NATA LIGHTING CO.,LTD.
www.nata.cn
Email:info@nata.com
Tel:+86-750-3770000 Fax:+86-750-3771111
Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

NATA

Client:
LumCAT: 1-1382-L Luminaire:
92.70.410.00 Report No: 2023829-
B013 Ballast type: AC
Test No: 2023829-C013
LampCAT: LUXEON CoB 1203
LES9 Lamp flux(lm): 1615.6
Number of Lamps: 1 Length(mm):
0
Phm Type: C

Voltage(V): 35.840
Current(A): 0.378
Power (W): 13.547
PF: 0.000
Width(mm): 0
Height(mm): 0

Photometric Results

Lumens(lm): 1489.25, Efficiency(%): 92.18% , Luminous Efficacy(lm/W): 109.93
Central intensity(cd): 5381.006, Maximum intensity(cd): 5381.006
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=25.0
[C90/270]Total=25.0
Field angle(10%Imax): [C0/180]Total=56.6
[C90/270]Total=56.6
Maximum s/h(1/2): C0_180=0.42 C90_270=0.42
Maximum s/h(1/4): C0_180=0.44 C90_270=0.44
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 92.18%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.144%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5381.006	0.000	0	0.00%	0.00%
1.0	5356.789	5.138	5.138	0.32%	0.34%
2.0	5290.019	15.281	20.419	0.95%	1.37%
3.0	5171.009	25.019	45.438	1.55%	3.05%
4.0	5000.727	34.048	79.487	2.11%	5.34%
5.0	4797.234	42.150	121.637	2.61%	8.17%
6.0	4553.124	49.139	170.775	3.04%	11.47%
7.0	4283.829	54.851	225.626	3.40%	15.15%
8.0	3999.311	59.281	284.907	3.67%	19.13%
9.0	3720.675	62.566	347.473	3.87%	23.33%
10.0	3427.993	64.693	412.166	4.00%	27.68%
11.0	3132.405	65.552	477.718	4.06%	32.08%
12.0	2845.466	65.347	543.065	4.04%	36.47%
13.0	2560.879	64.160	607.224	3.97%	40.77%
14.0	2283.627	62.009	669.234	3.84%	44.94%
15.0	2034.397	59.280	728.513	3.67%	48.92%
16.0	1803.503	56.236	784.749	3.48%	52.69%
17.0	1611.772	53.185	837.934	3.29%	56.27%
18.0	1377.094	49.280	887.214	3.05%	59.57%
19.0	1228.670	45.335	932.549	2.81%	62.62%
20.0	1138.056	43.318	975.867	2.68%	65.53%
21.0	1040.136	41.826	1017.693	2.59%	68.34%
22.0	946.035	39.913	1057.606	2.47%	71.02%
23.0	865.114	38.003	1095.608	2.35%	73.57%
24.0	792.601	36.244	1131.852	2.24%	76.00%
25.0	737.967	34.802	1166.654	2.15%	78.34%
26.0	682.697	33.535	1200.189	2.08%	80.59%
27.0	623.254	31.950	1232.139	1.98%	82.74%
28.0	559.424	29.943	1262.082	1.85%	84.75%
29.0	490.910	27.480	1289.562	1.70%	86.59%
30.0	424.541	24.717	1314.279	1.53%	88.25%
31.0	351.585	21.598	1335.877	1.34%	89.70%
32.0	288.219	18.330	1354.207	1.13%	90.93%
33.0	241.072	15.593	1369.8	0.97%	91.98%
34.0	216.903	13.860	1383.66	0.86%	92.91%
35.0	127.853	10.707	1394.366	0.66%	93.63%
36.0	97.319	7.170	1401.536	0.44%	94.11%
37.0	78.837	5.745	1407.281	0.36%	94.50%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	69.047	4.936	1412.217	0.31%	94.83%
39.0	61.629	4.460	1416.678	0.28%	95.13%
40.0	55.700	4.092	1420.77	0.25%	95.40%
41.0	50.455	3.780	1424.55	0.23%	95.66%
42.0	46.054	3.506	1428.056	0.22%	95.89%
43.0	41.965	3.260	1431.317	0.20%	96.11%
44.0	37.813	3.011	1434.328	0.19%	96.31%
45.0	33.918	2.757	1437.084	0.17%	96.50%
46.0	30.431	2.517	1439.601	0.16%	96.67%
47.0	27.310	2.296	1441.897	0.14%	96.82%
48.0	24.702	2.103	1444	0.13%	96.96%
49.0	22.536	1.940	1445.94	0.12%	97.09%
50.0	20.681	1.802	1447.742	0.11%	97.21%
51.0	19.111	1.684	1449.425	0.10%	97.33%
52.0	17.838	1.585	1451.011	0.10%	97.43%
53.0	16.661	1.501	1452.512	0.09%	97.53%
54.0	15.762	1.429	1453.941	0.09%	97.63%
55.0	15.035	1.375	1455.315	0.09%	97.72%
56.0	14.357	1.328	1456.644	0.08%	97.81%
57.0	13.783	1.287	1457.93	0.08%	97.90%
58.0	13.306	1.253	1459.183	0.08%	97.98%
59.0	12.897	1.225	1460.408	0.08%	98.06%
60.0	12.538	1.202	1461.609	0.07%	98.14%
61.0	12.199	1.180	1462.79	0.07%	98.22%
62.0	11.908	1.162	1463.952	0.07%	98.30%
63.0	11.631	1.145	1465.096	0.07%	98.38%
64.0	11.354	1.128	1466.224	0.07%	98.45%
65.0	11.105	1.112	1467.336	0.07%	98.53%
66.0	10.856	1.096	1468.432	0.07%	98.60%
67.0	10.586	1.078	1469.51	0.07%	98.67%
68.0	10.337	1.060	1470.57	0.07%	98.75%
69.0	10.074	1.041	1471.611	0.06%	98.82%
70.0	9.777	1.020	1472.63	0.06%	98.88%
71.0	9.535	0.998	1473.629	0.06%	98.95%
72.0	9.272	0.978	1474.606	0.06%	99.02%
73.0	8.995	0.955	1475.562	0.06%	99.08%
74.0	8.753	0.933	1476.495	0.06%	99.14%
75.0	8.518	0.912	1477.407	0.06%	99.20%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	8.317	0.894	1478.301	0.06%	99.26%
77.0	8.102	0.875	1479.176	0.05%	99.32%
78.0	7.922	0.858	1480.034	0.05%	99.38%
79.0	7.756	0.842	1480.876	0.05%	99.44%
80.0	7.583	0.827	1481.703	0.05%	99.49%
81.0	7.438	0.812	1482.516	0.05%	99.55%
82.0	7.307	0.800	1483.315	0.05%	99.60%
83.0	7.161	0.787	1484.102	0.05%	99.65%
84.0	7.023	0.773	1484.875	0.05%	99.71%
85.0	6.892	0.759	1485.634	0.05%	99.76%
86.0	6.767	0.747	1486.381	0.05%	99.81%
87.0	6.629	0.733	1487.114	0.05%	99.86%
88.0	6.552	0.722	1487.836	0.04%	99.91%
89.0	6.421	0.711	1488.547	0.04%	99.95%
90.0	6.345	0.700	1489.247	0.04%	100.00%

