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

NT

LumCAT: 2-2687-L
Luminaire: 92.70.412.00
LampCAT: P2141-036-1206-P3090-1
Ballast type: AC

Report No: 2024227-B013	Voltage(V): 35.9800
Test No: 2024227-C013	Current(A): 0.7010
Number of Lamps: 1	Power (W): 25.2210
Lamp flux(lm): 3316.0	PF: 0.0000
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 2753.61, Efficiency(%): 83.04% , Luminous Efficacy(lm/W): 109.18
Central intensity(cd): 10416.330, Maximum intensity(cd): 10416.330
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=23.0
[C90/270]Total=23.0
Field angle(10%Imax): [C0/180]Total=55.6
[C90/270]Total=55.6
Maximum s/h(1/2): C0_180=0.39 C90_270=0.39
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(%): 83.04%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.041%

Equipment: GMS1980	Date: 2024/2/27	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 60.0%	Distance(m): 7.65

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	10416.332	0.000	0	0.00%	0.00%
1.0	10345.739	9.934	9.934	0.30%	0.36%
2.0	10118.233	29.372	39.306	0.89%	1.43%
3.0	9768.049	47.561	86.868	1.43%	3.15%
4.0	9321.376	63.898	150.766	1.93%	5.48%
5.0	8801.038	77.962	228.728	2.35%	8.31%
6.0	8257.583	89.648	318.375	2.70%	11.56%
7.0	7681.576	98.934	417.309	2.98%	15.15%
8.0	7098.765	105.780	523.089	3.19%	19.00%
9.0	6558.309	110.683	633.773	3.34%	23.02%
10.0	5985.740	113.519	747.292	3.42%	27.14%
11.0	5451.503	114.282	861.573	3.45%	31.29%
12.0	4955.963	113.769	975.342	3.43%	35.42%
13.0	4512.216	112.363	1087.705	3.39%	39.50%
14.0	4066.933	109.812	1197.518	3.31%	43.49%
15.0	3691.585	106.512	1304.03	3.21%	47.36%
16.0	3362.908	103.368	1407.398	3.12%	51.11%
17.0	3054.348	99.934	1507.332	3.01%	54.74%
18.0	2786.827	96.308	1603.64	2.90%	58.24%
19.0	2544.983	92.763	1696.403	2.80%	61.61%
20.0	2319.671	89.037	1785.439	2.69%	64.84%
21.0	2113.306	85.122	1870.562	2.57%	67.93%
22.0	1934.739	81.347	1951.909	2.45%	70.89%
23.0	1744.980	77.210	2029.119	2.33%	73.69%
24.0	1556.581	72.184	2101.303	2.18%	76.31%
25.0	1424.467	67.783	2169.086	2.04%	78.77%
26.0	1271.526	63.639	2232.725	1.92%	81.08%
27.0	1134.210	58.857	2291.582	1.77%	83.22%
28.0	1013.098	54.365	2345.947	1.64%	85.20%
29.0	876.462	49.436	2395.383	1.49%	86.99%
30.0	758.569	44.146	2439.529	1.33%	88.59%
31.0	634.691	38.772	2478.301	1.17%	90.00%
32.0	528.224	33.316	2511.617	1.00%	91.21%
33.0	433.388	28.329	2539.947	0.85%	92.24%
