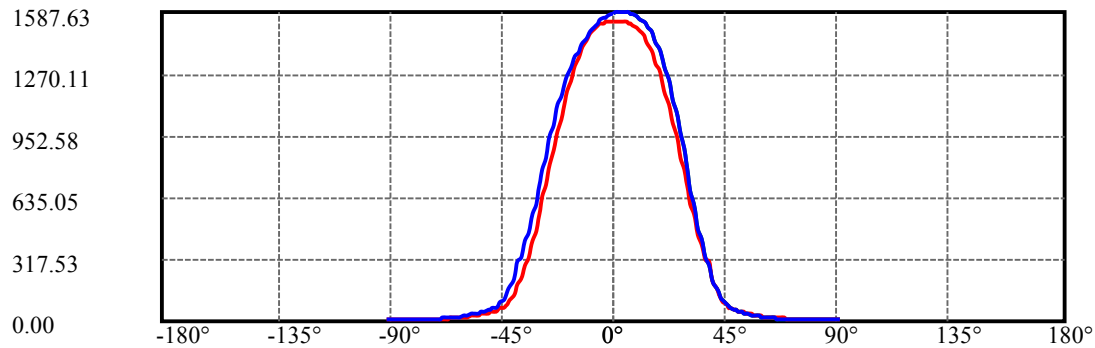
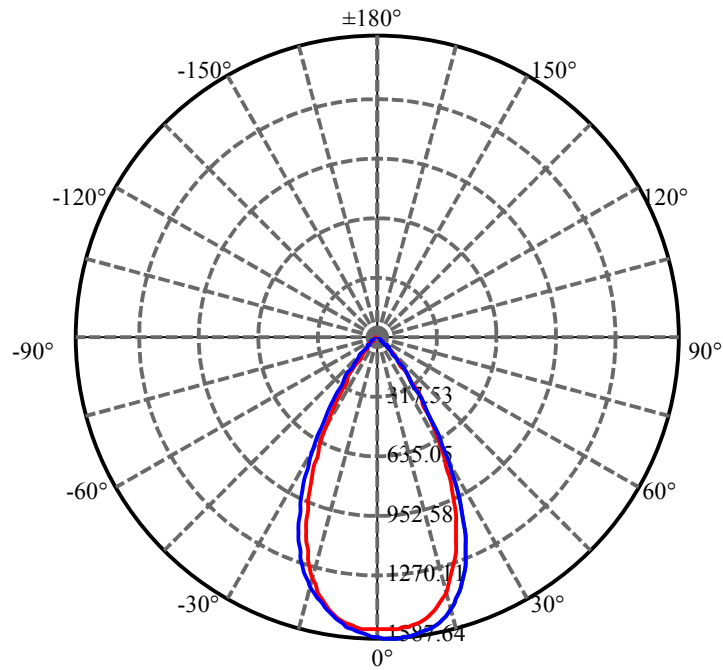
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	8.776	0.960	1357.908	.057%	99.275%
77.0	8.317	0.911	1358.819	.054%	99.341%
78.0	7.872	0.867	1359.686	.051%	99.405%
79.0	7.495	0.826	1360.512	.049%	99.465%
80.0	7.144	0.789	1361.301	.047%	99.523%
81.0	6.838	0.756	1362.057	.045%	99.578%
82.0	6.558	0.726	1362.783	.043%	99.631%
83.0	6.293	0.699	1363.482	.041%	99.682%
84.0	6.076	0.674	1364.156	.040%	99.731%
85.0	5.886	0.653	1364.809	.038%	99.779%
86.0	5.710	0.634	1365.442	.037%	99.825%
87.0	5.546	0.616	1366.059	.036%	99.870%
88.0	5.411	0.600	1366.659	.035%	99.914%
89.0	5.337	0.589	1367.248	.035%	99.957%
90.0	5.292	0.583	1367.831	.034%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	961.67	56.69%	70.31%
0-40	1207.23	71.16%	88.26%
0-60	1333.34	78.59%	97.48%
0-90	1367.25	80.59%	99.96%
0-120	1367.25	80.59%	99.96%
0-180	1367.83	80.63%	100.00%
60-90	36.50	2.15%	2.67%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-34.35	1094.27	64.50%	80.00%

ZONAL LUMEN SUMMARY

0-10	146.09
10-20	386.73
20-30	428.84
30-40	245.57
40-50	89.11
50-60	36.99
60-70	17.91
70-80	10.05
80-90	5.95
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

