DILUCE | 登路仕
ZhongShan HaoXiang Lighting CO.,LTD
Http://www.diluce.cc
Email:sales @diluce.cc
Tel:+86-760-22253325 Fax:+86-760-22287069
Address:12 Wanfu Road Xinglong industrial area,Jiu Zhou ji,Xiaolan town,Zhongshan City,China.

HX-DA615S-30090

LumCAT: HX-DA615S-30090
Report No:
Test No:
LampCAT: 2835 12C10B 30090
Lamp flux(lm): 2348.0
Number of Lamps: 1
Length(mm): -135
Phm Type: C

Luminaire: HX-DA615S
Voltage(V): 231.100
Current(A): 0.085
Power (W): 19.100
PF: 0.972
Ballast type: OSRAM OTFIT 20/220-240/500CS
Width(mm): -135
Height(mm): 0

Photometric Results

Lumens(lm): 1742.50
Efficiency(%): 74.21%
Lumens(lm)/Power(W): 91.23
Central intensity(cd): 733.228
Maximum intensity(cd): 740.416
Angle of maximum intensity: C=30.0 γ=2.0
Beam Angle(50%Imax): [H]Left=49.8 Right=48.7
[V]Left=51.3 Right=47.1
Field angle(10%Imax): [H]Left=74.9 Right=73.8
[V]Left=76.5 Right=72.1
Maximum s/h: C0_180=1.22 C90_270=1.23
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 74.21%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 84.913%

Equipment: GMS-1980
Temperature(°C): 25.0
Date: 2023-9-21
Humidity(%): 65.3%
Operator: MinLi Ke
Distance(m): 7.27

HX-DA615S-30090

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	736.267	.000	.000	.000%	.000%
1.0	736.113	.705	.705	.030%	.030%
2.0	735.589	2.112	2.817	.090%	.120%
3.0	734.739	3.517	6.333	.150%	.270%
4.0	733.479	4.915	11.248	.209%	.479%
5.0	731.973	6.304	17.552	.268%	.748%
6.0	730.062	7.683	25.236	.327%	1.075%
7.0	727.925	9.050	34.285	.385%	1.460%
8.0	725.217	10.400	44.685	.443%	1.903%
9.0	722.464	11.733	56.418	.500%	2.403%
10.0	719.169	13.046	69.464	.556%	2.958%
11.0	715.492	14.335	83.799	.611%	3.569%
12.0	711.678	15.601	99.400	.664%	4.233%
13.0	707.352	16.840	116.241	.717%	4.951%
14.0	702.908	18.051	134.292	.769%	5.719%
15.0	697.865	19.230	153.522	.819%	6.538%
16.0	692.752	20.376	173.899	.868%	7.406%
17.0	687.026	21.487	195.386	.915%	8.321%
18.0	681.336	22.561	217.947	.961%	9.282%
19.0	674.755	23.593	241.540	1.005%	10.287%
20.0	668.440	24.584	266.124	1.047%	11.334%
21.0	661.300	25.534	291.658	1.087%	12.422%
22.0	654.253	26.437	318.095	1.126%	13.547%
23.0	646.576	27.295	345.390	1.162%	14.710%
24.0	638.701	28.101	373.490	1.197%	15.907%
25.0	630.359	28.856	402.346	1.229%	17.136%
26.0	621.911	29.560	431.906	1.259%	18.395%
27.0	613.393	30.222	462.128	1.287%	19.682%
28.0	603.977	30.821	492.949	1.313%	20.994%
29.0	595.146	31.372	524.322	1.336%	22.331%
30.0	585.121	31.867	556.188	1.357%	23.688%
31.0	575.506	32.299	588.487	1.376%	25.063%
32.0	565.398	32.686	621.173	1.392%	26.455%
33.0	555.409	33.019	654.192	1.406%	27.862%
34.0	544.905	33.299	687.491	1.418%	29.280%
35.0	534.413	33.520	721.010	1.428%	30.707%
36.0	523.512	33.685	754.695	1.435%	32.142%
37.0	512.673	33.795	788.490	1.439%	33.581%

HX-DA615S-30090

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	501.940	33.866	822.356	1.442%	35.024%
39.0	490.220	33.865	856.221	1.442%	36.466%
40.0	479.156	33.808	890.029	1.440%	37.906%
41.0	467.251	33.701	923.730	1.435%	39.341%
42.0	455.993	33.543	957.273	1.429%	40.770%
43.0	443.832	33.332	990.606	1.420%	42.189%
44.0	432.456	33.074	1023.679	1.409%	43.598%
45.0	420.322	32.773	1056.452	1.396%	44.994%
46.0	408.408	32.410	1088.862	1.380%	46.374%
47.0	396.207	32.002	1120.864	1.363%	47.737%
48.0	383.950	31.538	1152.402	1.343%	49.080%
49.0	371.939	31.041	1183.443	1.322%	50.402%
50.0	359.316	30.489	1213.931	1.298%	51.701%
51.0	347.019	29.884	1243.815	1.273%	52.973%
52.0	334.369	29.239	1273.054	1.245%	54.219%
53.0	322.200	28.561	1301.615	1.216%	55.435%
54.0	309.326	27.835	1329.450	1.185%	56.621%
55.0	297.628	27.093	1356.543	1.154%	57.774%
56.0	284.767	26.317	1382.860	1.121%	58.895%
57.0	272.651	25.486	1408.347	1.085%	59.981%
58.0	260.428	24.651	1432.998	1.050%	61.031%
59.0	247.955	23.767	1456.765	1.012%	62.043%
60.0	235.667	22.848	1479.613	.973%	63.016%
61.0	223.555	21.915	1501.528	.933%	63.949%
62.0	211.764	20.976	1522.505	.893%	64.843%
63.0	199.203	19.987	1542.492	.851%	65.694%
64.0	187.716	18.986	1561.478	.809%	66.502%
65.0	175.335	17.967	1579.445	.765%	67.268%
66.0	164.007	16.931	1596.376	.721%	67.989%
67.0	151.987	15.889	1612.265	.677%	68.665%
68.0	140.919	14.838	1627.103	.632%	69.297%
69.0	129.582	13.800	1640.902	.588%	69.885%
70.0	118.686	12.751	1653.653	.543%	70.428%
71.0	107.745	11.703	1665.356	.498%	70.927%
72.0	97.104	10.652	1676.008	.454%	71.380%
73.0	87.106	9.633	1685.640	.410%	71.790%
74.0	76.672	8.610	1694.251	.367%	72.157%
75.0	67.533	7.619	1701.870	.324%	72.482%

Equipment: GMS-1980 Date: 2023-9-21 Operator: MinLi Ke
Temperature(°C): 25.0 Humidity(%): 65.3% Distance(m): 7.27

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	58.046	6.666	1708.536	.284%	72.766%
77.0	49.646	5.742	1714.278	.245%	73.010%
78.0	41.639	4.887	1719.164	.208%	73.218%
79.0	35.169	4.127	1723.291	.176%	73.394%
80.0	29.545	3.489	1726.780	.149%	73.543%
81.0	25.303	2.966	1729.746	.126%	73.669%
82.0	21.696	2.549	1732.295	.109%	73.777%
83.0	18.908	2.207	1734.502	.094%	73.871%
84.0	16.340	1.920	1736.423	.082%	73.953%
85.0	13.861	1.648	1738.071	.070%	74.023%
86.0	11.469	1.385	1739.455	.059%	74.082%
87.0	9.016	1.121	1740.577	.048%	74.130%
88.0	6.598	.855	1741.432	.036%	74.167%
89.0	4.625	.615	1742.047	.026%	74.193%
90.0	3.603	.451	1742.498	.019%	74.212%

