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: 2-2645-L
Luminaire: 92.70.429.00
Report No: 20231010-B010
Ballast type: AC

Test No: 20231010-C010	Voltage(V): 35.940
LampCAT: CREE CXA1830 LES14	Current(A): 0.530
Lamp flux(lm): 1997.0	Power (W): 19.048
Number of Lamps: 1	PF: 0.000
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1903.95, Efficiency(%): 95.34% , Luminous Efficacy(lm/W): 99.96
Central intensity(cd): 4278.086, Maximum intensity(cd): 4278.086
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=38.6
[C90/270]Total=38.6
Field angle(10%Imax): [C0/180]Total=63.0
[C90/270]Total=63.0
Maximum s/h(1/2): C0_180=0.63 C90_270=0.63
Maximum s/h(1/4): C0_180=0.61 C90_270=0.61
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 95.34%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.326%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4278.086	0.000	0	0.00%	0.00%
1.0	4262.864	4.087	4.087	0.20%	0.21%
2.0	4234.218	12.196	16.283	0.61%	0.86%
3.0	4187.860	20.143	36.425	1.01%	1.91%
4.0	4132.783	27.852	64.277	1.39%	3.38%
5.0	4058.401	35.238	99.515	1.76%	5.23%
6.0	3979.453	42.241	141.756	2.12%	7.45%
7.0	3888.466	48.836	190.592	2.45%	10.01%
8.0	3797.963	55.010	245.603	2.75%	12.90%
9.0	3700.679	60.772	306.375	3.04%	16.09%
10.0	3593.500	66.010	372.385	3.31%	19.56%
11.0	3487.221	70.751	443.136	3.54%	23.27%
12.0	3351.398	74.756	517.892	3.74%	27.20%
13.0	3217.234	77.953	595.845	3.90%	31.30%
14.0	3067.226	80.441	676.285	4.03%	35.52%
15.0	2910.299	82.062	758.347	4.11%	39.83%
16.0	2738.564	82.772	841.119	4.14%	44.18%
17.0	2557.558	82.475	923.594	4.13%	48.51%
18.0	2388.660	81.552	1005.146	4.08%	52.79%
19.0	2192.086	79.696	1084.842	3.99%	56.98%
20.0	2003.399	76.789	1161.631	3.85%	61.01%
21.0	1812.152	73.266	1234.897	3.67%	64.86%
22.0	1637.788	69.328	1304.225	3.47%	68.50%
23.0	1413.738	64.029	1368.254	3.21%	71.86%
24.0	1230.248	57.807	1426.061	2.89%	74.90%
25.0	1138.022	53.849	1479.911	2.70%	77.73%
26.0	1021.661	50.980	1530.89	2.55%	80.41%
27.0	894.120	46.870	1577.76	2.35%	82.87%
28.0	771.968	42.182	1619.942	2.11%	85.08%
29.0	662.430	37.528	1657.47	1.88%	87.05%
30.0	557.729	32.944	1690.414	1.65%	88.78%
31.0	466.389	28.500	1718.914	1.43%	90.28%
32.0	381.199	24.282	1743.196	1.22%	91.56%
33.0	306.382	20.256	1763.453	1.01%	92.62%
34.0	255.588	17.007	1780.46	0.85%	93.51%
35.0	229.233	15.057	1795.516	0.75%	94.30%
36.0	169.866	12.707	1808.224	0.64%	94.97%
37.0	118.706	9.412	1817.635	0.47%	95.47%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	93.845	7.095	1824.73	0.36%	95.84%
39.0	73.579	5.715	1830.445	0.29%	96.14%
40.0	58.536	4.608	1835.052	0.23%	96.38%
41.0	46.940	3.756	1838.808	0.19%	96.58%
42.0	39.730	3.149	1841.957	0.16%	96.74%
43.0	33.842	2.725	1844.682	0.14%	96.89%
44.0	30.126	2.414	1847.097	0.12%	97.01%
45.0	27.186	2.203	1849.299	0.11%	97.13%
46.0	24.847	2.035	1851.334	0.10%	97.24%
47.0	22.916	1.900	1853.234	0.10%	97.34%
48.0	21.277	1.787	1855.02	0.09%	97.43%
49.0	19.969	1.694	1856.714	0.08%	97.52%
50.0	18.786	1.616	1858.33	0.08%	97.60%
51.0	17.782	1.547	1859.877	0.08%	97.68%
52.0	16.917	1.489	1861.366	0.07%	97.76%
53.0	16.226	1.442	1862.808	0.07%	97.84%
54.0	15.610	1.403	1864.211	0.07%	97.91%
55.0	15.063	1.369	1865.58	0.07%	97.98%
56.0	14.606	1.341	1866.921	0.07%	98.05%
57.0	14.198	1.317	1868.238	0.07%	98.12%
58.0	13.838	1.297	1869.534	0.06%	98.19%
59.0	13.520	1.279	1870.813	0.06%	98.26%
60.0	13.236	1.264	1872.077	0.06%	98.33%
61.0	12.980	1.251	1873.329	0.06%	98.39%
62.0	12.711	1.238	1874.566	0.06%	98.46%
63.0	12.468	1.225	1875.791	0.06%	98.52%
64.0	12.226	1.212	1877.003	0.06%	98.58%
65.0	12.026	1.200	1878.203	0.06%	98.65%
66.0	11.818	1.190	1879.393	0.06%	98.71%
67.0	11.569	1.176	1880.569	0.06%	98.77%
68.0	11.389	1.163	1881.732	0.06%	98.83%
69.0	11.168	1.151	1882.882	0.06%	98.89%
70.0	10.967	1.137	1884.019	0.06%	98.95%
71.0	10.773	1.124	1885.143	0.06%	99.01%
72.0	10.586	1.111	1886.253	0.06%	99.07%
73.0	10.413	1.098	1887.352	0.05%	99.13%
74.0	10.247	1.086	1888.438	0.05%	99.19%
75.0	10.116	1.076	1889.514	0.05%	99.24%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	9.971	1.066	1890.58	0.05%	99.30%
77.0	9.791	1.054	1891.633	0.05%	99.35%
78.0	9.611	1.039	1892.672	0.05%	99.41%
79.0	9.431	1.023	1893.695	0.05%	99.46%
80.0	9.244	1.007	1894.702	0.05%	99.51%
81.0	9.078	0.991	1895.693	0.05%	99.57%
82.0	8.898	0.975	1896.668	0.05%	99.62%
83.0	8.725	0.958	1897.626	0.05%	99.67%
84.0	8.566	0.942	1898.568	0.05%	99.72%
85.0	8.421	0.927	1899.495	0.05%	99.77%
86.0	8.289	0.913	1900.408	0.05%	99.81%
87.0	8.192	0.902	1901.31	0.05%	99.86%
88.0	8.082	0.891	1902.202	0.04%	99.91%
89.0	7.978	0.880	1903.082	0.04%	99.95%
90.0	7.943	0.873	1903.955	0.04%	100.00%

