正奇事

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

Test No:	Voltage(V): 120.010
LampCAT:	Current(A): 0.455
Lamp flux(lm): 7105.1	Power (W): 54.370
Number of Lamps: 1	PF: 0.995
Length(mm): 1190	Width(mm): 580
Phm Type: C	Height(mm): 8

Photometric Results

Lumens(lm): 7105.05, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 130.68
Central intensity(cd): 2764.213, Maximum intensity(cd): 2764.213
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(%): 2.26%
Down flux rate of lamp(%): 97.74%
Up flux rate of LUM(%): 2.26%
Down flux rate of LUM(%): 97.74%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 77.221%

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Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2764.213	0.000	0	0.00%	0.00%
5.0	2746.137	65.875	65.875	0.93%	0.93%
10.0	2693.179	194.581	260.456	2.74%	3.67%
15.0	2606.614	314.380	574.836	4.42%	8.09%
20.0	2485.724	419.680	994.517	5.91%	14.00%
25.0	2333.704	505.469	1499.986	7.11%	21.11%
30.0	2158.444	568.485	2068.471	8.00%	29.11%
35.0	1953.650	605.535	2674.005	8.52%	37.64%
40.0	1744.174	616.954	3290.959	8.68%	46.32%
45.0	1537.745	607.674	3898.633	8.55%	54.87%
50.0	1323.926	578.242	4476.875	8.14%	63.01%
55.0	1126.293	532.759	5009.635	7.50%	70.51%
60.0	937.206	476.972	5486.607	6.71%	77.22%
65.0	756.248	411.682	5898.288	5.79%	83.02%
70.0	593.270	341.707	6239.995	4.81%	87.82%
75.0	448.144	272.209	6512.204	3.83%	91.66%
80.0	316.647	204.637	6716.841	2.88%	94.54%
85.0	210.070	143.122	6859.963	2.01%	96.55%
90.0	98.044	84.364	6944.327	1.19%	97.74%
95.0	37.490	37.110	6981.437	0.52%	98.26%
100.0	26.338	17.344	6998.78	0.24%	98.50%
105.0	29.080	14.828	7013.609	0.21%	98.71%
110.0	26.797	14.605	7028.214	0.21%	98.92%
115.0	25.787	13.315	7041.529	0.19%	99.11%
120.0	24.440	12.210	7053.739	0.17%	99.28%
125.0	21.742	10.675	7064.414	0.15%	99.43%
130.0	19.346	8.934	7073.348	0.13%	99.55%
135.0	16.349	7.213	7080.561	0.10%	99.66%
140.0	11.705	5.194	7085.755	0.07%	99.73%
145.0	10.330	3.676	7089.431	0.05%	99.78%
150.0	11.827	3.263	7092.694	0.05%	99.83%
155.0	13.286	3.178	7095.872	0.04%	99.87%
160.0	14.895	2.956	7098.828	0.04%	99.91%
165.0	16.505	2.588	7101.416	0.04%	99.95%
170.0	17.441	2.014	7103.429	0.03%	99.98%
175.0	18.488	1.285	7104.714	0.02%	100.00%
180.0	9.431	0.334	7105.048	0.00%	100.00%