34.0	354.449	23.842	2563.789	0.72%	93.11%
35.0	296.453	20.215	2584.004	0.61%	93.84%
36.0	235.846	16.948	2600.952	0.51%	94.46%
37.0	187.821	13.818	2614.77	0.42%	94.96%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	156.672	11.499	2626.269	0.35%	95.38%
39.0	112.590	9.191	2635.459	0.28%	95.71%
40.0	90.425	7.080	2642.54	0.21%	95.97%
41.0	72.846	5.814	2648.354	0.18%	96.18%
42.0	61.419	4.878	2653.232	0.15%	96.35%
43.0	51.983	4.201	2657.432	0.13%	96.51%
44.0	45.245	3.670	2661.102	0.11%	96.64%
45.0	40.256	3.286	2664.388	0.10%	96.76%
46.0	36.547	3.004	2667.392	0.09%	96.87%
47.0	33.504	2.786	2670.178	0.08%	96.97%
48.0	31.068	2.610	2672.788	0.08%	97.06%
49.0	29.086	2.470	2675.258	0.07%	97.15%
50.0	27.513	2.360	2677.618	0.07%	97.24%
51.0	26.299	2.277	2679.895	0.07%	97.32%
52.0	25.340	2.216	2682.111	0.07%	97.40%
53.0	24.660	2.175	2684.286	0.07%	97.48%
54.0	24.184	2.153	2686.439	0.06%	97.56%
55.0	23.921	2.147	2688.586	0.06%	97.64%
56.0	23.789	2.156	2690.742	0.07%	97.72%
57.0	23.826	2.177	2692.919	0.07%	97.80%
58.0	23.958	2.210	2695.129	0.07%	97.88%
59.0	24.206	2.252	2697.38	0.07%	97.96%
60.0	24.382	2.295	2699.676	0.07%	98.04%
61.0	24.375	2.327	2702.002	0.07%	98.13%
62.0	24.199	2.341	2704.343	0.07%	98.21%
63.0	23.687	2.329	2706.672	0.07%	98.30%
64.0	22.860	2.284	2708.956	0.07%	98.38%
65.0	22.004	2.220	2711.176	0.07%	98.46%
66.0	21.163	2.154	2713.33	0.06%	98.54%
67.0	20.322	2.086	2715.416	0.06%	98.61%
68.0	19.671	2.026	2717.442	0.06%	98.69%
69.0	19.393	1.993	2719.435	0.06%	98.76%
70.0	19.247	1.984	2721.419	0.06%	98.83%
71.0	18.815	1.967	2723.387	0.06%	98.90%
72.0	18.471	1.939	2725.325	0.06%	98.97%
73.0	18.376	1.927	2727.252	0.06%	99.04%
74.0	17.966	1.911	2729.163	0.06%	99.11%
75.0	17.498	1.874	2731.037	0.06%	99.18%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	17.059	1.834	2732.871	0.06%	99.25%
77.0	16.562	1.793	2734.664	0.05%	99.31%
78.0	15.918	1.739	2736.402	0.05%	99.38%
79.0	15.062	1.665	2738.067	0.05%	99.44%
80.0	14.279	1.582	2739.649	0.05%	99.49%
81.0	13.775	1.517	2741.166	0.05%	99.55%
82.0	13.475	1.478	2742.644	0.04%	99.60%
83.0	13.190	1.450	2744.093	0.04%	99.65%
84.0	12.955	1.424	2745.517	0.04%	99.71%
85.0	12.670	1.399	2746.916	0.04%	99.76%
86.0	12.451	1.373	2748.289	0.04%	99.81%
87.0	12.282	1.354	2749.643	0.04%	99.86%
88.0	12.092	1.335	2750.978	0.04%	99.90%
89.0	12.012	1.321	2752.299	0.04%	99.95%
90.0	11.924	1.312	2753.611	0.04%	100.00%

