正奇事

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

Test No:	Voltage(V): 120.020
LampCAT:	Current(A): 0.312
Lamp flux(lm): 4804.7	Power (W): 37.260
Number of Lamps: 1	PF: 0.994
Length(mm): 580	Width(mm): 580
Phm Type: C	Height(mm): 8

Photometric Results

Lumens(lm): 4804.68, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 128.95
Central intensity(cd): 1870.054, Maximum intensity(cd): 1870.054
Angle of maximum intensity: C=0.0 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 : 77.232%

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Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1870.054	0.000	0	0.00%	0.00%
5.0	1857.705	44.564	44.564	0.93%	0.93%
10.0	1821.775	131.627	176.191	2.74%	3.67%
15.0	1762.568	212.621	388.812	4.43%	8.09%
20.0	1680.977	283.796	672.608	5.91%	14.00%
25.0	1578.207	341.828	1014.436	7.11%	21.11%
30.0	1460.057	384.495	1398.931	8.00%	29.12%
35.0	1321.395	409.588	1808.519	8.52%	37.64%
40.0	1179.362	417.232	2225.752	8.68%	46.32%
45.0	1039.958	410.925	2636.677	8.55%	54.88%
50.0	895.716	391.131	3027.808	8.14%	63.02%
55.0	761.702	360.378	3388.186	7.50%	70.52%
60.0	633.837	322.575	3710.761	6.71%	77.23%
65.0	511.525	278.440	3989.201	5.80%	83.03%
70.0	401.464	231.175	4220.375	4.81%	87.84%
75.0	303.379	184.235	4404.61	3.83%	91.67%
80.0	213.905	138.411	4543.021	2.88%	94.55%
85.0	141.756	96.642	4639.662	2.01%	96.57%
90.0	66.187	56.936	4696.598	1.19%	97.75%
95.0	25.293	25.048	4721.646	0.52%	98.27%
100.0	17.995	11.762	4733.409	0.24%	98.52%
105.0	19.723	10.092	4743.501	0.21%	98.73%
110.0	17.965	9.851	4753.352	0.21%	98.93%
115.0	17.179	8.899	4762.251	0.19%	99.12%
120.0	16.206	8.116	4770.367	0.17%	99.29%
125.0	14.295	7.050	4777.417	0.15%	99.43%
130.0	12.685	5.866	4783.284	0.12%	99.55%
135.0	10.662	4.718	4788.001	0.10%	99.65%
140.0	8.229	3.498	4791.499	0.07%	99.73%
145.0	7.635	2.647	4794.146	0.06%	99.78%
150.0	8.608	2.392	4796.538	0.05%	99.83%
155.0	9.057	2.236	4798.773	0.05%	99.88%
160.0	9.506	1.947	4800.72	0.04%	99.92%
165.0	10.292	1.632	4802.352	0.03%	99.95%
170.0	11.153	1.272	4803.624	0.03%	99.98%
175.0	12.200	0.835	4804.459	0.02%	100.00%
180.0	6.287	0.221	4804.68	0.00%	100.00%