Zonal flux distribution table

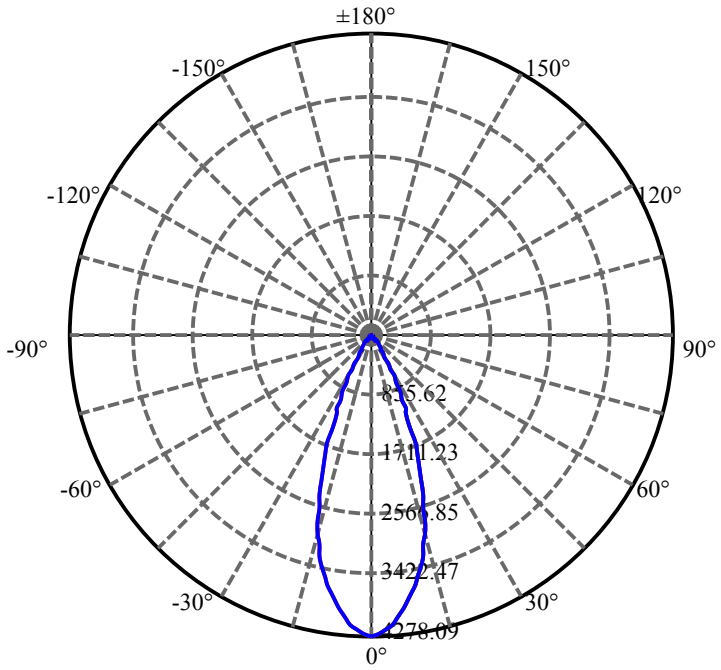
ZONAL LUMEN SUMMARY

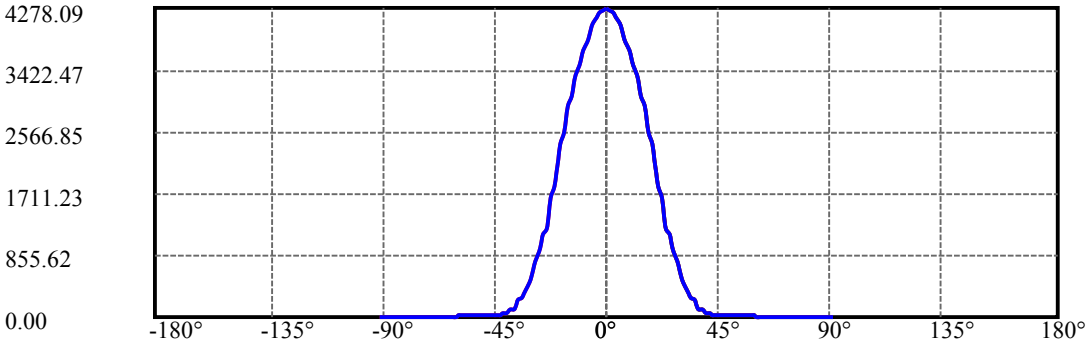
Zone	Lumens	%Lamp	%Fixt
0-30	1690.41	84.65%	88.78%
0-40	1835.05	91.89%	96.38%
0-60	1872.08	93.74%	98.33%
0-90	1903.08	95.30%	99.95%
0-120	1903.08	95.30%	99.95%
0-180	1903.95	95.34%	100.00%
60-90	31.00	1.55%	1.63%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-25.85	1523.16	76.27%	80.00%

ZONAL LUMEN SUMMARY

0-10	372.38
10-20	789.25
20-30	528.78
30-40	144.64
40-50	23.28
50-60	13.75
60-70	11.94
70-80	10.68
80-90	8.38
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):

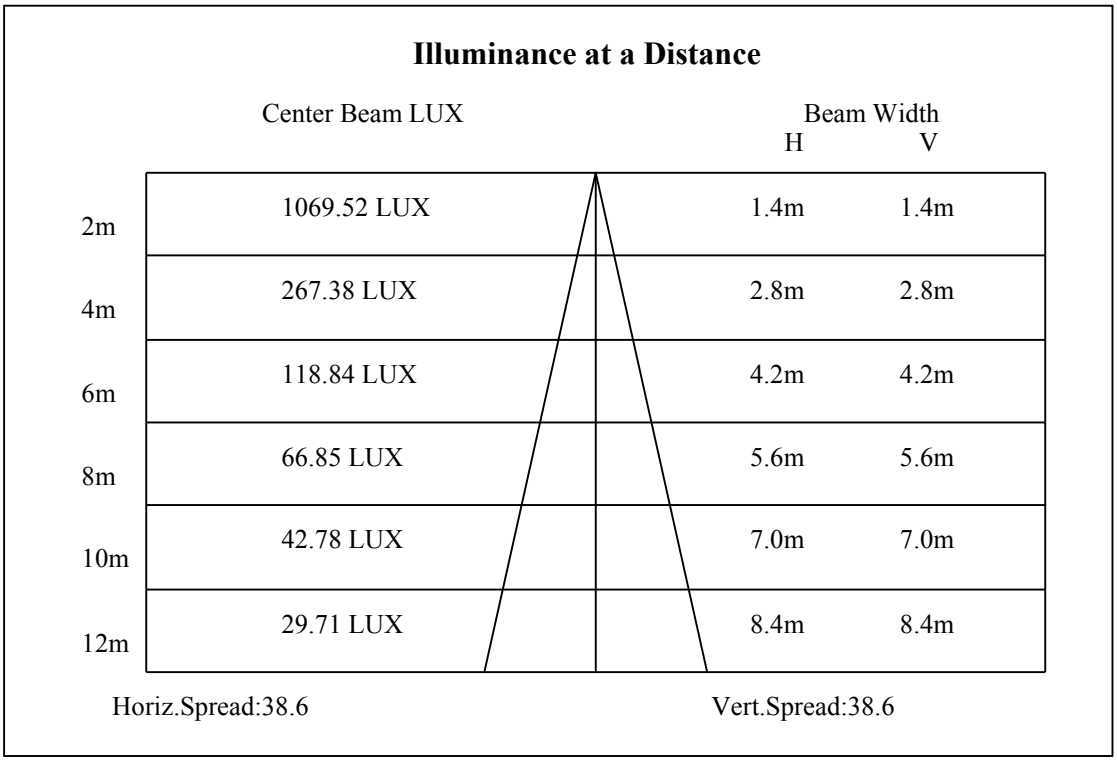
C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:31.5 Right:31.5
:C90/270Left:31.5 Right:31.5