Zonal flux distribution table

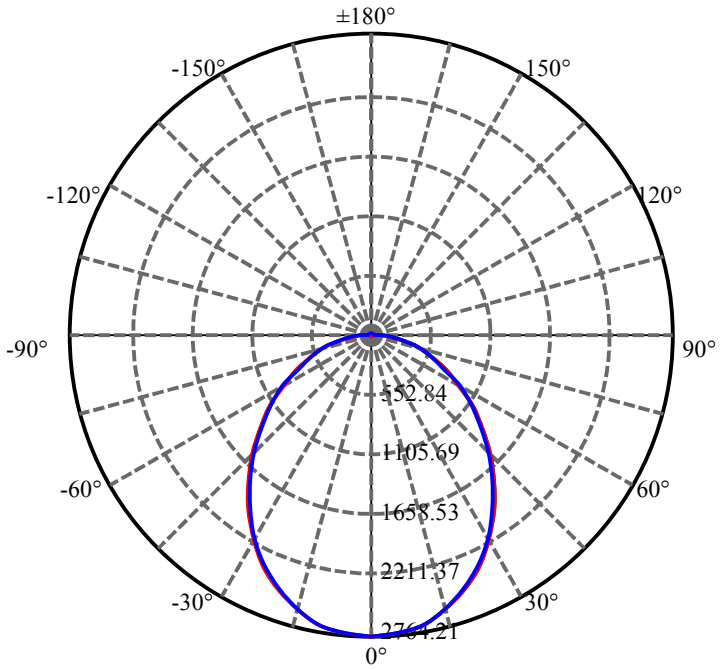
ZONAL LUMEN SUMMARY

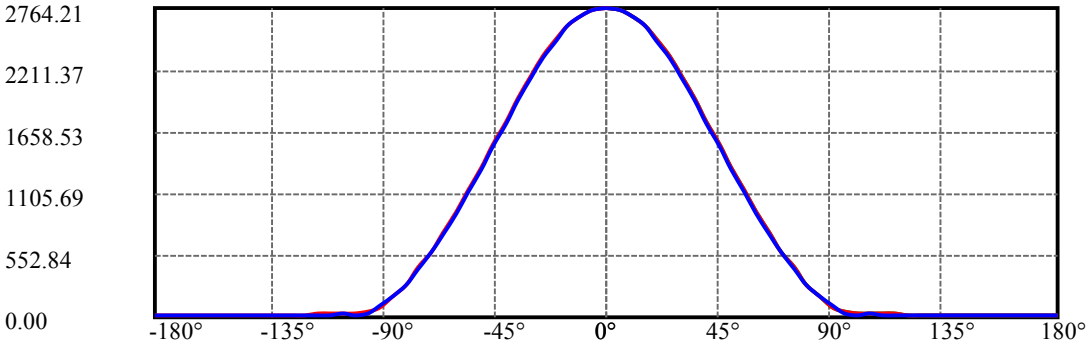
Zone	Lumens	%Lamp	%Fixt
0-30	2068.47	29.11%	29.11%
0-40	3290.96	46.32%	46.32%
0-60	5486.61	77.22%	77.22%
0-90	6944.33	97.74%	97.74%
0-120	7053.74	99.28%	99.28%
0-180	7105.05	100.00%	100.00%
60-90	1457.72	20.52%	20.52%
90-120	109.41	1.54%	1.54%
90-130	129.02	1.82%	1.82%
90-150	148.37	2.09%	2.09%
90-180	160.39	2.26%	2.26%
0-62.40	5684.04	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	260.46
10-20	734.06
20-30	1073.95
30-40	1222.49
40-50	1185.92
50-60	1009.73
60-70	753.39
70-80	476.85
80-90	227.49
90-100	54.45
100-110	29.43
110-120	25.53
120-130	19.61
130-140	12.41
140-150	6.94
150-160	6.13
160-170	4.60
170-180	1.29

Light Distribution Curve [Unit:cd]





C0(Max):