Zonal flux distribution table

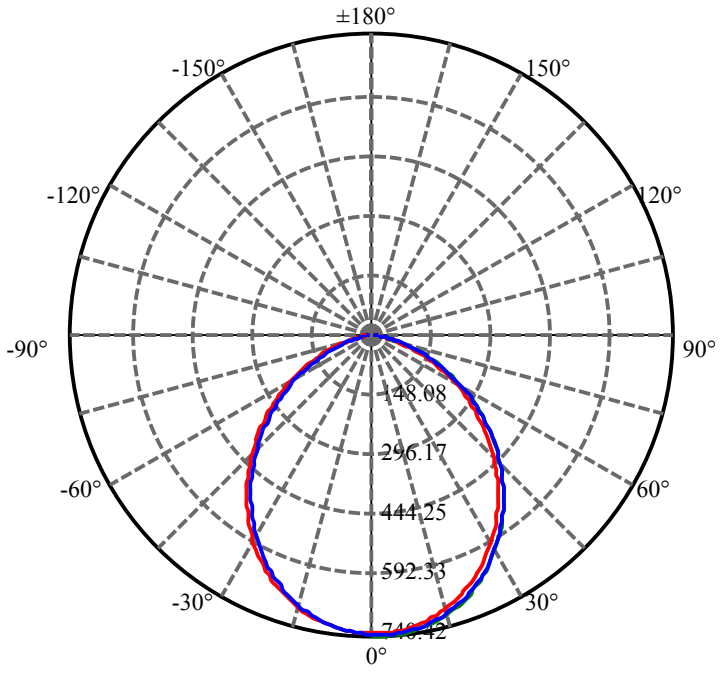
ZONAL LUMEN SUMMARY

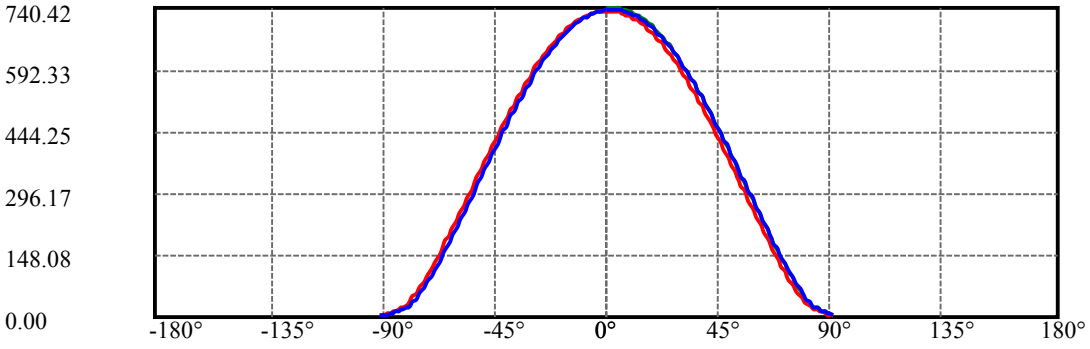
Zone	Lumens	%Lamp	%Fixt
0-30	556.19	23.69%	31.92%
0-40	890.03	37.91%	51.08%
0-60	1479.61	63.02%	84.91%
0-90	1742.05	74.19%	99.97%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-180	1742.50	74.21%	100.00%

ZONAL LUMEN SUMMARY

0-10	69.46
10-20	196.66
20-30	290.06
30-40	333.84
40-50	323.90
50-60	265.68
60-70	174.04
70-80	73.13
80-90	15.27
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

Light Distribution Curve [Unit: cd]



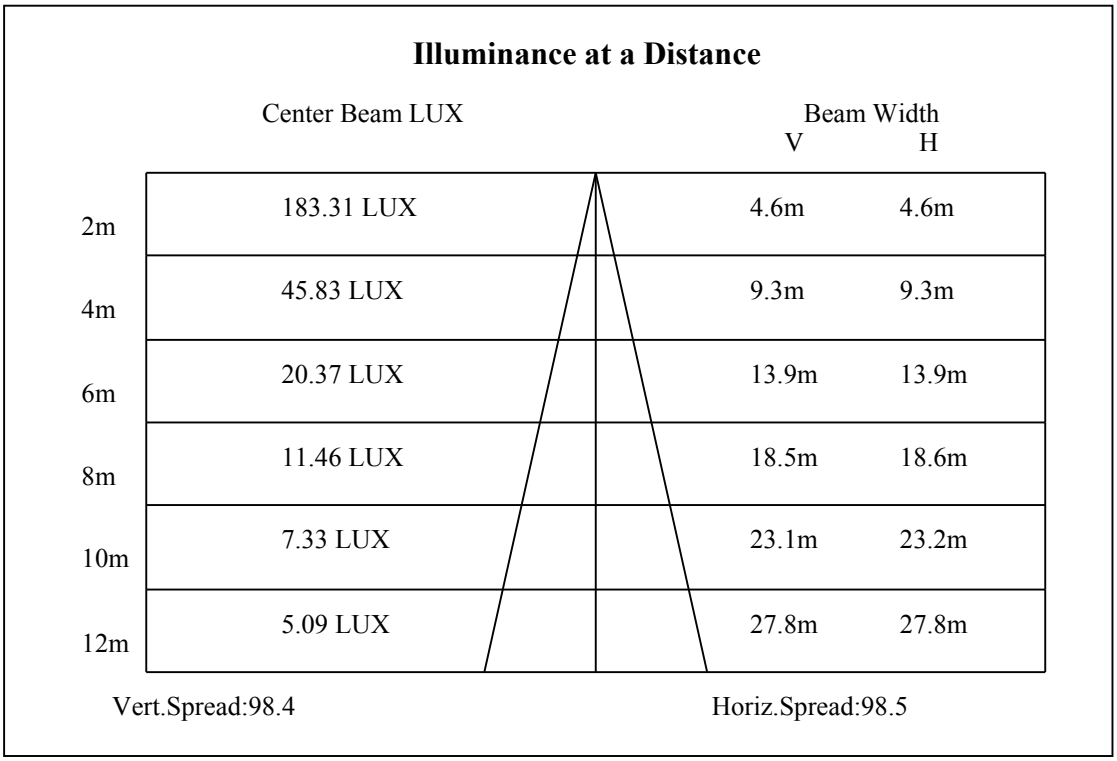


C30(Max):