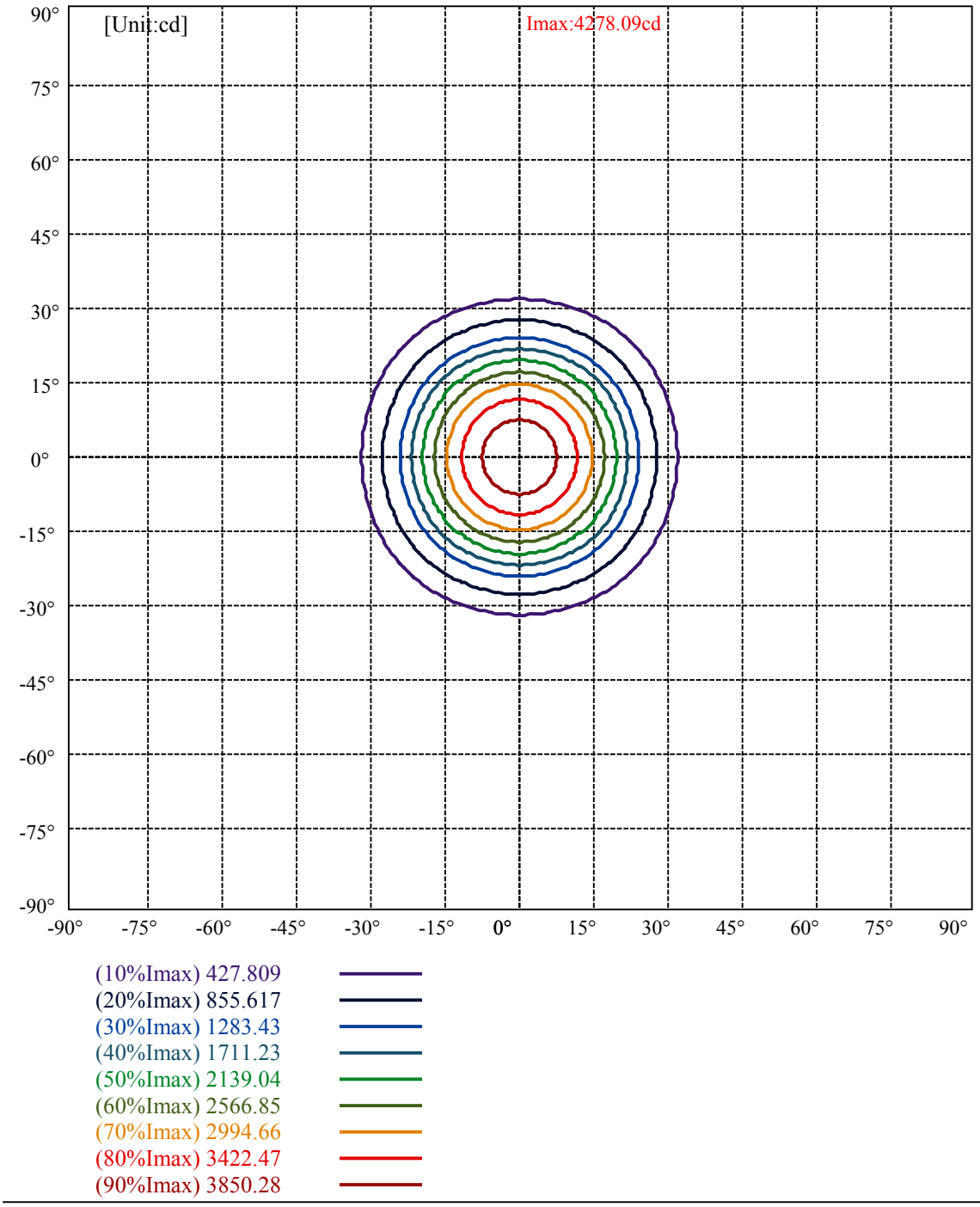
Beam Angle(50%Imax):C0/180Left:19.3 Right:19.3
:C90/270Left:19.3 Right:19.3

Lux distance Curve



Equipment: GMS1980 Date: 2023/10/10 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.44

ISO-Intensity(V-H)