Zonal flux distribution table

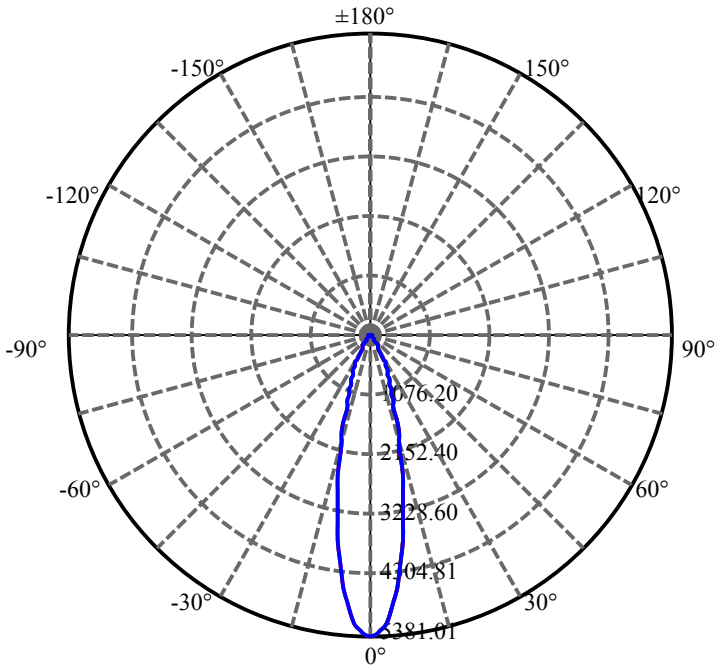
ZONAL LUMEN SUMMARY

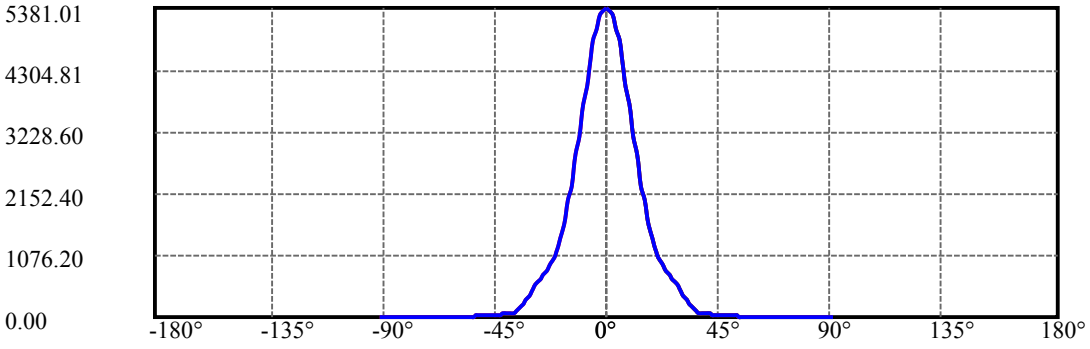
Zone	Lumens	%Lamp	%Fixt
0-30	1314.28	81.35%	88.25%
0-40	1420.77	87.94%	95.40%
0-60	1461.61	90.47%	98.14%
0-90	1488.55	92.14%	99.95%
0-120	1488.55	92.14%	99.95%
0-180	1489.25	92.18%	100.00%
60-90	26.94	1.67%	1.81%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-25.74	1191.40	73.74%	80.00%

ZONAL LUMEN SUMMARY

0-10	412.17
10-20	563.70
20-30	338.41
30-40	106.49
40-50	26.97
50-60	13.87
60-70	11.02
70-80	9.07
80-90	6.84
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]





C0(Max):

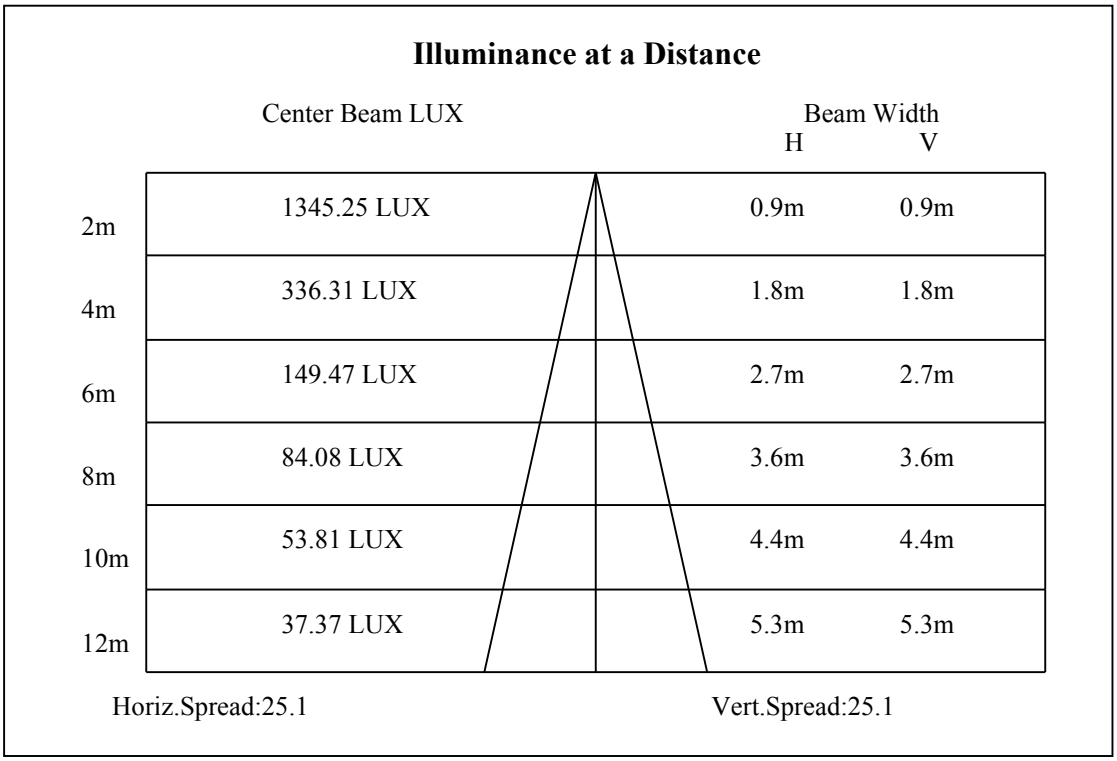
C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:28.3 Right:28.3
:C90/270Left:28.3 Right:28.3