Zonal flux distribution table

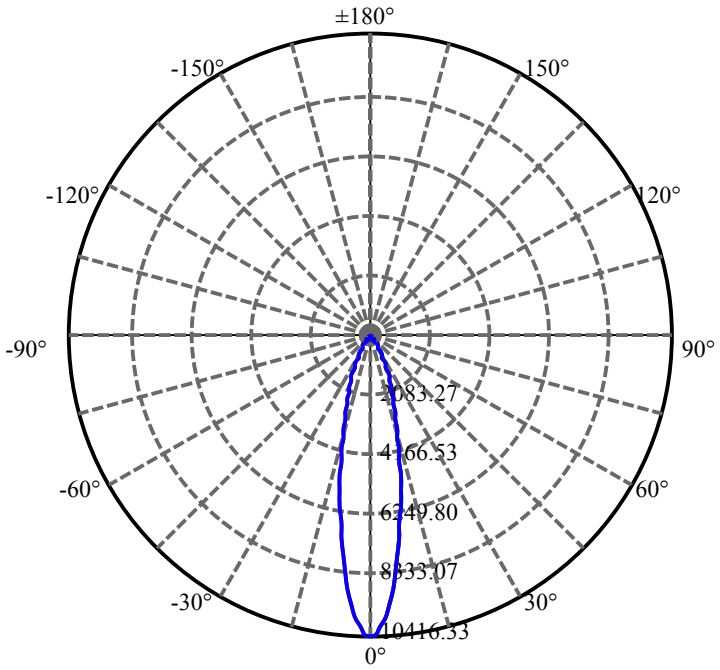
ZONAL LUMEN SUMMARY

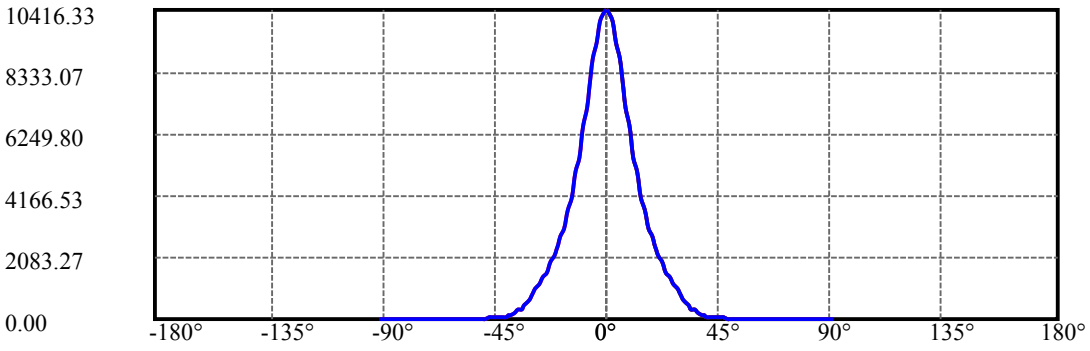
Zone	Lumens	%Lamp	%Fixt
0-30	2439.53	73.57%	88.59%
0-40	2642.54	79.69%	95.97%
0-60	2699.68	81.41%	98.04%
0-90	2752.30	83.00%	99.95%
0-120	2752.30	83.00%	99.95%
0-180	2753.61	83.04%	100.00%
60-90	52.62	1.59%	1.91%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-25.53	2202.89	66.43%	80.00%

ZONAL LUMEN SUMMARY

0-10	747.29
10-20	1038.15
20-30	654.09
30-40	203.01
40-50	35.08
50-60	22.06
60-70	21.74
70-80	18.23
80-90	12.65
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):

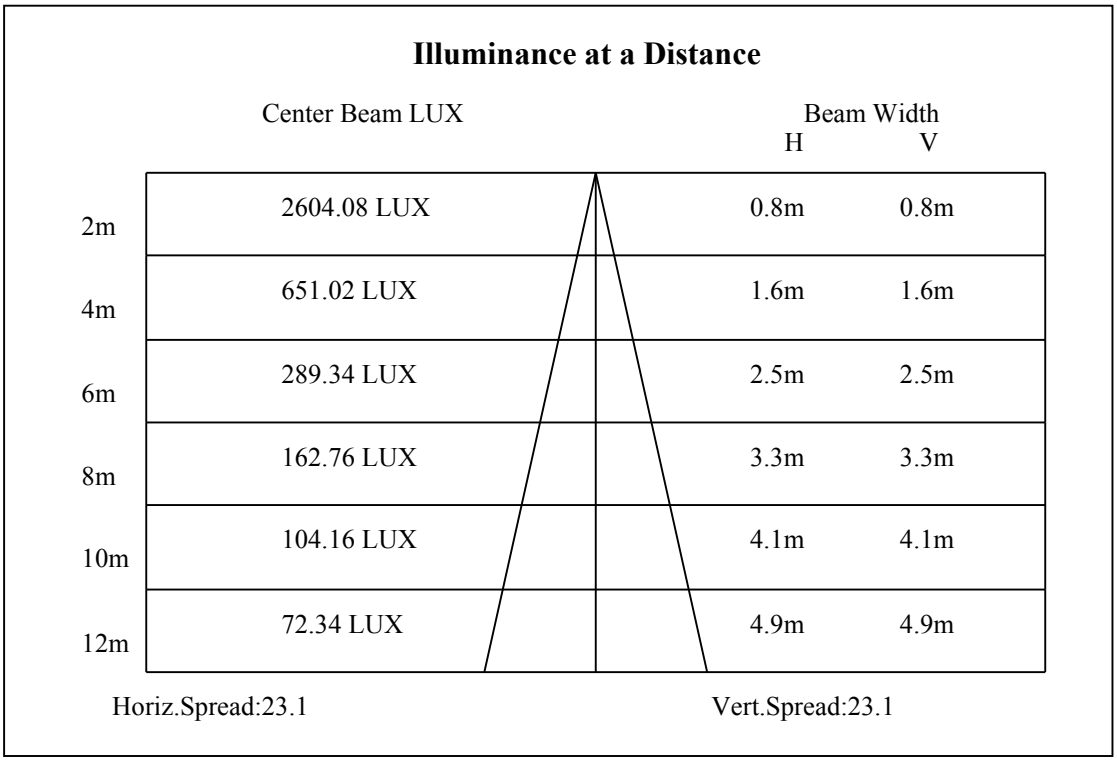
C0/C180:

C90/C270:

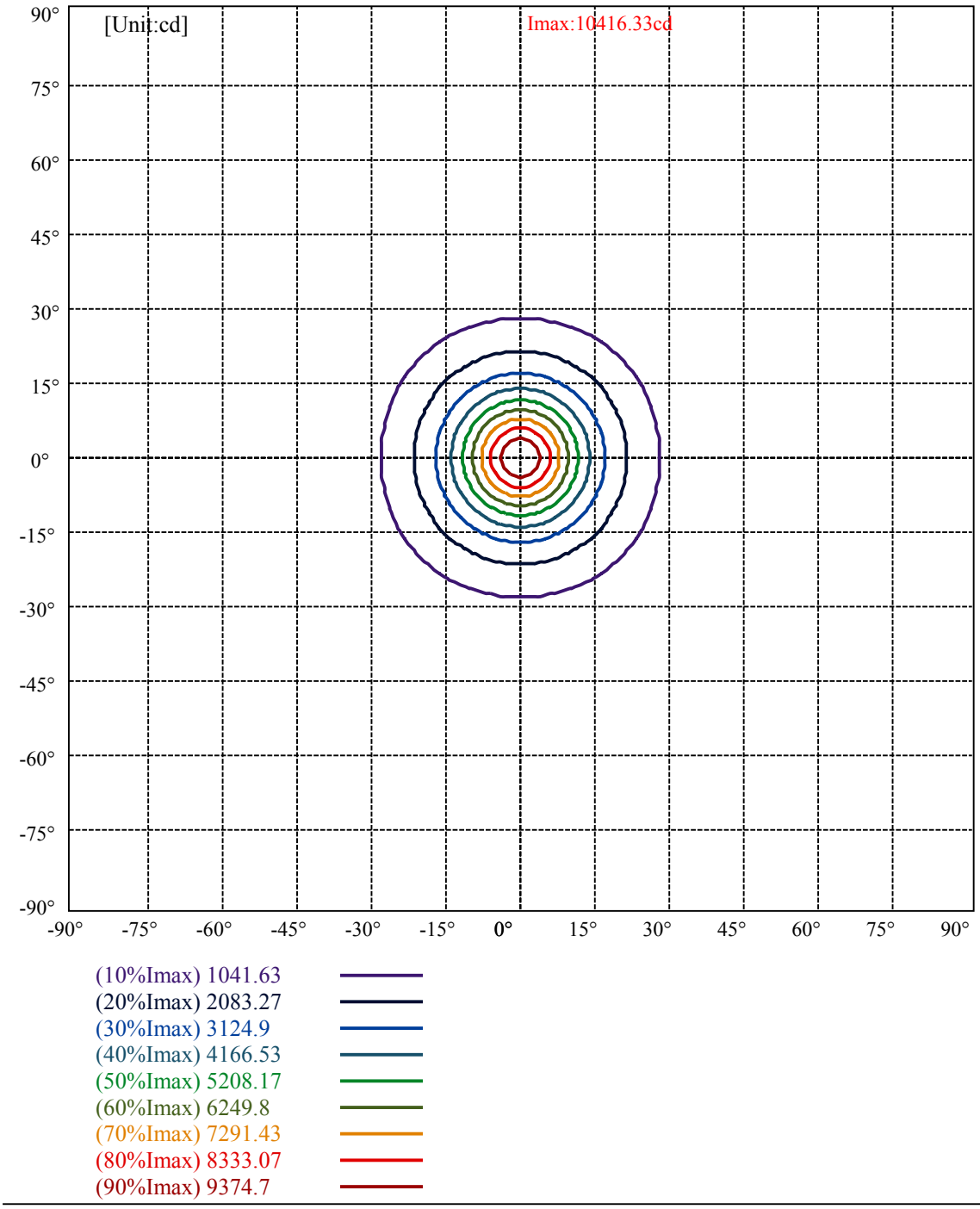
Field angle(10%Imax):C0/180Left:27.8 Right:27.8
:C90/270Left:27.8 Right:27.8

