正奇事

Client:
LumCAT: ZS-FL2*2-K40-3065
Luminaire: LED 灯具
Report No:
Ballast type:

Test No:	Voltage(V): 119.960
LampCAT:	Current(A): 0.313
Lamp flux(lm): 4796.7	Power (W): 37.300
Number of Lamps: 1	PF: 0.994
Length(mm): 580	Width(mm): 580
Phm Type: C	Height(mm): 8

Photometric Results

Lumens(lm): 4796.65, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 128.60
Central intensity(cd): 1866.461, Maximum intensity(cd): 1866.461
Angle of maximum intensity: C=45.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=97.8
[C90/270]Total=96.8
Field angle(10%Imax): [C0/180]Total=161.8
[C90/270]Total=162.0
Maximum s/h(1/2): C0_180=1.17 C90_270=1.16
Maximum s/h(1/4): C0_180=1.28 C90_270=1.26
Up flux rate of lamp(%): 2.25%
Down flux rate of lamp(%): 97.75%
Up flux rate of LUM(%): 2.25%
Down flux rate of LUM(%): 97.75%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 77.227%

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Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1866.462	0.000	0	0.00%	0.00%
5.0	1854.112	44.478	44.478	0.93%	0.93%
10.0	1818.332	131.375	175.853	2.74%	3.67%
15.0	1759.873	212.257	388.11	4.43%	8.09%
20.0	1678.282	283.352	671.462	5.91%	14.00%
25.0	1575.513	341.263	1012.725	7.11%	21.11%
30.0	1457.363	383.813	1396.538	8.00%	29.11%
35.0	1318.963	408.833	1805.372	8.52%	37.64%
40.0	1177.565	416.527	2221.899	8.68%	46.32%
45.0	1038.162	410.260	2632.158	8.55%	54.87%
50.0	893.920	390.405	3022.564	8.14%	63.01%
55.0	760.392	359.702	3382.266	7.50%	70.51%
60.0	632.939	322.065	3704.331	6.71%	77.23%
65.0	510.627	278.003	3982.334	5.80%	83.02%
70.0	400.566	230.720	4213.054	4.81%	87.83%
75.0	302.481	183.765	4396.819	3.83%	91.66%
80.0	213.905	138.170	4534.989	2.88%	94.54%
85.0	141.756	96.642	4631.631	2.01%	96.56%
90.0	66.187	56.936	4688.567	1.19%	97.75%
95.0	25.293	25.048	4713.615	0.52%	98.27%
100.0	17.995	11.762	4725.377	0.25%	98.51%
105.0	19.723	10.092	4735.47	0.21%	98.72%
110.0	17.965	9.851	4745.321	0.21%	98.93%
115.0	17.179	8.899	4754.22	0.19%	99.12%
120.0	16.206	8.116	4762.336	0.17%	99.28%
125.0	14.295	7.050	4769.386	0.15%	99.43%
130.0	12.685	5.866	4775.252	0.12%	99.55%
135.0	10.662	4.718	4779.97	0.10%	99.65%
140.0	8.229	3.498	4783.468	0.07%	99.73%
145.0	7.635	2.647	4786.114	0.06%	99.78%
150.0	8.608	2.392	4788.506	0.05%	99.83%
155.0	9.057	2.236	4790.742	0.05%	99.88%
160.0	9.506	1.947	4792.689	0.04%	99.92%
165.0	10.292	1.632	4794.32	0.03%	99.95%
170.0	11.153	1.272	4795.592	0.03%	99.98%
175.0	12.200	0.835	4796.428	0.02%	100.00%
180.0	6.287	0.221	4796.649	0.00%	100.00%