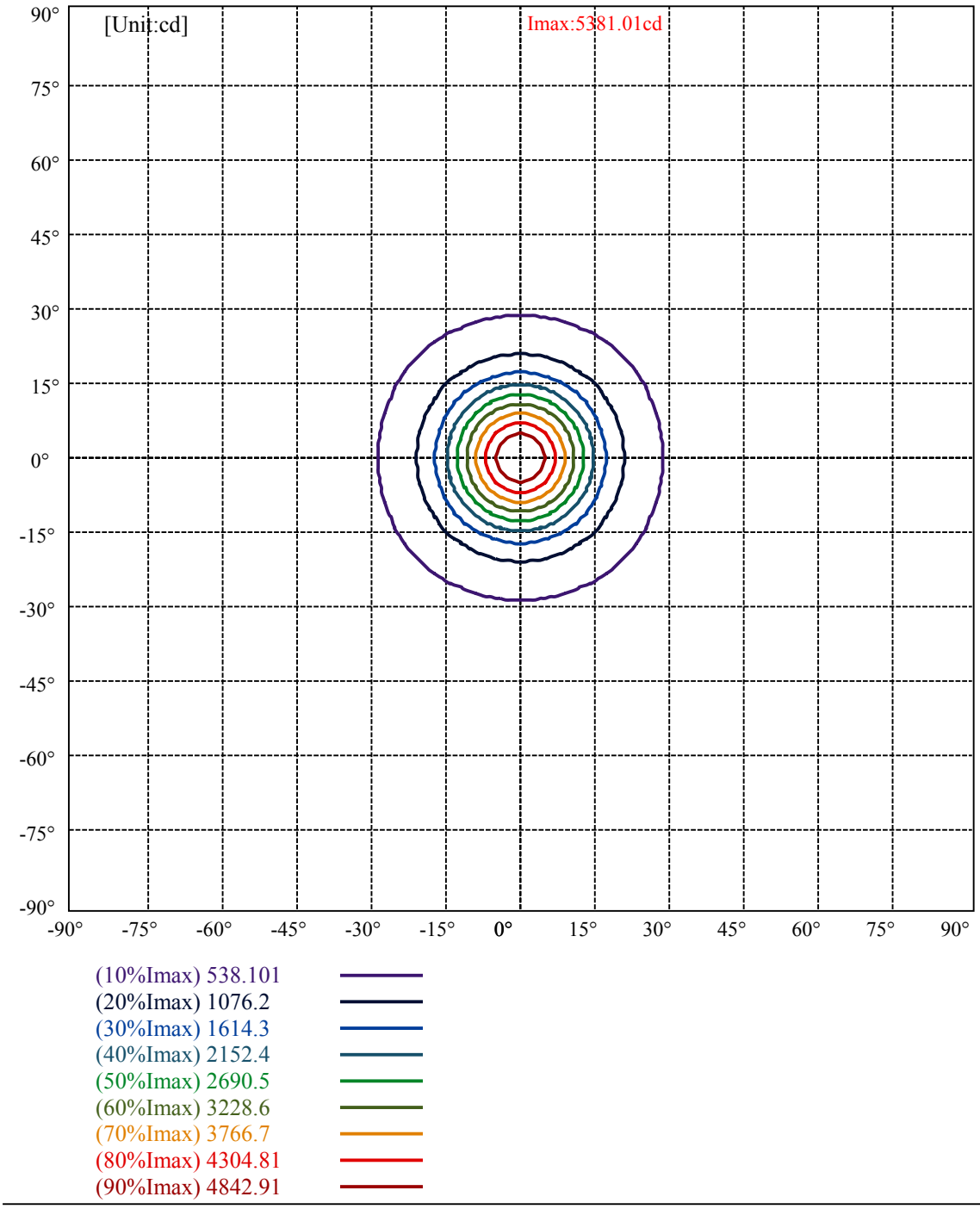
Beam Angle(50%Imax):C0/180Left:12.5 Right:12.5
:C90/270Left:12.5 Right:12.5

Lux distance Curve



Equipment: GMS1980 Date: 2023/8/29 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.44

ISO-Intensity(V-H)