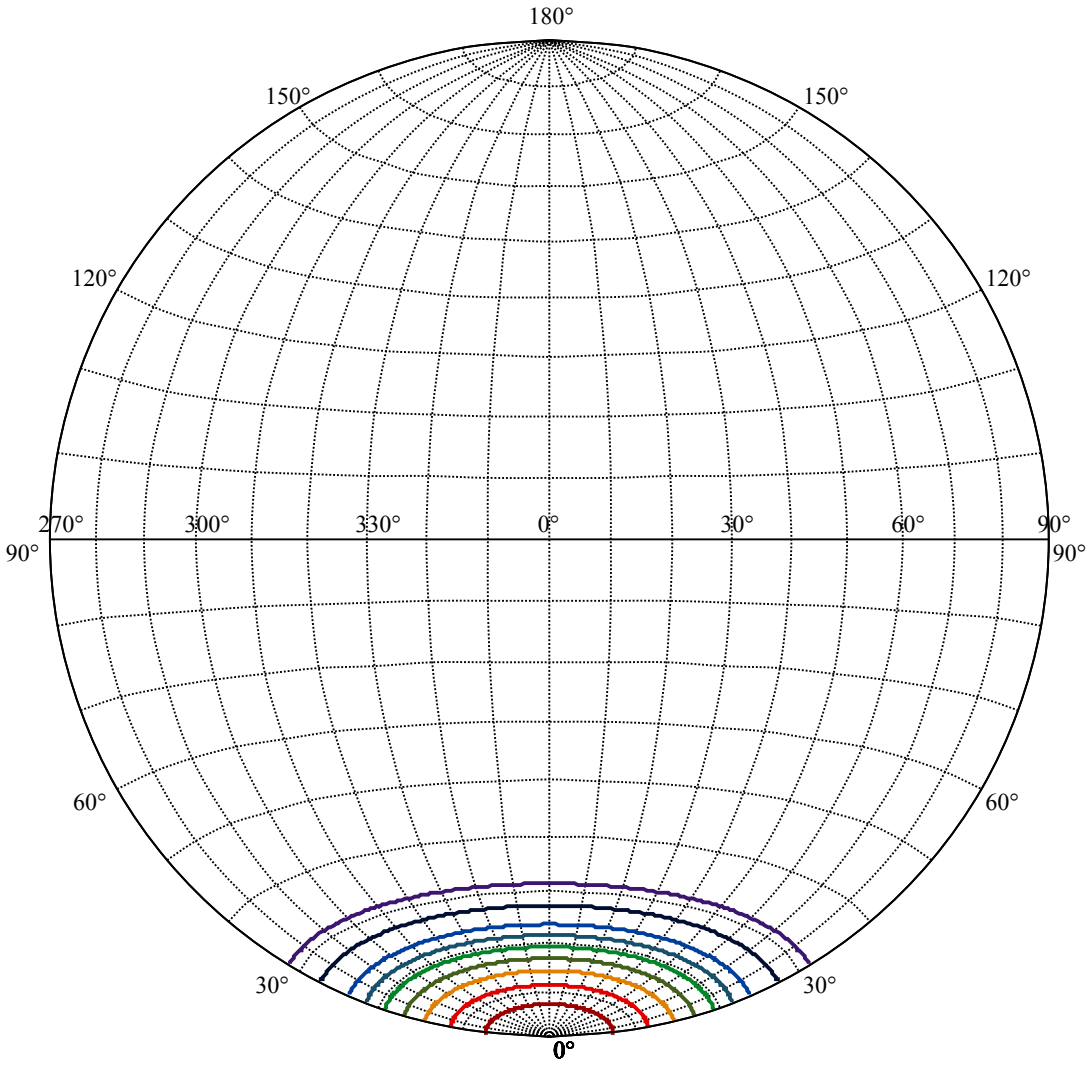


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2023/10/10
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.44

ISO candela diagram on circular web



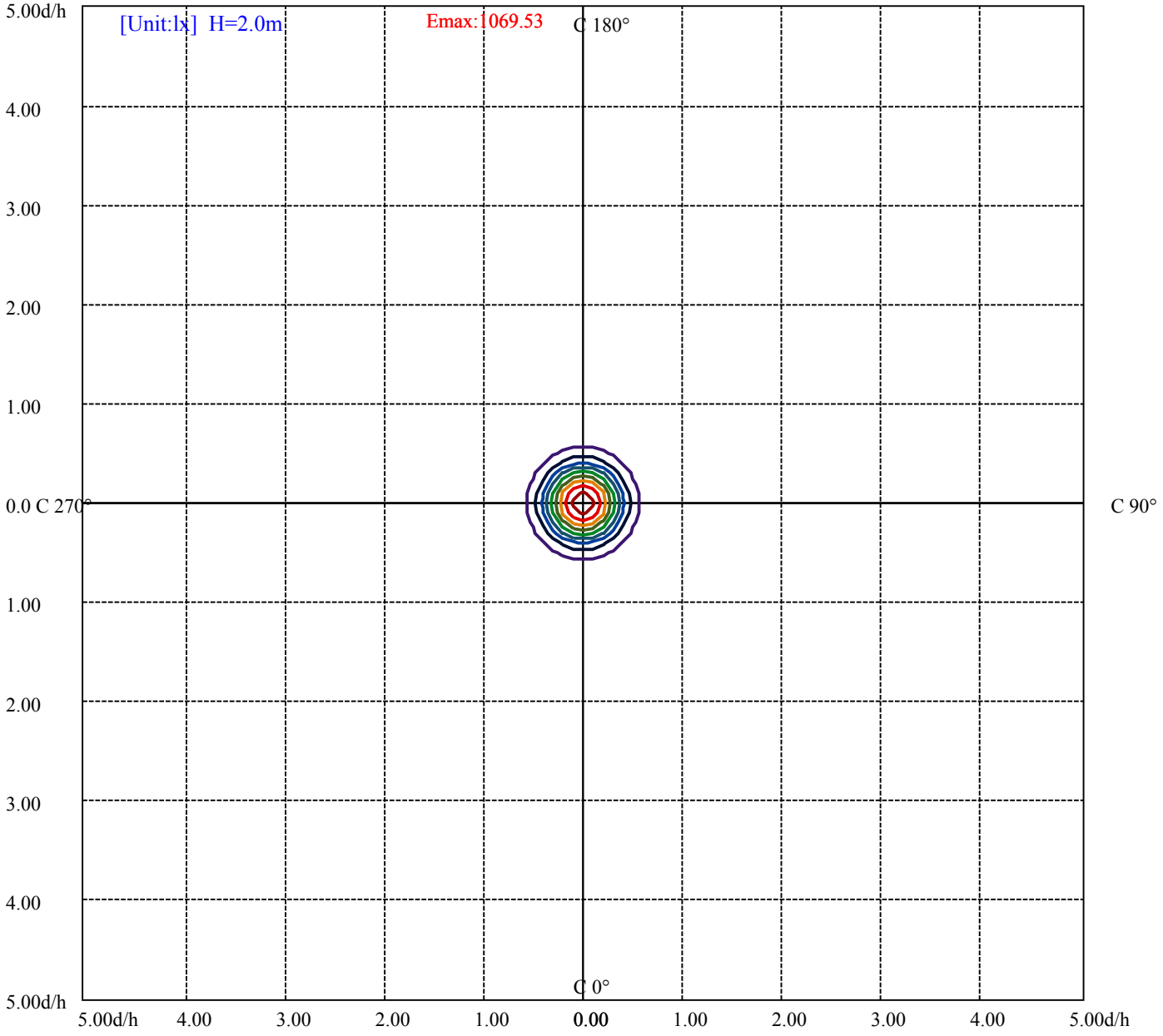
House [Unit:cd] Road

Imax:4278.09

(10%Imax) 427.809
(20%Imax) 855.617
(30%Imax) 1283.43
(40%Imax) 1711.23
(50%Imax) 2139.04
(60%Imax) 2566.85
(70%Imax) 2994.66
(80%Imax) 3422.47
(90%Imax) 3850.28

Equipment: GMS1980 Date: 2023/10/10 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.44

