正奇事

Client:
LumCAT: ZS-FL2*4-K60-3065
Luminaire: LED 灯具
Report No:
Ballast type:

Test No:	Voltage(V): 120.020
LampCAT:	Current(A): 0.462
Lamp flux(lm): 7005.3	Power (W): 55.130
Number of Lamps: 1	PF: 0.995
Length(mm): 1190	Width(mm): 580
Phm Type: C	Height(mm): 8

Photometric Results

Lumens(lm): 7005.29, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 127.07
Central intensity(cd): 2725.665, Maximum intensity(cd): 2725.665
Angle of maximum intensity: C=90.0 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	2725.665	0.000	0	0.00%	0.00%
5.0	2707.852	64.956	64.956	0.93%	0.93%
10.0	2655.642	191.869	256.825	2.74%	3.67%
15.0	2570.275	309.998	566.823	4.43%	8.09%
20.0	2451.182	413.839	980.662	5.91%	14.00%
25.0	2301.294	498.447	1479.109	7.12%	21.11%
30.0	2128.430	560.585	2039.694	8.00%	29.12%
35.0	1926.518	597.119	2636.813	8.52%	37.64%
40.0	1719.997	608.394	3245.207	8.68%	46.33%
45.0	1516.338	599.234	3844.441	8.55%	54.88%
50.0	1305.626	570.219	4414.66	8.14%	63.02%
55.0	1110.575	525.362	4940.022	7.50%	70.52%
60.0	924.145	470.320	5410.342	6.71%	77.23%
65.0	745.695	405.941	5816.283	5.79%	83.03%
70.0	584.999	336.940	6153.223	4.81%	87.84%
75.0	441.932	268.423	6421.647	3.83%	91.67%
80.0	312.193	201.783	6623.429	2.88%	94.55%
85.0	207.076	141.098	6764.527	2.01%	96.56%
90.0	96.660	83.165	6847.693	1.19%	97.75%
95.0	37.079	36.619	6884.311	0.52%	98.27%
100.0	26.151	17.181	6901.492	0.25%	98.52%
105.0	28.930	14.738	6916.23	0.21%	98.73%
110.0	26.423	14.468	6930.699	0.21%	98.94%
115.0	25.263	13.087	6943.786	0.19%	99.12%
120.0	23.655	11.892	6955.678	0.17%	99.29%
125.0	20.844	10.286	6965.964	0.15%	99.44%
130.0	18.485	8.551	6974.515	0.12%	99.56%
135.0	15.600	6.887	6981.403	0.10%	99.66%
140.0	11.406	5.001	6986.403	0.07%	99.73%
145.0	10.330	3.626	6990.03	0.05%	99.78%
150.0	11.827	3.263	6993.293	0.05%	99.83%
155.0	13.211	3.169	6996.461	0.05%	99.87%
160.0	14.446	2.901	6999.362	0.04%	99.92%
165.0	15.644	2.480	7001.842	0.04%	99.95%
170.0	16.542	1.909	7003.751	0.03%	99.98%
175.0	17.590	1.221	7004.972	0.02%	100.00%
180.0	8.982	0.318	7005.29	0.00%	100.00%