Zonal flux distribution table

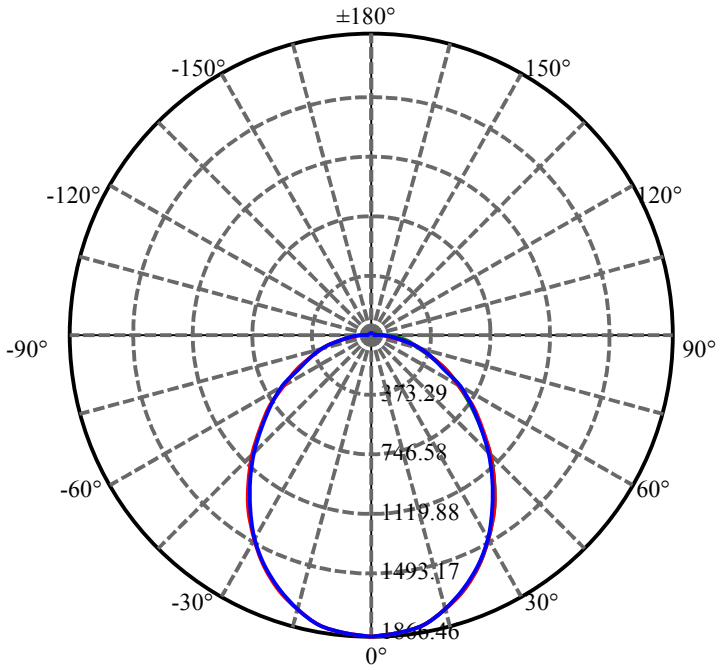
ZONAL LUMEN SUMMARY

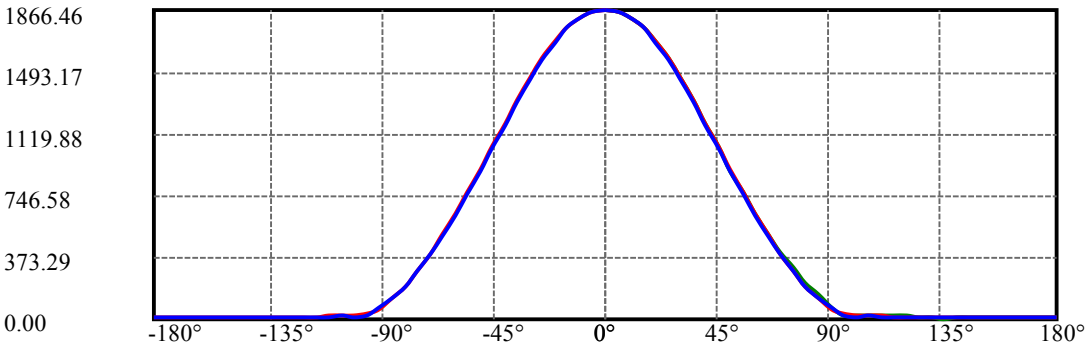
Zone	Lumens	%Lamp	%Fixt
0-30	1396.54	29.11%	29.11%
0-40	2221.90	46.32%	46.32%
0-60	3704.33	77.23%	77.23%
0-90	4688.57	97.75%	97.75%
0-120	4762.34	99.28%	99.28%
0-180	4796.65	100.00%	100.00%
60-90	984.24	20.52%	20.52%
90-120	73.77	1.54%	1.54%
90-130	86.69	1.81%	1.81%
90-150	99.94	2.08%	2.08%
90-180	107.86	2.25%	2.25%
0-62.39	3837.32	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	175.85
10-20	495.61
20-30	725.08
30-40	825.36
40-50	800.67
50-60	681.77
60-70	508.72
70-80	321.94
80-90	153.58
90-100	36.81
100-110	19.94
110-120	17.01
120-130	12.92
130-140	8.22
140-150	5.04
150-160	4.18
160-170	2.90
170-180	0.84

Light Distribution Curve [Unit:cd]





C45(Max):

C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:80.9 Right:80.9
:C90/270Left:81.0 Right:81.0