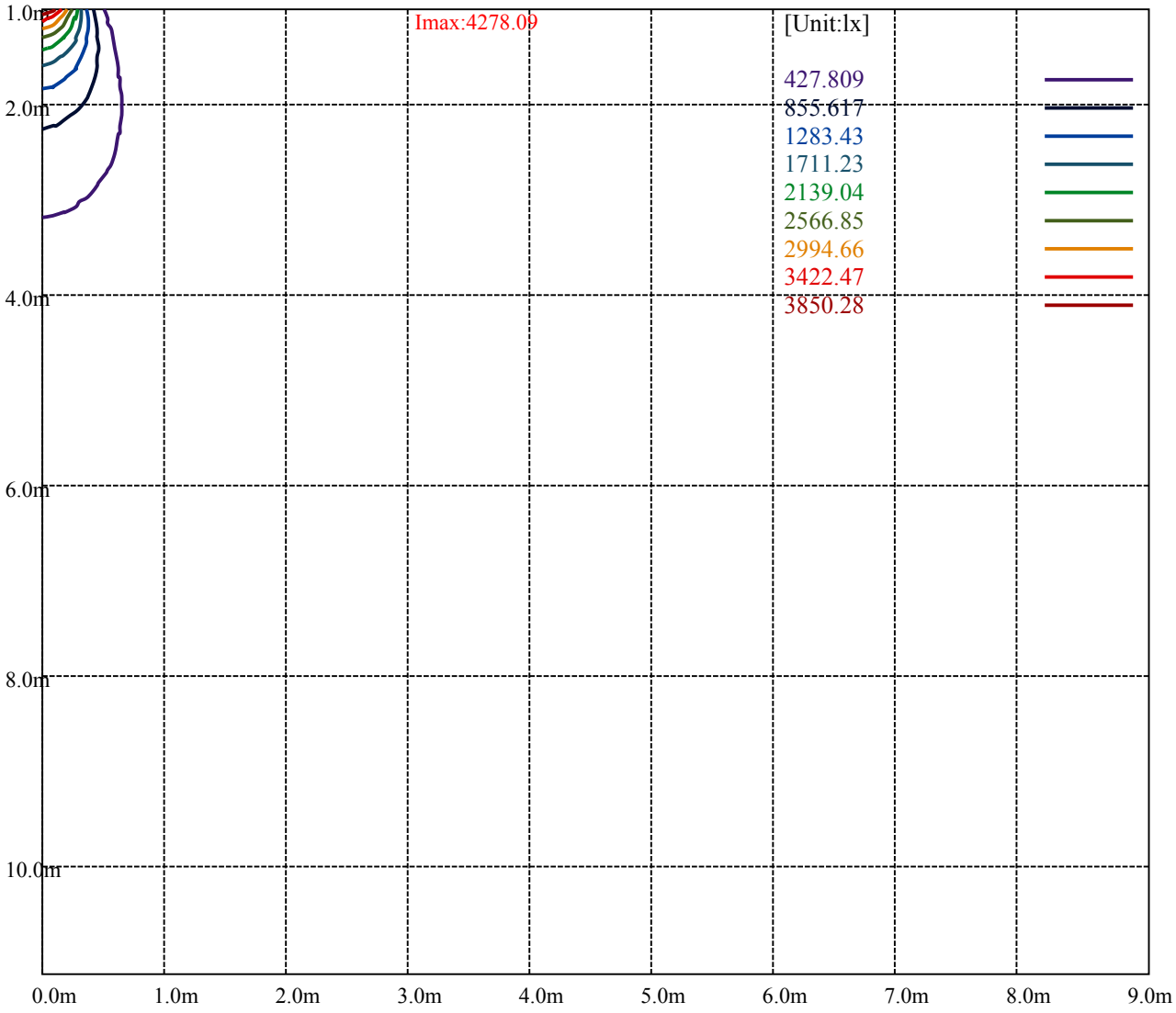
ISO illuminance diagram



(10%Emax) 106.952
(20%Emax) 213.9043
(30%Emax) 320.8575
(40%Emax) 427.8075
(50%Emax) 534.76
(60%Emax) 641.7125
(70%Emax) 748.665
(80%Emax) 855.6175
(90%Emax) 962.57

Equipment: GMS1980
Temperature(°C): 25.0
Date: 2023/10/10
Humidity(%): 60.0%
Operator: NT07
Distance(m): 7.44

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2023/10/10
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.44

Luminance Limitting Curve(no luminous side)

Luminance Table

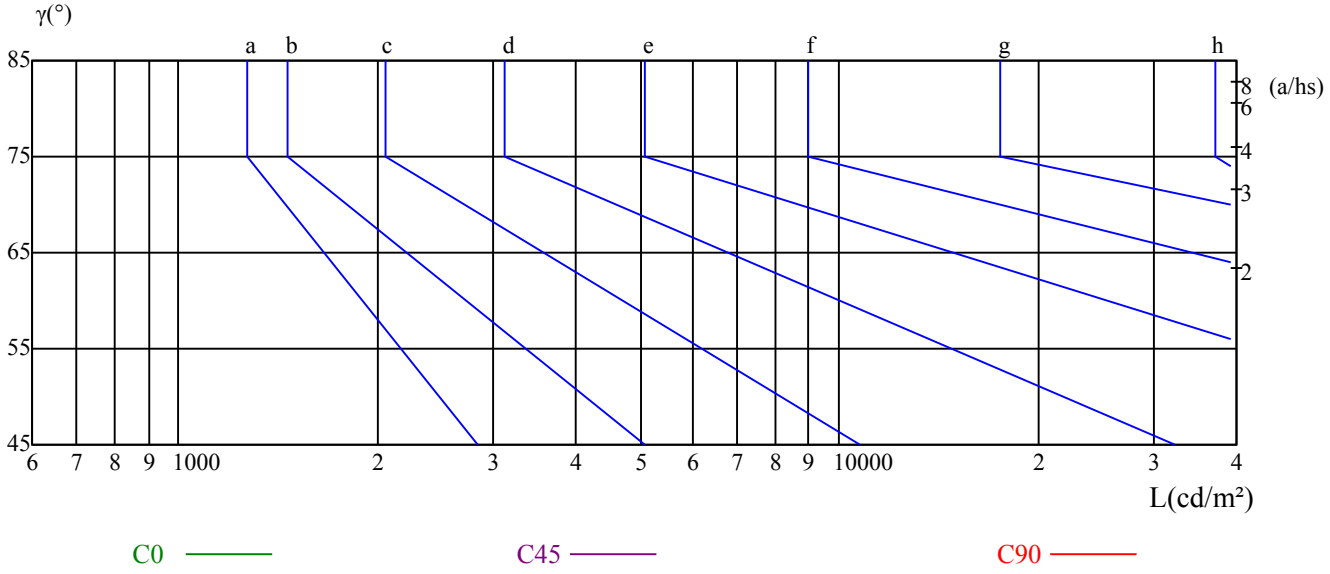
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