Zonal flux distribution table

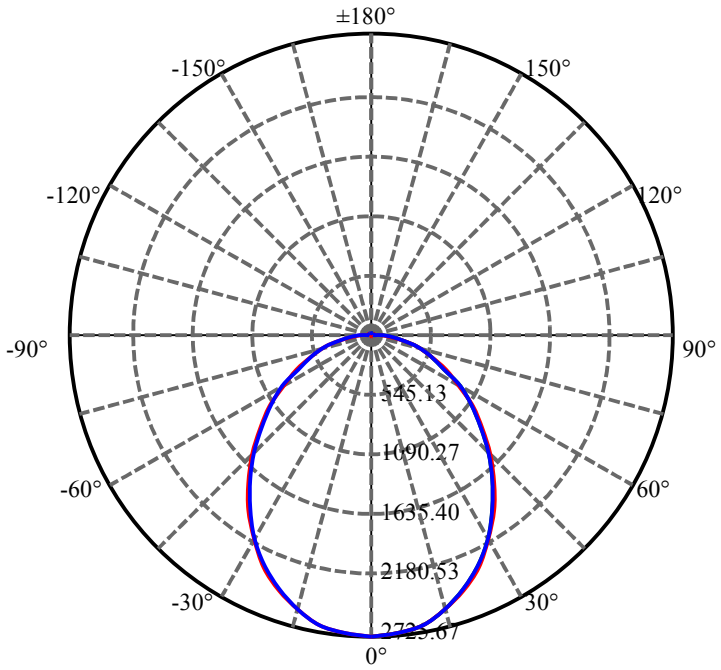
ZONAL LUMEN SUMMARY

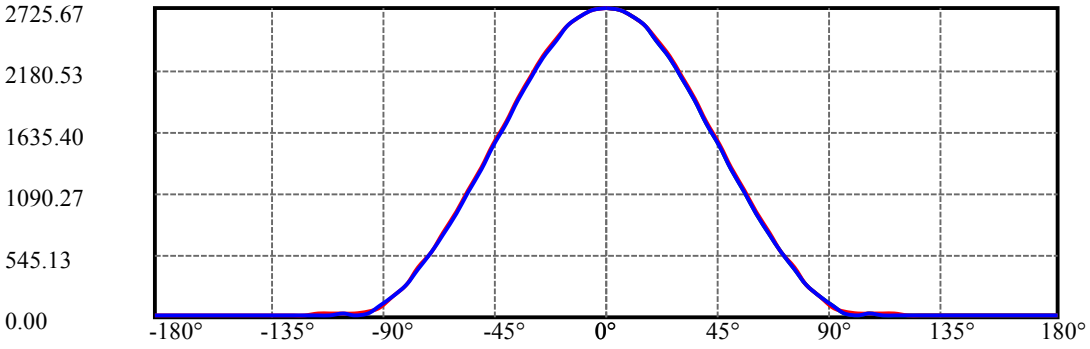
Zone	Lumens	%Lamp	%Fixt
0-30	2039.69	29.12%	29.12%
0-40	3245.21	46.33%	46.33%
0-60	5410.34	77.23%	77.23%
0-90	6847.69	97.75%	97.75%
0-120	6955.68	99.29%	99.29%
0-180	7005.29	100.00%	100.00%
60-90	1437.35	20.52%	20.52%
90-120	107.99	1.54%	1.54%
90-130	126.82	1.81%	1.81%
90-150	145.60	2.08%	2.08%
90-180	157.28	2.25%	2.25%
0-62.39	5604.23	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	256.83
10-20	723.84
20-30	1059.03
30-40	1205.51
40-50	1169.45
50-60	995.68
60-70	742.88
70-80	470.21
80-90	224.26
90-100	53.80
100-110	29.21
110-120	24.98
120-130	18.84
130-140	11.89
140-150	6.89
150-160	6.07
160-170	4.39
170-180	1.22

Light Distribution Curve [Unit:cd]





C90(Max):