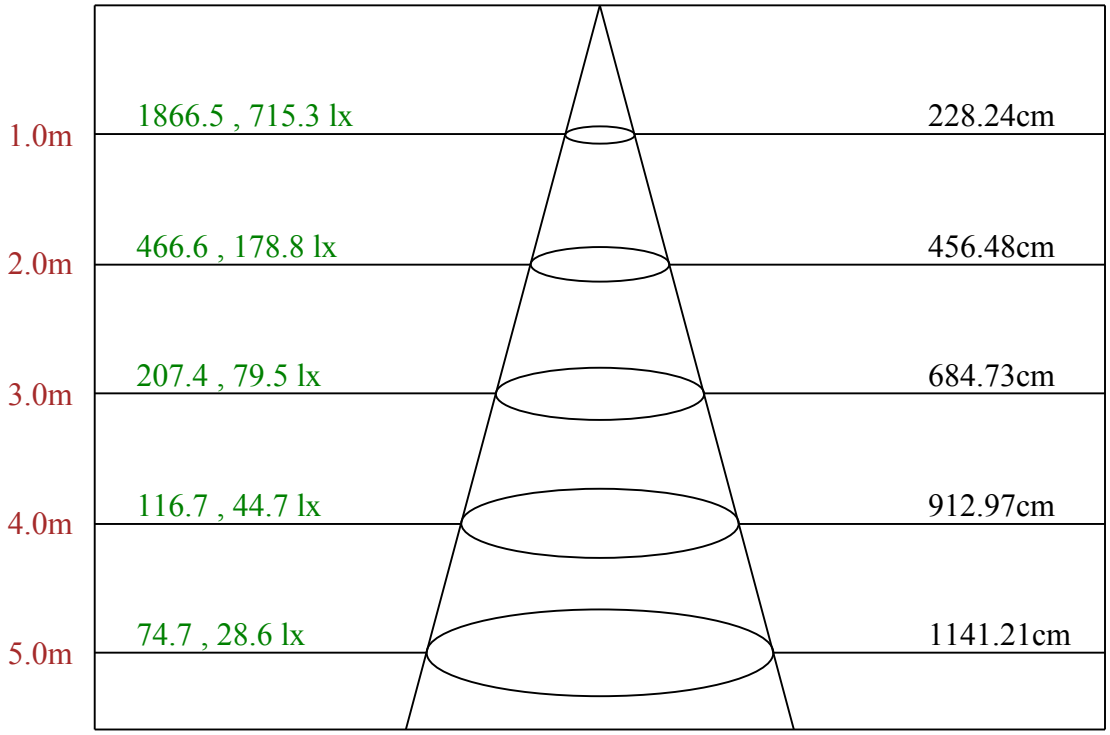
Beam Angle(50%Imax):C0/180Left:48.9 Right:48.9
:C90/270Left:48.4 Right:48.4

Equipment: LC-I-902 GMS-2000
Temperature(°C): 25.2

Date: 2023/5/11
Humidity(%): 62.1%

Operator: JUN WANG
Distance(m): 29.97

Lux distance Curve



Max , Ave

Beam angle of C45 plane 97.55

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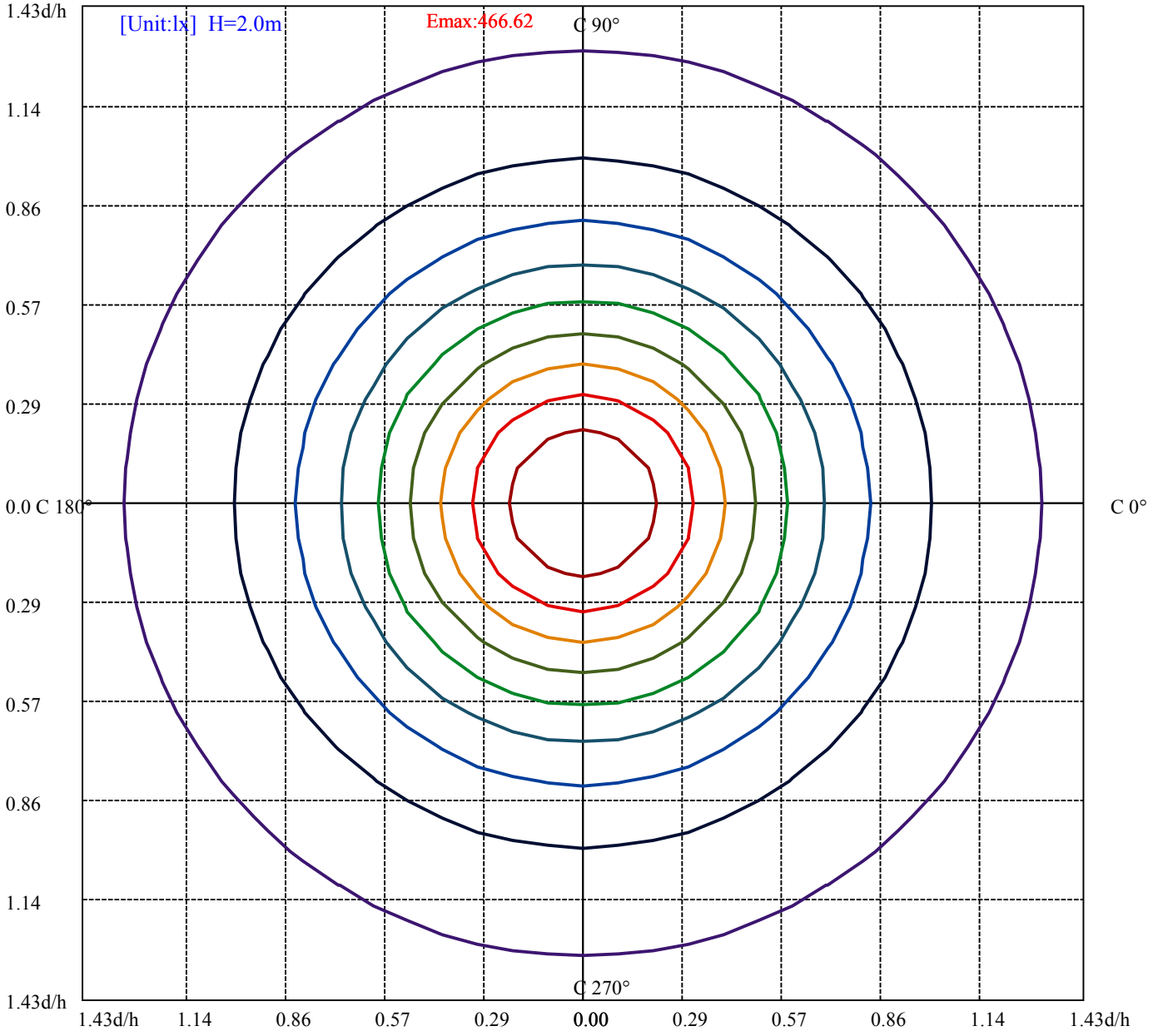
ISO illuminance diagram