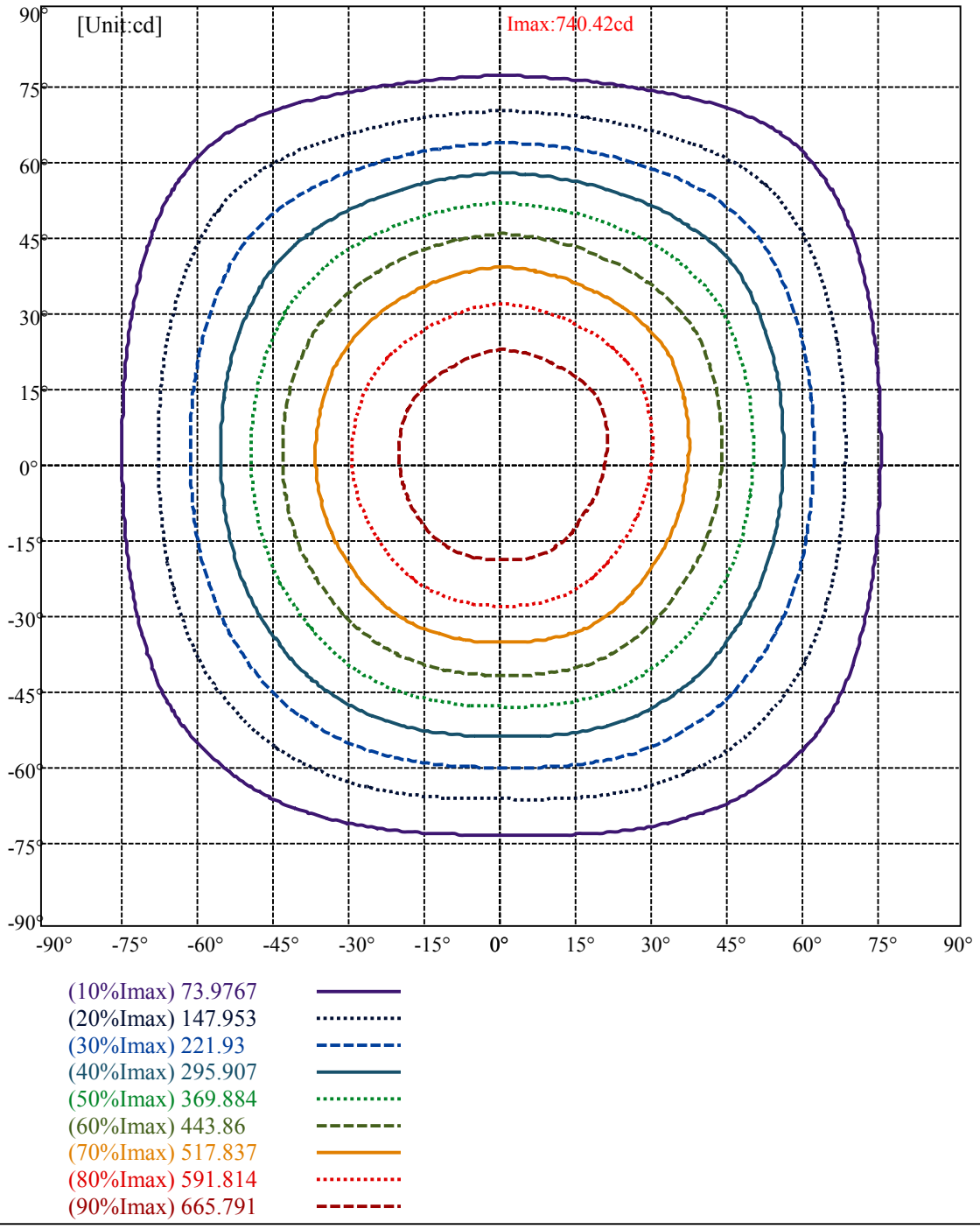
C0/C180:

C90/C270:

Lux distance Curve



ISO-Intensity(V-H)

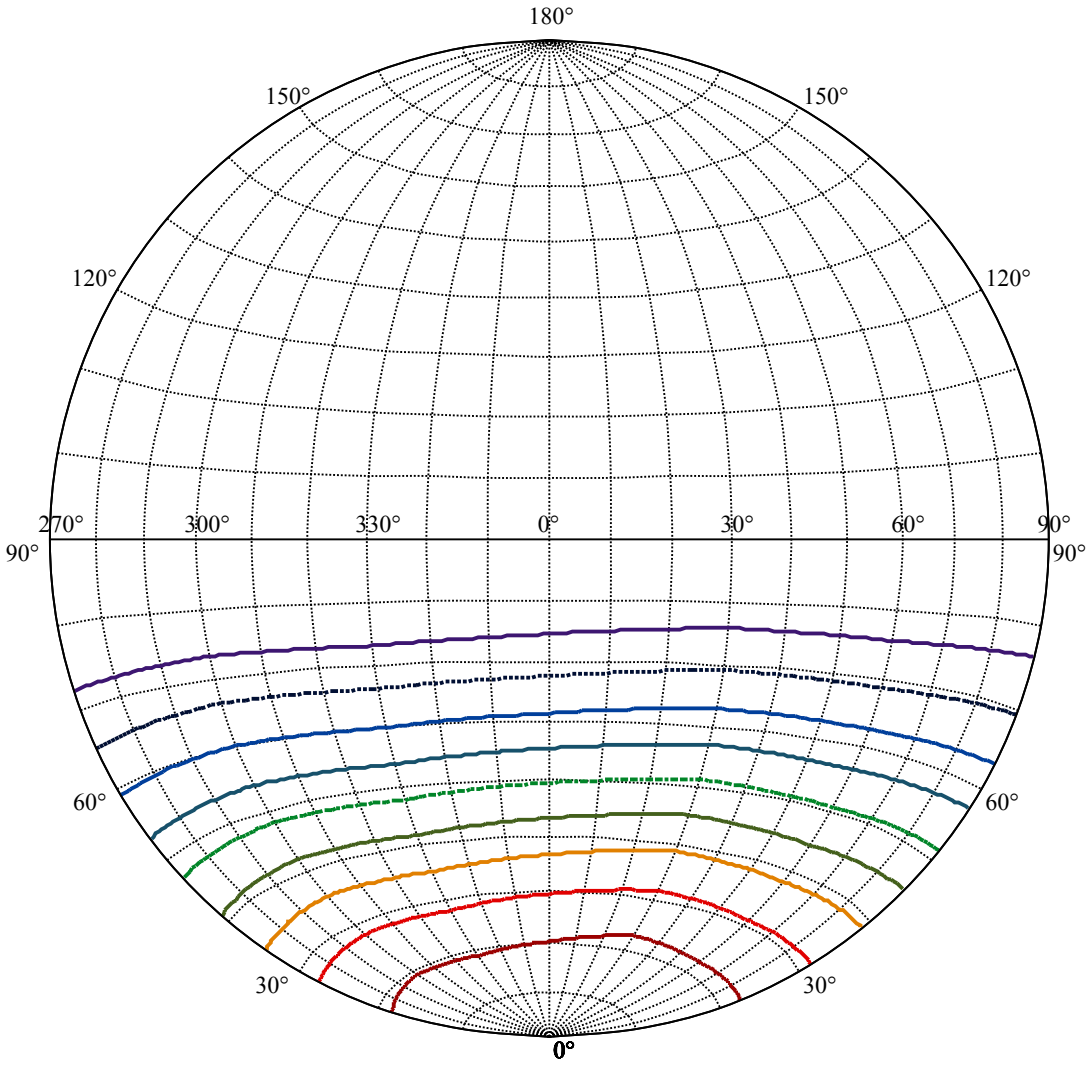


Equipment: GMS-1980
Temperature(°C): 25.0

Date: 2023-9-21
Humidity(%): 65.3%

Operator: MinLi Ke
Distance(m): 7.27

ISO candela diagram on circular web



Imax:740.42cd

(10%Imax) 74.0416
(20%Imax) 148.083
(30%Imax) 222.125
(40%Imax) 296.167
(50%Imax) 370.208
(60%Imax) 444.25
(70%Imax) 518.291
(80%Imax) 592.333
(90%Imax) 666.375