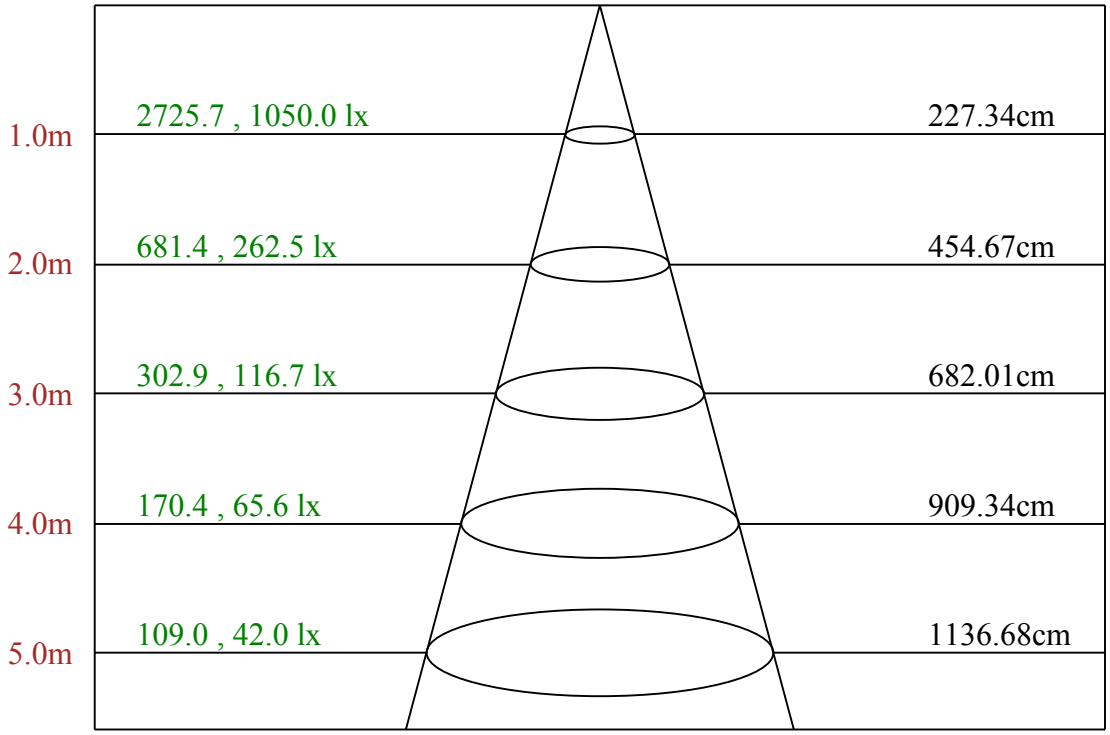
C0/C180:

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 C90 plane 97.32

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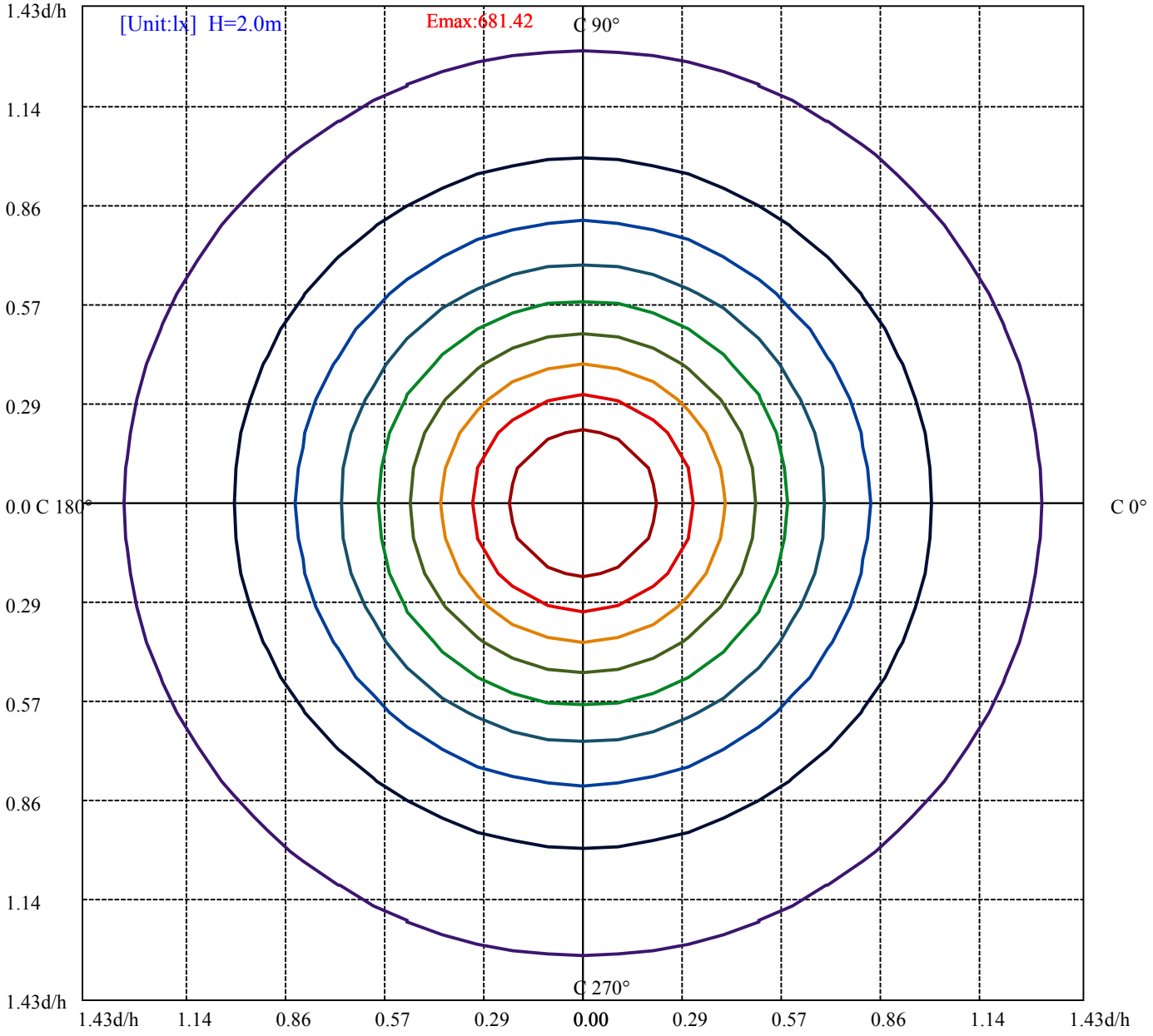
ISO illuminance diagram