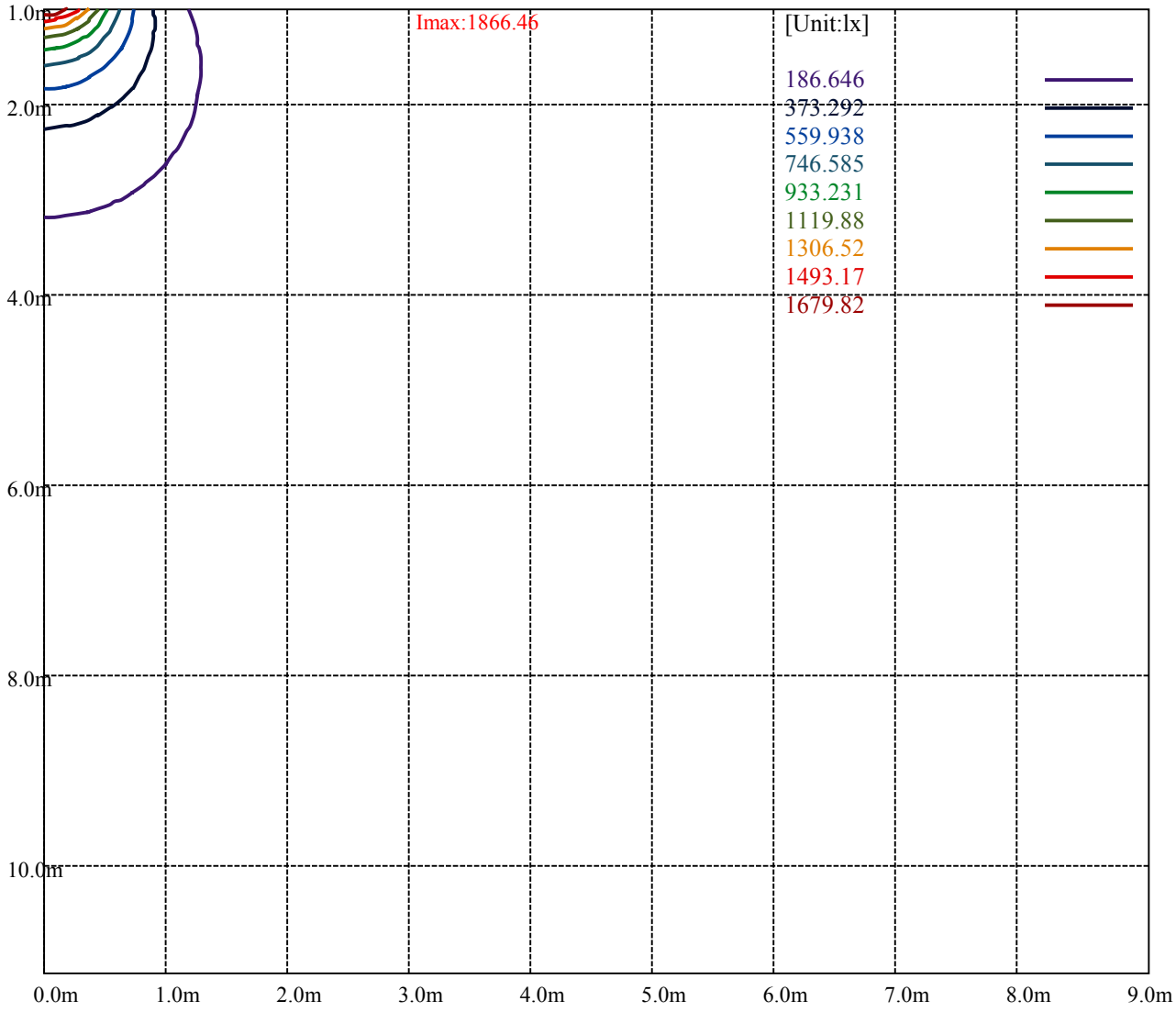
(10%Emax) 46.6615
(20%Emax) 93.323
(30%Emax) 139.9845
(40%Emax) 186.646
(50%Emax) 233.3078
(60%Emax) 279.97
(70%Emax) 326.63
(80%Emax) 373.2925
(90%Emax) 419.9525