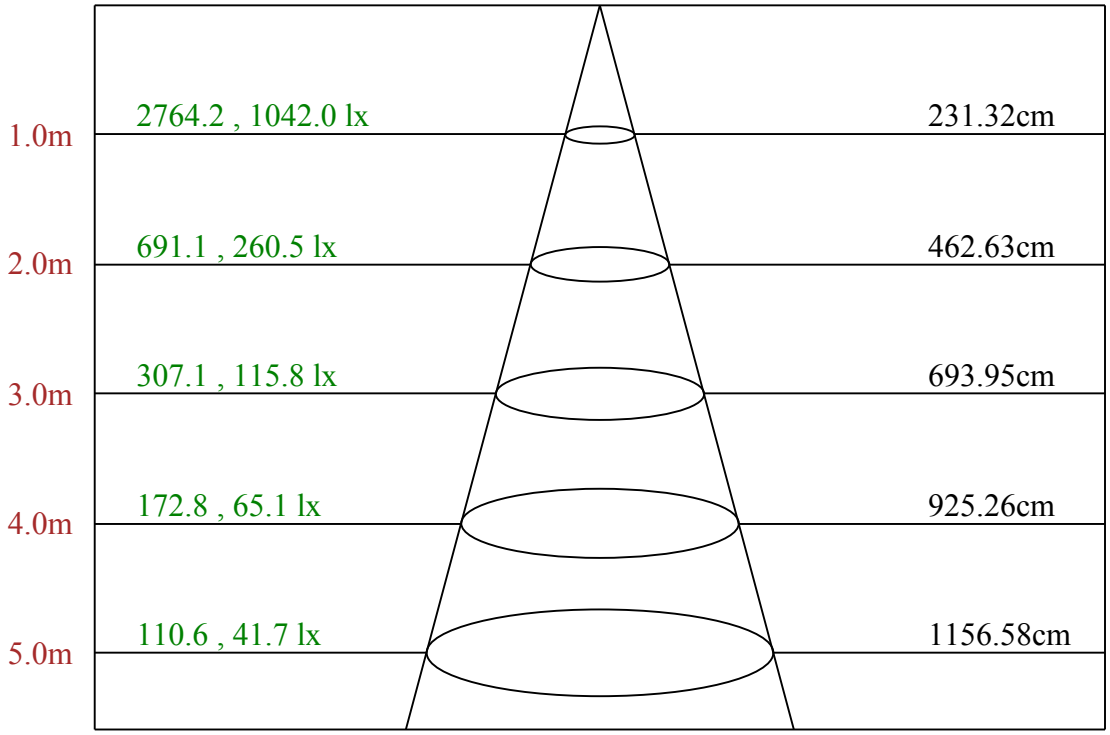
C0/C180:

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 98.31

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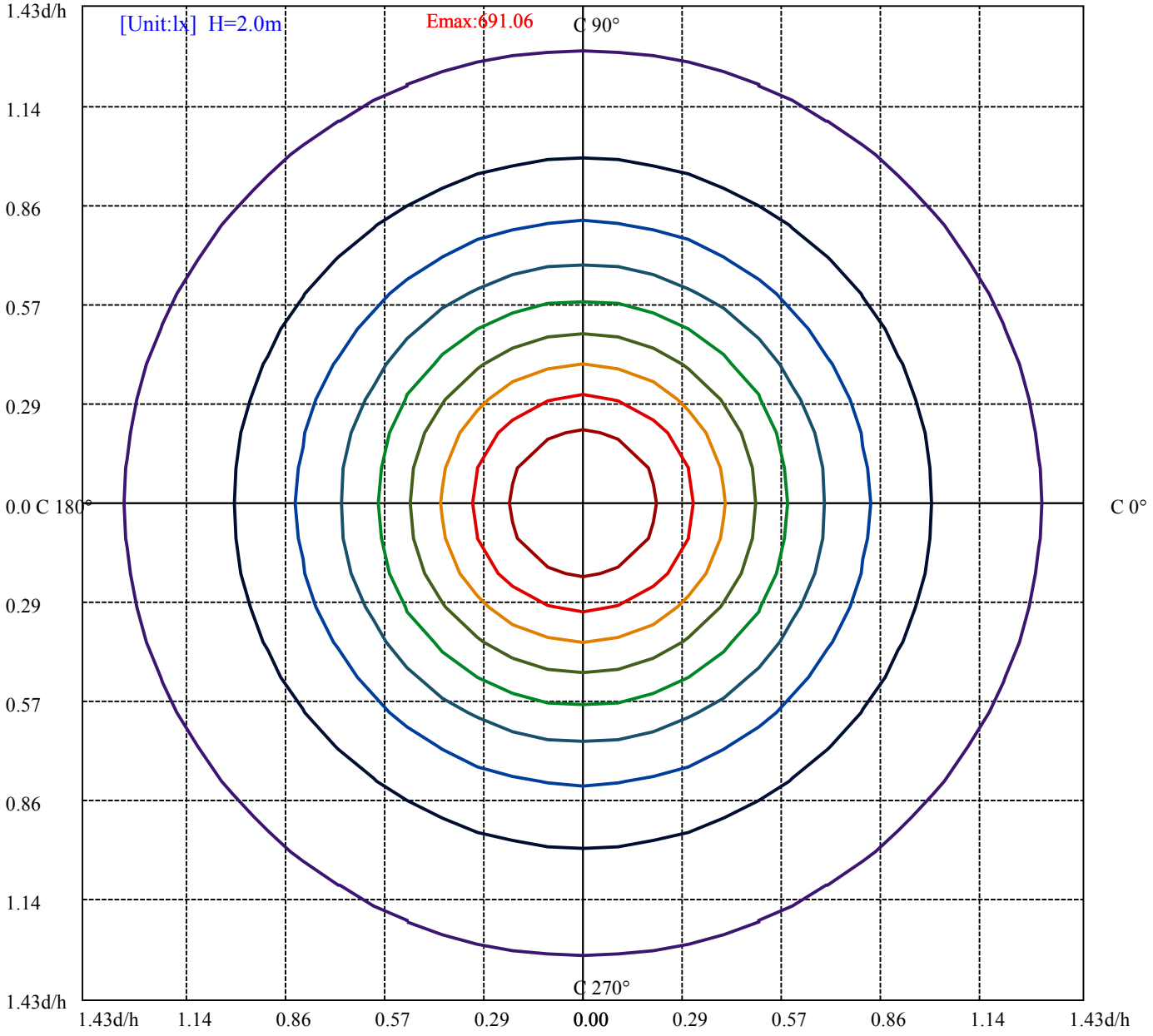
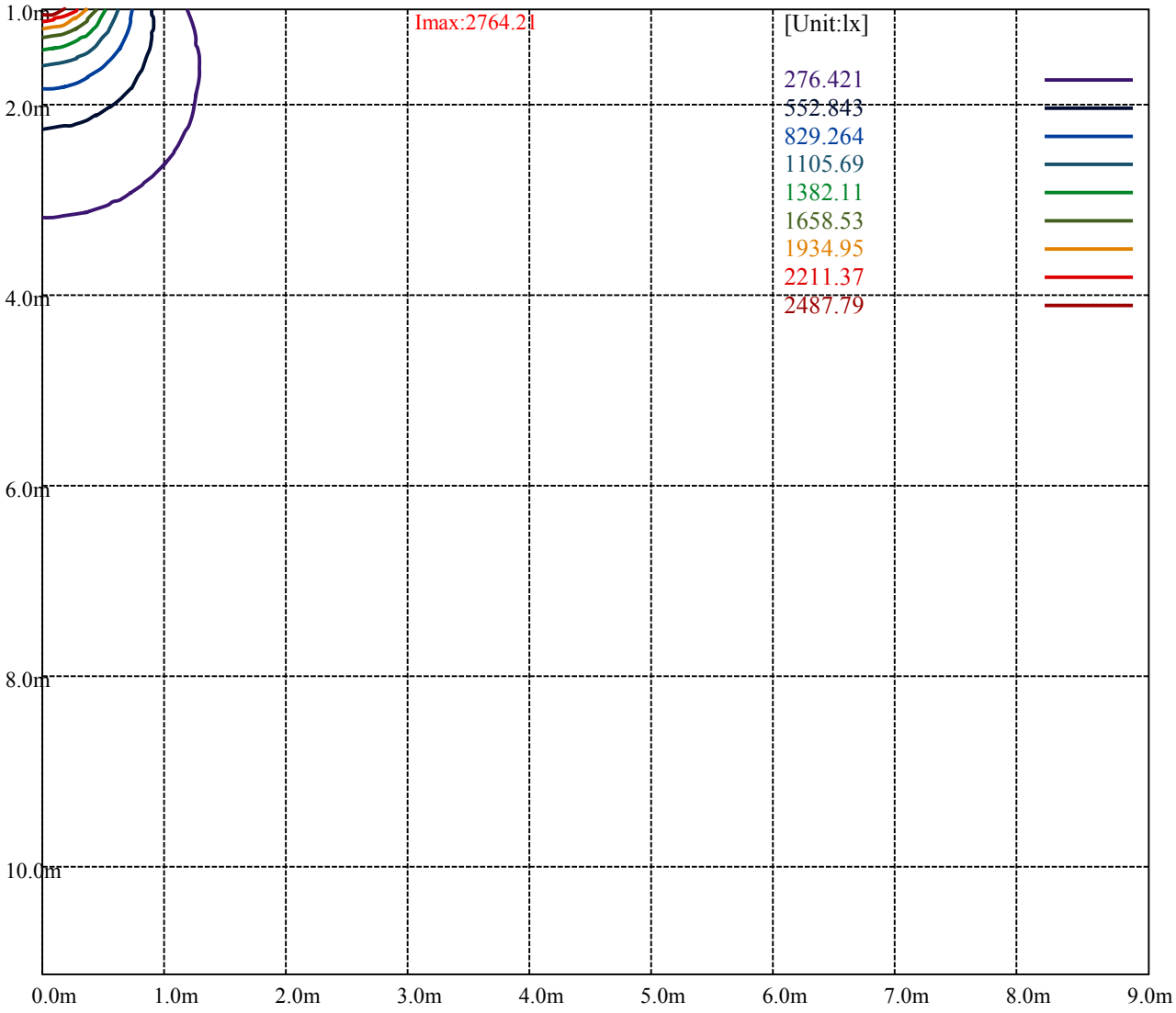
ISO illuminance diagram