Beam Angle(50%Imax):C0/180Left:11.5 Right:11.5
:C90/270Left:11.5 Right:11.5

Lux distance Curve



ISO-Intensity(V-H)



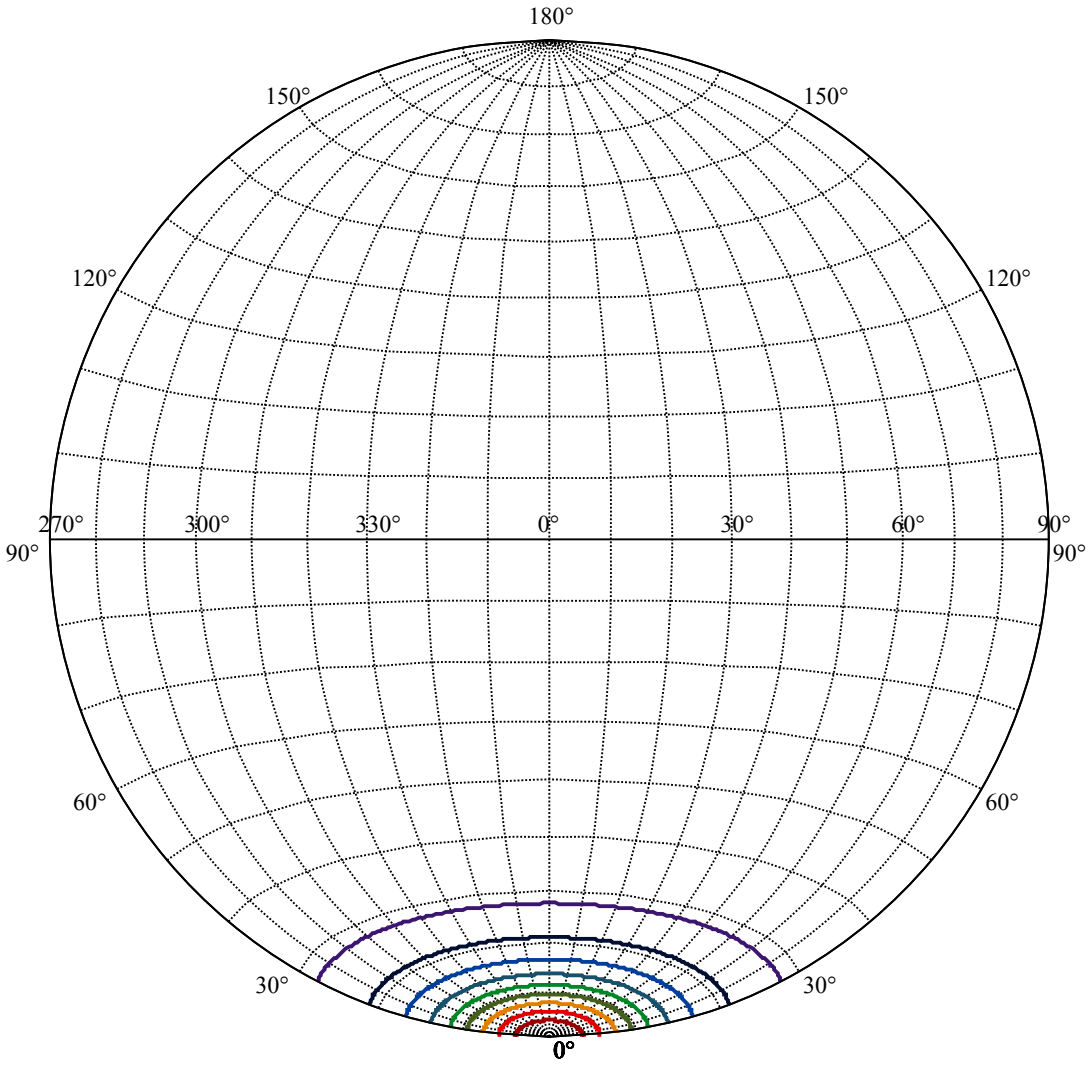
(10%Imax) 1041.63
(20%Imax) 2083.27
(30%Imax) 3124.9
(40%Imax) 4166.53
(50%Imax) 5208.17
(60%Imax) 6249.8
(70%Imax) 7291.43
(80%Imax) 8333.07
(90%Imax) 9374.7