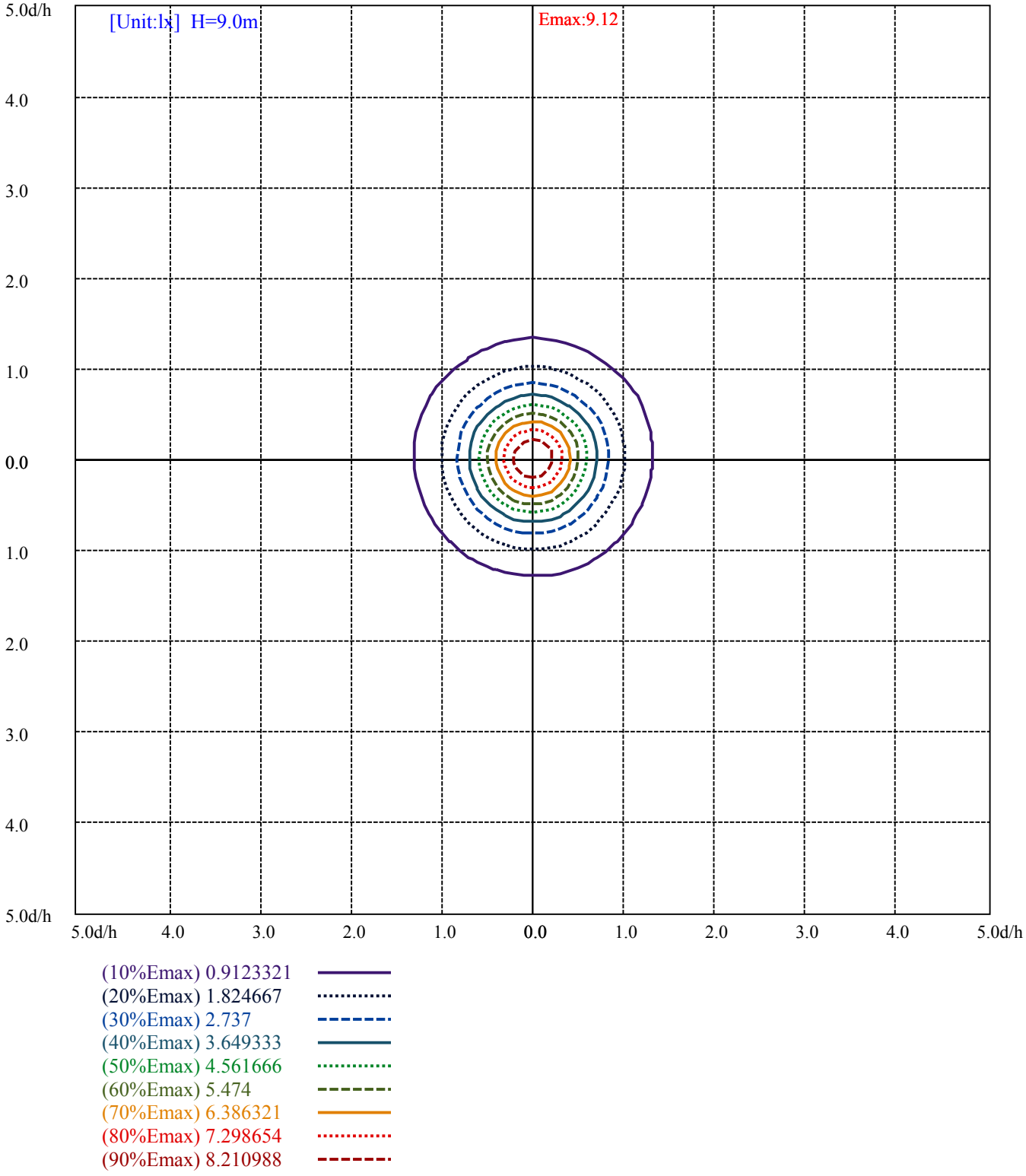
Equipment: GMS-1980
Temperature(°C): 25.0