(10%Emax) 69.10525
(20%Emax) 138.2108
(30%Emax) 207.316
(40%Emax) 276.4225
(50%Emax) 345.5275
(60%Emax) 414.6325
(70%Emax) 483.7375
(80%Emax) 552.8425
(90%Emax) 621.9475

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



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

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

Operator: JUN WANG
Distance(m): 29.97

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Luminance Limitting Curve(no luminous side)

Luminance Table

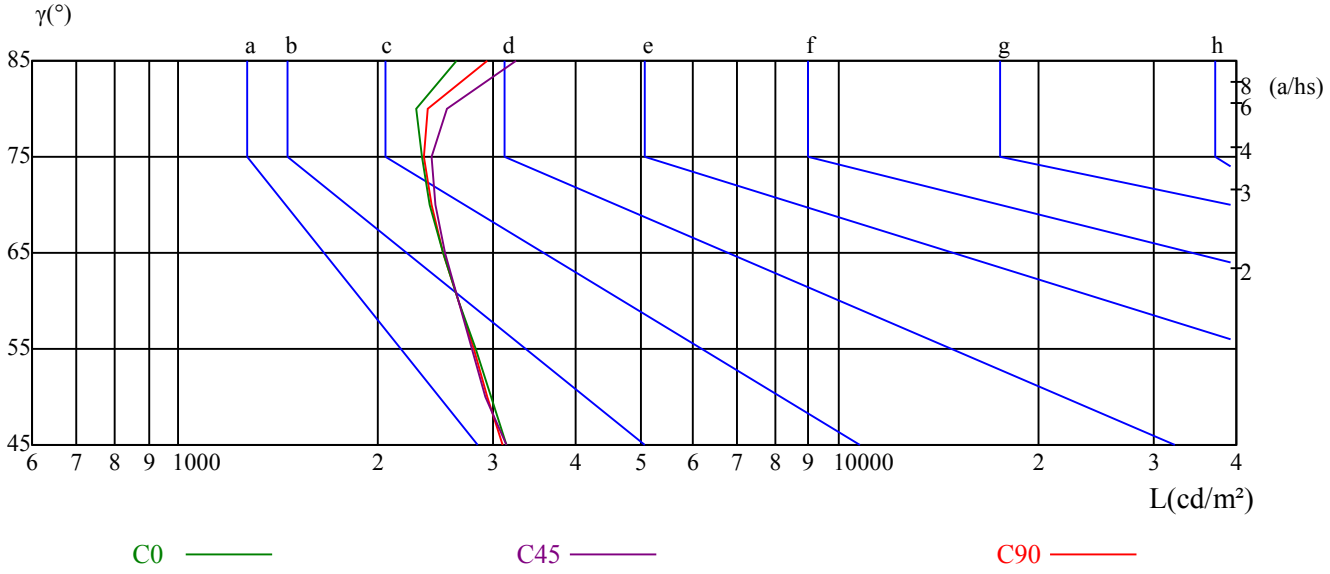
γ	45	50	55	60	65	70	75	80	85
C0	3132	2965	2811	2654	2521	2403	2334	2296	2641
C45	3134	2915	2786	2650	2525	2444	2417	2552	3238
C90	3105	2943	2798	2654	2512	2413	2348	2391	2934