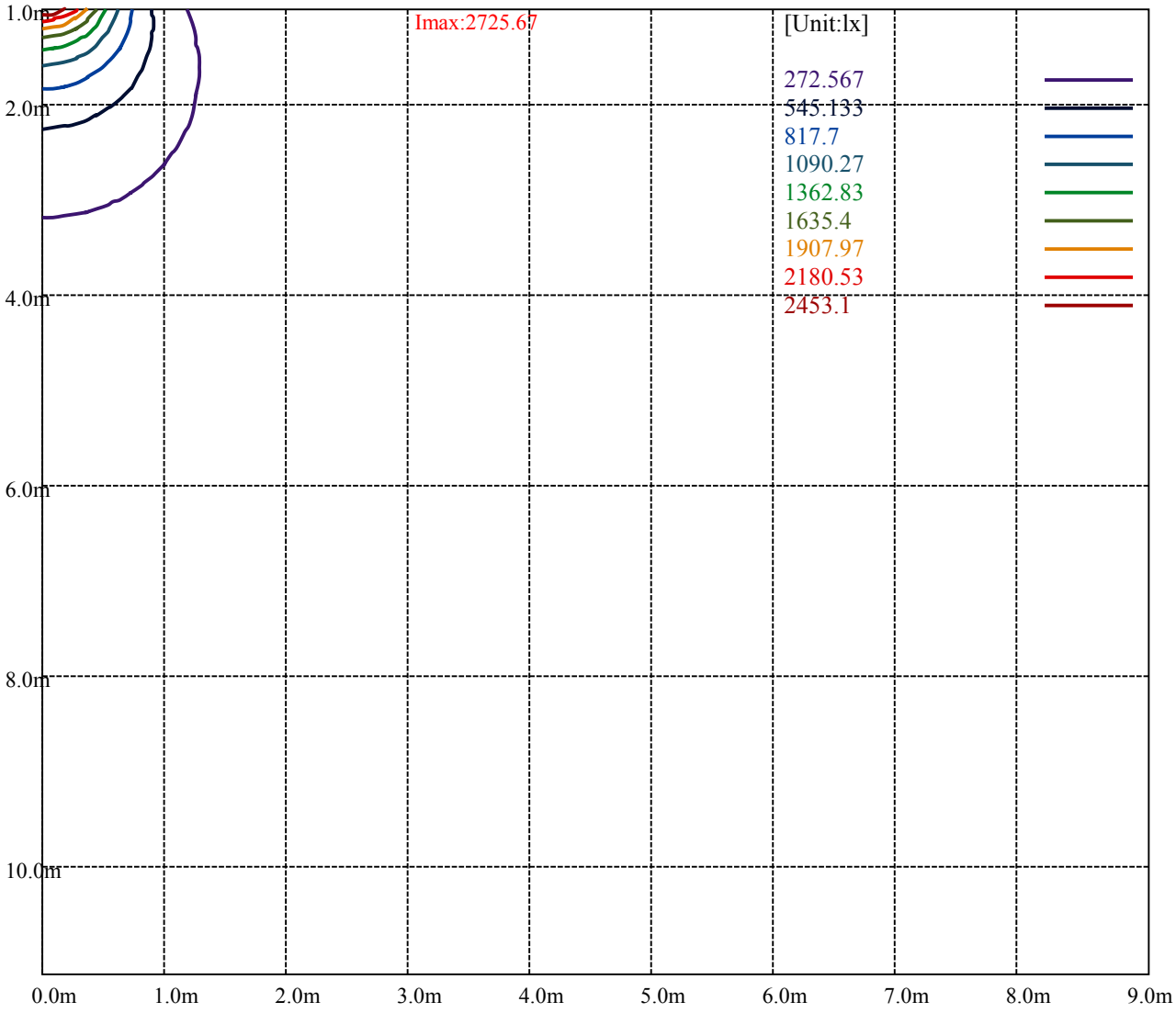
(10%Emax) 68.1415
(20%Emax) 136.2832
(30%Emax) 204.4247
(40%Emax) 272.5675
(50%Emax) 340.7075
(60%Emax) 408.85
(70%Emax) 476.9925
(80%Emax) 545.1325
(90%Emax) 613.275