Equipment: LC-I-902 GMS-2000
Temperature(°C): 25.2

Date: 2023/5/11
Humidity(%): 62.1%

Operator: JUN WANG
Distance(m): 29.97

Space ISO Lux diagram



Equipment: LC-I-902 GMS-2000
Temperature(°C): 25.2

Date: 2023/5/11
Humidity(%): 62.1%

Operator: JUN WANG
Distance(m): 29.97

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Luminance Limitting Curve(no luminous side)

Luminance Table

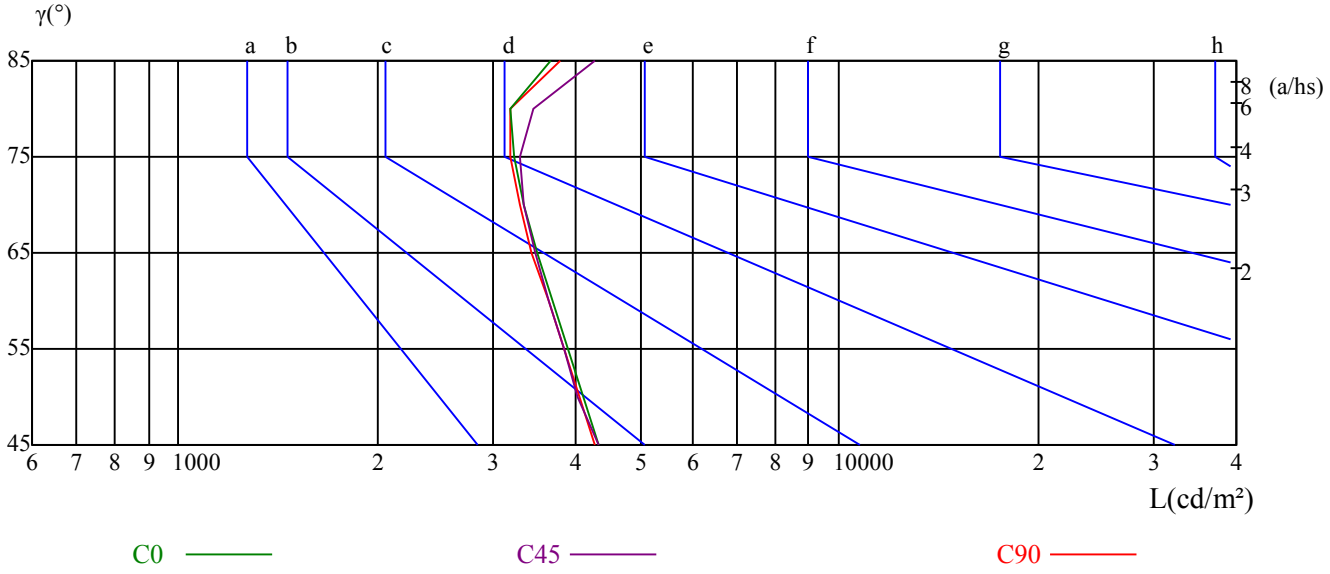
γ	45	50	55	60	65	70	75	80	85
C0	4336	4109	3894	3678	3493	3329	3227	3181	3664
C45	4319	4014	3831	3641	3463	3343	3291	3448	4274
C90	4270	4044	3839	3632	3429	3281	3171	3189	3773