Zonal flux distribution table

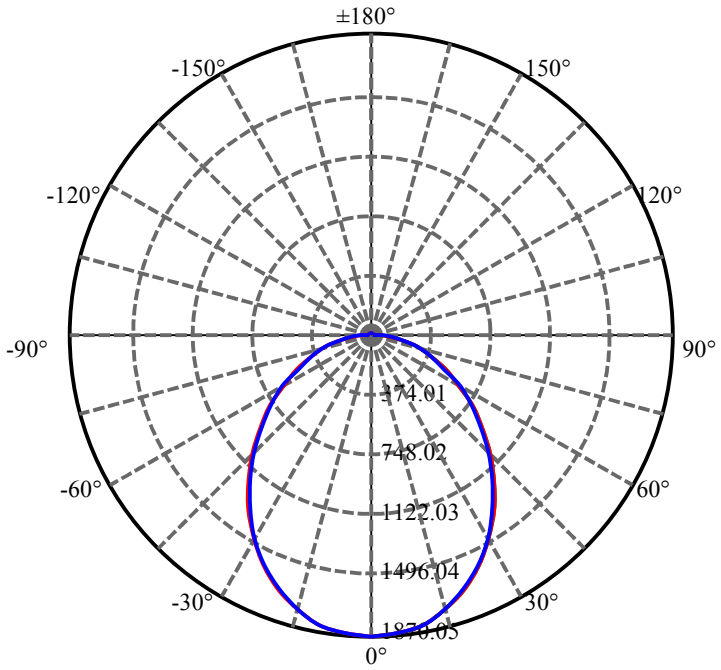
ZONAL LUMEN SUMMARY

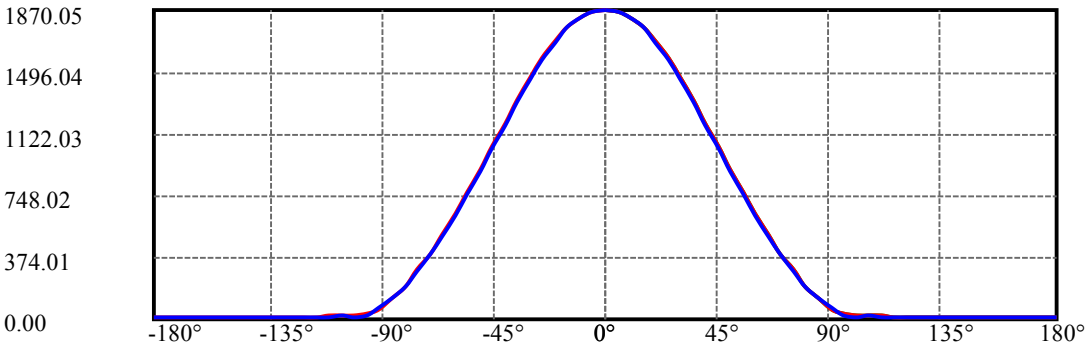
Zone	Lumens	%Lamp	%Fixt
0-30	1398.93	29.12%	29.12%
0-40	2225.75	46.32%	46.32%
0-60	3710.76	77.23%	77.23%
0-90	4696.60	97.75%	97.75%
0-120	4770.37	99.29%	99.29%
0-180	4804.68	100.00%	100.00%
60-90	985.84	20.52%	20.52%
90-120	73.77	1.54%	1.54%
90-130	86.69	1.80%	1.80%
90-150	99.94	2.08%	2.08%
90-180	107.86	2.24%	2.24%
0-62.39	3843.74	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	176.19
10-20	496.42
20-30	726.32
30-40	826.82
40-50	802.06
50-60	682.95
60-70	509.61
70-80	322.65
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]





C0(Max):

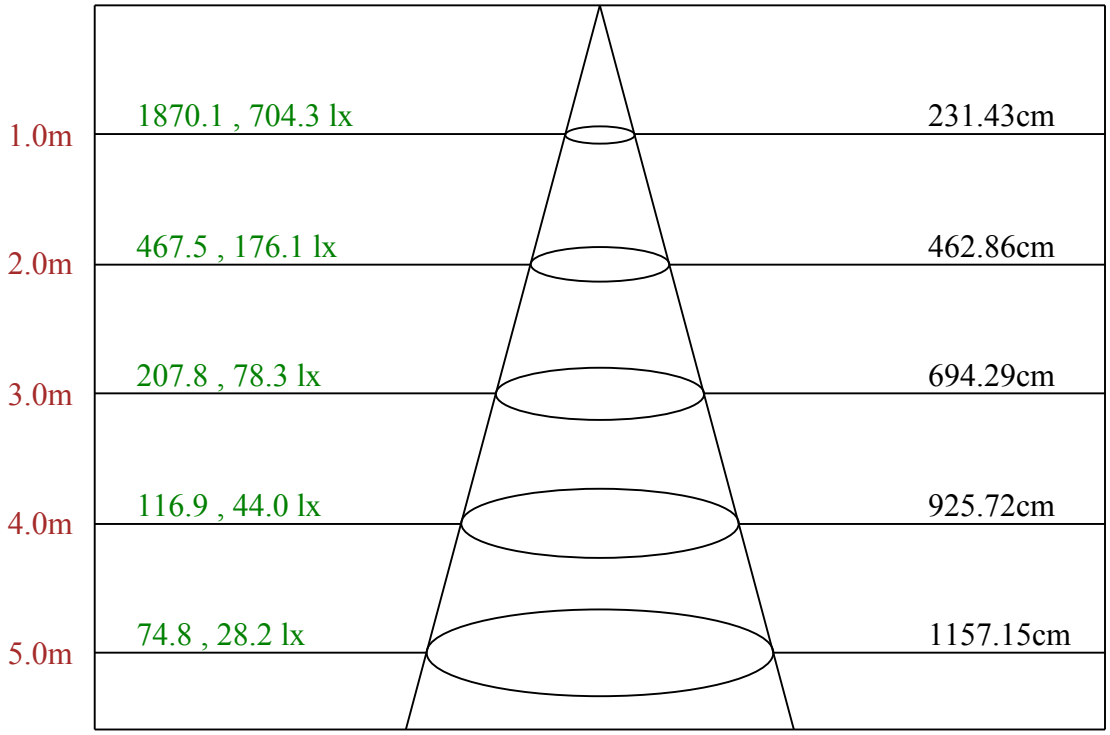
C0/C180:

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

Lux distance Curve



Max , Ave

Beam angle of C0 plane 98.33

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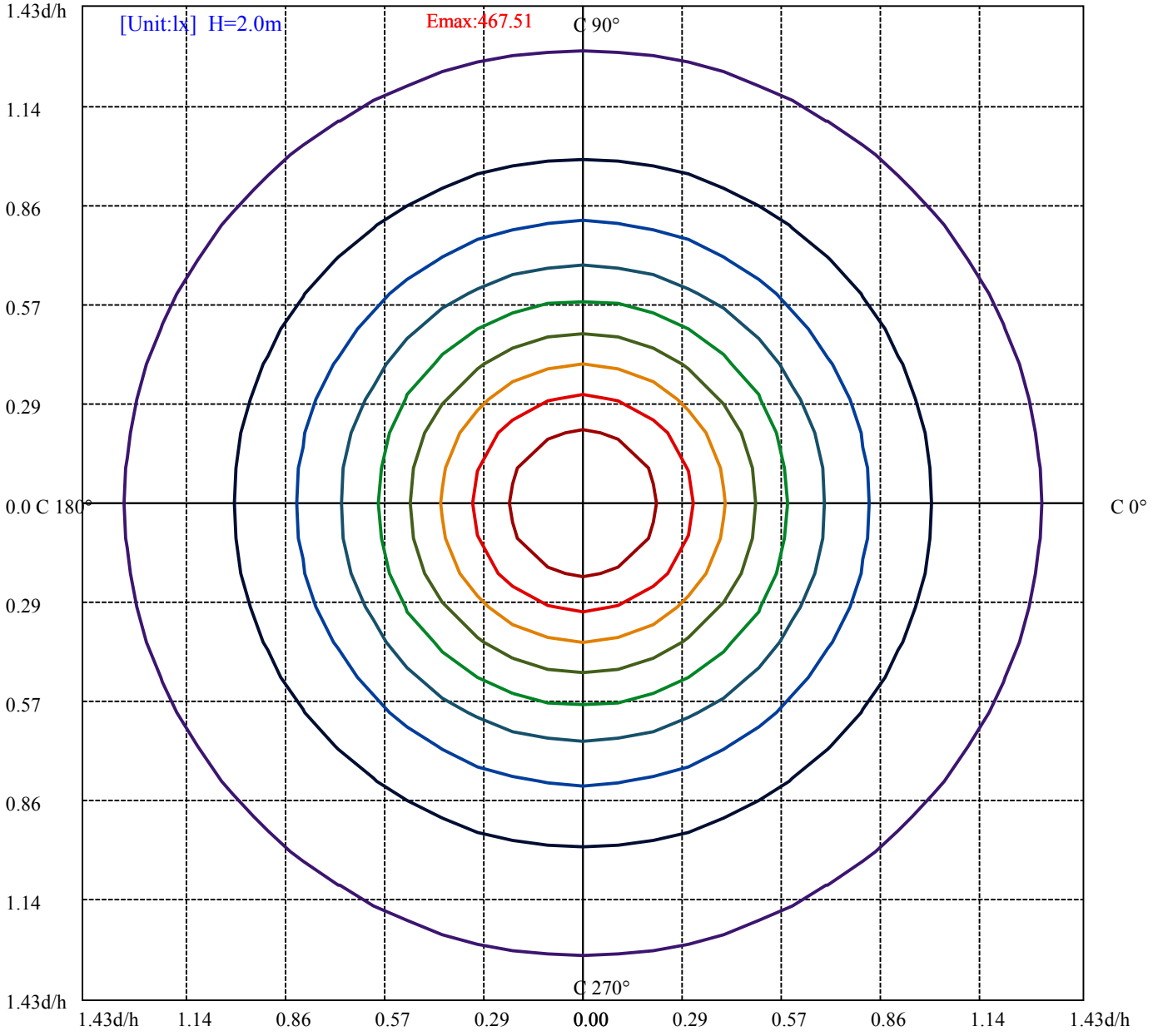
ISO illuminance diagram