Equipment: LC-I-902 GMS-2000
Temperature(°C): 25.1

Date: 2023/5/11
Humidity(%): 61.8%

Operator: JUN WANG
Distance(m): 29.97

Space ISO Lux diagram



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Luminance Limitting Curve(no luminous side)

Luminance Table

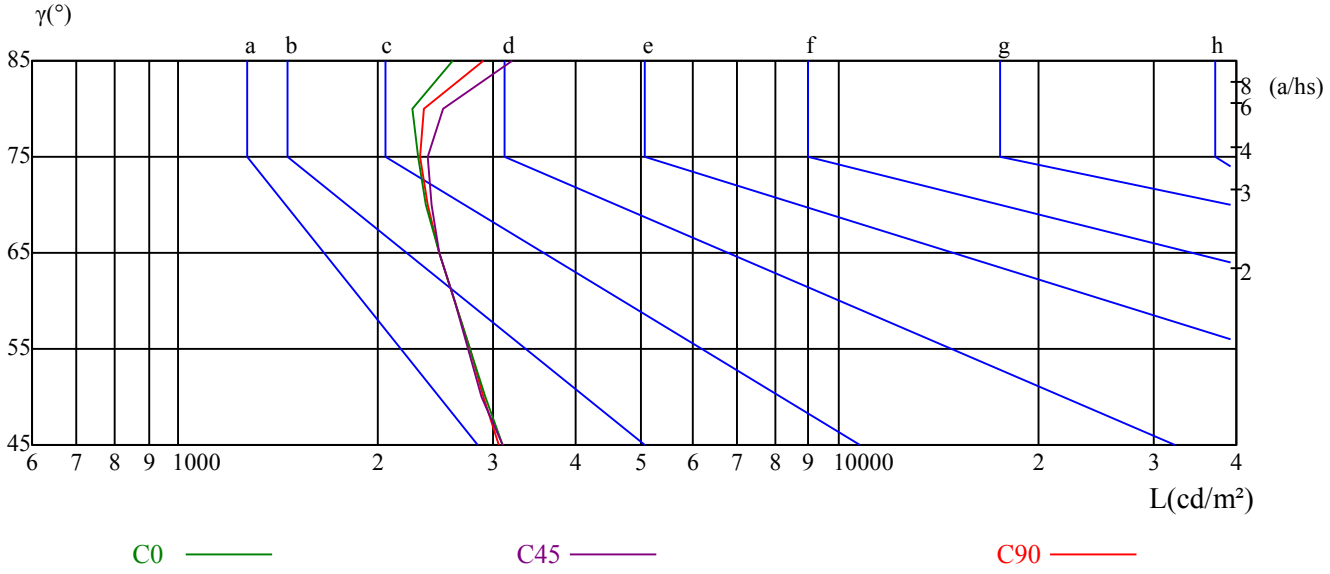
γ	45	50	55	60	65	70	75	80	85
C0	3088	2924	2771	2617	2485	2370	2301	2265	2603
C45	3091	2875	2747	2613	2489	2411	2383	2518	3197
C90	3062	2903	2760	2617	2477	2379	2316	2358	2893

