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: 2-2639-L
Luminaire: 92.70.411.00
Report No: 20231019-B017
Ballast type: AC

Test No: 20231019-C017	Voltage(V): 34.180
LampCAT: NICHIA NFCWJ120B-V3	Current(A): 0.577
Lamp flux(lm): 2611.4	Power (W): 19.721
Number of Lamps: 1	PF: 0.000
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 2469.79, Efficiency(%): 94.58% , Luminous Efficacy(lm/W): 125.24
Central intensity(cd): 9918.396, Maximum intensity(cd): 9918.396
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=21.2
[C90/270]Total=21.2
Field angle(10%Imax): [C0/180]Total=55.8
[C90/270]Total=55.8
Beam angle of C0 plane : 21.29
Aveage BeamAngle(IEC 61341):21.29
Maximum s/h(1/2): C0_180=0.36 C90_270=0.36
Maximum s/h(1/4): C0_180=0.40 C90_270=0.40
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 94.58%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.913%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	9918.396	0.000	0	0.00%	0.00%
1.0	9845.330	9.457	9.457	0.36%	0.38%
2.0	9659.895	27.996	37.452	1.07%	1.52%
3.0	9375.724	45.527	82.979	1.74%	3.36%
4.0	8927.982	61.268	144.248	2.35%	5.84%
5.0	8373.685	74.431	218.678	2.85%	8.85%
6.0	7808.732	85.043	303.721	3.26%	12.30%
7.0	7204.133	93.185	396.906	3.57%	16.07%
8.0	6541.688	98.376	495.282	3.77%	20.05%
9.0	5859.317	100.503	595.786	3.85%	24.12%
10.0	5309.448	101.073	696.859	3.87%	28.22%
11.0	4767.467	100.689	797.548	3.86%	32.29%
12.0	4297.654	99.095	896.643	3.79%	36.30%
13.0	3780.651	95.869	992.512	3.67%	40.19%
14.0	3393.591	91.830	1084.341	3.52%	43.90%
15.0	3046.109	88.407	1172.749	3.39%	47.48%
16.0	2723.605	84.542	1257.291	3.24%	50.91%
17.0	2437.496	80.372	1337.663	3.08%	54.16%
18.0	2204.042	76.529	1414.192	2.93%	57.26%
19.0	2004.561	73.221	1487.413	2.80%	60.22%
20.0	1838.639	70.341	1557.754	2.69%	63.07%
21.0	1684.894	67.659	1625.413	2.59%	65.81%
22.0	1556.820	65.144	1690.557	2.49%	68.45%
23.0	1445.698	63.001	1753.558	2.41%	71.00%
24.0	1317.519	60.414	1813.972	2.31%	73.45%
25.0	1241.754	58.192	1872.164	2.23%	75.80%
26.0	1136.022	56.128	1928.292	2.15%	78.08%
27.0	1067.079	53.899	1982.191	2.06%	80.26%
28.0	980.790	51.848	2034.039	1.99%	82.36%
29.0	879.520	48.671	2082.71	1.86%	84.33%
30.0	775.379	44.682	2127.392	1.71%	86.14%
31.0	681.029	40.530	2167.921	1.55%	87.78%
32.0	585.613	36.288	2204.209	1.39%	89.25%
33.0	491.063	31.719	2235.929	1.21%	90.53%
34.0	400.795	26.990	2262.919	1.03%	91.62%
35.0	319.805	22.379	2285.298	0.86%	92.53%
36.0	267.130	18.688	2303.986	0.72%	93.29%
37.0	204.400	15.379	2319.365	0.59%	93.91%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	159.287	12.139	2331.504	0.46%	94.40%
39.0	104.120	8.991	2340.495	0.34%	94.76%
40.0	84.400	6.575	2347.07	0.25%	95.03%
41.0	72.735	5.596	2352.665	0.21%	95.26%
42.0	64.563	4.988	2357.654	0.19%	95.46%
43.0	58.405	4.555	2362.209	0.17%	95.64%
44.0	53.478	4.223	2366.431	0.16%	95.81%
45.0	49.535	3.959	2370.39	0.15%	95.98%
46.0	45.819	3.729	2374.119	0.14%	96.13%
47.0	42.941	3.530	2377.65	0.14%	96.27%
48.0	40.768	3.384	2381.034	0.13%	96.41%
49.0	38.851	3.270	2384.303	0.13%	96.54%
50.0	37.246	3.173	2387.476	0.12%	96.67%
51.0	35.869	3.093	2390.569	0.12%	96.79%
52.0	34.900	3.037	2393.606	0.12%	96.92%
53.0	34.125	3.003	2396.609	0.11%	97.04%
54.0	33.690	2.989	2399.598	0.11%	97.16%
55.0	33.551	3.002	2402.599	0.11%	97.28%
56.0	33.676	3.038	2405.637	0.12%	97.40%
57.0	33.904	3.090	2408.727	0.12%	97.53%
58.0	34.105	3.145	2411.872	0.12%	97.65%
59.0	34.036	3.186	2415.058	0.12%	97.78%
60.0	33.406	3.186	2418.244	0.12%	97.91%
61.0	32.015	3.122	2421.366	0.12%	98.04%
62.0	29.905	2.984	2424.349	0.11%	98.16%
63.0	27.179	2.776	2427.126	0.11%	98.27%
64.0	24.605	2.541	2429.667	0.10%	98.38%
65.0	22.211	2.317	2431.983	0.09%	98.47%
66.0	20.384	2.125	2434.109	0.08%	98.56%
67.0	19.145	1.988	2436.096	0.08%	98.64%
68.0	18.246	1.894	2437.99	0.07%	98.71%
69.0	17.630	1.830	2439.821	0.07%	98.79%
70.0	17.070	1.782	2441.603	0.07%	98.86%
71.0	16.537	1.737	2443.34	0.07%	98.93%
72.0	16.066	1.695	2445.035	0.06%	99.00%
73.0	15.617	1.657	2446.692	0.06%	99.06%
74.0	15.229	1.622	2448.313	0.06%	99.13%
75.0	14.800	1.587	2449.9	0.06%	99.19%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	14.427	1.551	2451.452	0.06%	99.26%
77.0	14.060	1.519	2452.97	0.06%	99.32%
78.0	13.748	1.489	2454.459	0.06%	99.38%
79.0	13.382	1.458	2455.917	0.06%	99.44%
80.0	13.015	1.423	2457.34	0.05%	99.50%
81.0	12.662	1.389	2458.728	0.05%	99.55%
82.0	12.302	1.354	2460.082	0.05%	99.61%
83.0	11.929	1.317	2461.399	0.05%	99.66%
84.0	11.603	1.282	2462.681	0.05%	99.71%
85.0	11.334	1.252	2463.933	0.05%	99.76%
86.0	11.050	1.224	2465.157	0.05%	99.81%
87.0	10.815	1.197	2466.353	0.05%	99.86%
88.0	10.545	1.170	2467.523	0.04%	99.91%
89.0	10.317	1.143	2468.667	0.04%	99.95%
90.0	10.213	1.126	2469.792	0.04%	100.00%