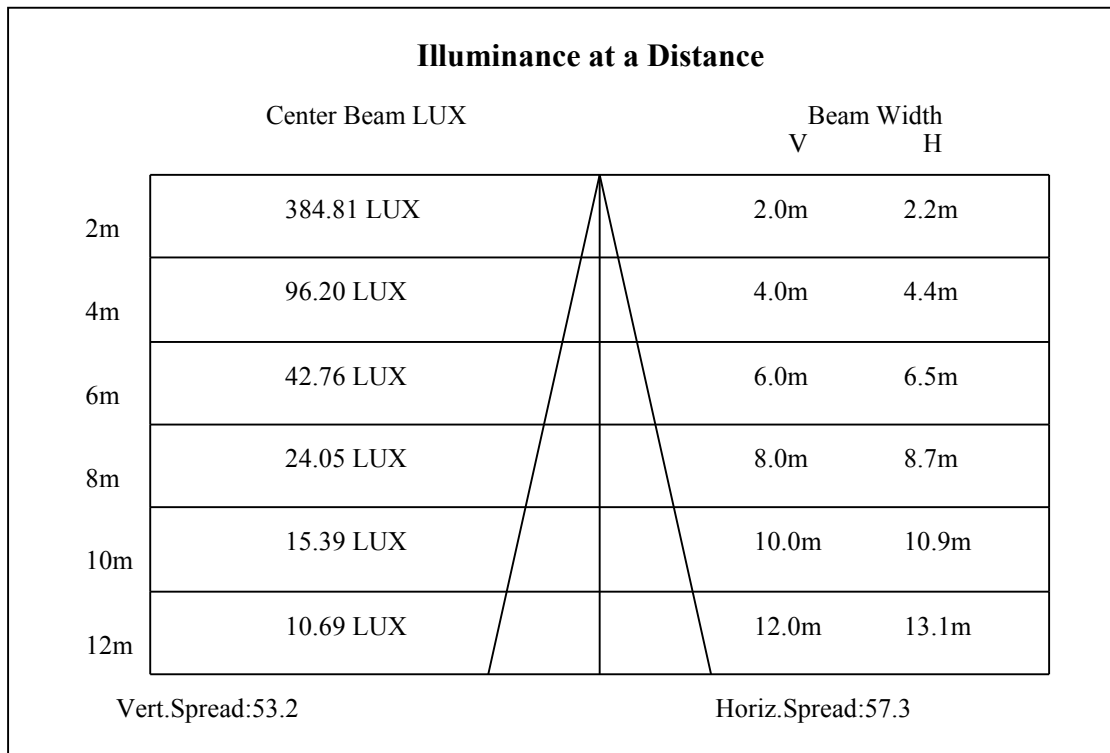
C90(Max): ———C0/C180: ———C90/C270: ———

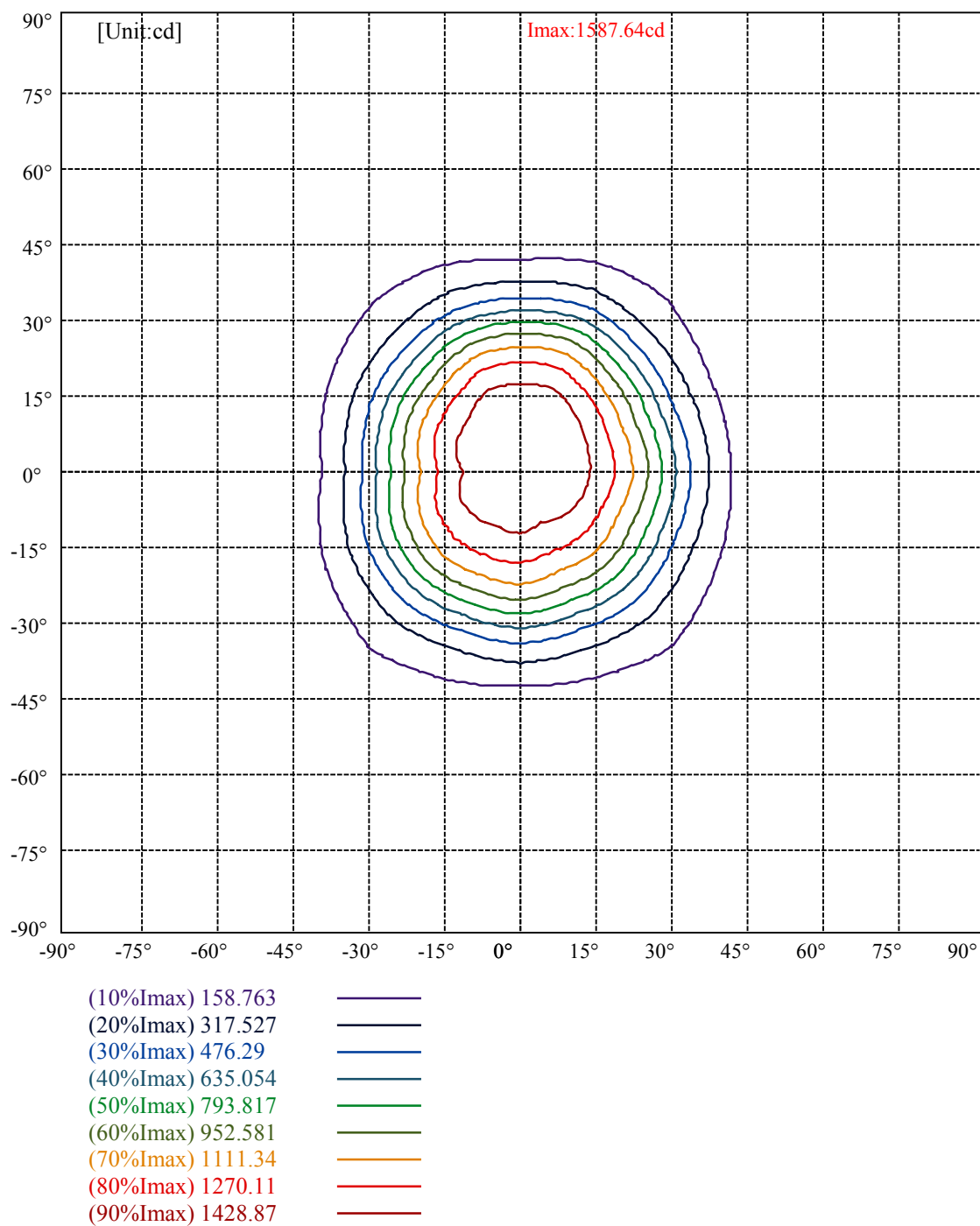
Field angle(10%Imax):C0/180Left:40.9 Right:39.4