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3596	3530	3607	3393	3334	3531	4242	4368	5227

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 Limitting Curve



Utilization factor table for indoor luminaire

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	COEFFCIENTS OF UTILIZATION RHOFC=20 CU															
0	1.19	1.19	1.19	1.15	1.15	1.15	1.10	1.10	1.10	1.05	1.05	1.05	1.00	1.00	1.00	0.98
1	1.03	0.99	0.95	1.01	0.97	0.93	0.96	0.93	0.90	0.92	0.89	0.86	0.88	0.85	0.84	0.81
2	0.90	0.83	0.78	0.88	0.82	0.76	0.84	0.79	0.74	0.80	0.76	0.72	0.77	0.74	0.70	0.68
3	0.79	0.71	0.65	0.78	0.70	0.64	0.74	0.68	0.63	0.71	0.66	0.61	0.69	0.64	0.60	0.58
4	0.71	0.62	0.55	0.69	0.61	0.55	0.66	0.59	0.54	0.64	0.58	0.53	0.61	0.56	0.52	0.50
5	0.63	0.55	0.48	0.62	0.54	0.48	0.60	0.52	0.47	0.58	0.51	0.46	0.55	0.50	0.45	0.43
6	0.57	0.48	0.42	0.56	0.48	0.42	0.54	0.47	0.41	0.52	0.46	0.41	0.51	0.45	0.40	0.38
7	0.52	0.43	0.37	0.51	0.43	0.37	0.49	0.42	0.37	0.48	0.41	0.36	0.46	0.40	0.36	0.34
8	0.48	0.39	0.33	0.47	0.39	0.33	0.45	0.38	0.33	0.44	0.37	0.33	0.43	0.37	0.32	0.30
9	0.44	0.36	0.30	0.43	0.35	0.30	0.42	0.35	0.30	0.41	0.34	0.30	0.39	0.34	0.29	0.27
10	0.41	0.33	0.28	0.40	0.32	0.27	0.39	0.32	0.27	0.38	0.31	0.27	0.37	0.31	0.27	0.25

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	1866.46	1854.91	1824.71	1771.41	1690.56	1592.84	1473.80	1338.77	1205.52
15.0	1866.46	1857.51	1824.37	1770.63	1694.50	1593.30	1475.08	1344.32	1206.39
30.0	1866.46	1855.66	1825.96	1774.67	1694.57	1596.48	1477.69	1342.70	1201.41
45.0	1866.46	1858.37	1823.29	1768.42	1692.86	1595.71	1477.88	1341.15	1201.73
60.0	1866.46	1859.27	1827.78	1772.01	1692.86	1595.71	1476.98	1343.85	1199.03
75.0	1866.46	1859.28	1826.94	1771.25	1691.31	1593.41	1474.85	1342.81	1195.51
90.0	1866.46	1860.17	1830.52	1778.40	1693.92	1597.77	1475.56	1342.56	1195.18
105.0	1866.46	1860.16	1832.28	1777.41	1699.15	1598.41	1480.58	1342.95	1198.13
120.0	1866.46	1862.85	1833.97	1783.43	1710.32	1610.14	1491.00	1360.13	1212.12
135.0	1866.46	1861.96	1834.93	1783.59	1710.62	1614.24	1499.84	1367.42	1222.39
150.0	1866.46	1862.87	1834.99	1785.55	1712.72	1618.32	1501.44	1371.98	1229.92
165.0	1866.46	1861.08	1835.97	1786.64	1713.09	1618.92	1504.11	1373.16	1235.04
180.0	1866.46	1852.25	1813.16	1750.97	1677.24	1567.97	1449.82	1309.45	1169.98
195.0	1866.46	1853.03	1814.52	1751.82	1668.53	1565.53	1441.94	1303.12	1159.82
210.0	1866.46	1851.16	1813.37	1750.37	1667.58	1563.18	1443.49	1302.20	1160.91
225.0	1866.46	1851.17	1808.89	1747.73	1659.58	1556.13	1434.70	1298.88	1150.46
240.0	1866.46	1849.37	1808.89	1745.93	1661.38	1551.64	1430.20	1291.68	1153.16
255.0	1866.46	1849.40	1805.38	1738.92	1651.79	1544.91	1419.16	1284.43	1147.00
270.0	1866.46	1846.69	1804.46	1740.65	1651.69	1533.97	1412.65	1274.26	1137.67
285.0	1866.46	1845.77	1801.70	1736.03	1644.29	1535.45	1405.92	1268.29	1130.67
300.0	1866.46	1847.51	1803.28	1736.50	1650.75	1539.74	1416.09	1273.49	1139.01
315.0	1866.46	1846.64	1804.31	1737.65	1648.47	1540.37	1417.86	1279.14	1135.91
330.0	1866.46	1846.68	1803.53	1737.90	1649.79	1542.80	1478.96	1277.57	1138.22
345.0	1866.46	1844.94	1802.78	1739.10	1651.20	1545.37	1417.11	1280.78	1136.38
360.0	1866.46	1854.91	1824.71	1771.41	1690.56	1592.84	1473.80	1338.77	1205.52