Zonal flux distribution table

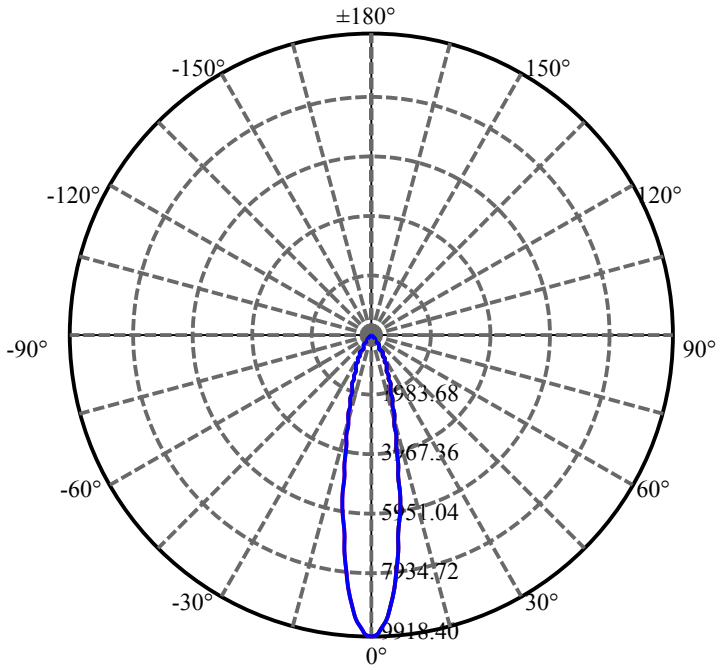
ZONAL LUMEN SUMMARY

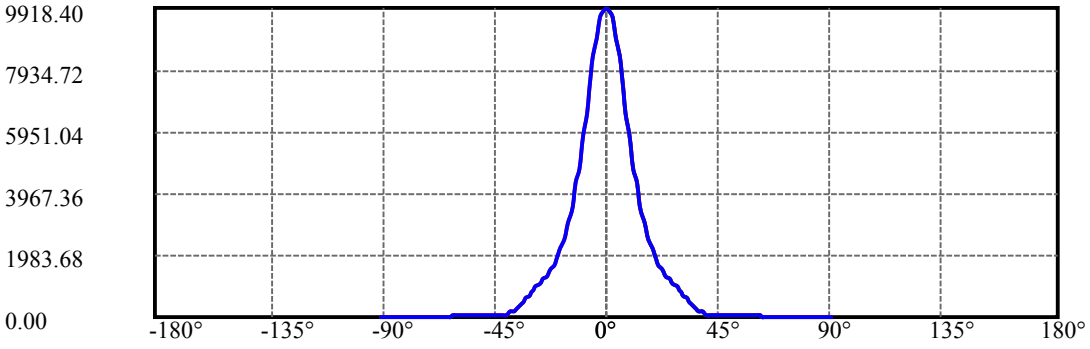
Zone	Lumens	%Lamp	%Fixt
0-30	2127.39	81.47%	86.14%
0-40	2347.07	89.88%	95.03%
0-60	2418.24	92.60%	97.91%
0-90	2468.67	94.53%	99.95%
0-120	2468.67	94.53%	99.95%
0-180	2469.79	94.58%	100.00%
60-90	50.42	1.93%	2.04%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-26.88	1975.83	75.66%	80.00%

ZONAL LUMEN SUMMARY

0-10	696.86
10-20	860.90
20-30	569.64
30-40	219.68
40-50	40.41
50-60	30.77
60-70	23.36
70-80	15.74
80-90	11.33
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):

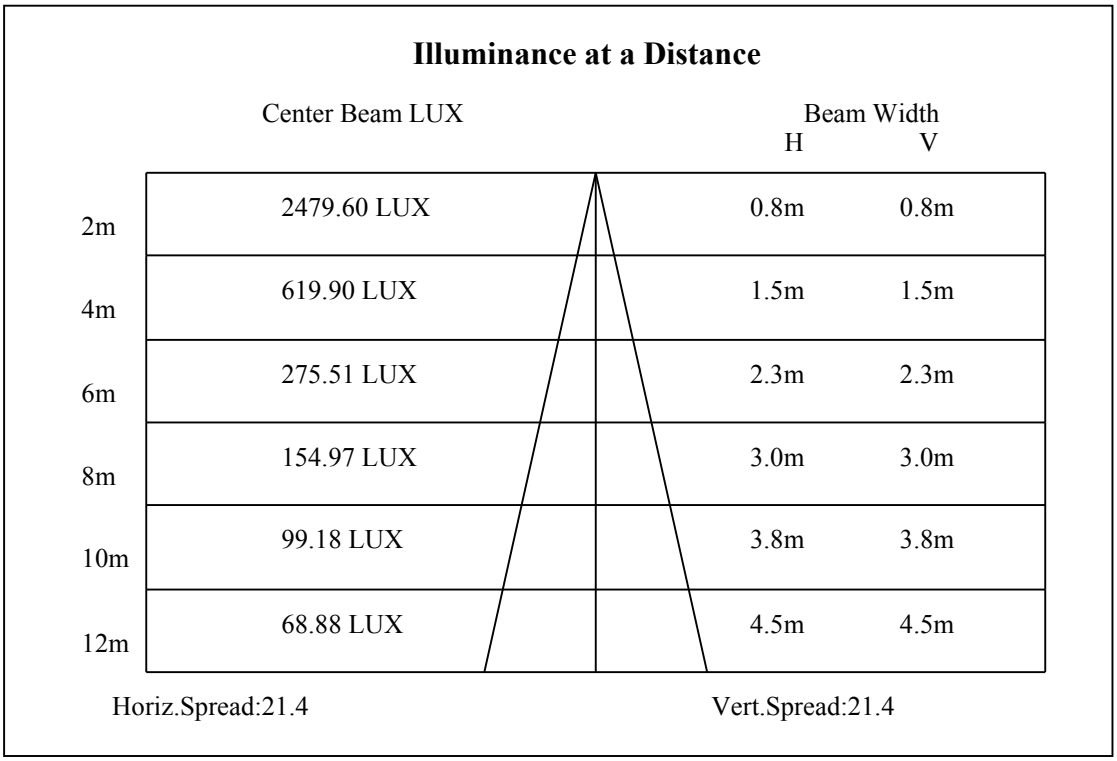
C0/C180:

C90/C270:

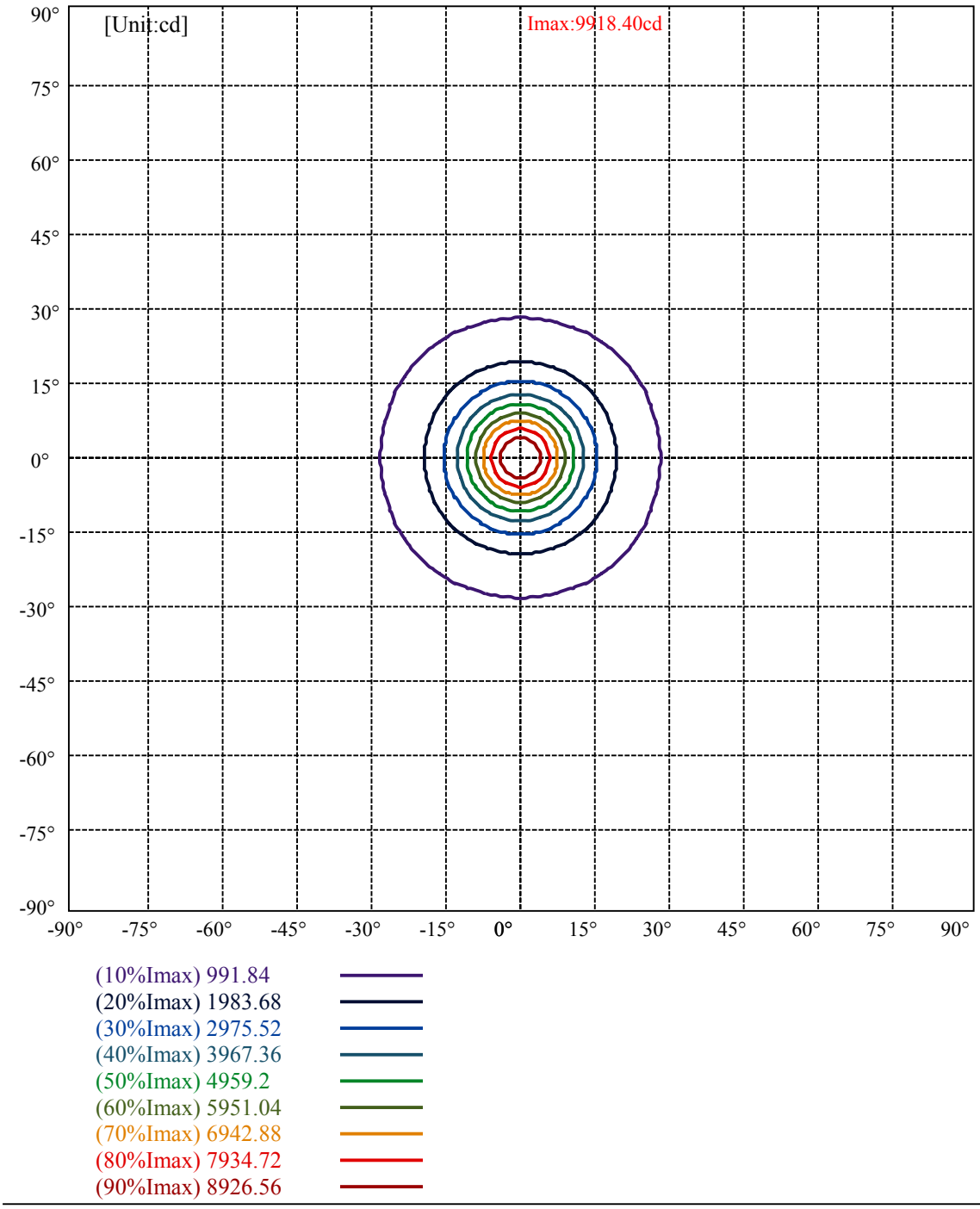
Field angle(10%Imax):C0/180Left:27.9 Right:27.9
:C90/270Left:27.9 Right:27.9

Beam Angle(50%Imax):C0/180Left:10.6 Right:10.6
:C90/270Left:10.6 Right:10.6

Lux distance Curve



ISO-Intensity(V-H)