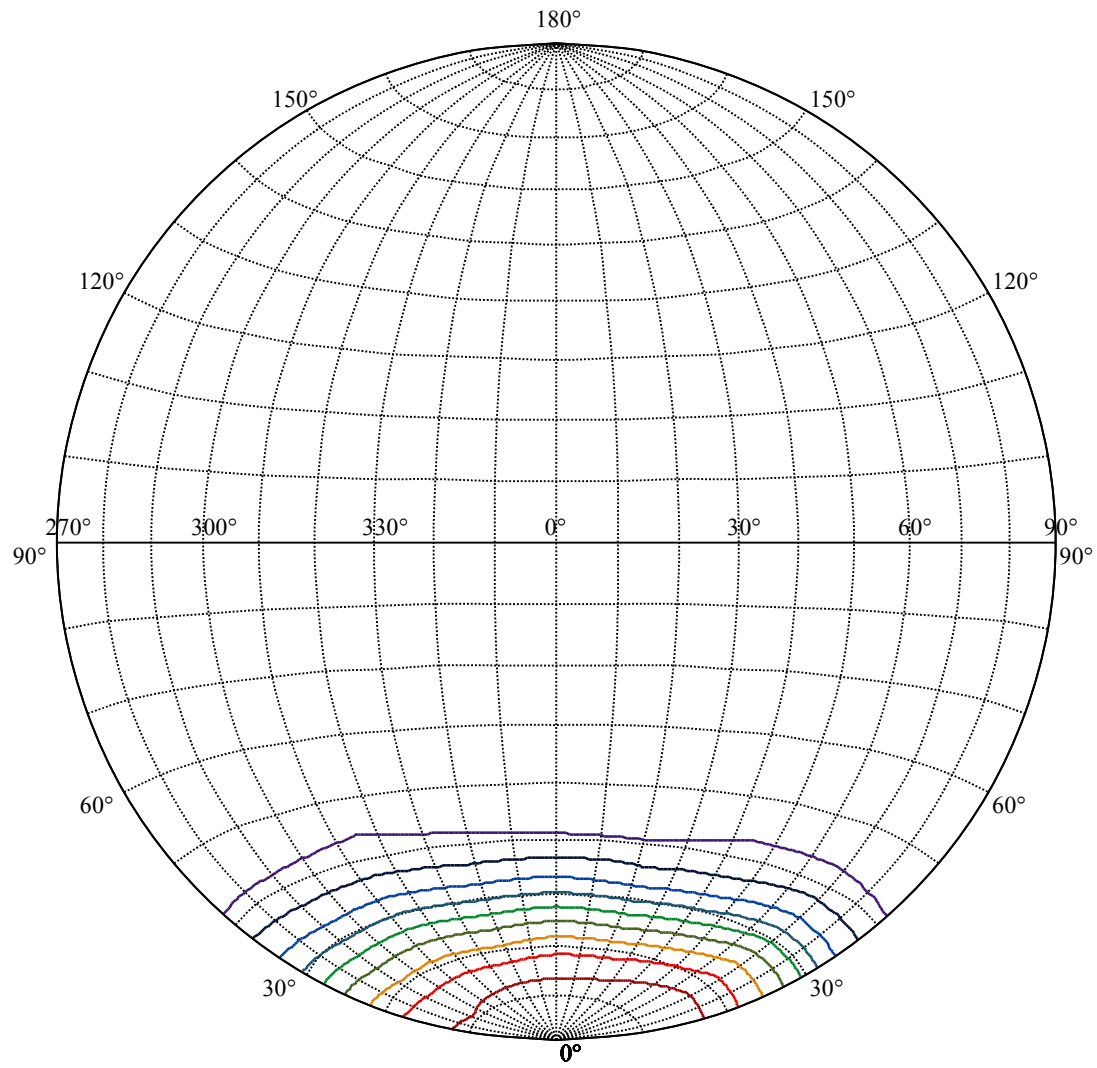
:C90/270Left:45.9 Right:37.4

Beam Angle(50%Imax):C0/180Left:27.7 Right:26.2

:C90/270Left:31.7 Right:25.4





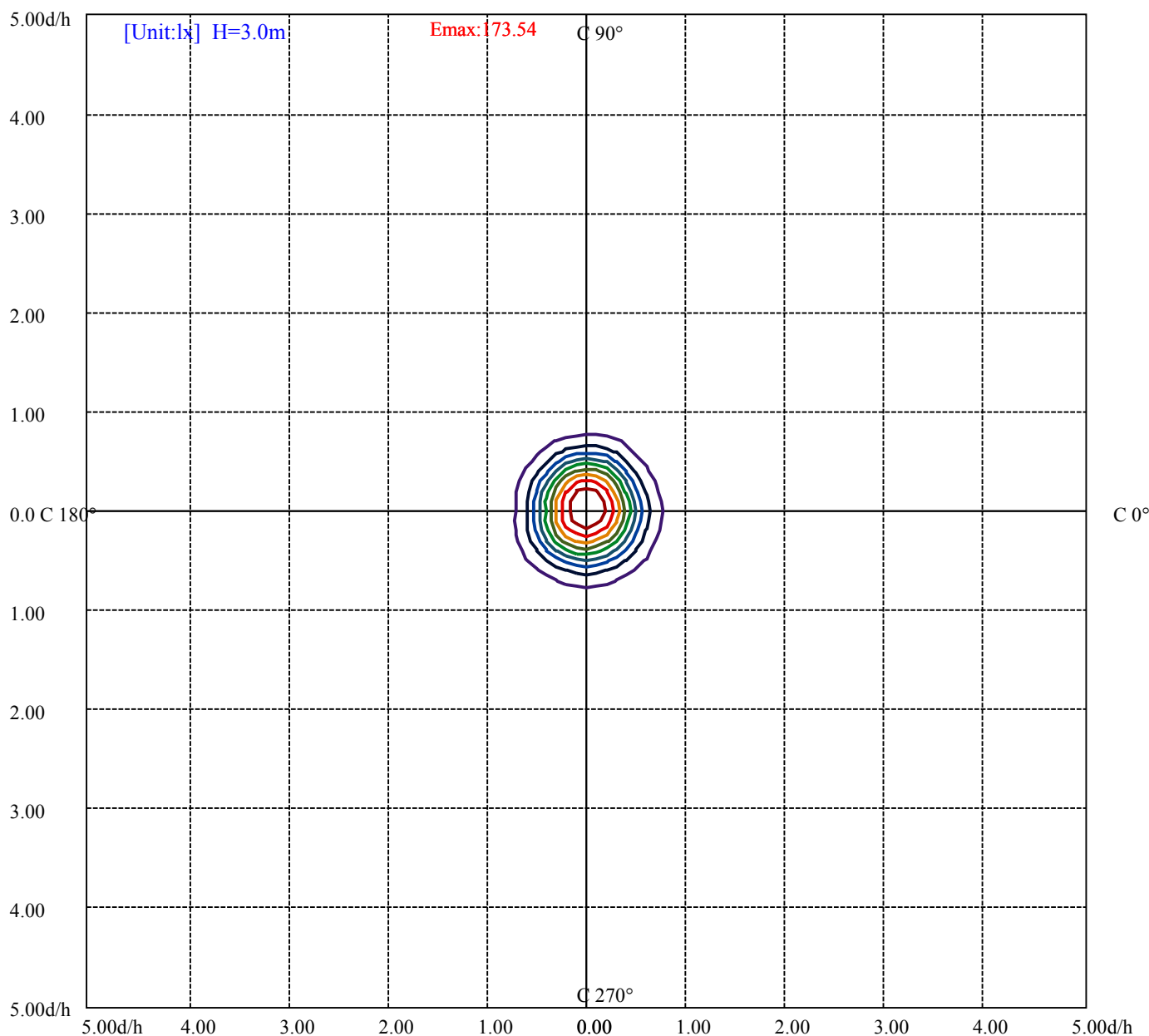


House

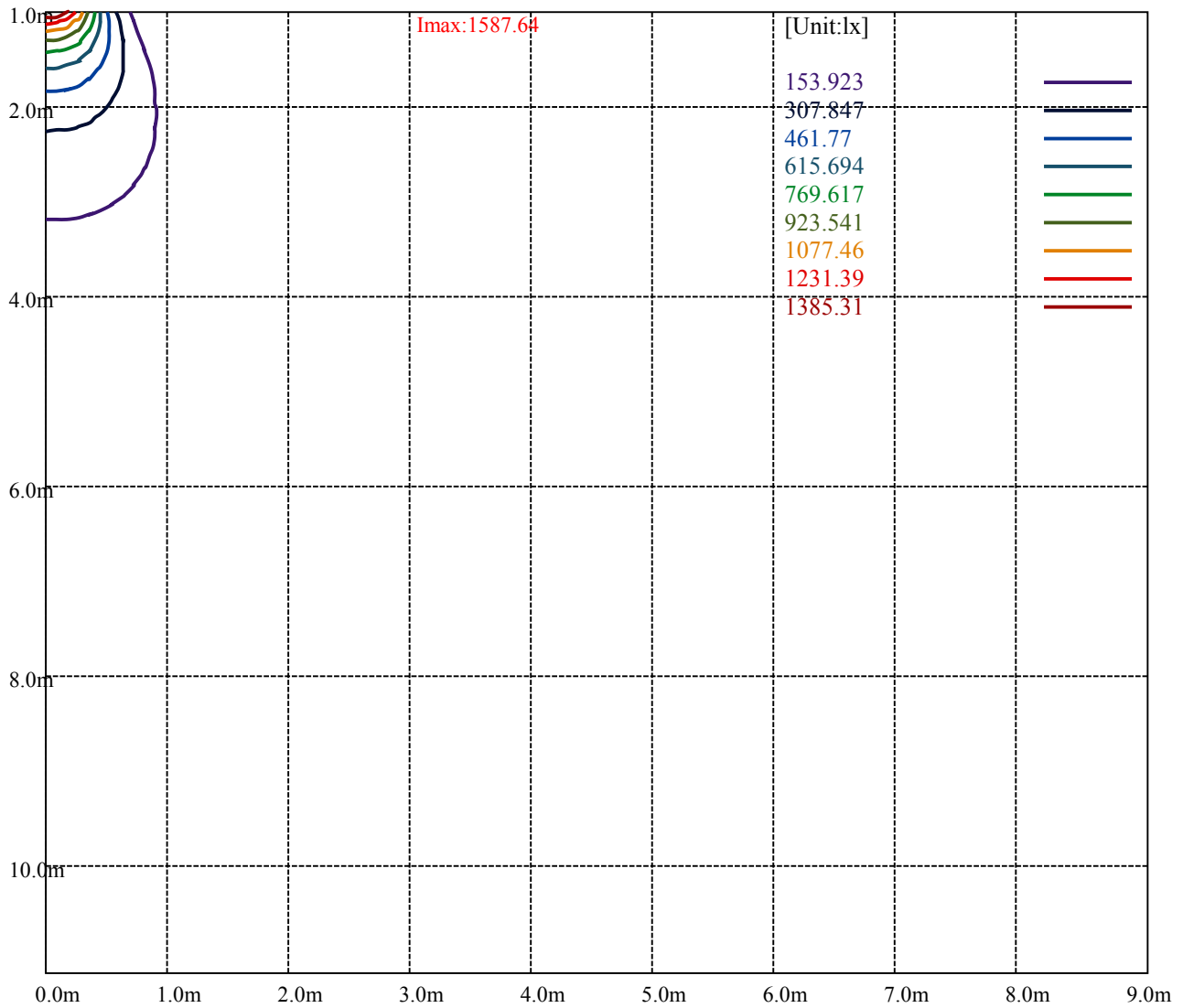
[Unit:cd]

Road

	Imax:1587.64	
(10%Imax)	158.763	—
(20%Imax)	317.527	—
(30%Imax)	476.29	—
(40%Imax)	635.054	—
(50%Imax)	793.817	—
(60%Imax)	952.581	—
(70%Imax)	1111.34	—
(80%Imax)	1270.11	—