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2595	2548	2603	2455	2407	2547	3058	3160	3775

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



Equipment: LC-I-902 GMS-2000 Date: 2023/5/11 Operator: JUN WANG
Temperature(°C): 25.1 Humidity(%): 61.8% Distance(m): 29.97

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	0.83	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	0.68	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	0.50	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	2764.21	2748.22	2702.02	2624.71	2503.87	2359.93	2182.23	1983.20	1785.94
15.0	2764.21	2749.00	2700.66	2620.99	2508.20	2358.71	2185.05	1990.81	1786.71
30.0	2764.21	2749.81	2704.81	2629.20	2510.38	2365.47	2188.15	1988.33	1778.60
45.0	2764.21	2753.42	2701.25	2619.39	2506.95	2363.93	2187.62	1986.13	1780.14
60.0	2764.21	2754.32	2706.64	2623.89	2506.95	2363.93	2186.72	1990.63	1774.75
75.0	2764.21	2754.33	2705.82	2624.07	2505.49	2360.86	2183.88	1988.94	1770.64
90.0	2764.21	2755.23	2711.19	2634.81	2509.90	2367.01	2184.59	1988.69	1770.32
105.0	2764.21	2756.12	2713.84	2632.88	2516.85	2367.53	2193.92	1988.83	1773.85
120.0	2764.21	2758.80	2714.59	2640.62	2531.46	2384.40	2207.58	2013.62	1795.30
135.0	2764.21	2758.81	2718.26	2642.58	2534.46	2392.11	2220.92	2025.41	1810.97
150.0	2764.21	2758.82	2719.25	2644.62	2536.71	2398.23	2224.68	2032.25	1821.83
165.0	2764.21	2756.14	2719.37	2645.82	2537.30	2397.39	2227.87	2034.15	1829.65
180.0	2764.21	2744.67	2686.91	2592.73	2484.33	2322.61	2148.46	1939.66	1733.52
195.0	2764.21	2743.62	2686.34	2593.24	2470.61	2316.64	2134.93	1929.04	1717.79
210.0	2764.21	2741.71	2686.80	2592.29	2470.78	2315.96	2137.74	1928.92	1719.19
225.0	2764.21	2740.83	2678.76	2588.81	2458.38	2305.46	2124.66	1924.07	1704.58
240.0	2764.21	2738.13	2678.76	2586.11	2461.08	2298.26	2119.26	1913.27	1708.18
255.0	2764.21	2739.96	2674.38	2576.46	2447.10	2288.09	2102.13	1903.60	1699.67
270.0	2764.21	2734.56	2672.55	2578.20	2446.10	2271.76	2092.93	1888.04	1684.95
285.0	2764.21	2733.63	2668.86	2571.72	2434.99	2273.98	2083.28	1878.19	1674.90
300.0	2764.21	2735.34	2670.39	2571.15	2443.05	2278.85	2096.62	1885.51	1687.04
315.0	2764.21	2735.38	2673.21	2574.11	2441.66	2283.09	2101.09	1895.67	1683.03
330.0	2764.21	2734.54	2671.59	2574.48	2444.09	2285.83	2189.61	1892.87	1686.04
345.0	2764.21	2731.93	2670.04	2575.87	2446.71	2288.86	2098.72	1897.82	1682.56
360.0	2764.21	2748.22	2702.02	2624.71	2503.87	2359.93	2182.23	1983.20	1785.94