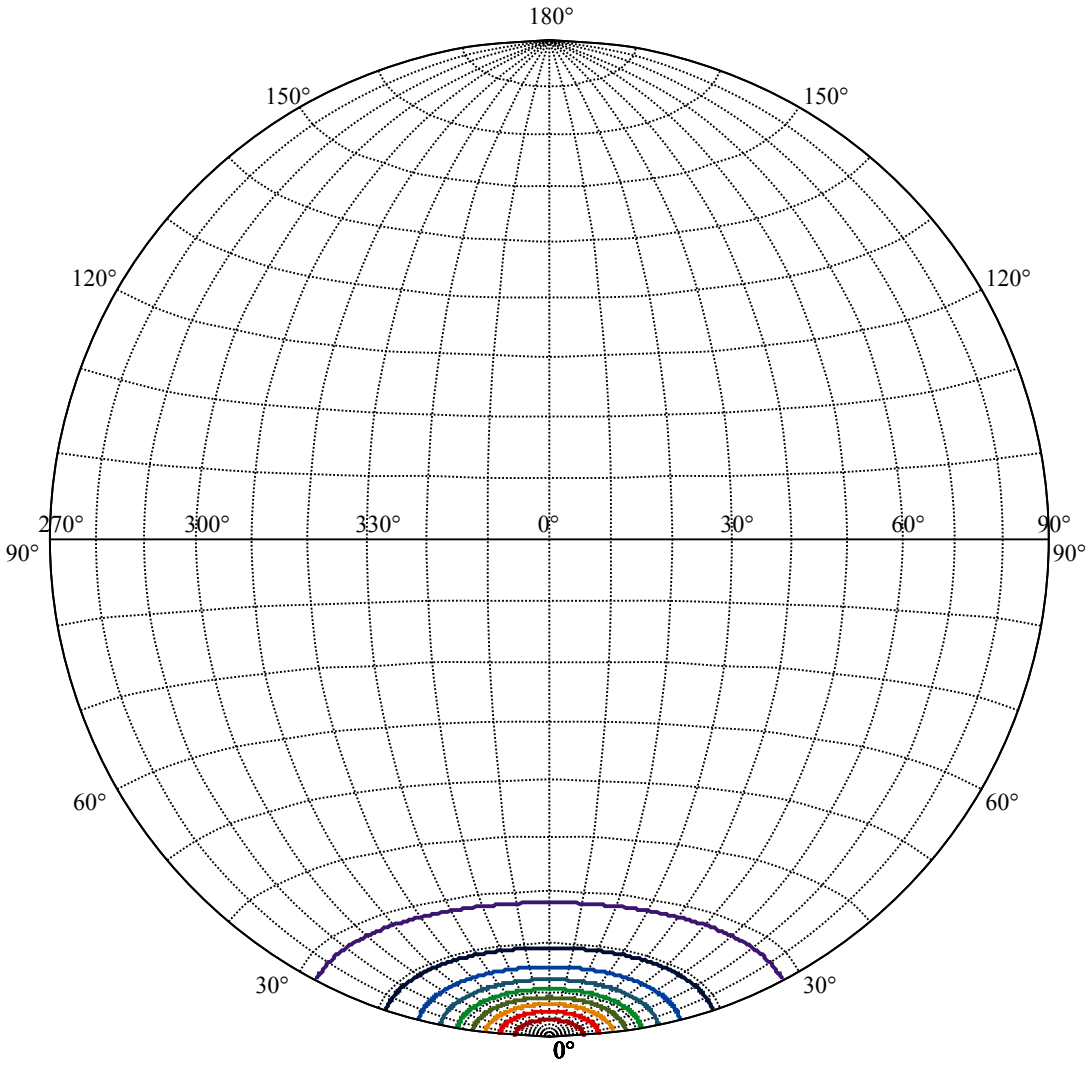


Equipment: GMS1980
Temperature(°C): 0.0

Date: 2023/10/19
Humidity(%): 0.0%

Operator: NT07
Distance(m): 7.44

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:9918.40

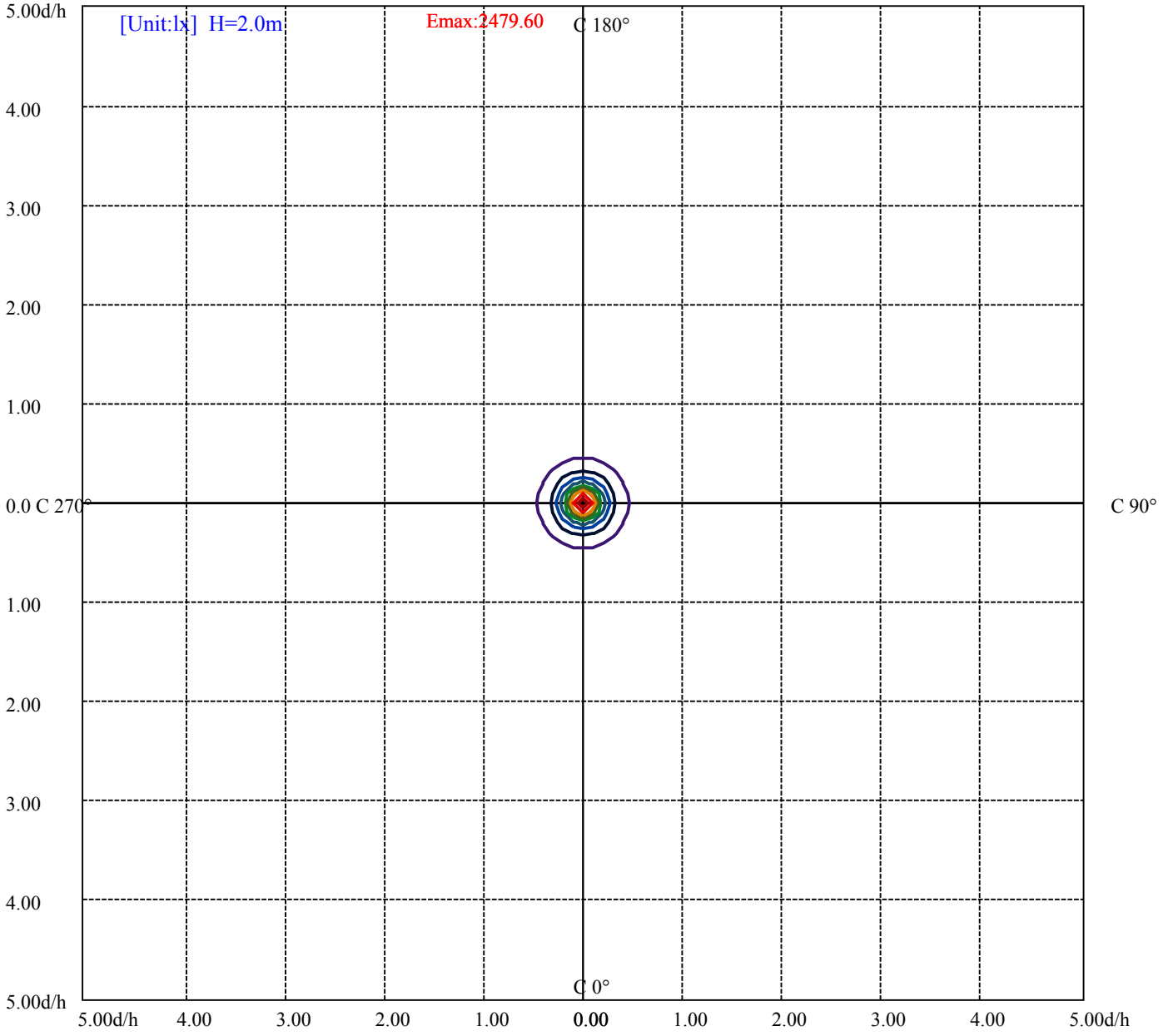
(10%Imax) 991.84
(20%Imax) 1983.68
(30%Imax) 2975.52
(40%Imax) 3967.36
(50%Imax) 4959.2
(60%Imax) 5951.04
(70%Imax) 6942.88
(80%Imax) 7934.72
(90%Imax) 8926.56