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	1061.60	916.80	781.76	643.18	524.14	407.76	305.60	206.10	130.59
15.0	1066.68	922.48	780.98	651.11	530.20	414.67	308.09	217.63	143.30
30.0	1061.02	916.13	782.04	647.05	529.16	418.47	317.68	229.48	155.69
45.0	1052.41	907.59	776.27	647.64	526.21	419.17	318.42	232.97	161.01
60.0	1051.51	907.59	772.67	644.04	528.91	417.37	317.52	231.17	157.41
75.0	1051.79	908.98	773.35	647.60	529.94	415.87	312.57	223.65	148.20
90.0	1052.30	909.42	778.22	651.51	528.40	416.07	311.83	220.17	141.09
105.0	1057.81	915.69	786.16	653.94	536.10	422.76	322.02	230.27	154.71
120.0	1066.81	926.01	787.92	657.05	540.62	430.51	330.33	242.78	169.68
135.0	1075.56	928.73	793.61	665.69	550.39	438.69	338.70	249.52	174.76
150.0	1088.77	938.63	805.56	670.70	550.23	438.74	338.05	248.14	169.92
165.0	1094.23	949.82	815.29	678.96	550.70	437.69	334.55	241.27	158.75
180.0	1029.62	889.26	750.67	623.63	498.37	387.33	285.17	194.55	118.15
195.0	1020.11	883.97	750.53	616.18	493.48	386.01	289.28	200.62	128.07
210.0	1018.72	875.64	742.44	619.15	504.86	395.07	294.28	211.48	141.29
225.0	1005.64	865.32	742.09	617.06	493.83	389.48	293.24	212.28	143.02
240.0	1009.24	875.21	738.49	609.86	490.23	382.29	286.04	204.19	138.52
255.0	1009.58	874.85	736.52	602.69	480.54	371.86	276.65	193.11	123.05
270.0	1007.37	868.08	732.39	599.39	475.38	367.54	268.69	181.52	115.03
285.0	999.34	861.72	727.70	593.67	477.63	370.59	313.93	188.89	121.43
300.0	991.90	858.32	727.45	657.05	477.45	372.75	276.18	195.85	131.77
315.0	1055.74	851.26	726.95	601.74	481.03	373.83	279.25	199.98	134.22
330.0	993.47	849.62	720.15	596.08	483.70	372.21	272.42	195.10	127.67
345.0	994.67	852.96	720.22	595.55	473.57	366.83	269.07	182.97	114.80
360.0	1061.60	916.80	781.76	643.18	524.14	407.76	305.60	206.10	130.59