(90%Imax)	1428.87	—



(10%Emax)	17.35378	—
(20%Emax)	34.70756	—
(30%Emax)	52.06133	—
(40%Emax)	69.41522	—
(50%Emax)	86.769	—
(60%Emax)	104.1228	—
(70%Emax)	121.4767	—
(80%Emax)	138.83	—
(90%Emax)	156.1844	—



Luminance Table

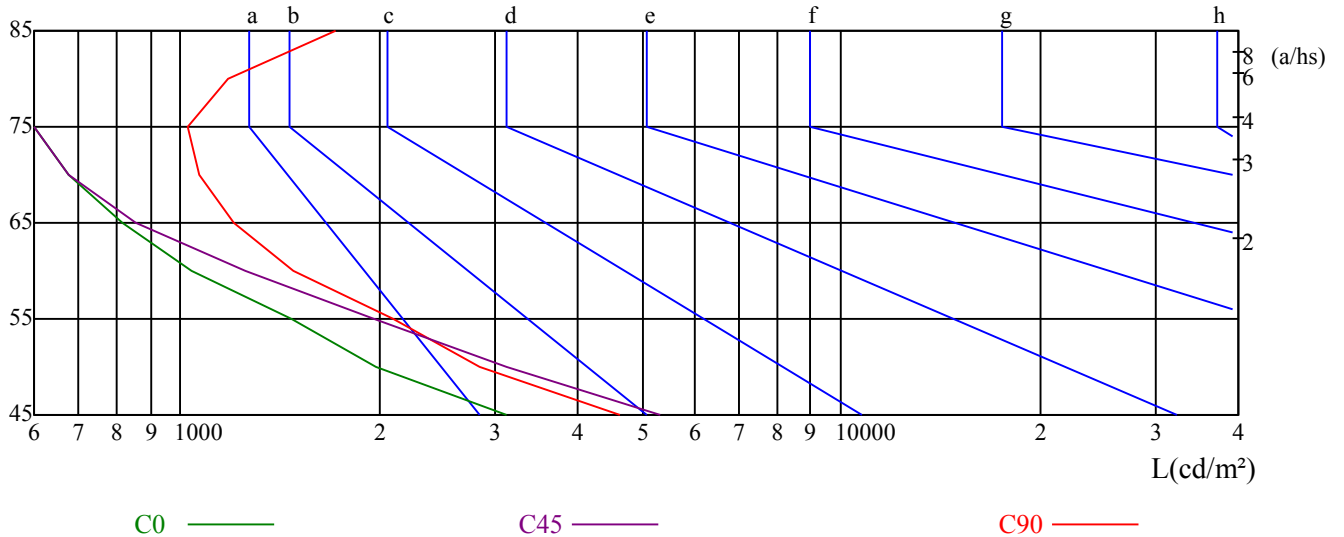
γ	45	50	55	60	65	70	75	80	85
C0	3120	1973	1471	1040	814	676	559	482	441
C45	5337	3122	1969	1255	858	678	560	510	526
C90	4614	2841	2103	1484	1203	1065	1029	1178	1717