Date: 2023-9-21
Humidity(%): 65.3%

Operator: MinLi Ke
Distance(m): 7.27

HX-DA615S-30090

ISO illuminance diagram

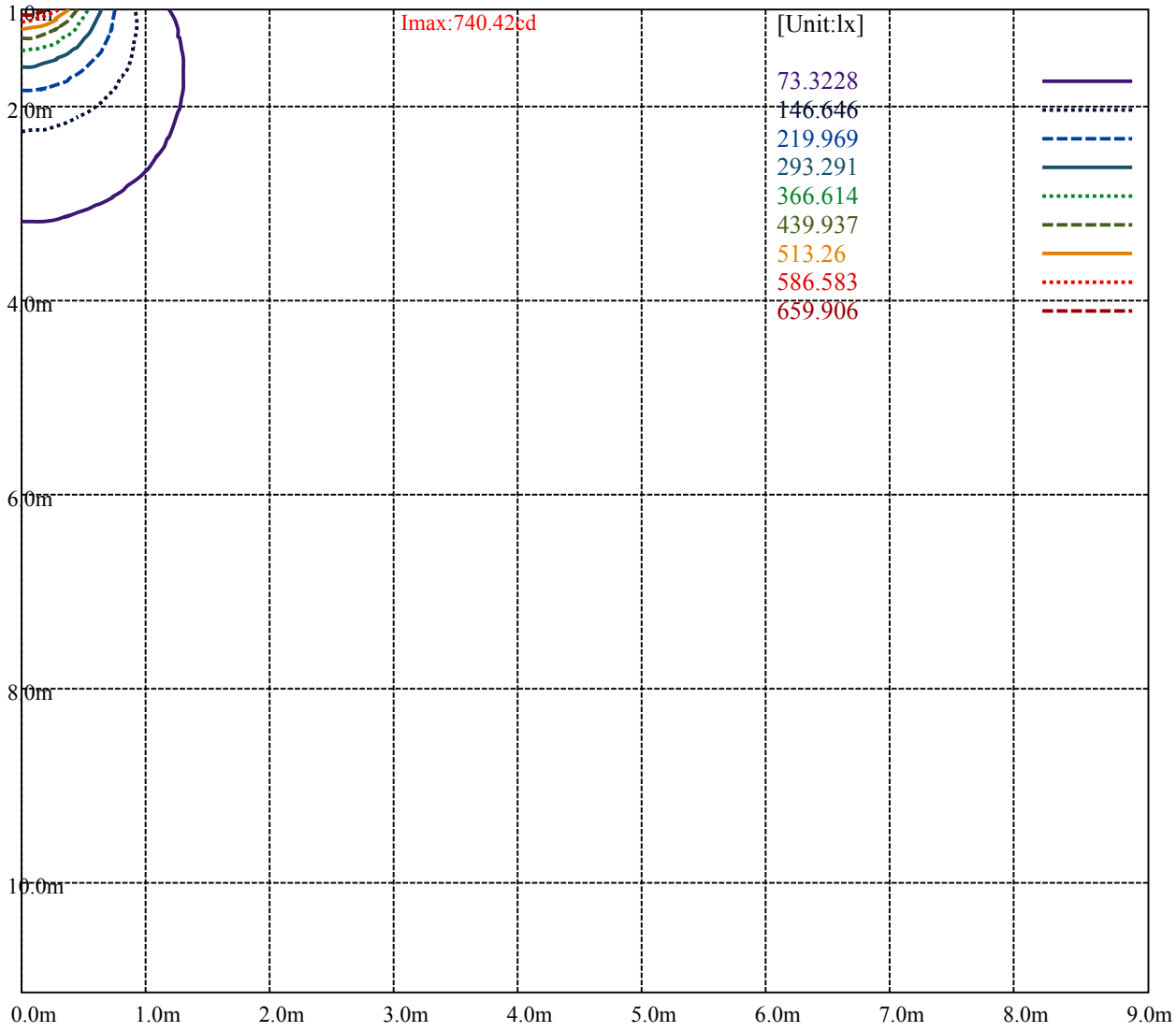


Equipment: GMS-1980
Temperature(°C): 25.0

Date: 2023-9-21
Humidity(%): 65.3%

Operator: MinLi Ke
Distance(m): 7.27

Space ISO Lux diagram



Equipment: GMS-1980
Temperature(°C): 25.0

Date: 2023-9-21
Humidity(%): 65.3%

Operator: MinLi Ke
Distance(m): 7.27

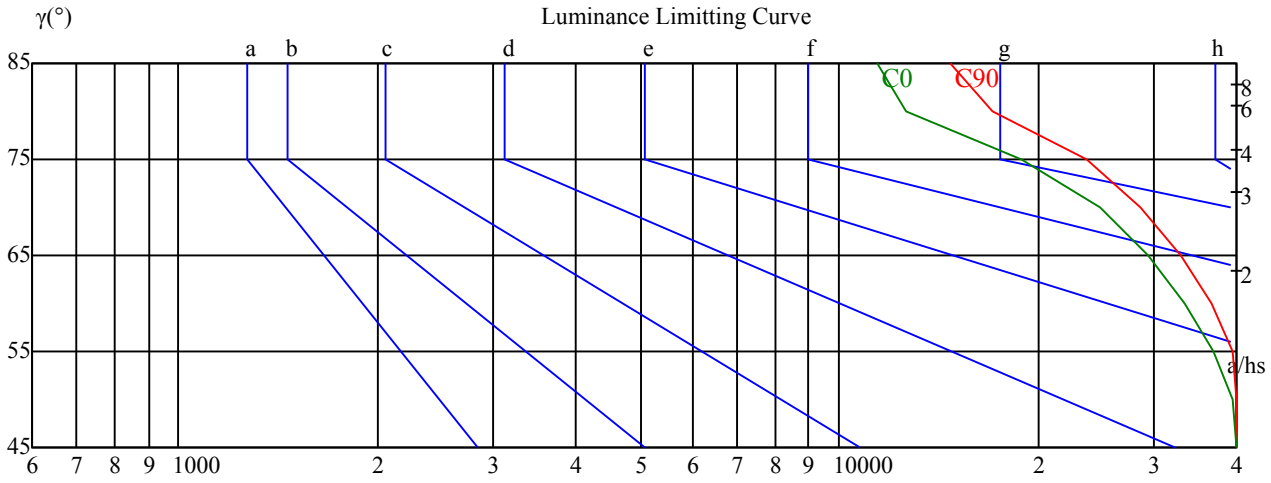
Luminance Limitting Curve(no luminous side)

Luminance Table

γ	45	50	55	60	65	70	75	80	85
C0	42015	39544	36797	33453	29356	24798	18874	12631	11439
C45	0	0	0	0	0	0	0	0	0
C90	44224	41940	39597	36732	32965	28685	23682	17096	14701

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



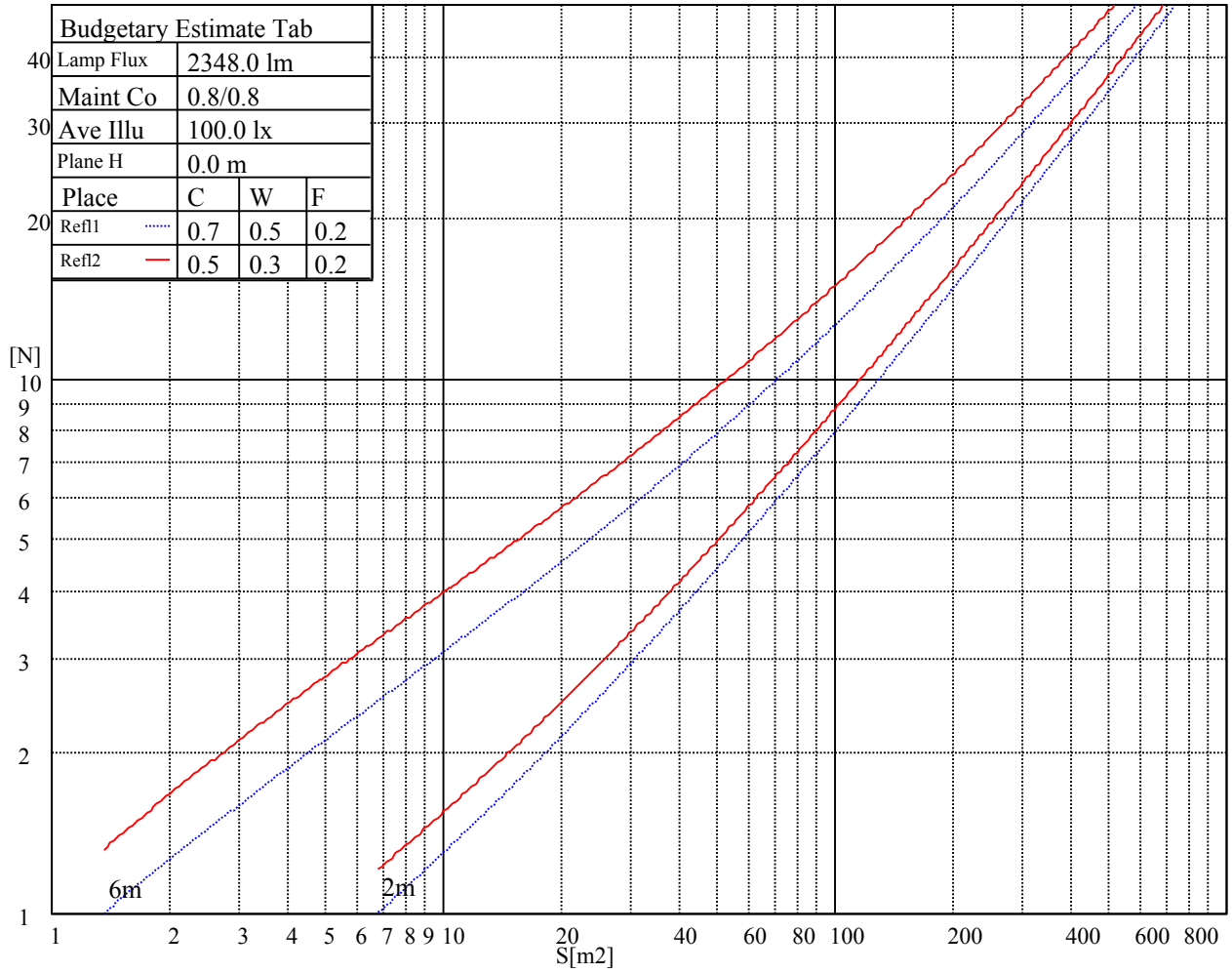
Equipment: GMS-1980
Temperature(°C): 25.0
Date: 2023-9-21
Humidity(%): 65.3%
Operator: MinLi Ke
Distance(m): 7.27