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	1573.58	1357.67	1156.86	952.50	775.69	603.31	453.15	304.77	193.70
15.0	1578.14	1365.10	1155.63	963.18	785.04	613.18	456.52	322.25	212.15
30.0	1572.48	1357.35	1158.43	958.61	783.09	619.27	470.75	340.24	229.53
45.0	1559.76	1344.78	1150.48	958.88	778.98	620.67	471.35	344.51	239.27
60.0	1557.06	1344.78	1145.08	955.29	782.58	617.97	470.45	341.82	232.08
75.0	1558.63	1345.72	1146.29	959.43	784.26	615.37	463.55	330.59	220.10
90.0	1559.14	1346.16	1152.95	965.14	781.82	615.57	462.80	326.21	209.38
105.0	1566.96	1356.47	1163.97	967.88	794.27	626.96	475.84	340.92	229.38
120.0	1578.78	1371.28	1166.49	971.62	801.12	636.92	488.97	359.06	251.70
135.0	1593.84	1375.80	1175.78	986.58	814.49	648.71	500.95	369.40	258.58
150.0	1613.21	1390.20	1192.37	992.74	815.60	650.14	499.97	367.78	251.78
165.0	1620.68	1407.22	1208.11	1006.31	816.17	648.45	495.98	356.96	235.88
180.0	1525.60	1316.80	1112.44	923.18	738.37	573.99	423.83	288.77	174.15
195.0	1509.22	1308.70	1109.98	912.15	730.44	572.00	428.78	296.29	189.77
210.0	1509.47	1297.05	1100.82	917.20	747.98	585.07	436.55	313.24	209.72
225.0	1489.60	1280.91	1100.11	913.01	731.31	576.59	434.47	313.93	212.29
240.0	1495.00	1296.20	1094.71	903.11	725.91	566.70	423.67	302.24	205.09
255.0	1495.75	1296.31	1091.49	892.06	712.39	551.59	409.65	285.67	183.26
270.0	1491.74	1285.95	1083.76	887.86	704.53	544.58	397.20	268.69	170.74
285.0	1480.60	1276.41	1077.62	878.83	707.92	549.60	465.05	279.75	179.00
300.0	1467.81	1271.14	1077.18	971.62	707.29	552.12	409.58	290.50	195.77
315.0	1564.11	1260.47	1076.67	891.07	712.68	554.10	413.55	296.42	198.22
330.0	1471.13	1258.01	1067.38	883.04	716.68	552.12	404.65	288.65	189.74
345.0	1473.59	1263.72	1066.40	881.64	701.37	543.52	398.22	270.86	170.41
360.0	1573.58	1357.67	1156.86	952.50	775.69	603.31	453.15	304.77	193.70

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	103.96	45.31	33.76	28.43	26.66	25.77	23.99	23.10	21.32
15.0	112.79	47.44	34.02	28.64	25.96	24.17	23.27	21.48	20.59
30.0	117.01	42.30	31.50	28.80	27.90	27.00	24.30	20.70	18.00
45.0	118.74	36.88	26.09	27.89	27.89	26.09	24.29	23.39	20.69
60.0	114.24	37.78	18.89	26.09	24.29	23.39	23.39	17.99	17.09
75.0	99.72	47.61	10.78	23.36	20.66	20.66	20.66	20.66	18.87
90.0	99.75	45.83	7.19	24.26	23.36	21.57	21.57	21.57	20.67
105.0	121.43	50.37	10.79	23.39	20.69	18.89	20.69	20.69	18.89
120.0	151.56	46.01	18.95	27.06	26.16	24.36	23.46	18.04	17.14
135.0	161.28	37.84	26.13	27.93	27.93	27.03	26.13	23.43	20.72
150.0	154.67	44.96	31.47	28.78	27.88	26.98	24.28	18.88	17.98
165.0	139.02	45.74	34.08	28.70	26.01	24.22	23.32	21.53	20.63
180.0	56.87	41.76	33.76	30.21	27.54	26.66	23.99	23.10	20.44
195.0	64.45	42.07	34.02	30.43	26.85	25.96	24.17	21.48	18.80
210.0	72.01	39.60	31.50	33.30	31.50	30.60	27.90	18.90	18.00
225.0	77.36	34.18	31.48	33.28	31.48	28.78	27.89	26.09	17.99
240.0	71.96	24.29	33.28	31.48	27.89	26.99	26.09	18.89	18.89
255.0	64.68	16.17	13.48	28.75	23.36	24.26	24.26	23.36	21.56
270.0	113.23	12.58	10.78	28.76	26.06	26.06	26.06	24.26	23.36
285.0	64.77	17.99	23.39	27.89	23.39	24.29	24.29	23.39	21.59
300.0	70.37	27.06	34.28	31.58	28.87	27.97	26.16	20.75	18.95
315.0	72.08	34.24	34.24	34.24	31.53	30.63	27.93	26.13	13.51
330.0	70.14	39.57	34.17	34.17	31.47	30.57	24.28	20.68	17.98
345.0	60.99	42.15	34.08	30.49	27.80	26.01	24.22	23.32	20.63
360.0	103.96	45.31	33.76	28.43	26.66	25.77	23.99	23.10	21.32