Equipment: GMS1980
Temperature(°C): 0.0

Date: 2023/10/19
Humidity(%): 0.0%

Operator: NT07
Distance(m): 7.44

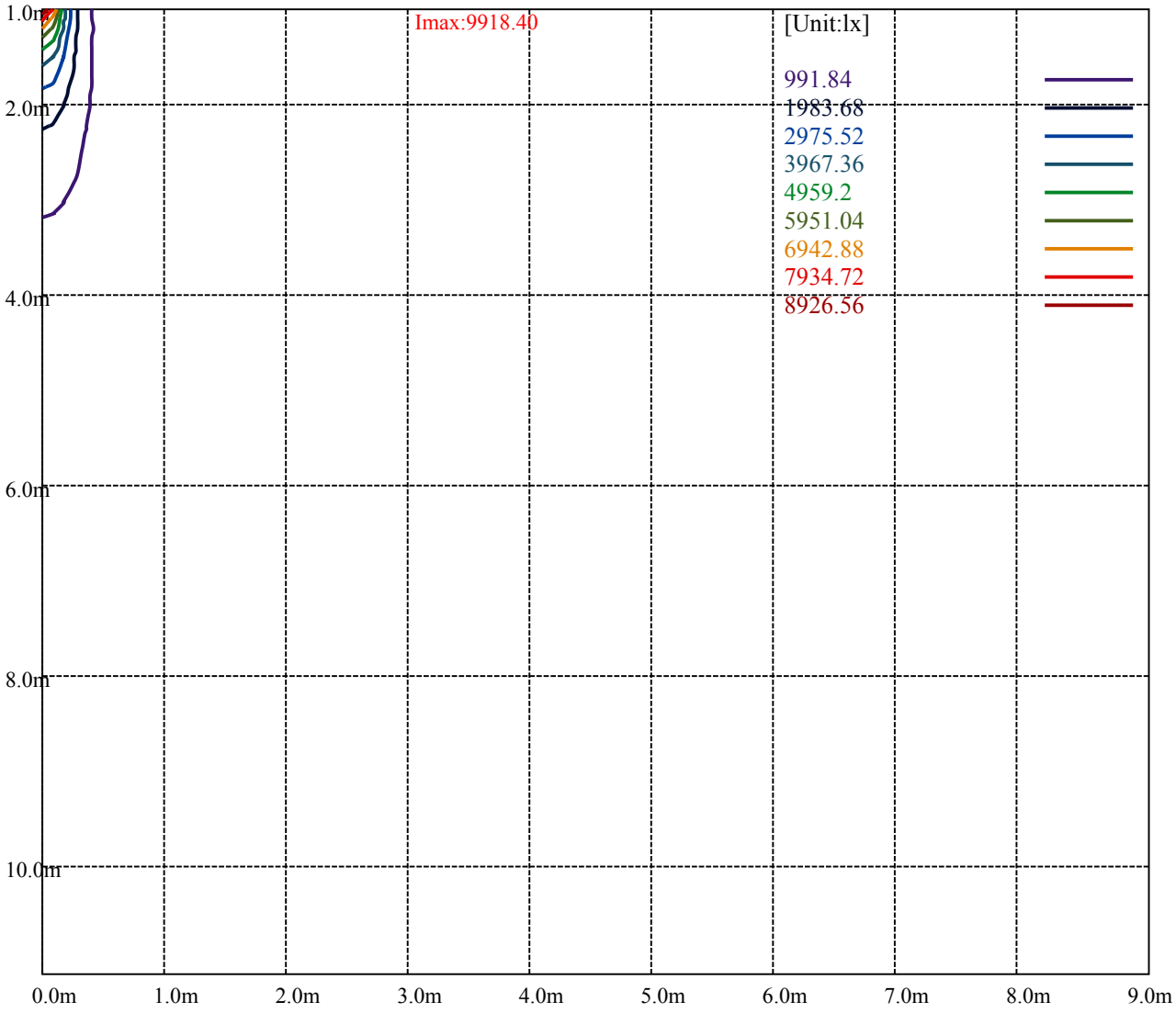
ISO illuminance diagram



(10%Emax) 247.9597
(20%Emax) 495.92
(30%Emax) 743.88
(40%Emax) 991.8375
(50%Emax) 1239.797
(60%Emax) 1487.757
(70%Emax) 1735.718
(80%Emax) 1983.677
(90%Emax) 2231.637

Equipment: GMS1980
Temperature(°C): 0.0
Date: 2023/10/19
Humidity(%): 0.0%
Operator: NT07
Distance(m): 7.44

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 0.0

Date: 2023/10/19
Humidity(%): 0.0%

Operator: NT07
Distance(m): 7.44

Luminance Limitting Curve(no luminous side)

Luminance Table

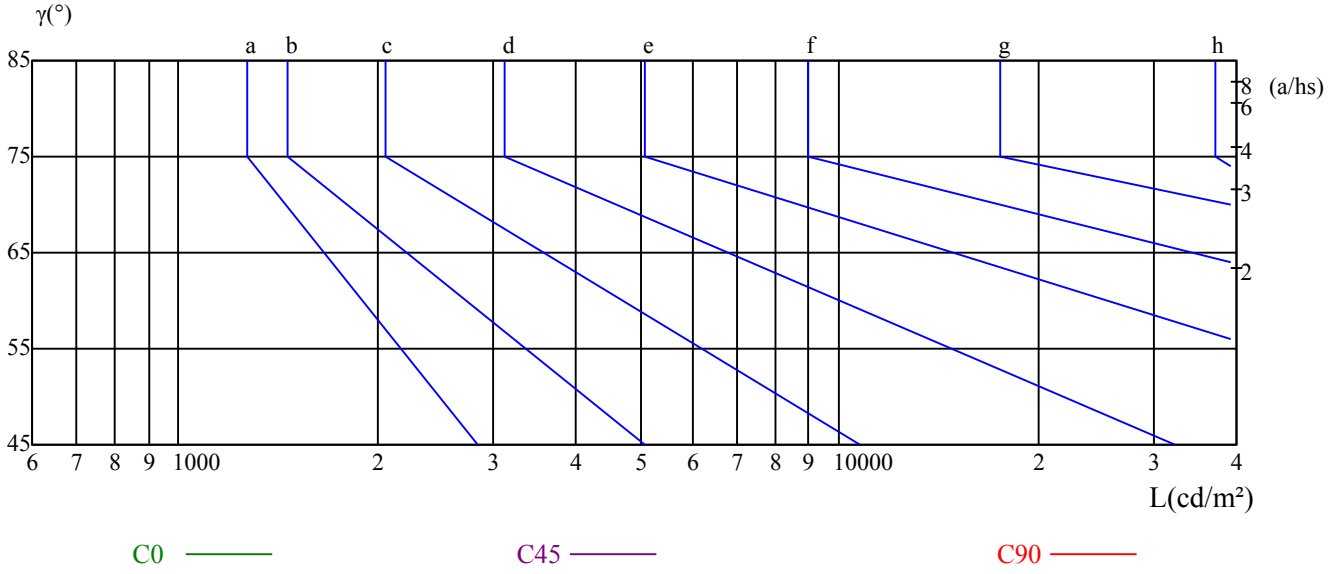
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