UGR Glare

Illuminatin assessment acconding UGR											
Rf of Ceiling		70	70	50	50	30	70	70	50	50	30
Rf of Wall		50	30	50	30	30	50	30	50	30	30
Rf of Floor		20	20	20	20	20	20	20	20	20	20
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	22.3	23.6	22.6	23.9	24.1	22.5	23.8	22.7	24.0	24.2
	3H	23.4	24.6	23.8	24.9	25.1	23.7	24.8	24.0	25.1	25.4
	4H	23.6	24.6	24.0	24.9	25.2	23.9	24.9	24.3	25.2	25.6
	6H	23.8	24.8	24.2	25.1	25.4	24.2	25.2	24.6	25.5	25.8
	8H	23.9	24.8	24.2	25.2	25.5	24.3	25.3	24.6	25.6	25.9
	12H	23.7	24.5	24.2	24.8	25.2	24.2	24.9	24.6	25.3	25.7
4H	2H	22.8	23.7	23.1	24.0	24.4	22.8	23.8	23.2	24.1	24.5
	3H	24.0	24.8	24.5	25.2	25.6	24.2	24.9	24.6	25.3	25.7
	4H	24.5	25.3	24.9	25.6	26.0	24.7	25.5	25.2	25.9	26.3
	6H	24.8	25.5	25.2	25.9	26.3	25.1	25.8	25.5	26.2	26.6
	8H	24.7	25.1	25.2	25.6	26.1	25.0	25.4	25.5	25.9	26.4
	12H	24.8	25.2	25.3	25.6	26.2	25.1	25.5	25.6	26.0	26.5
8H	4H	24.6	25.0	25.1	25.5	26.0	24.8	25.3	25.3	25.7	26.2
	6H	25.0	25.4	25.5	25.9	26.4	25.2	25.6	25.7	26.1	26.6
	8H	25.1	25.5	25.6	26.0	26.5	25.4	25.8	25.8	26.2	26.7
	12H	25.2	25.6	25.7	26.1	26.6	25.5	25.9	26.0	26.4	26.9
12H	4H	24.7	25.1	25.2	25.5	26.0	24.9	25.3	25.4	25.7	26.3
	6H	25.0	25.4	25.5	25.9	26.4	25.3	25.7	25.8	26.1	26.6
	8H	25.1	25.6	25.6	26.0	26.5	25.4	25.8	25.9	26.3	26.8
Variation with the observer position at spacings:											
S = 1.0H		0.4/-0.4					0.4/-0.4				
S = 1.5H		0.7/-1.0					0.7/-0.8				
S = 2.0H		1.4/-1.4					1.4/-1.1				
Standard tables:		BK3					BK3				
Uncorrected UGR		6.0					6.3				
According 1000lm											

Equipment: GMS-1980 Date: 2023-9-21 Operator: MinLi Ke
Temperature(°C): 25.0 Humidity(%): 65.3% Distance(m): 7.27

Budgetary Estimate Table



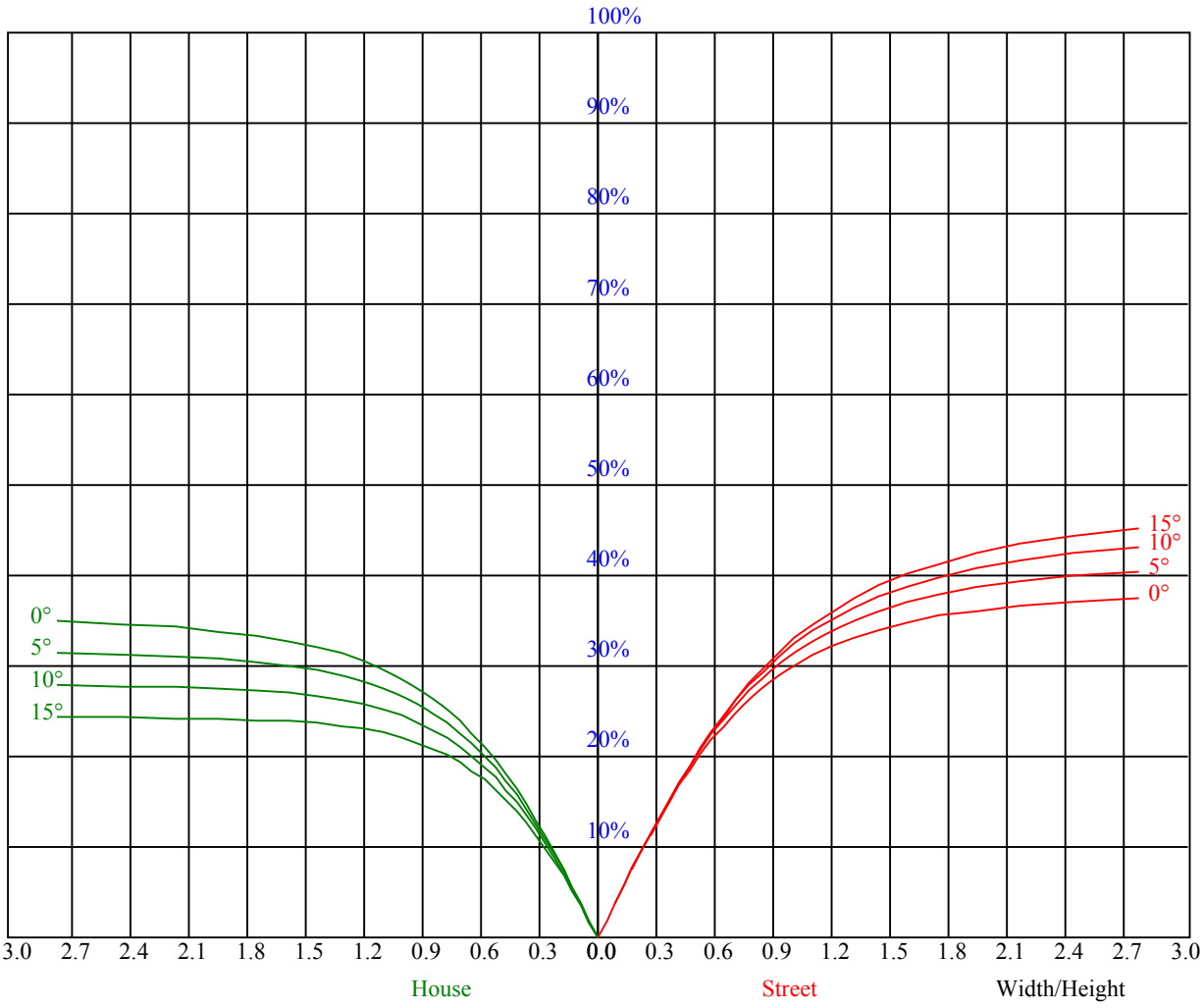
Equipment: GMS-1980 Date: 2023-9-21 Operator: MinLi Ke
Temperature(°C): 25.0 Humidity(%): 65.3% Distance(m): 7.27