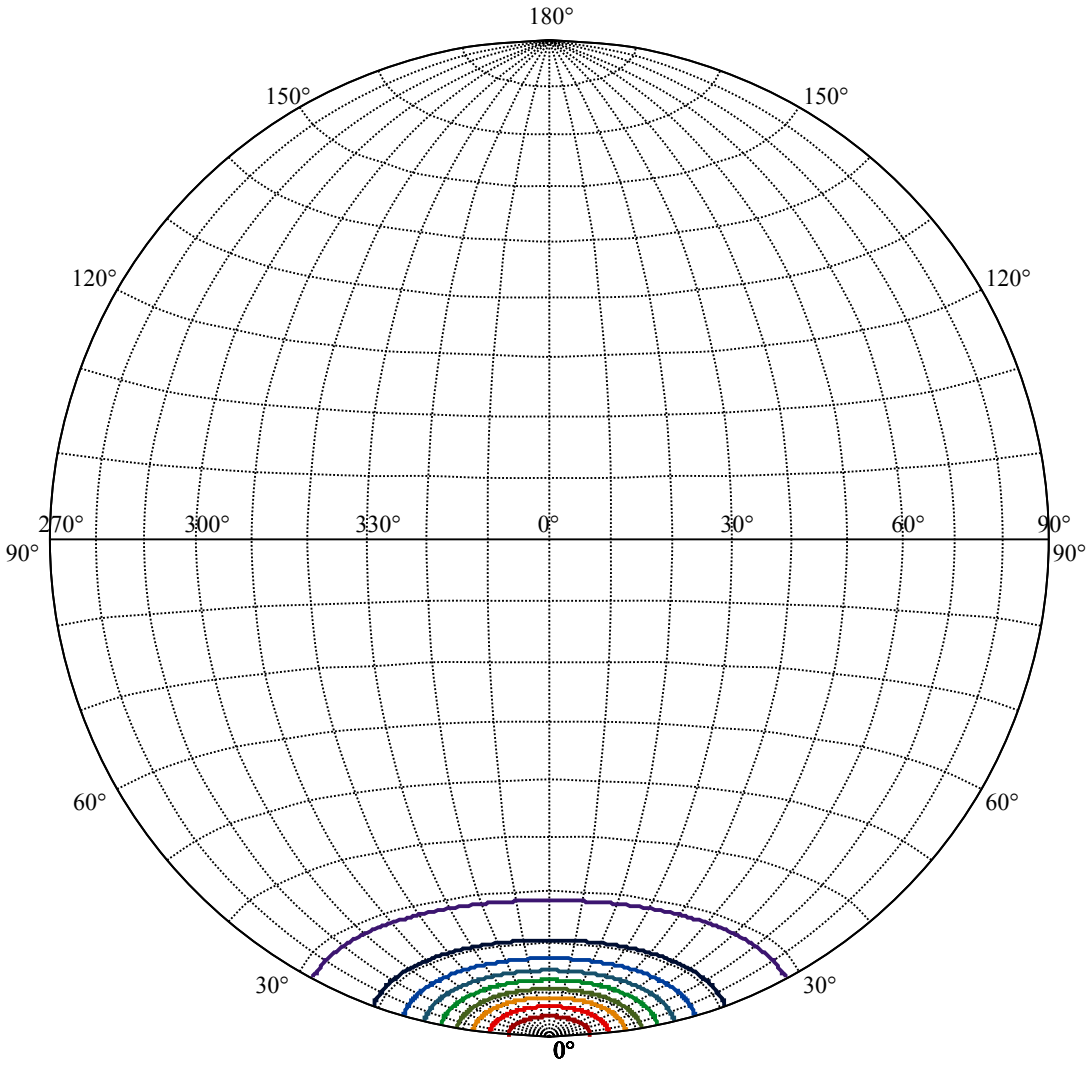


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2023/8/29
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.44

ISO candela diagram on circular web



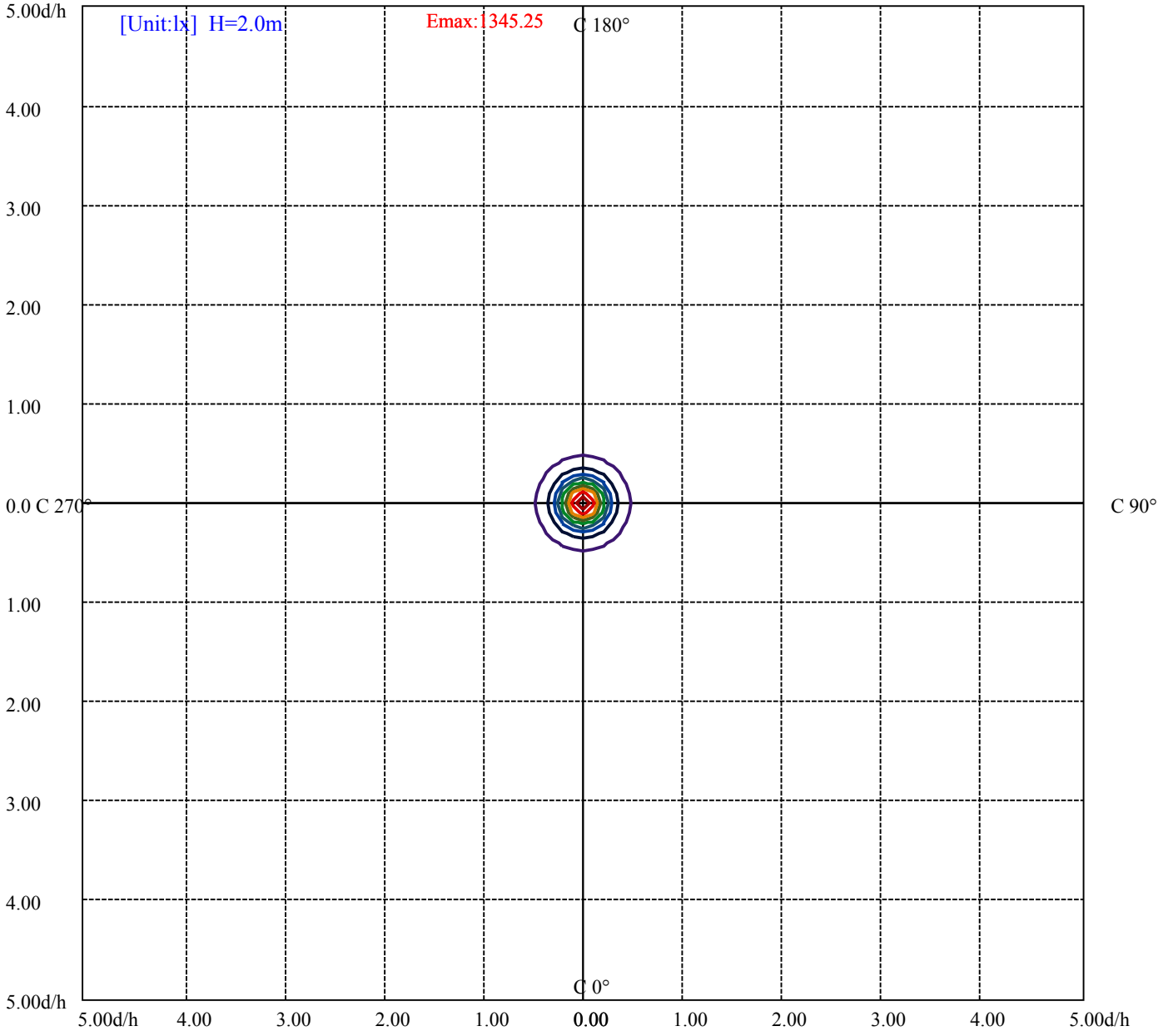
House [Unit:cd] Road

Imax:5381.01

(10%Imax) 538.101
(20%Imax) 1076.2
(30%Imax) 1614.3
(40%Imax) 2152.4
(50%Imax) 2690.5
(60%Imax) 3228.6
(70%Imax) 3766.7
(80%Imax) 4304.81
(90%Imax) 4842.91

Equipment: GMS1980 Date: 2023/8/29 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.44