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	69.29	30.20	23.10	19.54	17.77	16.88	15.99	15.10	14.21
15.0	76.13	31.35	23.29	19.70	17.02	16.12	15.23	14.33	13.43
30.0	79.19	28.80	21.60	19.80	18.90	18.00	16.20	13.50	11.70
45.0	80.95	25.19	17.09	18.89	18.89	17.09	16.19	15.29	13.49
60.0	77.36	26.09	12.59	17.09	16.19	15.29	15.29	11.69	10.79
75.0	67.37	31.44	8.08	15.27	13.47	13.47	13.47	13.47	12.57
90.0	67.40	30.55	5.39	16.18	15.28	14.38	14.38	14.38	13.48
105.0	82.75	33.28	8.10	15.29	13.49	12.59	13.49	13.49	12.59
120.0	102.89	30.69	12.64	18.05	17.15	16.25	15.34	11.73	10.83
135.0	108.10	26.12	17.12	18.92	18.92	18.02	17.12	15.31	13.51
150.0	104.29	29.67	21.58	19.78	18.88	17.98	16.18	12.59	11.69
165.0	93.28	30.49	23.32	19.73	17.04	16.14	15.25	14.35	13.45
180.0	38.20	28.43	23.10	20.43	18.66	17.77	15.99	15.10	13.33
195.0	43.89	28.66	23.29	20.60	17.91	17.02	16.12	14.33	12.54
210.0	48.60	27.90	21.60	22.50	21.60	20.70	18.90	12.60	11.70
225.0	52.17	23.39	21.59	22.49	21.59	19.79	18.89	17.09	11.69
240.0	48.57	16.19	22.49	21.59	18.89	17.99	17.09	12.59	12.59
255.0	44.01	9.88	8.98	19.76	15.27	16.17	16.17	15.27	14.37
270.0	76.38	8.99	8.09	19.77	17.07	17.07	17.07	16.18	15.28
285.0	44.08	11.69	15.29	18.89	15.29	16.19	16.19	15.29	14.39
300.0	46.93	18.05	23.47	21.66	19.86	18.95	17.15	13.54	12.64
315.0	48.64	23.42	23.42	23.42	21.62	20.72	18.92	17.12	9.01
330.0	46.75	27.87	23.38	23.38	21.58	20.68	16.18	13.49	11.69
345.0	41.26	28.70	23.32	20.63	18.84	17.04	16.14	15.25	13.45
360.0	69.29	30.20	23.10	19.54	17.77	16.88	15.99	15.10	14.21

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	13.33	12.44	8.00	8.88	8.88	9.77	10.66	11.55	12.44
15.0	12.54	11.64	8.06	8.96	8.96	9.85	10.75	10.75	12.54
30.0	10.80	6.30	8.10	9.00	9.00	9.90	10.80	10.80	11.70
45.0	5.40	6.30	8.10	8.99	8.99	9.89	10.79	11.69	11.69
60.0	9.89	7.20	8.10	8.99	8.99	9.89	10.79	11.69	12.59
75.0	11.68	11.68	8.08	8.98	8.98	9.88	10.78	10.78	12.57
90.0	12.58	11.68	8.09	8.99	9.88	10.78	10.78	10.78	12.58
105.0	11.69	11.69	8.10	8.99	9.89	10.79	10.79	10.79	12.59
120.0	9.93	6.32	8.12	9.03	9.03	9.93	10.83	11.73	11.73
135.0	5.40	6.31	8.11	9.01	9.01	9.91	10.81	11.71	12.61
150.0	10.79	6.29	7.19	8.99	8.99	9.89	10.79	11.69	12.59
165.0	12.56	11.66	7.18	8.97	8.97	9.87	10.76	11.66	12.56
180.0	11.55	9.77	7.11	8.00	8.88	8.88	9.77	10.66	12.44
195.0	11.64	6.27	7.16	8.06	8.96	8.96	8.96	10.75	11.64
210.0	9.90	6.30	7.20	8.10	9.00	9.00	9.90	10.80	11.70
225.0	6.30	6.30	7.20	8.10	8.99	8.99	9.89	10.79	11.69
240.0	11.69	6.30	7.20	8.10	8.99	8.99	9.89	10.79	11.69
255.0	13.47	8.98	7.19	8.08	8.98	8.98	9.88	10.78	11.68
270.0	14.38	9.88	8.09	8.99	8.99	8.99	9.88	11.68	12.58
285.0	13.49	8.99	8.10	8.99	8.99	8.99	9.89	11.69	12.59
300.0	9.93	6.32	7.22	8.12	9.03	9.03	9.93	11.73	12.64
315.0	5.40	6.31	7.21	8.11	9.01	9.01	9.91	10.81	11.71
330.0	9.89	6.29	7.19	8.09	8.99	8.99	9.89	10.79	11.69
345.0	11.66	6.28	7.18	8.07	8.97	8.97	9.87	10.76	12.56
360.0	13.33	12.44	8.00	8.88	8.88	9.77	10.66	11.55	12.44

Intensity data(cd)

C/γ(°)	180.0
0.0	12.44
15.0	12.54
30.0	12.60
45.0	12.59
60.0	12.59
75.0	12.57
90.0	12.58
105.0	12.59
120.0	12.64
135.0	12.61
150.0	12.59
165.0	12.56
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	12.44