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2558	2512	2566	2420	2374	2512	3013	3115	3727

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	2725.67	2709.67	2664.36	2587.07	2468.91	2326.77	2151.75	1955.41	1760.84
15.0	2725.67	2710.45	2662.11	2584.23	2473.24	2325.54	2154.57	1963.02	1761.61
30.0	2725.67	2711.26	2667.16	2592.44	2476.32	2333.20	2157.67	1961.43	1754.40
45.0	2725.67	2714.87	2663.60	2583.53	2472.89	2331.66	2158.04	1959.24	1755.94
60.0	2725.67	2715.77	2668.99	2588.03	2472.89	2331.66	2156.24	1962.84	1750.54
75.0	2725.67	2714.89	2667.29	2586.46	2470.61	2327.82	2152.69	1960.50	1745.86
90.0	2725.67	2716.68	2672.64	2598.05	2474.94	2333.85	2154.11	1960.90	1746.12
105.0	2725.67	2717.57	2675.29	2596.13	2481.88	2334.36	2163.44	1961.04	1749.64
120.0	2725.67	2720.25	2676.94	2603.86	2496.50	2351.24	2177.10	1985.83	1770.19
135.0	2725.67	2720.26	2679.71	2605.83	2499.50	2358.94	2190.44	1996.72	1785.87
150.0	2725.67	2720.27	2681.60	2607.86	2501.75	2365.06	2193.30	2004.46	1796.73
165.0	2725.67	2717.59	2681.72	2609.07	2501.44	2364.22	2196.50	2006.36	1804.55
180.0	2725.67	2706.12	2649.26	2556.87	2449.37	2290.34	2117.99	1911.87	1709.32
195.0	2725.67	2705.08	2648.68	2556.49	2435.64	2284.37	2105.34	1902.15	1694.48
210.0	2725.67	2704.06	2649.15	2556.44	2436.72	2283.69	2108.16	1902.92	1695.89
225.0	2725.67	2703.18	2642.01	2552.95	2424.31	2274.09	2095.07	1898.07	1680.38
240.0	2725.67	2700.48	2642.01	2550.25	2427.01	2266.89	2089.68	1886.38	1683.98
255.0	2725.67	2700.52	2636.76	2539.76	2412.24	2255.07	2071.86	1876.08	1674.91
270.0	2725.67	2696.91	2635.80	2542.34	2412.03	2240.38	2064.24	1862.04	1661.64
285.0	2725.67	2695.98	2632.11	2535.86	2400.92	2242.60	2054.59	1852.19	1651.59
300.0	2725.67	2697.70	2633.64	2536.19	2408.98	2247.48	2067.93	1859.52	1663.73
315.0	2725.67	2697.73	2636.46	2538.25	2407.60	2250.81	2072.41	1869.67	1659.73
330.0	2725.67	2696.89	2634.84	2538.62	2410.02	2253.55	2160.03	1866.87	1662.74
345.0	2725.67	2694.27	2633.29	2540.01	2412.65	2257.49	2069.14	1870.92	1659.26
360.0	2725.67	2709.67	2664.36	2587.07	2468.91	2326.77	2151.75	1955.41	1760.84