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

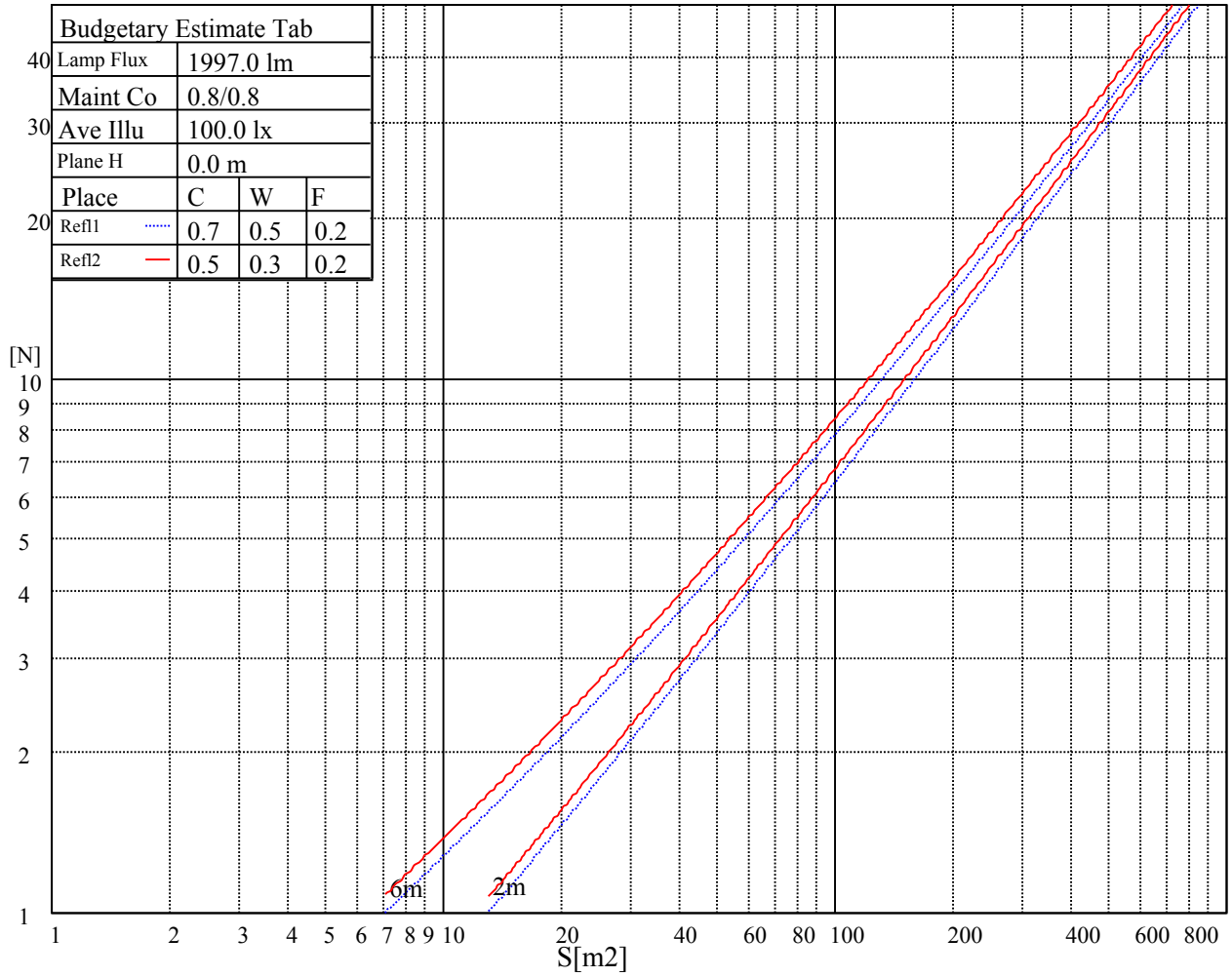


UGR Glare

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

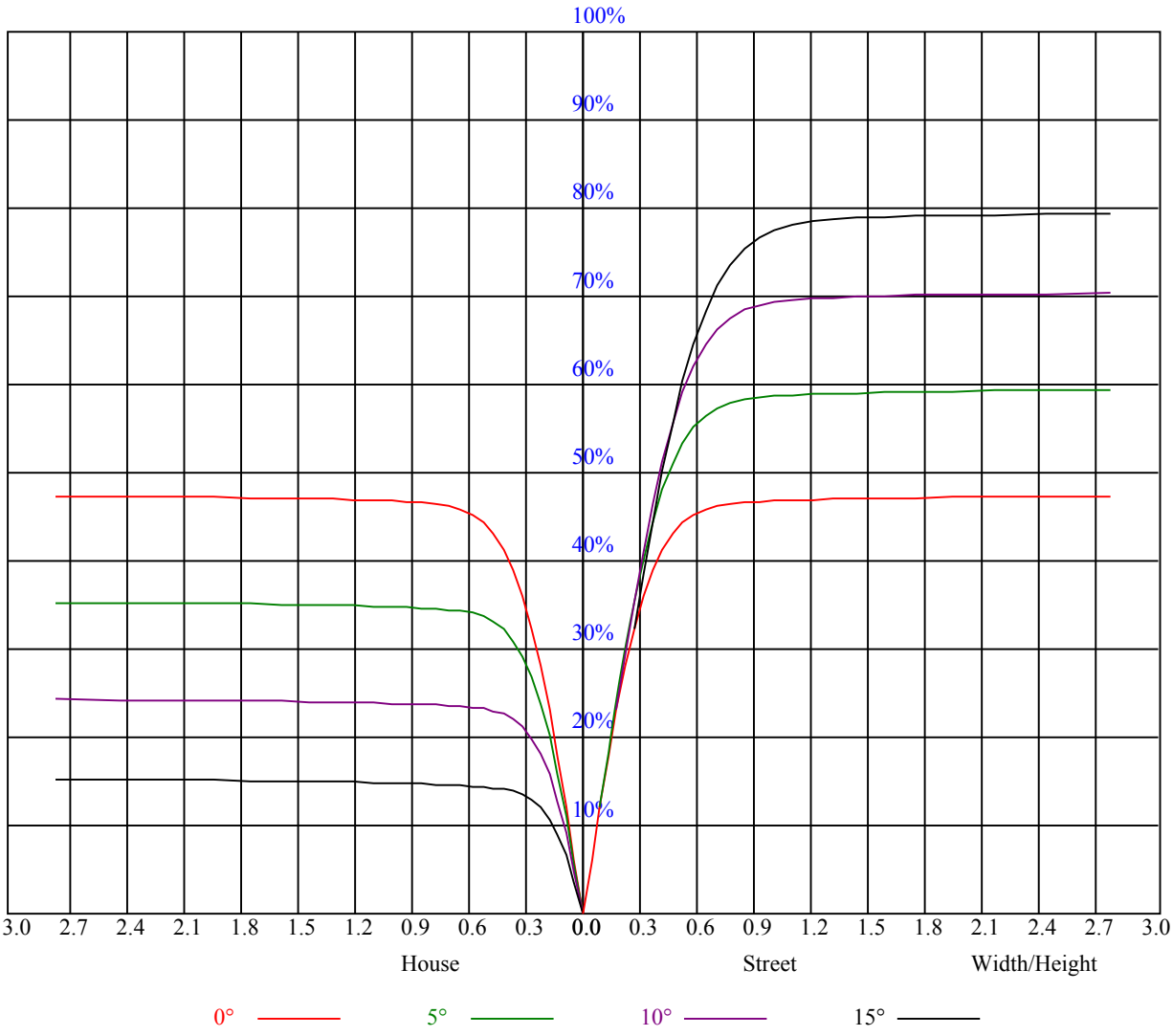


Equipment: GMS1980 Date: 2023/10/10 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.44

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	1.13	1.13	1.13	1.11	1.11	1.11	1.06	1.06	1.06	1.01	1.01	1.01	0.97	0.97	0.97	0.95
1	1.06	1.04	1.02	1.04	1.02	1.01	1.00	0.99	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.90
2	1.00	0.97	0.94	0.99	0.95	0.93	0.95	0.93	0.91	0.93	0.91	0.89	0.90	0.88	0.87	0.86
3	0.95	0.91	0.87	0.93	0.90	0.87	0.91	0.88	0.85	0.89	0.86	0.84	0.87	0.85	0.83	0.81
4	0.90	0.85	0.82	0.89	0.85	0.81	0.87	0.83	0.81	0.85	0.82	0.80	0.83	0.81	0.79	0.77
5	0.86	0.81	0.77	0.85	0.80	0.77	0.83	0.79	0.76	0.82	0.78	0.76	0.80	0.77	0.75	0.74
6	0.82	0.77	0.73	0.81	0.76	0.73	0.80	0.76	0.73	0.78	0.75	0.72	0.77	0.74	0.72	0.71
7	0.78	0.73	0.70	0.77	0.73	0.70	0.76	0.72	0.69	0.75	0.72	0.69	0.74	0.71	0.69	0.67
8	0.75	0.70	0.67	0.74	0.70	0.67	0.73	0.69	0.66	0.72	0.69	0.66	0.72	0.68	0.66	0.65
9	0.72	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.63	0.70	0.66	0.63	0.69	0.66	0.63	0.62
10	0.69	0.64	0.61	0.68	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.61	0.66	0.63	0.61	0.60

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2023/10/10	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	4251.10	4210.69	4169.18	4115.48	4024.70	3952.75	3876.36	3787.24	3673.76
45.0	4296.49	4263.28	4228.96	4184.12	4114.93	4055.15	3972.12	3873.04	3791.11
90.0	4267.15	4235.05	4197.41	4135.97	4071.20	3968.24	3889.09	3796.65	3695.35
135.0	4297.60	4274.35	4251.10	4203.50	4137.63	4049.61	3968.80	3855.32	3774.51
180.0	4251.10	4295.38	4280.44	4229.51	4209.03	4126.56	4054.60	3982.08	3896.28