ISO illuminance diagram

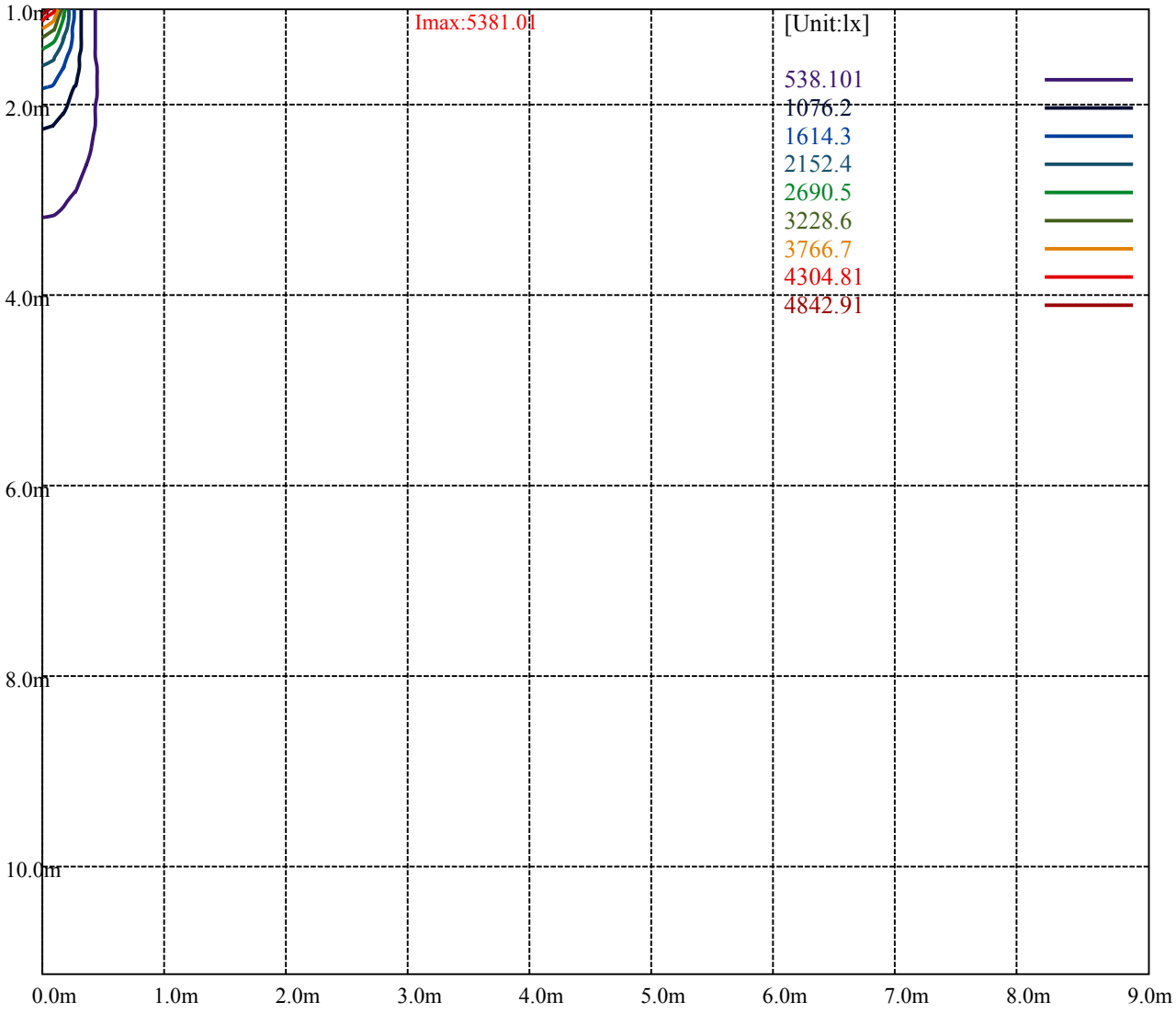


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2023/8/29
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.44

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2023/8/29
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.44

Luminance Limitting Curve(no luminous side)

Luminance Table

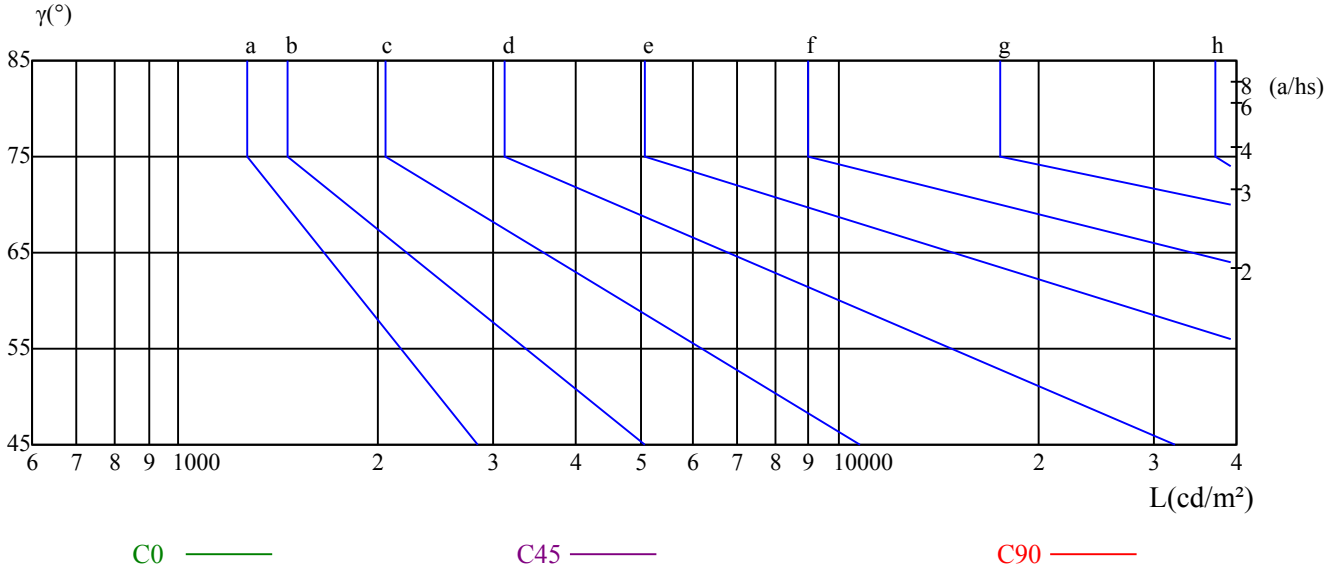
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