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

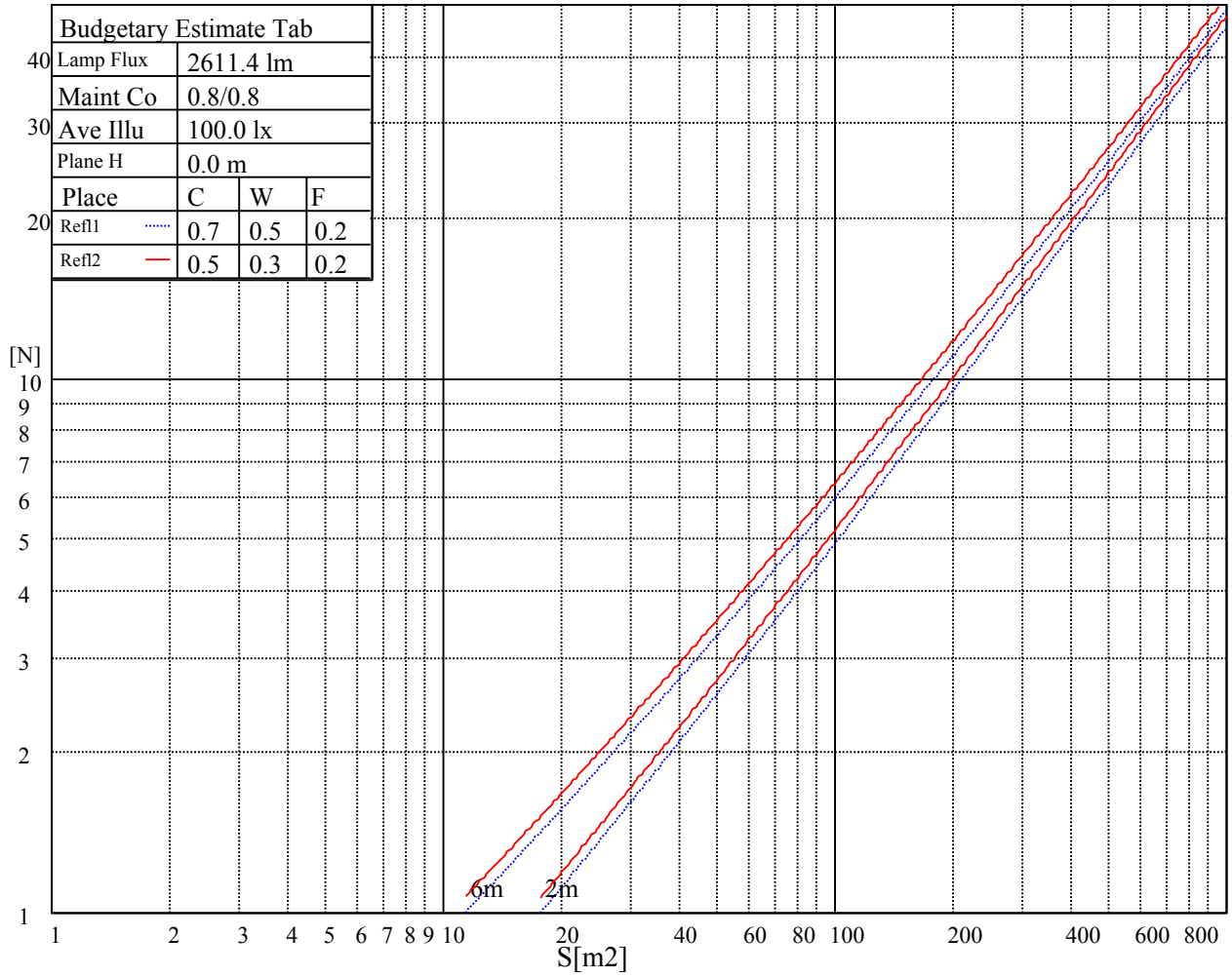


UGR Glare

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

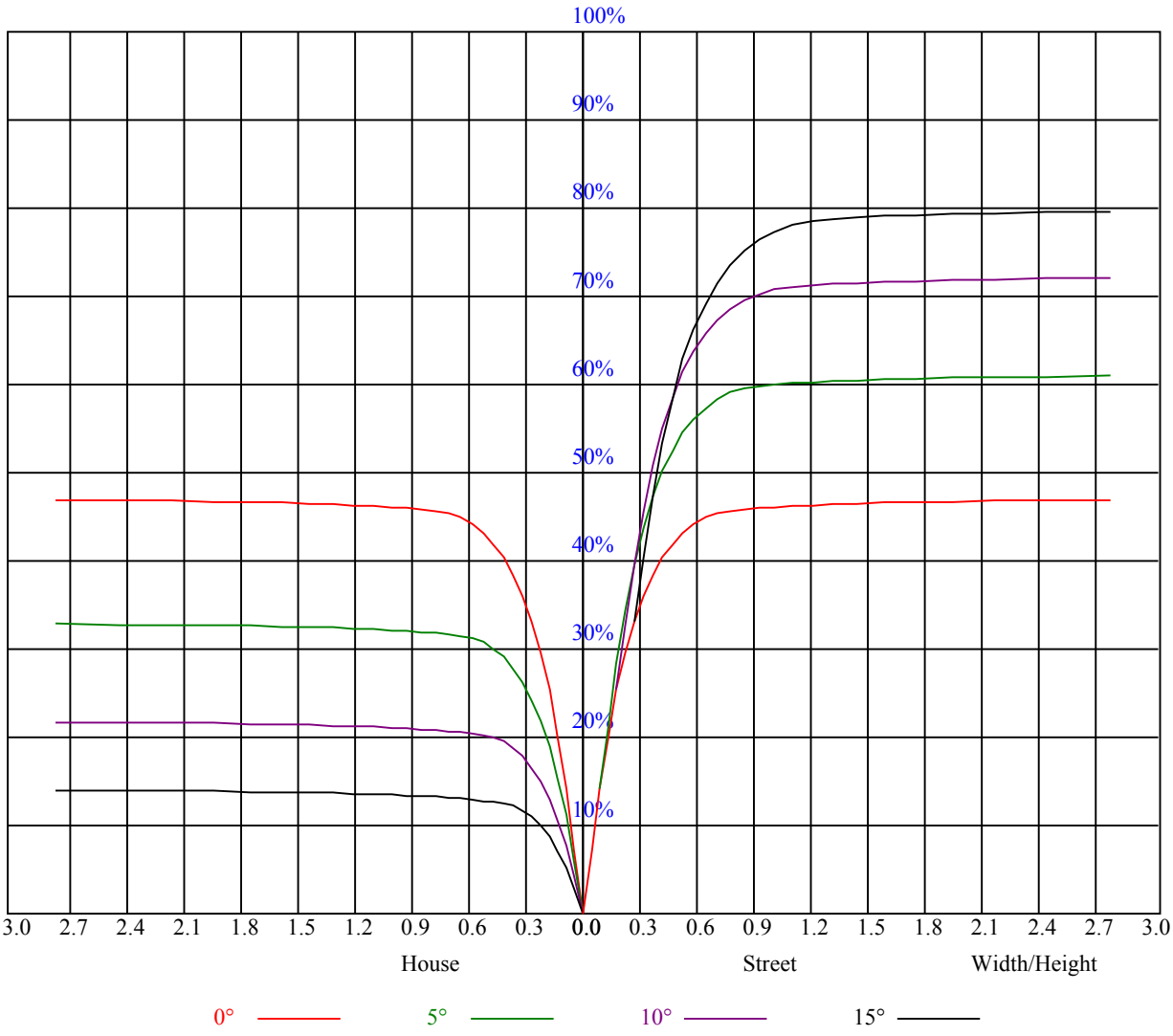


Equipment: GMS1980 Date: 2023/10/19 Operator: NT07
Temperature(°C): 0.0 Humidity(%): 0.0% Distance(m): 7.44

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	1.10	1.10	1.10	1.05	1.05	1.05	1.01	1.01	1.01	0.97	0.97	0.97	0.95
1	1.06	1.03	1.02	1.04	1.02	1.00	1.00	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90
2	1.00	0.96	0.93	0.98	0.95	0.92	0.95	0.93	0.90	0.92	0.90	0.88	0.90	0.88	0.87	0.85
3	0.94	0.90	0.87	0.93	0.89	0.86	0.91	0.88	0.85	0.88	0.86	0.84	0.86	0.84	0.83	0.81
4	0.90	0.85	0.82	0.89	0.85	0.82	0.87	0.83	0.81	0.85	0.82	0.80	0.83	0.81	0.79	0.78
5	0.86	0.81	0.78	0.85	0.81	0.77	0.83	0.80	0.77	0.82	0.79	0.76	0.80	0.78	0.75	0.74
6	0.82	0.77	0.74	0.81	0.77	0.74	0.80	0.76	0.73	0.79	0.75	0.73	0.78	0.75	0.72	0.71
7	0.79	0.74	0.71	0.78	0.74	0.71	0.77	0.73	0.70	0.76	0.72	0.70	0.75	0.72	0.70	0.68
8	0.76	0.71	0.68	0.75	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.66
9	0.73	0.68	0.65	0.72	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.65	0.64
10	0.70	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.63	0.69	0.65	0.63	0.68	0.65	0.62	0.61

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2023/10/19	Operator: NT07
Temperature(°C): 0.0	Humidity(%): 0.0%	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	9900.54	9718.99	9365.83	8948.46	8413.19	7696.92	7099.65	6486.33	5866.93
45.0	9954.24	9874.53	9710.13	9401.81	8873.74	8336.25	7760.02	7159.99	6382.82
90.0	9859.03	9580.05	9238.52	8786.28	8253.22	7524.21	6907.02	6288.72	5692.01
135.0	9959.77	9839.10	9618.24	9285.01	8703.80	8176.28	7600.60	7013.85	6264.37
180.0	9900.54	9961.43	9890.03	9728.95	9456.06	8970.05	8462.46	7919.44	7325.50