225.0	4296.49	4263.83	4237.26	4192.98	4140.95	4071.76	3980.42	3894.07	3795.54
270.0	4267.15	4290.40	4269.37	4231.73	4215.67	4162.54	4101.65	4012.53	3931.16
315.0	4297.60	4269.92	4240.03	4209.59	4148.14	4080.61	3992.60	3906.80	3825.99
360.0	4251.10	4210.69	4169.18	4115.48	4024.70	3952.75	3876.36	3787.24	3673.76

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	3575.23	3468.40	3353.27	3194.40	3067.64	2921.51	2730.54	2560.05	2349.15
45.0	3709.74	3612.32	3516.56	3371.53	3245.33	3067.09	2912.10	2754.34	2540.12
90.0	3595.71	3465.08	3343.86	3206.58	3081.48	2898.81	2737.73	2566.14	2394.54
135.0	3689.26	3599.59	3491.65	3346.62	3222.08	3083.69	2935.90	2735.52	2566.69
180.0	3778.38	3683.73	3596.27	3483.35	3336.11	3210.45	3082.59	2902.69	2749.36
225.0	3678.74	3571.91	3456.78	3327.80	3198.28	3026.13	2873.90	2717.25	2513.55
270.0	3840.38	3729.67	3630.59	3517.11	3353.82	3228.17	3087.01	2902.69	2746.04
315.0	3737.97	3617.30	3508.81	3363.78	3233.15	3101.96	2922.61	2769.84	2601.01
360.0	3575.23	3468.40	3353.27	3194.40	3067.64	2921.51	2730.54	2560.05	2349.15

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2176.45	1998.21	1819.97	1604.65	1442.46	1082.77	1082.77	991.11	874.37
45.0	2367.42	2197.48	1974.41	1794.51	1622.91	1464.05	1280.83	1142.44	1017.34
90.0	2180.32	1996.00	1812.78	1601.32	1444.67	1085.82	1085.82	996.53	883.44
135.0	2408.93	2198.59	2016.48	1786.21	1614.06	1451.32	1269.76	1134.14	1002.95
180.0	2600.46	2375.17	2210.77	2036.96	1820.52	1647.82	1492.28	1350.02	1177.32
225.0	2344.72	2138.25	1962.23	1796.17	1629.00	1434.71	1088.58	1088.58	1026.64
270.0	2592.71	2411.15	2188.63	2015.37	1841.56	1662.77	1456.30	1315.70	1138.57
315.0	2438.27	2221.84	2041.94	1862.04	1687.12	1480.65	1085.65	1085.65	1052.66
360.0	2176.45	1998.21	1819.97	1604.65	1442.46	1082.77	1082.77	991.11	874.37