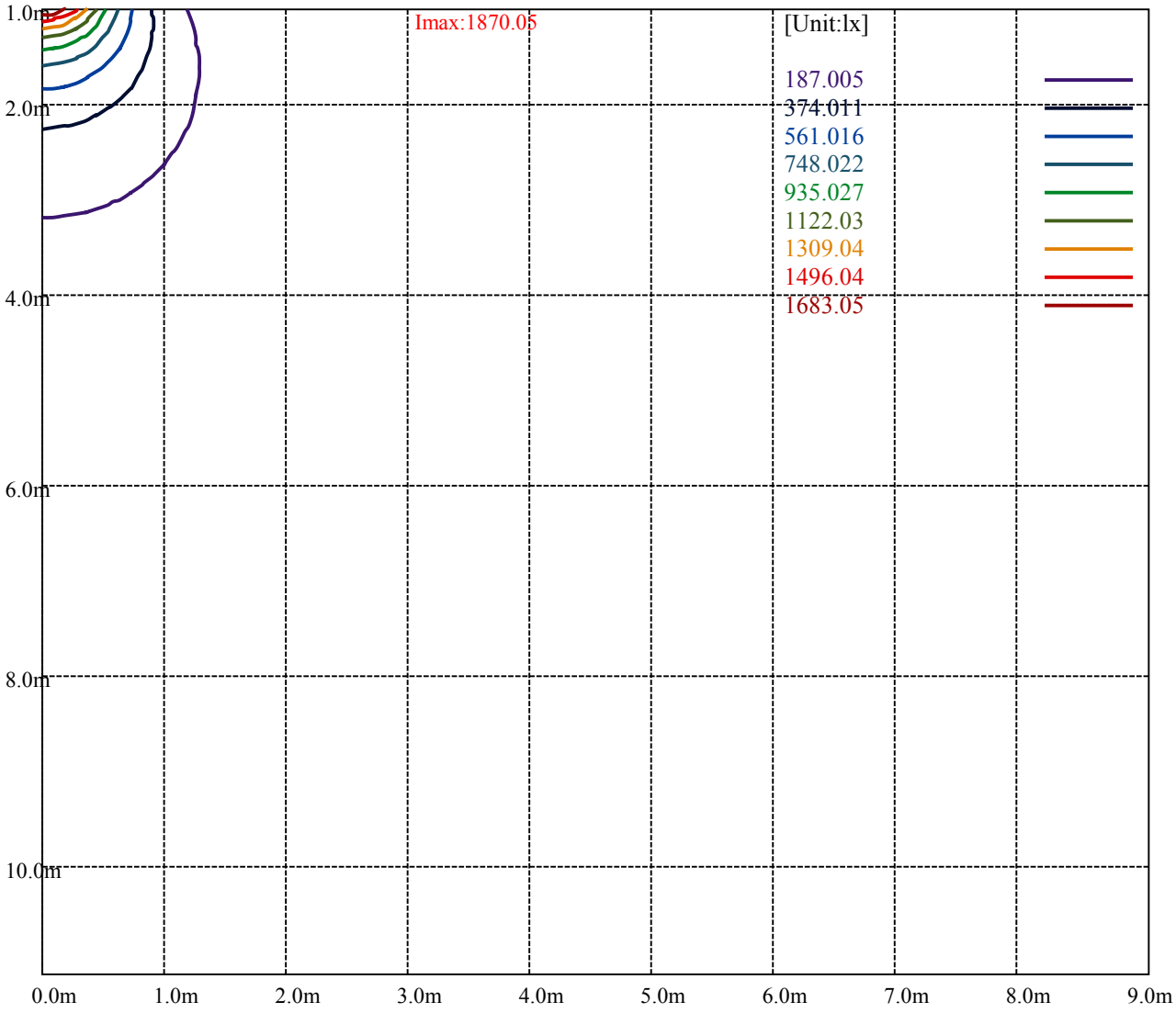
(10%Emax) 46.75125
(20%Emax) 93.50275
(30%Emax) 140.254
(40%Emax) 187.0052
(50%Emax) 233.7567
(60%Emax) 280.5075
(70%Emax) 327.26
(80%Emax) 374.01
(90%Emax) 420.7625