225.0	9954.24	9896.12	9743.34	9486.50	9012.67	8528.88	7987.52	7256.30	6637.45
270.0	9859.03	9959.77	9935.42	9836.33	9542.96	9194.23	8629.07	8088.27	7357.60
315.0	9959.77	9932.65	9777.66	9532.44	9168.22	8562.65	8023.50	7420.15	6806.83
360.0	9900.54	9718.99	9365.83	8948.46	8413.19	7696.92	7099.65	6486.33	5866.93

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	5166.15	4669.08	4211.86	3794.49	3328.41	2999.61	2704.58	2380.20	2168.20
45.0	5769.51	5213.76	4592.13	4141.00	3640.05	3280.81	2951.45	2661.40	2343.67
90.0	5006.73	4515.75	3967.75	3580.27	3216.60	2829.12	2551.80	2311.57	2108.42
135.0	5682.60	5145.12	4636.97	4180.30	3659.98	3290.22	2958.10	2602.73	2355.85
180.0	6580.44	5988.15	5430.74	4893.81	4289.35	3851.50	3379.89	3034.48	2720.63
225.0	5885.19	5325.02	4804.14	4330.87	3807.22	3427.49	3090.95	2787.61	2458.25
270.0	6752.03	6165.28	5576.88	5023.89	4401.16	3952.80	3565.33	3225.45	2826.91
315.0	6031.88	5453.44	4919.27	4436.59	3902.43	3517.17	3166.78	2785.39	2518.04
360.0	5166.15	4669.08	4211.86	3794.49	3328.41	2999.61	2704.58	2380.20	2168.20

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1986.09	1797.33	1669.46	1555.99	1425.36	1330.70	1096.06	1096.06	1051.16
45.0	2135.54	1956.20	1804.53	1637.91	1524.99	1423.69	1333.47	1226.64	1141.39
90.0	1894.20	1753.60	1622.41	1507.83	1387.71	1299.70	1086.81	1086.81	1017.18
135.0	2104.54	1936.82	1791.80	1634.59	1520.01	1419.27	1332.36	1231.06	1149.69
180.0	2416.74	2179.82	1990.52	1792.90	1656.73	1548.24	1444.18	1332.91	1255.42
225.0	2230.20	2036.46	1869.29	1696.03	1577.58	1445.84	1353.40	1274.24	1097.16
270.0	2575.05	2332.05	2080.19	1909.70	1767.44	1613.00	1501.19	1379.41	1293.06
315.0	2289.98	2044.21	1880.92	1744.19	1594.74	1485.14	1392.70	1306.90	1083.10
360.0	1986.09	1797.33	1669.46	1555.99	1425.36	1330.70	1096.06	1096.06	1051.16