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

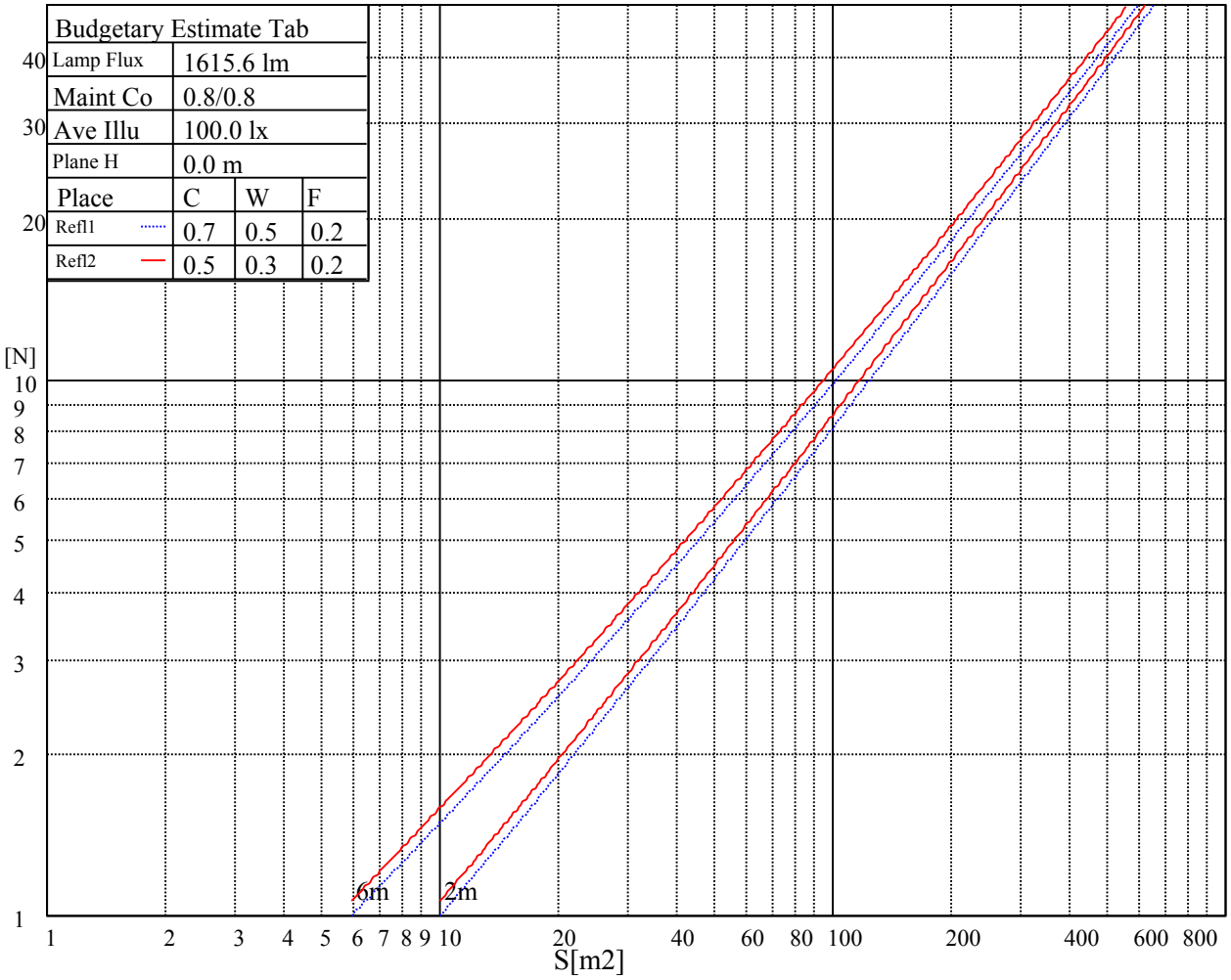
Luminance Limitting Curve



Illumination assessment according 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	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	3H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	4H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	6H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	8H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	12H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
4H	2H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	3H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	4H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	6H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	8H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	12H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
8H	4H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	6H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	8H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	12H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
12H	4H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	6H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	8H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
Variation with the observer position at spacings:											
S = 1.0H		非数字/非数字					非数字/非数字				
S = 1.5H		非数字/非数字					非数字/非数字				
S = 2.0H		非数字/非数字					非数字/非数字				
Standard tables:		BK0					BK0				
Uncorrected UGR		负无穷大					负无穷大				