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	764.82	661.81	543.13	458.11	380.00	295.70	239.85	182.06	145.08
45.0	901.65	767.15	667.51	551.82	465.47	388.53	305.50	290.55	290.55
90.0	749.16	646.86	551.65	443.88	365.94	299.41	244.39	186.65	148.51
135.0	880.62	740.58	634.85	540.75	457.72	363.06	297.75	283.36	283.36
180.0	1047.23	921.58	808.11	673.60	571.19	478.20	374.69	306.05	290.00
225.0	884.00	772.79	668.23	569.98	458.22	377.90	309.09	239.07	192.69
270.0	1023.43	876.75	770.47	667.51	564.55	474.32	373.03	307.71	292.77
315.0	902.04	788.24	655.50	556.19	468.01	372.47	306.77	249.26	190.91
360.0	764.82	661.81	543.13	458.11	380.00	295.70	239.85	182.06	145.08

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	114.91	91.61	69.75	57.24	47.66	38.91	33.99	30.39	27.51
45.0	158.09	118.18	93.44	73.90	58.95	45.83	38.53	33.49	29.89
90.0	117.90	93.66	74.67	56.74	46.44	37.47	32.71	29.23	26.07
135.0	144.64	114.42	90.72	68.58	55.69	44.23	38.03	33.49	30.11
180.0	222.19	145.30	115.02	86.24	69.19	56.18	46.61	38.03	33.38
225.0	154.88	116.63	92.94	73.73	56.07	46.05	38.97	32.94	29.45
270.0	292.77	146.74	115.86	93.10	73.79	57.29	47.38	38.30	33.49
315.0	153.55	123.11	98.36	79.10	60.50	49.54	41.63	34.87	31.11
360.0	114.91	91.61	69.75	57.24	47.66	38.91	33.99	30.39	27.51

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	25.35	23.08	21.53	19.98	18.88	17.99	16.99	16.33	15.78
45.0	26.51	24.47	22.75	20.87	19.65	18.38	17.44	16.72	15.89
90.0	24.08	22.42	20.65	19.48	18.49	17.55	16.61	16.00	15.44
135.0	26.96	24.96	23.25	21.70	20.09	19.10	18.16	17.10	16.44
180.0	29.89	27.29	24.69	22.97	21.48	19.87	18.82	17.77	16.99
225.0	26.74	24.58	22.42	20.92	19.65	18.60	17.38	16.61	15.83
270.0	29.72	26.57	24.41	22.64	21.15	19.54	18.54	17.60	16.83
315.0	28.23	25.41	23.64	21.64	20.37	19.26	18.32	17.21	16.61
360.0	25.35	23.08	21.53	19.98	18.88	17.99	16.99	16.33	15.78

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	15.17	14.72	14.39	14.00	13.56	13.28	13.12	12.84	12.57
45.0	15.33	14.89	14.45	13.95	13.62	13.34	13.12	12.79	12.51
90.0	14.95	14.39	14.00	13.67	13.28	13.06	12.79	12.57	12.34
135.0	15.89	15.22	14.78	14.39	14.00	13.67	13.40	13.12	12.84
180.0	16.27	15.61	15.11	14.72	14.34	13.89	13.56	13.28	13.06
225.0	15.28	14.78	14.23	13.89	13.62	13.28	13.01	12.79	12.51
270.0	16.00	15.44	15.00	14.45	14.12	13.78	13.40	13.17	12.90
315.0	16.00	15.44	14.89	14.50	14.17	13.84	13.51	13.28	12.95
360.0	15.17	14.72	14.39	14.00	13.56	13.28	13.12	12.84	12.57

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	12.34	12.12	11.85	11.68	11.40	11.24	11.02	10.85	10.63
45.0	12.34	12.07	11.90	11.73	11.46	11.35	11.13	10.85	10.74
90.0	12.12	11.90	11.68	11.51	11.35	11.07	10.90	10.74	10.52
135.0	12.62	12.40	12.18	11.96	11.73	11.57	11.29	11.07	10.85
180.0	12.73	12.45	12.29	12.01	11.79	11.57	11.35	11.18	10.96
225.0	12.29	12.07	11.90	11.68	11.40	11.24	11.02	10.79	10.68
270.0	12.62	12.34	12.18	11.96	11.68	11.51	11.35	11.13	10.90
315.0	12.68	12.45	12.23	12.01	11.73	11.57	11.29	11.13	10.90
360.0	12.34	12.12	11.85	11.68	11.40	11.24	11.02	10.85	10.63

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	10.41	10.30	10.13	9.96	9.85	9.69	9.47	9.30	9.08
45.0	10.52	10.35	10.19	10.07	9.96	9.80	9.58	9.41	9.19
90.0	10.35	10.24	10.07	9.91	9.74	9.52	9.41	9.24	9.02
135.0	10.68	10.52	10.30	10.19	10.07	9.80	9.63	9.47	9.30
180.0	10.74	10.57	10.41	10.30	10.07	9.96	9.80	9.58	9.41
225.0	10.52	10.30	10.13	10.02	9.91	9.69	9.58	9.35	9.19
270.0	10.74	10.52	10.41	10.24	10.07	9.96	9.74	9.58	9.41
315.0	10.74	10.52	10.35	10.24	10.07	9.91	9.69	9.52	9.35
360.0	10.41	10.30	10.13	9.96	9.85	9.69	9.47	9.30	9.08

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	8.91	8.80	8.58	8.47	8.36	8.25	8.08	8.03	7.92
45.0	9.02	8.86	8.69	8.52	8.41	8.25	8.19	8.08	7.92
90.0	8.86	8.69	8.58	8.41	8.30	8.19	8.08	8.03	7.97
135.0	9.13	8.91	8.75	8.52	8.36	8.25	8.14	8.03	7.92
180.0	9.30	9.08	8.86	8.75	8.52	8.36	8.30	8.19	8.08
225.0	9.02	8.86	8.69	8.52	8.41	8.30	8.19	8.08	7.97
270.0	9.24	9.02	8.86	8.69	8.52	8.36	8.30	8.14	8.03
315.0	9.13	8.97	8.80	8.64	8.47	8.36	8.25	8.08	8.03
360.0	8.91	8.80	8.58	8.47	8.36	8.25	8.08	8.03	7.92

Intensity data(cd)

C/γ(°)	90.0
0.0	7.97
45.0	7.97
90.0	7.97
135.0	7.92
180.0	7.97
225.0	7.92
270.0	7.92
315.0	7.92
360.0	7.97