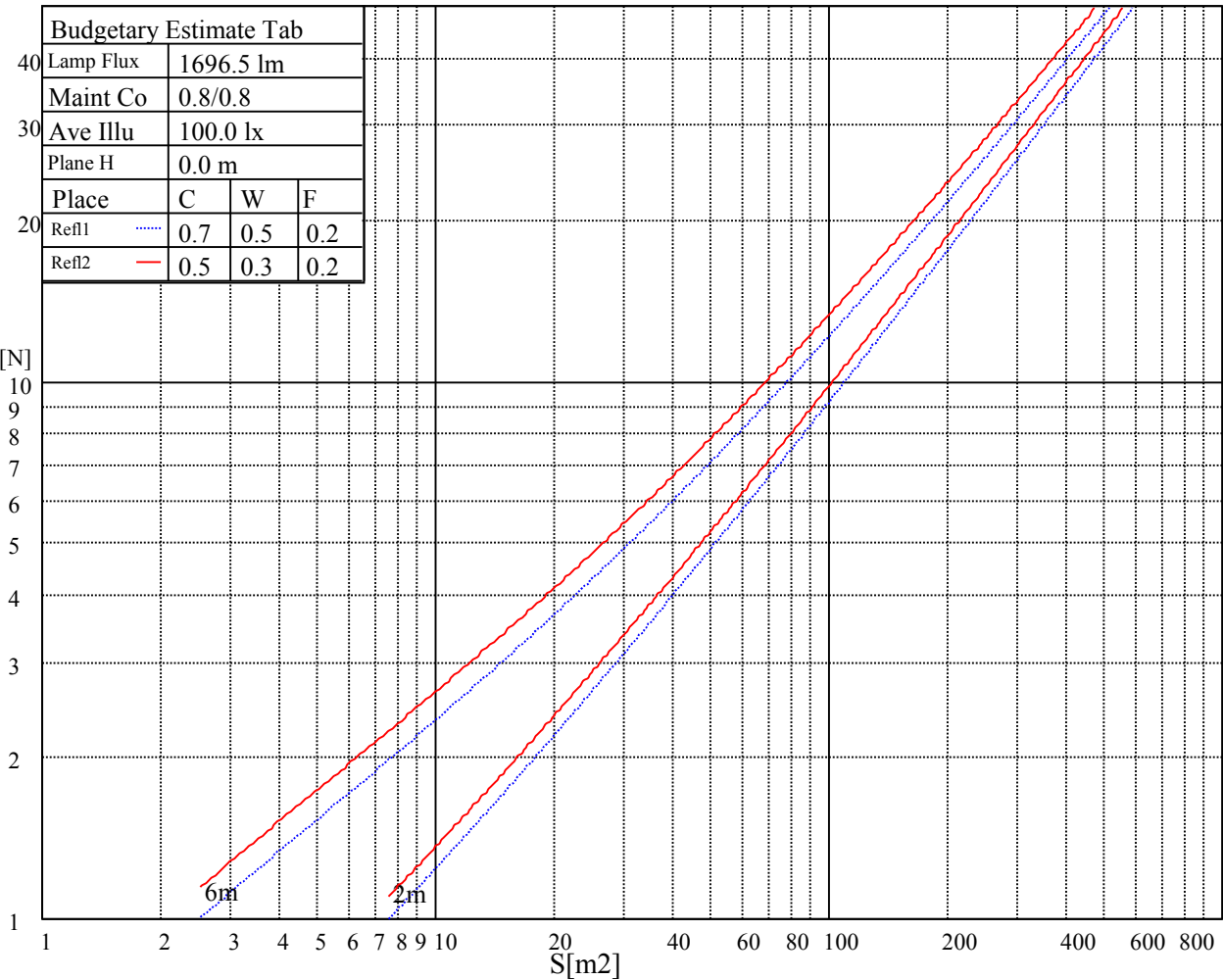
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
1454	1441	1629	1362	1271	1349	2482	2482	2540

Glare Table

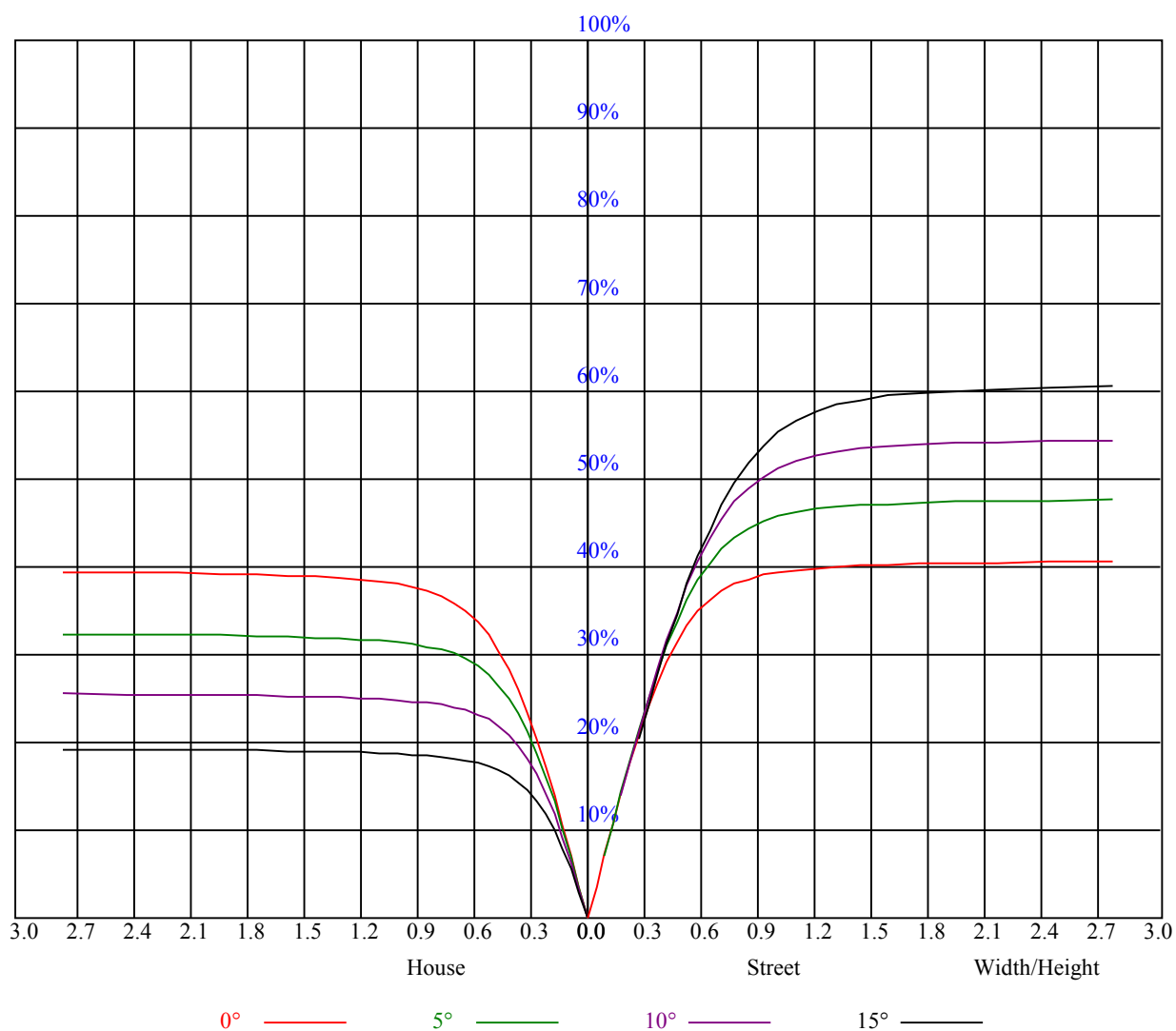
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve

 $\gamma(^{\circ})$ 



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	0.96	0.96	0.96	0.94	0.94	0.94	0.90	0.90	0.90	0.86	0.86	0.86	0.82	0.82	0.82	0.81
1	0.89	0.87	0.85	0.87	0.85	0.83	0.84	0.82	0.81	0.81	0.80	0.78	0.78	0.77	0.76	0.75
2	0.82	0.79	0.76	0.81	0.78	0.75	0.78	0.76	0.73	0.76	0.74	0.72	0.74	0.72	0.70	0.69
3	0.77	0.72	0.69	0.75	0.72	0.68	0.73	0.70	0.67	0.71	0.69	0.66	0.69	0.67	0.65	0.64
4	0.71	0.67	0.63	0.70	0.66	0.63	0.69	0.65	0.62	0.67	0.64	0.61	0.66	0.63	0.61	0.59
5	0.67	0.62	0.58	0.66	0.61	0.58	0.65	0.61	0.58	0.63	0.60	0.57	0.62	0.59	0.57	0.55
6	0.63	0.58	0.54	0.62	0.57	0.54	0.61	0.57	0.54	0.60	0.56	0.53	0.59	0.55	0.53	0.52
7	0.59	0.54	0.50	0.58	0.54	0.50	0.57	0.53	0.50	0.56	0.53	0.50	0.55	0.52	0.49	0.48
8	0.55	0.51	0.47	0.55	0.50	0.47	0.54	0.50	0.47	0.53	0.49	0.47	0.52	0.49	0.46	0.45
9	0.52	0.48	0.44	0.52	0.47	0.44	0.51	0.47	0.44	0.50	0.47	0.44	0.50	0.46	0.44	0.43
10	0.50	0.45	0.42	0.49	0.45	0.42	0.49	0.44	0.42	0.48	0.44	0.41	0.47	0.44	0.41	0.40



Intensity data(cd)

Appendix Page: 16 Total:19

C/γ(°)	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
0.0	1539.23	1539.23	1539.23	1538.64	1536.84	1534.45	1531.47	1526.09	1519.52
22.5	1548.80	1549.99	1551.19	1551.78	1551.78	1551.19	1548.80	1544.61	1538.64
45.0	1557.16	1558.95	1560.75	1561.34	1560.75	1558.95	1555.97	1551.19	1545.21
67.5	1563.14	1567.92	1572.10	1573.89	1575.68	1575.68	1574.49	1572.70	1570.31
90.0	1580.46	1584.05	1585.84	1587.63	1587.63	1587.04	1584.65	1581.06	1576.88
112.5	1548.80	1552.38	1556.56	1558.95	1560.75	1562.54	1562.54	1561.34	1559.55
135.0	1548.20	1549.99	1550.59	1549.99	1548.20	1545.81	1541.03	1536.84	1530.87
157.5	1559.55	1559.55	1558.36	1556.56	1554.17	1549.99	1545.81	1541.03	1534.45
180.0	1539.23	1538.64	1538.04	1534.45	1531.47	1526.09	1518.32	1507.57	1495.62
202.5	1548.80	1547.60	1545.81	1543.42	1541.03	1538.04	1533.86	1524.89	1515.93
225.0	1557.16	1554.17	1548.80	1544.01	1537.44	1530.87	1520.71	1511.75	1500.40
247.5	1563.14	1557.76	1549.99	1541.62	1533.86	1526.09	1514.74	1503.98	1492.03
270.0	1580.46	1576.28	1570.31	1562.54	1554.77	1545.21	1530.87	1518.92	1505.18
292.5	1548.80	1544.01	1536.84	1529.67	1522.50	1512.35	1502.19	1489.04	1475.30
315.0	1548.20	1546.41	1543.42	1539.83	1535.05	1529.08	1521.31	1511.15	1500.40
337.5	1559.55	1558.36	1556.56	1553.58	1550.59	1547.00	1541.62	1533.86	1523.70
360.0	1539.23	1539.23	1539.23	1538.64	1536.84	1534.45	1531.47	1526.09	1519.52
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	1511.75	1498.01	1484.86	1468.13	1443.63	1420.33	1394.63	1358.78	1325.92
22.5	1529.08	1514.74	1499.20	1478.29	1453.19	1428.09	1403.60	1359.98	1324.12
45.0	1538.64	1528.48	1515.93	1502.19	1484.86	1463.35	1440.64	1414.95	1376.71
67.5	1566.12	1560.15	1552.98	1543.42	1528.48	1513.54	1495.02	1473.51	1441.24
90.0	1570.90	1561.34	1551.78	1541.03	1523.70	1506.97	1487.85	1463.35	1434.67
112.5	1555.37	1550.59	1542.82	1533.26	1520.11	1503.98	1486.05	1462.75	1434.67
135.0	1521.91	1509.96	1498.60	1483.07	1464.54	1444.23	1417.34	1389.25	1352.81
157.5	1524.30	1511.15	1492.63	1472.91	1449.01	1420.33	1392.24	1356.99	1315.76
180.0	1478.88	1460.36	1435.86	1408.38	1381.49	1347.43	1310.38	1274.53	1231.51
202.5	1505.18	1488.44	1471.12	1452.00	1427.50	1400.01	1373.12	1339.06	1305.60
225.0	1486.65	1473.51	1458.57	1439.45	1417.34	1393.44	1370.13	1343.84	1307.39
247.5	1476.49	1459.17	1441.84	1420.92	1398.82	1377.30	1351.61	1326.51	1294.85
270.0	1486.65	1469.92	1452.59	1431.08	1407.78	1385.07	1358.18	1332.49	1300.22
292.5	1460.96	1443.03	1422.72	1403.60	1381.49	1351.61	1325.92	1297.83	1263.77
315.0	1486.05	1469.32	1452.00	1432.28	1404.79	1379.10	1351.01	1316.95	1279.31
337.5	1512.35	1496.21	1476.49	1454.98	1431.08	1396.43	1365.35	1331.29	1284.69
360.0	1511.75	1498.01	1484.86	1468.13	1443.63	1420.33	1394.63	1358.78	1325.92
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1291.26	1249.43	1206.41	1163.39	1113.20	1061.81	1014.60	957.84	904.66
22.5	1290.66	1240.47	1192.07	1151.44	1088.10	1030.14	983.53	913.02	856.26
45.0	1341.45	1302.61	1254.81	1188.07	1152.16	1095.51	1036.06	980.90	916.67
67.5	1412.56	1376.11	1337.87	1299.63	1256.60	1206.41	1151.44	1098.86	1036.12
90.0	1404.79	1368.34	1332.49	1288.87	1238.08	1190.99	1136.26	1077.17	1021.06
112.5	1404.79	1371.33	1324.72	1281.70	1235.09	1174.14	1122.16	1067.19	1000.26
135.0	1310.98	1269.75	1192.19	1161.72	1111.05	1057.98	996.80	933.58	875.50
157.5	1275.13	1231.51	1173.55	1126.94	1071.97	1016.99	953.06	901.67	835.35
180.0	1183.17	1133.81	1087.98	1034.68	979.89	929.70	877.89	810.13	754.98
202.5	1264.97	1192.13	1176.42	1127.60	1075.67	1027.45	977.20	912.37	860.44
225.0	1275.72	1242.26	1198.05	1158.01	1114.99	1070.17	1011.62	962.02	908.84
247.5	1260.79	1191.83	1187.17	1137.87	1094.37	1047.83	985.50	932.80	878.55
270.0	1266.16	1233.30	1194.46	1151.44	1109.61	1064.80	1006.24	955.45	902.87
292.5	1192.13	1187.71	1141.04	1100.47	1057.03	999.13	956.29	898.74	839.83
315.0	1244.06	1204.02	1161.00	1120.96	1073.76	1029.54	977.56	922.58	871.20
337.5	1244.65	1188.31	1150.30	1100.23	1055.12	1003.19	954.49	896.59	844.67
360.0	1291.26	1249.43	1206.41	1163.39	1113.20	1061.81	1014.60	957.84	904.66