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	0.88	0.88	0.88	0.86	0.86	0.86	0.82	0.82	0.82	0.79	0.79	0.79	0.76	0.76	0.76	0.74
1	0.78	0.76	0.73	0.77	0.74	0.72	0.74	0.71	0.70	0.71	0.69	0.67	0.68	0.67	0.65	0.64
2	0.69	0.65	0.61	0.68	0.64	0.60	0.65	0.62	0.59	0.63	0.60	0.57	0.61	0.58	0.56	0.54
3	0.61	0.56	0.51	0.60	0.55	0.51	0.58	0.53	0.50	0.56	0.52	0.49	0.54	0.51	0.48	0.47
4	0.55	0.49	0.44	0.54	0.48	0.44	0.52	0.47	0.43	0.50	0.46	0.42	0.49	0.45	0.42	0.40
5	0.49	0.43	0.38	0.48	0.42	0.38	0.47	0.42	0.38	0.45	0.41	0.37	0.44	0.40	0.37	0.35
6	0.44	0.38	0.34	0.44	0.38	0.33	0.42	0.37	0.33	0.41	0.36	0.33	0.40	0.36	0.33	0.31
7	0.40	0.34	0.30	0.40	0.34	0.30	0.39	0.33	0.29	0.38	0.33	0.29	0.37	0.32	0.29	0.28
8	0.37	0.31	0.27	0.36	0.31	0.27	0.36	0.30	0.26	0.35	0.30	0.26	0.34	0.29	0.26	0.25
9	0.34	0.28	0.24	0.34	0.28	0.24	0.33	0.28	0.24	0.32	0.27	0.24	0.31	0.27	0.24	0.22
10	0.31	0.26	0.22	0.31	0.26	0.22	0.30	0.25	0.22	0.30	0.25	0.22	0.29	0.25	0.22	0.20

HX-DA615S-30090

Coefficient Utilization Curve



Equipment: GMS-1980
Temperature(°C): 25.0

Date: 2023-9-21
Humidity(%): 65.3%

Operator: MinLi Ke
Distance(m): 7.27

Intensity data(cd)

C/γ(°)	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
0.0	733.23	733.18	732.75	732.01	730.90	729.53	727.94	725.88	723.45
30.0	739.62	740.15	740.42	740.26	739.78	738.83	737.83	736.19	734.13
60.0	738.36	738.88	739.04	738.73	738.04	737.09	735.71	734.44	732.38
90.0	735.71	736.40	736.77	736.40	735.87	735.40	734.29	732.86	730.90
120.0	736.29	736.56	736.35	735.82	734.87	733.70	732.28	730.48	728.21
150.0	734.39	734.60	734.44	734.07	733.02	731.85	730.16	728.37	726.09
180.0	733.23	732.96	732.38	731.17	729.95	728.31	726.09	723.87	720.91
210.0	739.62	738.78	737.51	736.14	733.92	731.91	729.26	726.15	722.76
240.0	738.36	737.62	736.45	734.97	733.12	731.06	728.21	725.62	722.29
270.0	735.71	734.55	733.39	731.85	730.06	727.73	725.04	722.29	718.69
300.0	736.29	735.82	734.66	733.49	731.91	729.90	727.89	725.25	722.18
330.0	734.39	733.86	732.91	731.96	730.32	728.37	726.04	723.71	720.60
360.0	733.23	733.18	732.75	732.01	730.90	729.53	727.94	725.88	723.45

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	720.97	717.85	714.04	710.66	706.33	702.26	697.18	691.74	686.56
30.0	732.12	729.69	726.83	723.71	720.07	715.89	711.45	707.17	702.10
60.0	729.69	727.20	723.87	720.49	716.84	713.09	708.55	703.74	698.66
90.0	728.63	726.30	723.29	720.07	716.58	712.51	708.65	703.74	698.66
120.0	725.35	722.18	718.96	715.42	711.56	706.96	702.68	697.66	692.00
150.0	723.61	720.70	717.16	713.88	709.60	705.69	700.72	695.60	690.05
180.0	718.22	714.57	710.66	706.91	702.36	697.98	692.95	688.14	682.28
210.0	719.38	715.15	711.14	706.43	701.78	696.44	690.68	685.19	678.90
240.0	719.22	715.26	710.98	706.70	701.73	696.97	691.32	685.87	679.64
270.0	715.47	711.35	707.28	702.73	697.50	692.64	686.82	681.27	675.04
300.0	719.33	715.89	711.88	707.28	702.68	697.92	692.37	687.09	680.85
330.0	717.58	713.88	709.81	705.85	701.20	696.55	691.00	685.82	679.58
360.0	720.97	717.85	714.04	710.66	706.33	702.26	697.18	691.74	686.56

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	680.53	674.30	668.54	661.82	655.53	648.03	639.63	632.12	623.19
30.0	697.34	691.42	686.03	679.64	672.92	666.42	658.65	651.62	643.22
60.0	693.54	687.56	681.91	675.04	668.48	660.82	652.84	644.49	637.04
90.0	693.91	688.20	682.86	676.52	669.65	663.46	656.12	649.35	641.58
120.0	686.88	680.64	674.83	667.80	660.13	652.15	644.91	636.51	629.00
150.0	684.92	678.74	672.87	665.84	659.02	651.09	643.06	635.50	626.84
180.0	675.99	669.43	663.36	656.27	649.46	641.85	634.92	626.25	617.59
210.0	672.92	665.47	657.65	650.46	642.11	633.44	625.51	616.26	607.76
240.0	672.98	665.37	658.65	650.72	643.38	635.66	626.73	617.43	607.86
270.0	669.06	661.93	654.79	647.18	640.26	631.80	624.09	614.94	606.49
300.0	675.20	668.54	661.03	653.37	646.23	638.78	630.22	621.02	612.94
330.0	672.76	665.47	658.76	650.94	643.85	635.40	627.73	618.80	609.45
360.0	680.53	674.30	668.54	661.82	655.53	648.03	639.63	632.12	623.19

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	615.15	605.96	597.55	588.09	578.26	568.01	558.60	548.93	537.88
30.0	634.60	625.62	617.32	607.70	599.14	589.15	580.11	569.60	558.87
60.0	629.16	620.02	611.56	601.78	591.85	581.59	572.19	561.46	551.84
90.0	633.97	625.30	616.48	607.07	598.29	588.41	579.16	568.70	559.08
120.0	621.02	611.83	602.05	592.27	583.39	573.14	563.68	553.11	543.49
150.0	618.85	609.55	600.99	591.27	581.33	571.13	561.88	552.42	541.48
180.0	609.61	600.20	591.37	581.17	570.81	561.30	550.41	539.31	529.32
210.0	597.98	588.09	578.95	568.38	558.87	548.08	538.31	527.00	515.58
240.0	599.09	589.15	580.17	569.70	559.40	549.88	539.05	529.00	517.48
270.0	596.87	586.93	577.79	566.95	557.18	546.39	535.45	523.88	513.73
300.0	603.47	593.70	585.03	574.93	565.95	555.64	544.81	535.19	523.83
330.0	600.94	591.37	582.49	572.13	561.61	552.05	541.27	530.27	520.39
360.0	615.15	605.96	597.55	588.09	578.26	568.01	558.60	548.93	537.88

Intensity data(cd)