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



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Luminance Limitting Curve(no luminous side)

Luminance Table

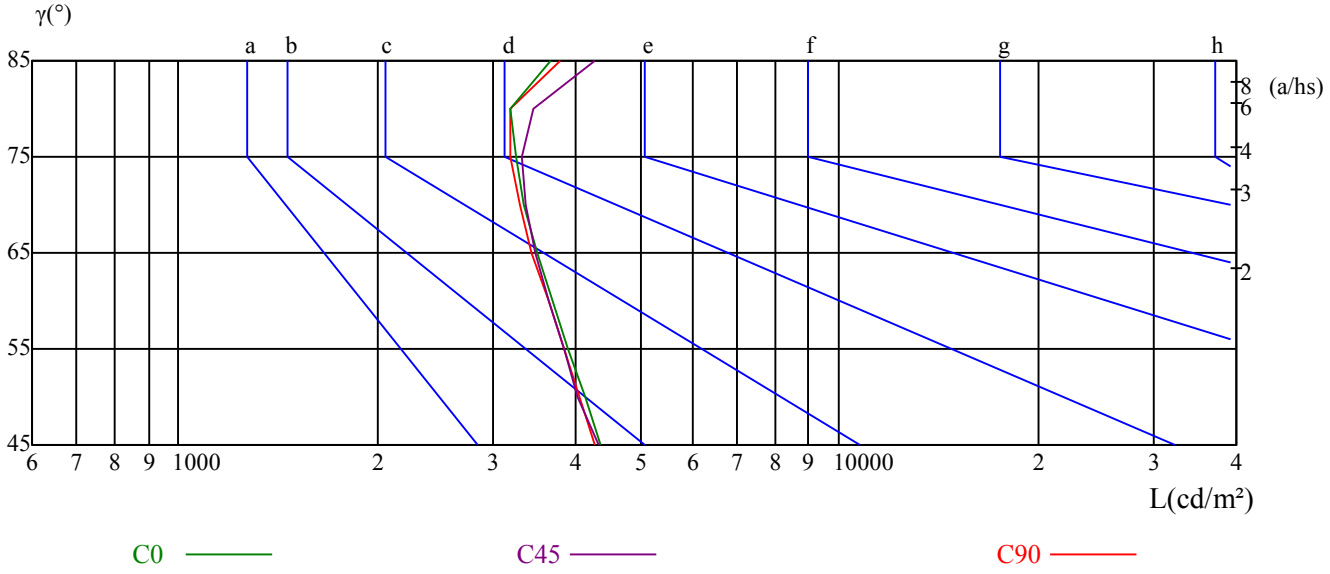
γ	45	50	55	60	65	70	75	80	85
C0	4343	4117	3901	3683	3499	3337	3236	3181	3664
C45	4326	4023	3837	3646	3469	3351	3301	3448	4274
C90	4278	4052	3846	3637	3435	3289	3180	3189	3773