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	1551.18	1338.85	1140.73	939.06	764.93	595.24	446.87	300.29	191.01
15.0	1555.73	1346.27	1139.50	949.73	774.29	605.11	450.25	317.77	209.46
30.0	1550.96	1338.53	1142.29	945.16	772.33	611.20	464.48	334.86	225.94
45.0	1538.25	1326.85	1134.34	945.44	768.22	612.60	465.07	340.03	236.58
60.0	1535.55	1326.85	1129.85	941.84	771.82	609.90	464.17	336.44	228.49
75.0	1536.61	1327.36	1129.78	945.68	773.24	607.10	457.12	326.00	216.44
90.0	1537.62	1328.23	1136.82	951.69	771.06	607.50	456.52	321.72	206.69
105.0	1545.44	1337.64	1147.84	954.43	783.52	618.00	469.57	335.54	225.79
120.0	1557.27	1352.46	1150.36	958.18	789.46	627.96	481.80	354.58	248.12
135.0	1571.42	1356.98	1159.65	973.13	802.83	639.74	493.77	364.02	255.00
150.0	1590.80	1370.48	1176.24	979.30	803.94	641.17	492.80	362.40	248.20
165.0	1598.27	1387.50	1191.08	991.97	805.41	639.49	488.81	352.48	232.30
180.0	1504.09	1297.98	1096.31	910.63	727.61	565.92	417.56	285.18	171.46
195.0	1488.60	1290.77	1094.74	898.71	720.58	563.93	422.50	292.71	187.08
210.0	1488.85	1279.12	1085.59	903.75	737.23	577.00	430.27	308.75	207.04
225.0	1468.98	1262.98	1084.87	900.46	721.45	568.52	428.19	309.45	209.60
240.0	1473.48	1278.27	1079.47	890.56	716.05	558.63	417.40	298.65	202.40
255.0	1473.75	1277.96	1075.90	879.22	702.30	543.34	404.13	281.10	180.51
270.0	1471.12	1268.02	1069.42	875.30	694.67	536.51	391.82	265.11	168.05
285.0	1459.98	1258.48	1062.38	867.18	698.06	541.53	458.78	275.27	176.31
300.0	1448.09	1253.21	1061.94	958.18	697.43	544.05	404.20	286.01	193.08
315.0	1542.59	1243.44	1061.43	878.52	701.92	546.03	408.17	292.84	195.53
330.0	1450.51	1240.98	1052.14	871.39	706.82	544.05	399.27	284.17	187.05
345.0	1452.97	1245.79	1051.16	869.99	691.51	535.45	392.84	267.27	167.72
360.0	1551.18	1338.85	1140.73	939.06	764.93	595.24	446.87	300.29	191.01

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	102.17	44.42	33.76	28.43	26.65	24.88	23.10	22.21	20.43
15.0	111.00	46.55	34.01	28.64	25.06	23.27	22.38	20.59	19.69
30.0	115.22	42.31	31.51	28.80	27.90	27.00	23.40	19.80	17.10
45.0	116.94	36.88	25.19	27.89	27.89	25.19	23.39	22.49	19.79
60.0	112.44	37.78	17.99	25.19	23.39	22.49	22.49	17.09	16.19
75.0	98.79	46.70	10.78	22.45	19.76	19.76	19.76	19.76	17.96
90.0	98.85	44.93	7.19	23.37	22.47	20.67	20.67	20.67	19.77
105.0	119.64	49.48	10.79	22.49	19.79	17.99	19.79	19.79	17.99
120.0	149.77	45.11	18.04	27.07	25.26	23.46	22.56	17.14	16.24
135.0	158.58	37.84	25.23	27.93	27.93	27.03	25.23	22.53	19.82
150.0	152.87	44.06	31.47	28.78	27.88	26.98	23.38	17.99	17.09
165.0	137.23	44.84	34.08	28.70	25.11	23.32	22.42	20.63	19.73
180.0	55.97	41.76	33.76	30.21	27.54	26.65	23.10	22.21	19.55
195.0	63.55	42.07	34.01	30.43	26.85	25.06	23.27	20.59	17.90
210.0	71.11	39.61	31.51	33.31	31.51	30.61	27.90	18.00	17.10
225.0	75.56	34.18	31.48	33.28	31.48	28.79	27.89	25.19	17.09
240.0	71.07	23.39	33.28	31.48	27.89	26.99	25.19	17.99	17.99
255.0	63.76	15.27	13.47	28.74	22.45	23.35	23.35	22.45	20.66
270.0	111.44	12.58	10.78	28.76	25.16	25.16	25.16	23.37	22.47
285.0	63.87	17.09	22.49	27.89	22.49	23.39	23.39	22.49	20.69
300.0	69.47	27.07	34.29	31.58	28.87	27.97	25.26	19.85	18.04
315.0	71.18	34.24	34.24	34.24	31.54	30.64	27.93	25.23	13.52
330.0	69.24	39.57	34.17	34.17	31.47	30.57	23.38	19.78	17.09
345.0	60.09	42.15	34.08	30.49	27.80	25.11	23.32	22.42	19.73
360.0	102.17	44.42	33.76	28.43	26.65	24.88	23.10	22.21	20.43