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	20.44	18.66	10.66	12.44	13.33	15.99	16.88	17.77	18.66
15.0	18.80	17.90	10.74	12.53	13.43	16.11	17.01	17.01	18.80
30.0	17.10	8.10	10.80	12.60	13.50	16.20	17.10	17.10	18.00
45.0	7.20	8.10	10.79	12.59	13.49	16.19	17.09	17.99	17.99
60.0	16.19	9.89	10.79	12.59	13.49	16.19	17.09	17.99	18.89
75.0	17.97	17.97	10.78	12.58	13.48	16.17	17.07	17.07	18.87
90.0	18.87	17.97	10.78	12.58	16.18	17.07	17.07	17.07	18.87
105.0	17.99	17.99	10.79	12.59	16.19	17.09	17.09	17.09	18.89
120.0	16.24	8.12	10.83	12.63	13.53	16.24	17.14	18.04	18.04
135.0	7.21	8.11	10.81	12.61	13.51	16.22	17.12	18.02	18.92
150.0	17.09	8.09	9.89	12.59	13.49	16.19	17.09	17.98	18.88
165.0	18.83	17.94	9.87	12.56	13.45	16.14	17.04	17.94	18.83
180.0	17.77	15.99	9.77	10.66	12.44	13.33	15.99	16.88	18.66
195.0	17.90	8.06	9.85	10.74	12.53	13.43	13.43	17.01	17.90
210.0	16.20	8.10	9.90	10.80	12.60	13.50	16.20	17.10	18.00
225.0	8.10	8.10	9.89	10.79	12.59	13.49	16.19	17.09	17.99
240.0	17.99	8.10	9.89	10.79	12.59	13.49	16.19	17.09	17.99
255.0	20.66	12.58	9.88	10.78	12.58	13.48	16.17	17.07	17.97
270.0	21.57	16.18	10.78	12.58	13.48	13.48	16.18	17.97	18.87
285.0	20.69	12.59	10.79	12.59	12.59	13.49	16.19	17.99	18.89
300.0	16.24	8.12	9.92	10.83	12.63	13.53	16.24	18.04	18.95
315.0	7.21	8.11	9.91	10.81	12.61	13.51	16.22	17.12	18.02
330.0	16.19	8.09	9.89	10.79	12.59	13.49	16.19	17.09	17.98
345.0	17.94	8.07	9.87	10.76	12.56	13.45	16.14	17.04	18.83
360.0	20.44	18.66	10.66	12.44	13.33	15.99	16.88	17.77	18.66

Intensity data(cd)

C/γ(°)	180.0
0.0	18.66
15.0	18.80
30.0	18.90
45.0	18.89
60.0	18.89
75.0	18.87
90.0	18.87
105.0	18.89
120.0	18.95
135.0	18.92
150.0	18.88
165.0	18.83
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	18.66