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3602	3537	3614	3403	3344	3541	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	1870.05	1858.51	1828.30	1774.11	1693.27	1595.54	1476.50	1341.46	1207.32
15.0	1870.05	1861.10	1827.96	1773.33	1697.20	1595.99	1477.77	1347.01	1208.19
30.0	1870.05	1859.25	1829.56	1777.36	1697.27	1599.18	1480.38	1345.39	1203.21
45.0	1870.05	1861.96	1826.88	1771.11	1695.55	1598.41	1480.57	1343.85	1203.53
60.0	1870.05	1862.86	1831.38	1774.71	1695.55	1598.41	1479.67	1346.55	1200.83
75.0	1870.05	1862.87	1830.53	1773.95	1694.01	1596.10	1477.54	1345.50	1197.30
90.0	1870.05	1863.76	1834.11	1781.09	1696.62	1600.46	1478.25	1345.25	1196.98
105.0	1870.05	1863.76	1835.87	1780.10	1701.85	1601.10	1483.27	1345.65	1199.93
120.0	1870.05	1866.44	1837.56	1786.12	1713.01	1612.83	1493.70	1362.83	1213.91
135.0	1870.05	1865.55	1838.53	1786.28	1713.32	1616.93	1502.53	1370.11	1224.18
150.0	1870.05	1866.46	1838.59	1788.24	1715.41	1621.01	1504.13	1374.67	1231.72
165.0	1870.05	1864.67	1839.56	1789.33	1715.79	1621.61	1506.81	1375.86	1236.84
180.0	1870.05	1855.84	1816.75	1753.68	1679.94	1570.67	1452.51	1312.15	1171.78
195.0	1870.05	1856.62	1818.11	1754.52	1671.23	1568.23	1444.63	1305.81	1161.62
210.0	1870.05	1854.76	1816.96	1753.06	1670.27	1565.88	1446.19	1304.90	1162.71
225.0	1870.05	1854.76	1812.49	1750.42	1662.27	1558.83	1437.40	1301.57	1152.26
240.0	1870.05	1852.96	1812.49	1748.62	1664.07	1554.33	1432.90	1294.38	1154.95
255.0	1870.05	1852.99	1808.98	1741.61	1654.49	1547.60	1421.85	1286.22	1148.80
270.0	1870.05	1850.28	1808.05	1743.35	1654.38	1536.66	1415.35	1276.06	1139.47
285.0	1870.05	1849.37	1804.39	1738.73	1646.98	1538.14	1408.61	1270.09	1132.47
300.0	1870.05	1851.10	1805.97	1739.19	1653.45	1542.43	1418.79	1275.28	1140.81
315.0	1870.05	1850.24	1807.00	1740.34	1651.16	1543.06	1420.56	1280.93	1137.71
330.0	1870.05	1850.27	1806.22	1740.59	1652.48	1545.49	1481.66	1279.37	1140.01
345.0	1870.05	1848.53	1806.37	1741.80	1653.90	1548.06	1419.81	1282.58	1138.18
360.0	1870.05	1858.51	1828.30	1774.11	1693.27	1595.54	1476.50	1341.46	1207.32

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	1063.40	918.59	783.56	644.08	525.04	408.66	306.49	206.11	130.59
15.0	1068.47	924.28	782.77	652.01	531.10	415.57	308.99	217.64	143.30
30.0	1062.82	917.93	783.84	647.95	530.06	419.37	318.58	229.48	155.69
45.0	1054.21	909.39	778.06	648.54	527.11	420.07	319.32	232.97	161.01
60.0	1053.31	909.39	773.57	644.94	529.80	418.27	318.42	231.17	157.41
75.0	1053.59	910.78	775.15	648.50	530.84	416.77	313.47	223.65	148.20
90.0	1054.10	911.21	780.01	652.41	529.29	416.97	312.72	220.16	141.09
105.0	1059.61	917.49	787.96	654.83	537.00	423.66	322.92	230.27	154.71
120.0	1068.60	927.81	789.72	657.95	541.52	431.41	331.23	242.78	169.68
135.0	1077.35	930.52	795.40	666.59	551.29	439.59	339.60	249.52	174.75
150.0	1090.57	940.42	807.36	671.60	551.13	439.64	338.95	248.14	169.92
165.0	1096.02	951.62	817.08	679.86	551.60	438.59	335.44	241.27	158.75
180.0	1031.42	891.05	751.58	624.54	499.27	388.22	286.06	194.56	118.16
195.0	1021.90	885.77	751.42	617.08	494.38	386.91	290.18	200.62	128.07
210.0	1020.52	877.43	743.34	620.05	505.76	395.97	295.18	211.48	141.29
225.0	1007.44	867.12	742.98	617.95	494.72	390.38	294.14	212.28	143.02
240.0	1011.03	877.01	739.39	610.76	491.13	383.19	286.94	204.19	138.52
255.0	1011.37	876.64	737.42	603.59	481.44	372.75	277.54	193.11	123.05
270.0	1009.16	869.88	733.28	600.29	476.28	368.44	269.59	181.52	115.02
285.0	1001.14	863.52	728.59	594.57	478.53	371.49	314.82	188.89	121.43
300.0	993.69	860.12	728.35	657.95	478.34	373.65	277.08	195.85	131.77
315.0	1057.54	853.05	727.84	602.63	481.93	374.73	280.15	199.98	134.22
330.0	995.26	851.41	721.05	596.98	484.60	373.11	273.32	195.10	127.67
345.0	996.47	854.75	721.11	596.44	474.46	367.73	269.97	182.97	114.80
360.0	1063.40	918.59	783.56	644.08	525.04	408.66	306.49	206.11	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	30.21	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	30.21	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