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	526.57	516.48	505.01	493.17	482.81	470.97	460.40	448.46	436.20
30.0	549.35	538.41	528.37	516.80	506.38	494.28	482.39	470.34	459.56
60.0	540.74	529.74	519.65	508.02	495.87	485.14	474.41	462.20	449.99
90.0	548.19	537.14	527.00	515.53	505.22	493.33	481.23	469.12	458.45
120.0	532.60	521.55	511.56	499.94	489.37	477.31	465.16	454.27	442.17
150.0	530.54	519.33	509.08	497.61	487.20	475.20	464.42	452.26	440.16
180.0	518.28	508.13	496.66	484.98	474.04	461.72	450.78	438.36	427.47
210.0	504.01	493.43	482.92	471.03	458.92	447.88	435.51	422.72	411.41
240.0	507.07	495.13	483.18	471.13	460.24	448.19	437.41	425.15	414.10
270.0	502.00	491.53	480.91	468.96	456.81	444.23	433.08	420.60	409.40
300.0	513.84	502.47	492.11	480.38	468.54	456.49	445.81	433.50	422.61
330.0	508.97	498.72	486.83	475.09	464.47	452.26	441.32	429.01	417.96
360.0	526.57	516.48	505.01	493.17	482.81	470.97	460.40	448.46	436.20

C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	425.25	412.46	401.10	388.26	376.89	363.84	350.84	337.94	326.47
30.0	447.14	435.93	423.30	410.61	399.09	385.88	374.30	360.99	349.30
60.0	437.57	426.52	414.00	402.90	390.11	378.59	365.58	352.37	340.90
90.0	447.61	435.24	424.30	411.62	398.88	385.88	374.36	361.30	349.62
120.0	429.91	418.75	406.12	395.08	382.39	369.49	357.71	344.50	332.87
150.0	429.38	417.22	406.12	393.54	380.86	369.76	356.92	344.02	332.50
180.0	414.95	402.42	389.79	378.69	366.06	354.48	341.17	329.43	316.38
210.0	398.67	387.15	374.30	361.30	349.67	336.62	324.99	312.04	300.31
240.0	401.36	388.57	377.21	364.37	352.95	340.06	327.11	315.85	303.16
270.0	396.66	385.24	372.40	359.40	347.67	334.51	323.04	309.88	296.61
300.0	409.93	398.51	385.51	372.61	361.04	347.93	336.30	323.46	310.62
330.0	405.43	392.86	380.33	369.02	357.66	344.76	331.92	320.66	307.66
360.0	425.25	412.46	401.10	388.26	376.89	363.84	350.84	337.94	326.47

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	313.68	302.11	289.00	275.79	264.21	251.00	239.42	226.37	214.90
30.0	336.25	323.30	310.30	298.62	286.94	273.83	260.78	249.10	236.09
60.0	327.90	316.43	303.43	290.37	278.90	266.33	253.54	242.12	230.60
90.0	336.62	325.10	312.31	299.20	287.63	274.47	262.89	249.68	236.68
120.0	320.13	308.66	295.76	282.76	269.87	258.82	246.24	234.88	222.14
150.0	319.87	308.71	296.29	283.56	272.35	259.77	248.51	235.83	224.68
180.0	303.48	291.91	278.80	267.28	254.38	241.70	229.12	217.75	206.50
210.0	287.31	274.41	261.57	250.10	237.05	225.68	213.00	201.69	189.16
240.0	290.59	279.22	266.59	255.17	242.17	229.33	218.12	205.60	194.34
270.0	283.45	271.82	258.93	247.35	234.30	222.83	210.14	197.41	186.25
300.0	297.83	286.41	273.46	262.04	250.47	237.57	224.73	211.94	200.63
330.0	294.81	283.45	270.77	259.56	246.88	234.14	221.51	210.30	199.20
360.0	313.68	302.11	289.00	275.79	264.21	251.00	239.42	226.37	214.90

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	202.22	189.85	177.59	166.75	154.59	143.81	133.19	121.40	109.99
30.0	223.20	211.73	198.83	187.52	174.89	162.47	151.53	139.37	128.70
60.0	217.75	205.02	192.17	180.97	168.39	157.40	145.24	134.67	123.04
90.0	223.78	212.36	199.41	188.10	175.63	164.64	152.48	140.43	129.97
120.0	209.40	198.09	185.67	174.57	162.36	151.64	139.74	128.22	117.02
150.0	212.47	200.05	187.58	176.79	164.74	154.17	142.28	131.87	120.40
180.0	193.76	182.50	170.08	157.92	145.93	135.41	123.89	114.06	103.38
210.0	176.85	165.85	153.80	143.13	131.23	119.66	108.30	98.52	87.58
240.0	182.13	171.35	159.46	147.51	135.62	125.05	114.64	103.22	92.02
270.0	173.89	162.79	150.79	138.79	128.43	117.07	105.97	96.30	85.67
300.0	188.16	177.22	165.17	154.54	142.44	130.49	120.08	108.67	98.94
330.0	186.84	175.79	163.47	151.48	139.58	129.23	117.65	107.50	96.25
360.0	202.22	189.85	177.59	166.75	154.59	143.81	133.19	121.40	109.99

Intensity data(cd)

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	98.83	89.16	78.70	69.92	60.78	52.22	44.92	37.31	31.39
30.0	116.75	106.55	95.24	84.30	73.73	64.69	55.07	47.20	38.95
60.0	111.31	101.16	89.74	79.91	69.18	58.83	49.15	41.17	33.46
90.0	118.18	108.14	97.30	87.74	77.38	67.49	58.19	50.53	42.49
120.0	107.03	97.25	86.41	76.95	66.75	56.92	47.88	40.33	33.03
150.0	108.93	99.10	88.26	78.65	68.23	58.09	48.68	40.91	33.35
180.0	92.65	83.40	73.47	64.90	55.92	48.47	40.54	33.67	27.85
210.0	78.17	69.13	59.35	50.21	41.75	34.99	28.91	24.89	21.93
240.0	82.29	71.62	61.57	53.06	44.19	37.00	30.28	25.37	22.99
270.0	76.58	66.81	57.66	50.05	42.02	35.62	29.39	24.95	21.35
300.0	88.16	77.48	67.33	58.72	50.00	42.49	34.94	29.33	24.52
330.0	86.36	75.47	65.01	55.97	46.62	38.95	31.71	26.37	23.20
360.0	98.83	89.16	78.70	69.92	60.78	52.22	44.92	37.31	31.39

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	26.00	21.99	19.13	16.65	14.27	11.79	9.25	6.71	4.12
30.0	32.61	27.01	23.47	20.82	18.13	15.49	12.90	9.99	7.24
60.0	28.01	24.74	22.20	19.71	16.97	14.38	11.52	8.77	5.87
90.0	36.05	29.28	24.58	21.14	18.34	15.96	13.21	10.31	7.45
120.0	27.54	23.63	21.14	18.60	16.01	13.21	10.46	7.98	4.76
150.0	28.28	23.73	21.46	18.97	16.54	13.85	11.36	8.77	5.92
180.0	23.94	20.82	18.02	15.64	13.37	11.10	8.62	6.18	3.86
210.0	19.40	17.12	14.69	12.42	9.88	7.77	5.44	3.38	3.07
240.0	20.56	18.02	15.70	13.05	10.78	8.62	6.45	4.44	3.28
270.0	18.71	16.28	14.01	11.68	9.20	7.14	4.97	3.28	3.22
300.0	21.51	19.13	16.60	13.90	11.68	9.35	7.29	4.97	3.38
330.0	21.04	18.60	15.91	13.48	11.15	8.98	6.71	4.39	3.33
360.0	26.00	21.99	19.13	16.65	14.27	11.79	9.25	6.71	4.12

C/γ(°)	90.0
0.0	3.38
30.0	4.65
60.0	4.49
90.0	4.39
120.0	3.49
150.0	3.59
180.0	3.28
210.0	3.07
240.0	3.12
270.0	3.22
300.0	3.28
330.0	3.28
360.0	3.38