UGR calculation is based on CIE Publ. 117 ,S/H = 0.25

Budgetary Estimate Table

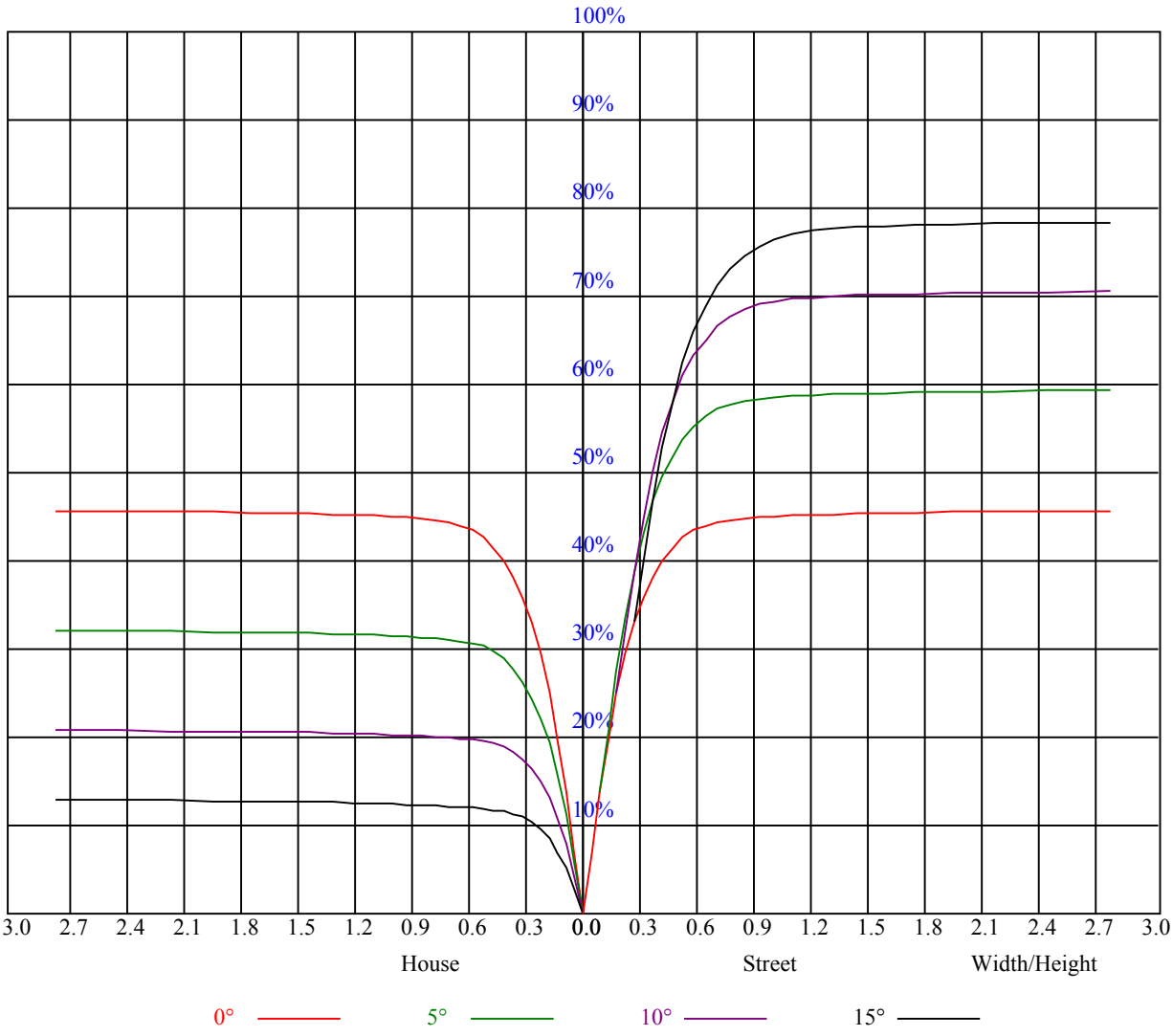


Equipment: GMS1980 Date: 2023/8/29 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.44

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	1.10	1.10	1.10	1.07	1.07	1.07	1.02	1.02	1.02	0.98	0.98	0.98	0.94	0.94	0.94	0.92
1	1.03	1.01	0.99	1.01	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88
2	0.97	0.94	0.91	0.96	0.93	0.90	0.93	0.90	0.88	0.90	0.88	0.87	0.88	0.86	0.85	0.83
3	0.92	0.88	0.85	0.91	0.88	0.85	0.89	0.86	0.83	0.87	0.84	0.82	0.85	0.83	0.81	0.80
4	0.88	0.84	0.81	0.87	0.83	0.80	0.85	0.82	0.79	0.83	0.80	0.78	0.82	0.79	0.77	0.76
5	0.84	0.80	0.76	0.83	0.79	0.76	0.82	0.78	0.75	0.80	0.77	0.75	0.79	0.76	0.74	0.73
6	0.80	0.76	0.73	0.80	0.76	0.73	0.79	0.75	0.72	0.77	0.74	0.72	0.76	0.73	0.71	0.70
7	0.77	0.73	0.70	0.77	0.73	0.70	0.76	0.72	0.69	0.75	0.71	0.69	0.74	0.71	0.69	0.67
8	0.74	0.70	0.67	0.74	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.66	0.71	0.68	0.66	0.65
9	0.72	0.67	0.64	0.71	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.64	0.69	0.66	0.64	0.63
10	0.69	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.62	0.68	0.64	0.62	0.67	0.64	0.62	0.61

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2023/8/29	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 60.0%	Distance(m): 7.44

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	5342.67	5282.89	5171.08	5019.41	4824.01	4547.80	4301.47	4047.95	3711.96
45.0	5381.98	5385.30	5350.42	5276.80	5089.71	4900.40	4683.97	4361.25	4111.61
90.0	5399.69	5350.42	5251.89	5097.46	4848.37	4614.22	4369.56	4050.17	3790.56
135.0	5399.69	5382.53	5336.03	5209.83	5047.64	4842.28	4548.35	4299.26	3978.21
180.0	5342.67	5378.65	5344.89	5279.02	5150.60	4981.77	4732.12	4505.73	4246.12
225.0	5381.98	5318.87	5239.16	5080.30	4907.04	4690.06	4449.82	4124.89	3859.75
270.0	5399.69	5400.24	5350.42	5253.00	5127.35	4971.80	4781.39	4563.30	4248.33
315.0	5399.69	5355.41	5276.25	5152.26	5011.11	4829.55	4558.31	4318.08	4047.95
360.0	5342.67	5282.89	5171.08	5019.41	4824.01	4547.80	4301.47	4047.95	3711.96

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	3444.05	3183.88	2851.21	2578.32	2319.26	2025.89	1816.65	1621.81	1436.37
45.0	3840.38	3567.48	3228.72	2953.61	2679.06	2410.59	2103.93	1880.86	1684.35
90.0	3516.56	3189.42	2916.53	2642.53	2380.70	2077.37	1862.59	1666.64	1501.69
135.0	3713.06	3436.85	3171.15	2836.26	2556.73	2305.98	2065.74	1802.81	1625.13
180.0	3978.76	3651.07	3375.41	3105.84	2837.37	2499.71	2257.82	2032.53	1775.13
225.0	3581.32	3305.66	2961.36	2690.68	2371.85	2127.18	1904.11	1653.36	1480.65
270.0	3982.64	3650.51	3379.84	3108.05	2759.88	2488.64	2217.41	1927.91	1728.08
315.0	3708.64	3439.06	3175.03	2848.44	2582.19	2333.65	2046.92	1842.11	1662.77
360.0	3444.05	3183.88	2851.21	2578.32	2319.26	2025.89	1816.65	1621.81	1436.37

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1103.31	1103.31	1077.79	967.08	886.54	820.28	764.99	702.49	650.90
45.0	1482.31	1336.73	1186.17	1082.11	990.77	909.96	825.27	769.36	720.09
90.0	1229.35	1085.71	1085.71	968.41	888.81	818.96	750.43	700.44	652.07
135.0	1466.26	1289.68	1163.48	1058.31	945.38	869.00	788.73	735.04	683.56
180.0	1590.25	1433.05	1244.29	1125.84	1008.49	924.35	849.07	793.16	722.86
225.0	1096.50	1096.50	1044.74	956.84	882.34	801.58	747.11	700.06	652.01
270.0	1550.95	1391.53	1209.42	1098.71	1001.29	916.05	820.84	764.38	707.92
315.0	1497.81	1092.85	1092.85	1063.79	964.65	860.75	794.38	738.80	672.16
360.0	1103.31	1103.31	1077.79	967.08	886.54	820.28	764.99	702.49	650.90