Intensity data(cd)										Appendix Page: 17 Total:19	
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0		
0.0	843.11	779.78	723.61	667.44	600.52	549.13	498.94	440.38	396.76		
22.5	800.09	728.39	668.63	613.06	543.75	491.17	440.98	388.99	349.55		
45.0	858.23	790.59	721.16	660.09	600.70	530.25	477.31	428.13	372.86		
67.5	980.55	907.65	840.13	773.80	700.90	632.78	573.63	516.86	447.55		
90.0	961.60	883.15	817.36	751.03	668.93	606.25	546.14	475.39	422.99		
112.5	932.15	871.79	794.71	727.79	654.89	588.57	529.41	469.06	416.48		
135.0	815.81	740.88	681.36	623.76	561.86	503.30	453.64	402.97	356.61		
157.5	775.59	715.84	648.32	592.75	529.41	475.04	429.03	380.63	337.60		
180.0	700.96	639.54	576.32	523.20	467.33	415.52	373.69	329.72	290.82		
202.5	809.29	750.44	688.95	634.10	574.70	517.10	468.40	417.37	376.08		
225.0	846.70	783.36	727.19	664.45	605.30	554.51	500.13	454.12	405.72		
247.5	816.70	753.48	697.50	636.49	584.14	527.86	468.52	429.62	383.67		
270.0	840.72	777.98	723.01	669.23	605.89	556.30	501.92	457.11	409.90		
292.5	787.54	734.54	669.41	618.74	569.80	510.77	465.71	422.87	378.47		
315.0	818.02	752.29	699.11	646.53	583.79	535.98	490.57	442.17	396.76		
337.5	786.47	733.94	674.49	616.05	565.32	504.61	459.14	415.82	376.26		
360.0	843.11	779.78	723.61	667.44	600.52	549.13	498.94	440.38	396.76		
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0		
0.0	356.13	312.51	302.95	233.63	194.97	165.10	136.71	113.95	98.11		
22.5	314.90	305.93	238.65	209.43	176.33	151.12	126.86	107.67	94.05		
45.0	334.56	300.26	266.38	237.64	215.71	191.99	177.71	161.21	144.66		
67.5	402.14	358.52	316.69	303.54	244.99	213.08	184.10	161.63	139.64		
90.0	374.95	325.53	282.51	237.70	198.92	169.70	144.84	119.69	103.55		
112.5	375.25	335.21	302.35	261.36	233.16	207.40	173.34	151.65	135.10		
135.0	320.28	284.54	257.00	229.57	205.73	187.86	172.57	156.01	144.42		
157.5	302.95	283.29	233.87	209.08	182.19	156.07	132.35	114.49	99.91		
180.0	251.08	213.86	182.72	151.71	126.02	107.61	93.10	79.17	70.81		
202.5	333.90	296.91	266.02	236.38	203.16	178.84	155.60	130.32	113.17		
225.0	362.70	327.45	303.54	258.73	234.77	213.98	191.33	176.27	162.89		
247.5	338.08	309.58	279.88	242.30	220.13	197.48	173.76	151.29	133.07		
270.0	365.09	326.25	302.35	250.66	210.93	181.53	155.48	128.35	110.84		
292.5	338.26	305.93	276.06	244.21	214.99	188.94	166.77	143.88	125.72		
315.0	359.11	320.87	304.74	256.76	233.34	210.15	190.07	174.72	159.54		
337.5	330.49	297.63	268.17	233.81	208.96	186.01	160.62	137.43	119.92		
360.0	356.13	312.51	302.95	233.63	194.97	165.10	136.71	113.95	98.11		
C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0		
0.0	84.25	73.50	66.45	60.71	55.09	51.21	47.86	44.46	41.53		
22.5	81.80	72.18	65.31	59.69	53.84	49.95	46.55	43.02	39.97		
45.0	134.03	121.06	107.20	97.88	87.60	74.63	67.88	61.19	54.67		
67.5	122.55	106.12	92.14	81.80	72.96	63.64	57.48	52.10	46.67		
90.0	90.47	77.50	69.25	62.50	56.83	50.97	47.03	43.02	39.86		
112.5	112.75	99.07	88.91	76.84	67.94	61.84	54.61	49.77	45.77		
135.0	133.73	120.94	111.02	100.62	88.73	78.22	70.27	62.32	55.51		
157.5	85.09	75.71	67.22	61.25	55.93	51.69	47.68	44.52	41.35		
180.0	64.23	58.38	53.66	50.07	46.55	43.38	40.69	37.94	35.73		
202.5	98.77	85.39	74.75	67.34	60.77	55.51	51.33	47.56	44.58		
225.0	149.44	137.01	126.62	115.26	104.93	93.75	83.06	74.21	65.13		
247.5	115.02	99.55	88.08	77.44	69.73	62.38	56.71	52.52	48.82		
270.0	96.44	82.28	73.38	66.27	60.11	54.97	51.27	47.68	44.52		
292.5	108.21	95.01	81.56	72.96	65.79	58.74	54.14	50.31	46.55		
315.0	147.83	135.70	124.47	114.55	105.28	92.92	83.12	73.79	64.53		
337.5	102.60	90.11	78.58	69.43	63.04	57.18	52.28	48.64	45.35		
360.0	84.25	73.50	66.45	60.71	55.09	51.21	47.86	44.46	41.53		