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	955.40	861.30	767.31	654.94	564.77	478.75	379.01	304.78	221.69
45.0	1025.70	929.94	836.39	723.47	633.25	545.23	461.10	364.23	292.82
90.0	920.64	802.46	710.57	621.12	513.52	430.71	353.60	266.86	205.09
135.0	1058.91	964.26	847.46	756.13	665.90	552.98	467.74	388.03	297.25
180.0	1179.59	1104.86	992.49	899.50	807.06	691.92	597.27	489.33	406.30
225.0	1097.16	1011.86	916.21	799.03	705.09	613.32	524.75	420.63	344.13
270.0	1216.12	1134.20	1024.04	929.39	833.07	740.08	624.39	535.82	451.69
315.0	1083.10	1037.44	941.68	819.45	725.57	631.92	520.66	436.68	339.48
360.0	955.40	861.30	767.31	654.94	564.77	478.75	379.01	304.78	221.69

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	165.01	121.78	88.84	76.72	69.03	62.55	55.96	51.20	47.44
45.0	292.82	213.06	113.42	89.51	77.94	68.42	62.44	57.07	51.37
90.0	152.67	114.75	88.51	78.71	70.80	64.43	57.57	53.03	48.27
135.0	280.09	202.43	117.02	93.38	82.26	72.29	65.70	60.11	55.46
180.0	329.91	294.48	294.48	134.51	101.57	82.86	72.02	64.99	59.45
225.0	274.83	199.22	148.02	109.77	83.09	73.62	65.98	58.79	54.14
270.0	373.08	283.41	283.41	146.24	107.72	84.91	71.96	64.43	59.01
315.0	268.63	206.08	140.60	104.12	82.81	72.79	64.87	57.62	52.70
360.0	165.01	121.78	88.84	76.72	69.03	62.55	55.96	51.20	47.44

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	44.23	41.18	39.13	37.53	35.76	34.65	33.77	33.05	32.60
45.0	47.71	44.67	41.74	39.74	38.03	36.20	35.04	34.15	33.38
90.0	45.33	42.90	40.35	38.58	37.20	35.92	34.65	34.10	33.65
135.0	51.20	47.16	44.56	41.85	39.97	38.30	36.70	35.65	34.93
180.0	54.80	49.60	46.39	43.90	41.29	39.52	37.64	36.48	35.48
225.0	50.10	46.77	43.62	41.57	39.80	38.19	36.64	35.59	34.87
270.0	54.19	48.99	45.78	43.18	41.07	38.91	37.47	36.26	34.93
315.0	48.71	45.28	41.96	39.80	37.70	36.26	35.04	33.93	33.16
360.0	44.23	41.18	39.13	37.53	35.76	34.65	33.77	33.05	32.60

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	32.66	32.99	33.27	33.43	33.43	32.82	31.50	29.50	26.79
45.0	32.94	32.94	33.16	33.49	33.77	33.65	32.71	31.05	28.73
90.0	33.54	33.65	33.93	34.10	33.88	32.94	31.27	28.34	25.85
135.0	34.37	34.32	34.60	34.82	34.93	34.76	34.04	32.38	29.45
180.0	34.76	34.21	34.10	34.10	34.37	34.87	34.93	34.43	32.77
225.0	34.32	34.04	34.10	34.65	34.87	34.82	34.43	33.27	31.44
270.0	34.15	33.65	33.49	33.60	33.99	34.32	34.37	33.99	32.66
315.0	32.77	32.60	32.77	33.05	33.60	34.10	33.99	33.16	31.55
360.0	32.66	32.99	33.27	33.43	33.43	32.82	31.50	29.50	26.79

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	23.75	21.37	20.04	18.71	18.05	17.33	16.83	16.44	15.94
45.0	25.35	22.92	20.92	19.60	18.54	17.93	17.33	16.83	16.33
90.0	23.25	20.98	19.65	18.76	18.05	17.33	16.83	16.38	15.94
135.0	26.74	24.02	21.26	19.82	18.76	18.05	17.44	16.88	16.33
180.0	30.83	28.12	24.58	22.20	20.54	19.10	18.38	17.77	17.05
225.0	28.17	25.41	22.81	21.03	19.37	18.65	17.99	17.33	16.83
270.0	30.94	28.51	25.68	22.47	20.76	19.43	18.65	17.88	17.33
315.0	28.40	25.52	22.75	20.48	19.10	18.16	17.60	17.05	16.55
360.0	23.75	21.37	20.04	18.71	18.05	17.33	16.83	16.44	15.94

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	15.50	15.11	14.78	14.45	14.06	13.73	13.40	13.12	12.73
45.0	15.89	15.44	15.06	14.67	14.39	14.00	13.67	13.34	12.95
90.0	15.44	15.06	14.72	14.28	14.00	13.56	13.23	12.90	12.51
135.0	15.89	15.50	15.11	14.61	14.28	13.95	13.67	13.28	12.95
180.0	16.61	16.11	15.67	15.17	14.78	14.39	14.12	13.67	13.34
225.0	16.38	15.78	15.39	14.95	14.50	14.17	13.84	13.51	13.06
270.0	16.77	16.33	15.89	15.39	15.00	14.61	14.28	13.84	13.51
315.0	16.05	15.61	15.22	14.89	14.39	14.06	13.78	13.40	13.06
360.0	15.50	15.11	14.78	14.45	14.06	13.73	13.40	13.12	12.73

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	12.40	12.01	11.68	11.40	11.13	10.85	10.63	10.41	10.24
45.0	12.62	12.23	11.85	11.57	11.29	11.02	10.79	10.46	10.19
90.0	12.18	11.85	11.57	11.24	11.02	10.79	10.46	10.19	10.19
135.0	12.51	12.18	11.79	11.46	11.24	10.96	10.74	10.41	10.24
180.0	12.95	12.62	12.18	11.85	11.57	11.24	11.02	10.79	10.46
225.0	12.73	12.40	12.01	11.68	11.46	11.18	10.90	10.68	10.35
270.0	13.17	12.73	12.34	11.96	11.62	11.29	11.13	10.85	10.57
315.0	12.73	12.40	12.01	11.68	11.35	11.07	10.85	10.57	10.30
360.0	12.40	12.01	11.68	11.40	11.13	10.85	10.63	10.41	10.24

Intensity data(cd)

C/γ(°)	90.0
0.0	10.24
45.0	10.19
90.0	10.19
135.0	10.19
180.0	10.24
225.0	10.24
270.0	10.30
315.0	10.13
360.0	10.24