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	586.97	523.59	442.94	378.07	300.68	241.29	187.15	133.35	103.07
45.0	674.71	602.75	539.64	477.65	397.38	332.62	286.68	286.68	154.38
90.0	575.23	515.45	448.42	385.15	309.98	252.63	199.00	149.90	101.08
135.0	629.32	557.91	498.68	435.58	372.47	295.53	281.14	281.14	132.46
180.0	674.15	618.24	555.14	475.99	411.22	347.01	285.57	285.57	159.58
225.0	579.94	515.95	452.85	387.48	306.49	246.49	183.50	140.65	107.44
270.0	647.58	586.69	511.97	444.43	381.88	317.67	287.78	287.78	143.03
315.0	618.13	554.81	477.65	412.00	332.56	272.51	217.76	170.16	121.78
360.0	586.97	523.59	442.94	378.07	300.68	241.29	187.15	133.35	103.07

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	85.96	76.00	65.70	58.84	53.19	48.38	43.23	39.52	35.70
45.0	117.29	87.74	75.34	67.59	59.28	54.14	49.38	45.22	40.24
90.0	80.21	70.35	61.66	56.13	51.59	46.28	42.46	38.75	34.21
135.0	90.78	74.23	66.15	58.40	53.80	48.60	44.73	40.96	37.47
180.0	119.23	87.24	74.78	66.26	60.34	55.30	50.81	45.56	41.74
225.0	82.31	72.62	65.87	59.67	53.58	48.93	44.89	41.35	36.81
270.0	107.39	82.26	71.85	64.65	58.51	52.03	47.44	43.45	39.08
315.0	95.37	80.26	71.02	61.50	55.30	49.98	45.50	40.91	37.25
360.0	85.96	76.00	65.70	58.84	53.19	48.38	43.23	39.52	35.70

Intensity data(cd)

C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	31.33	28.29	25.85	23.19	21.26	19.37	18.16	17.05	16.16
45.0	36.48	32.88	29.61	26.18	23.91	21.92	19.87	18.49	17.10
90.0	30.67	27.46	24.58	22.47	20.65	19.04	17.55	16.55	15.67
135.0	33.05	29.67	26.74	24.36	21.81	20.15	18.82	17.66	16.50
180.0	38.14	34.54	30.33	27.51	25.19	23.08	20.92	19.37	17.82
225.0	33.10	29.67	26.46	24.30	22.36	20.31	18.99	17.77	16.55
270.0	35.70	31.33	28.17	25.68	23.14	21.26	19.71	18.43	17.05
315.0	32.88	29.61	26.74	23.91	21.98	20.31	18.88	17.38	16.44
360.0	31.33	28.29	25.85	23.19	21.26	19.37	18.16	17.05	16.16

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	15.17	14.50	13.95	13.45	13.01	12.57	12.29	11.96	11.68
45.0	16.16	15.33	14.67	13.89	13.40	12.95	12.57	12.12	11.85
90.0	14.78	14.17	13.67	13.12	12.79	12.45	12.07	11.85	11.62
135.0	15.72	15.00	14.28	13.84	13.28	12.90	12.62	12.29	12.01
180.0	16.83	15.94	15.06	14.45	13.95	13.51	13.01	12.68	12.34
225.0	15.72	15.06	14.39	13.73	13.28	12.90	12.57	12.18	11.90
270.0	16.16	15.39	14.72	14.12	13.51	13.12	12.68	12.34	12.01
315.0	15.55	14.89	14.12	13.67	13.23	12.79	12.51	12.18	11.85
360.0	15.17	14.50	13.95	13.45	13.01	12.57	12.29	11.96	11.68

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	11.46	11.13	10.90	10.68	10.35	10.13	9.91	9.63	9.35
45.0	11.57	11.35	11.07	10.85	10.63	10.35	10.07	9.74	9.58
90.0	11.35	11.13	10.85	10.63	10.35	10.07	9.85	9.58	9.24
135.0	11.73	11.46	11.18	10.90	10.68	10.41	10.13	9.85	9.63
180.0	12.07	11.68	11.40	11.18	10.85	10.57	10.35	10.02	9.74
225.0	11.57	11.29	11.13	10.79	10.52	10.30	9.96	9.69	9.47
270.0	11.68	11.46	11.18	10.96	10.68	10.46	10.24	9.91	9.69
315.0	11.62	11.35	11.13	10.85	10.63	10.41	10.07	9.80	9.58
360.0	11.46	11.13	10.90	10.68	10.35	10.13	9.91	9.63	9.35

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	9.08	8.86	8.64	8.36	8.19	7.97	7.80	7.64	7.47
45.0	9.30	9.02	8.75	8.52	8.36	8.14	7.97	7.80	7.64
90.0	9.02	8.75	8.52	8.30	8.14	7.97	7.80	7.64	7.47
135.0	9.30	9.02	8.75	8.52	8.36	8.14	7.97	7.80	7.58
180.0	9.47	9.19	8.97	8.75	8.47	8.25	8.08	7.92	7.69
225.0	9.24	8.91	8.69	8.47	8.25	8.03	7.86	7.69	7.53
270.0	9.47	9.19	8.91	8.69	8.47	8.19	7.97	7.80	7.69
315.0	9.30	9.02	8.80	8.52	8.30	8.14	7.92	7.75	7.58
360.0	9.08	8.86	8.64	8.36	8.19	7.97	7.80	7.64	7.47

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	7.36	7.25	7.09	6.92	6.86	6.70	6.59	6.59	6.37
45.0	7.42	7.31	7.09	7.03	6.86	6.75	6.64	6.53	6.48
90.0	7.36	7.20	7.09	6.92	6.81	6.70	6.59	6.53	6.31
135.0	7.47	7.36	7.20	7.03	6.86	6.81	6.64	6.53	6.37
180.0	7.58	7.42	7.31	7.14	6.97	6.81	6.70	6.59	6.59
225.0	7.36	7.25	7.09	7.03	6.86	6.70	6.59	6.53	6.37
270.0	7.53	7.36	7.25	7.14	6.97	6.86	6.64	6.59	6.48
315.0	7.42	7.31	7.20	6.97	6.92	6.81	6.64	6.53	6.42
360.0	7.36	7.25	7.09	6.92	6.86	6.70	6.59	6.59	6.37

Intensity data(cd)

C/γ(°)	90.0
0.0	6.42
45.0	6.31
90.0	6.37
135.0	6.37
180.0	6.31
225.0	6.31
270.0	6.31
315.0	6.37
360.0	6.42