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	19.55	17.77	10.66	12.44	13.33	15.10	15.99	16.88	17.77
15.0	17.90	17.01	10.74	12.53	13.43	15.22	16.11	16.11	17.90
30.0	16.20	8.10	10.80	12.60	13.50	15.30	16.20	16.20	17.10
45.0	7.20	8.10	10.79	12.59	13.49	15.29	16.19	17.09	17.09
60.0	15.29	9.90	10.79	12.59	13.49	15.29	16.19	17.09	17.99
75.0	17.06	17.06	10.78	12.57	13.47	15.27	16.17	16.17	17.96
90.0	17.97	17.07	10.78	12.58	15.28	16.18	16.18	16.18	17.97
105.0	17.09	17.09	10.79	12.59	15.29	16.19	16.19	16.19	17.99
120.0	15.34	8.12	10.83	12.63	13.53	15.34	16.24	17.14	17.14
135.0	7.21	8.11	10.81	12.61	13.52	15.32	16.22	17.12	18.02
150.0	16.19	8.09	9.89	12.59	13.49	15.29	16.19	17.09	17.99
165.0	17.94	17.04	9.87	12.56	13.45	15.25	16.14	17.04	17.94
180.0	16.88	15.10	9.77	10.66	12.44	13.33	15.10	15.99	17.77
195.0	17.01	8.06	9.85	10.74	12.53	13.43	13.43	16.11	17.01
210.0	15.30	8.10	9.90	10.80	12.60	13.50	15.30	16.20	17.10
225.0	8.10	8.10	9.90	10.79	12.59	13.49	15.29	16.19	17.09
240.0	17.09	8.10	9.90	10.79	12.59	13.49	15.29	16.19	17.09
255.0	19.76	12.57	9.88	10.78	12.57	13.47	15.27	16.17	17.06
270.0	20.67	15.28	10.78	12.58	13.48	13.48	15.28	17.07	17.97
285.0	19.79	12.59	10.79	12.59	12.59	13.49	15.29	17.09	17.99
300.0	15.34	8.12	9.92	10.83	12.63	13.53	15.34	17.14	18.04
315.0	7.21	8.11	9.91	10.81	12.61	13.52	15.32	16.22	17.12
330.0	15.29	8.09	9.89	10.79	12.59	13.49	15.29	16.19	17.09
345.0	17.04	8.07	9.87	10.76	12.56	13.45	15.25	16.14	17.94
360.0	19.55	17.77	10.66	12.44	13.33	15.10	15.99	16.88	17.77

Intensity data(cd)

C/γ(°)	180.0
0.0	17.77
15.0	17.90
30.0	18.00
45.0	17.99
60.0	17.99
75.0	17.96
90.0	17.97
105.0	17.99
120.0	18.04
135.0	18.02
150.0	17.99
165.0	17.94
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	17.77