Intensity data(cd)										Appendix Page: 18 Total:19	
C/ γ (°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0		
0.0	39.02	36.33	34.00	31.97	29.28	26.83	24.20	22.23	20.97		
22.5	37.35	34.54	31.97	29.82	27.25	24.92	22.65	21.09	20.02		
45.0	48.88	44.34	39.86	35.73	32.39	28.98	26.29	23.54	21.21		
67.5	42.72	39.44	35.97	32.98	30.59	27.84	24.92	22.59	20.38		
90.0	36.69	33.94	31.49	28.26	25.51	22.95	21.09	19.18	17.93		
112.5	41.35	38.30	35.43	32.57	30.29	28.08	24.32	22.17	20.20		
135.0	50.01	44.52	40.21	35.91	32.09	29.10	26.47	23.48	21.45		
157.5	38.24	35.85	33.34	31.07	28.74	26.59	23.84	22.23	20.73		
180.0	33.40	30.95	28.56	26.17	23.48	21.81	20.50	19.06	18.11		
202.5	41.41	38.54	36.09	33.94	31.43	29.28	26.89	23.96	22.05		
225.0	58.26	53.00	48.34	43.26	39.56	36.27	32.57	29.70	27.13		
247.5	44.75	41.83	39.14	36.03	33.76	31.73	29.40	26.77	24.20		
270.0	41.95	39.20	36.93	34.66	32.33	30.06	27.19	24.02	22.05		
292.5	43.26	40.51	38.06	35.43	33.04	31.01	28.74	25.93	23.42		
315.0	58.38	52.88	47.56	42.78	39.14	35.37	32.03	29.22	26.47		
337.5	41.71	39.08	36.63	34.00	31.55	29.46	27.01	24.62	22.71		
360.0	39.02	36.33	34.00	31.97	29.28	26.83	24.20	22.23	20.97		
C/ γ (°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0		
0.0	19.84	18.52	17.63	16.79	15.72	14.88	14.16	13.44	12.61		
22.5	19.00	17.99	17.09	16.19	15.18	14.40	13.56	12.67	11.89		
45.0	19.42	17.87	16.49	15.42	14.40	13.32	12.49	11.77	10.99		
67.5	18.82	17.45	16.19	15.18	14.34	13.27	12.49	11.71	10.88		
90.0	16.79	15.60	14.64	13.74	12.97	12.07	11.35	10.70	10.10		
112.5	18.52	17.15	16.07	15.00	13.98	13.21	12.31	11.53	10.88		
135.0	19.72	17.81	16.55	15.42	14.28	13.27	12.49	11.65	10.99		
157.5	19.42	18.28	17.27	16.19	15.18	14.40	13.44	12.73	11.83		
180.0	17.15	16.19	15.30	14.52	13.68	12.97	12.31	11.59	10.99		
202.5	20.79	19.54	18.64	17.75	16.67	15.89	14.88	13.68	12.97		
225.0	24.44	22.29	20.61	18.88	17.57	16.25	15.12	14.16	13.27		
247.5	21.87	20.20	18.76	17.57	16.49	15.48	14.46	13.56	12.73		
270.0	20.55	19.12	17.99	17.03	15.95	14.94	14.10	13.21	12.37		
292.5	21.27	19.78	18.46	17.27	16.25	15.36	14.16	13.32	12.55		
315.0	24.20	21.99	20.14	18.64	17.51	15.89	14.82	14.04	12.91		
337.5	21.09	20.02	18.82	17.69	16.67	15.66	14.46	13.56	12.85		
360.0	19.84	18.52	17.63	16.79	15.72	14.88	14.16	13.44	12.61		
C/ γ (°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0		
0.0	11.95	11.35	10.64	10.04	9.56	9.02	8.48	8.07	7.65		
22.5	11.17	10.46	9.86	9.26	8.66	8.25	7.83	7.41	6.99		
45.0	10.28	9.74	9.14	8.60	8.19	7.71	7.35	7.05	6.75		
67.5	10.28	9.68	9.08	8.54	8.13	7.65	7.29	7.05	6.75		
90.0	9.44	8.90	8.48	8.07	7.77	7.41	7.17	6.87	6.57		
112.5	10.16	9.62	9.08	8.48	8.07	7.71	7.29	6.99	6.75		
135.0	10.34	9.62	9.14	8.60	8.13	7.71	7.41	6.99	6.75		
157.5	11.05	10.52	9.80	9.26	8.78	8.37	7.77	7.41	7.11		
180.0	10.40	9.80	9.32	8.84	8.25	7.89	7.47	7.11	6.81		
202.5	12.07	11.29	10.76	10.22	9.44	9.02	8.54	8.07	7.65		
225.0	12.37	11.65	10.93	10.16	9.62	9.08	8.48	8.07	7.65		
247.5	11.77	11.05	10.34	9.56	8.96	8.48	8.07	7.59	7.23		
270.0	11.59	10.76	10.16	9.56	9.02	8.54	8.07	7.65	7.35		
292.5	11.65	10.93	10.28	9.56	8.90	8.43	7.95	7.59	7.17		
315.0	12.13	11.47	10.70	10.04	9.50	8.90	8.43	8.01	7.53		
337.5	11.95	11.29	10.70	10.04	9.44	8.90	8.37	8.01	7.59		
360.0	11.95	11.35	10.64	10.04	9.56	9.02	8.48	8.07	7.65		

Intensity data(cd)									Appendix Page: 19 Total:19		
C/ γ (°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0		
0.0	7.29	6.87	6.57	6.27	6.04	5.80	5.62	5.44	5.32		
22.5	6.75	6.39	6.15	6.04	5.80	5.62	5.50	5.32	5.26		
45.0	6.51	6.27	6.04	5.86	5.80	5.62	5.50	5.38	5.38		
67.5	6.51	6.33	6.15	5.98	5.80	5.68	5.56	5.50	5.44		
90.0	6.39	6.15	5.92	5.80	5.62	5.50	5.32	5.32	5.32		
112.5	6.51	6.33	6.09	5.98	5.80	5.62	5.50	5.44	5.44		
135.0	6.51	6.27	6.09	5.92	5.74	5.56	5.44	5.38	5.32		
157.5	6.69	6.45	6.21	5.98	5.80	5.62	5.50	5.32	5.26		
180.0	6.51	6.21	5.98	5.74	5.56	5.38	5.20	5.08	5.02		
202.5	7.29	6.93	6.63	6.33	6.15	5.92	5.74	5.56	5.38		
225.0	7.23	6.93	6.63	6.33	6.09	5.92	5.74	5.56	5.44		
247.5	6.93	6.63	6.39	6.15	5.92	5.80	5.62	5.44	5.38		
270.0	6.99	6.69	6.45	6.21	5.98	5.80	5.62	5.44	5.32		
292.5	6.87	6.63	6.33	6.15	5.98	5.80	5.62	5.50	5.44		
315.0	7.23	6.93	6.51	6.27	6.09	5.92	5.68	5.50	5.38		
337.5	7.17	6.87	6.51	6.21	6.04	5.86	5.62	5.44	5.32		
360.0	7.29	6.87	6.57	6.27	6.04	5.80	5.62	5.44	5.32		
C/ γ (°)	90.0										
0.0	5.20										
22.5	5.32										
45.0	5.32										
67.5	5.44										
90.0	5.38										
112.5	5.44										
135.0	5.38										
157.5	5.20										
180.0	5.02										
202.5	5.26										
225.0	5.32										
247.5	5.32										
270.0	5.26										
292.5	5.32										
315.0	5.32										
337.5	5.20										
360.0	5.20										