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2024/2/27
Humidity(%): 60.0%

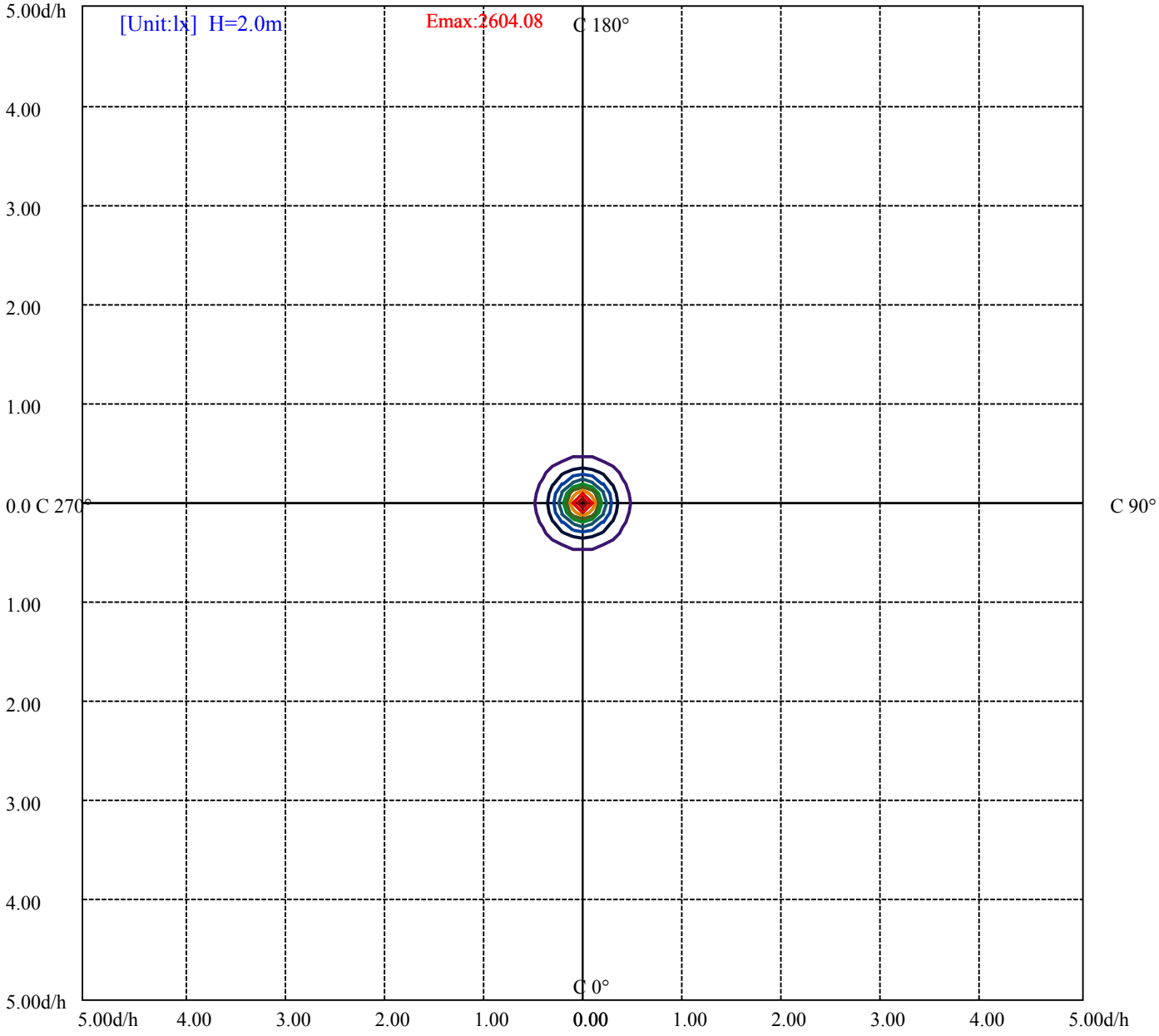
Operator: NT07
Distance(m): 7.65

ISO candela diagram on circular web



Equipment: GMS1980	Date: 2024/2/27	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 60.0%	Distance(m): 7.65

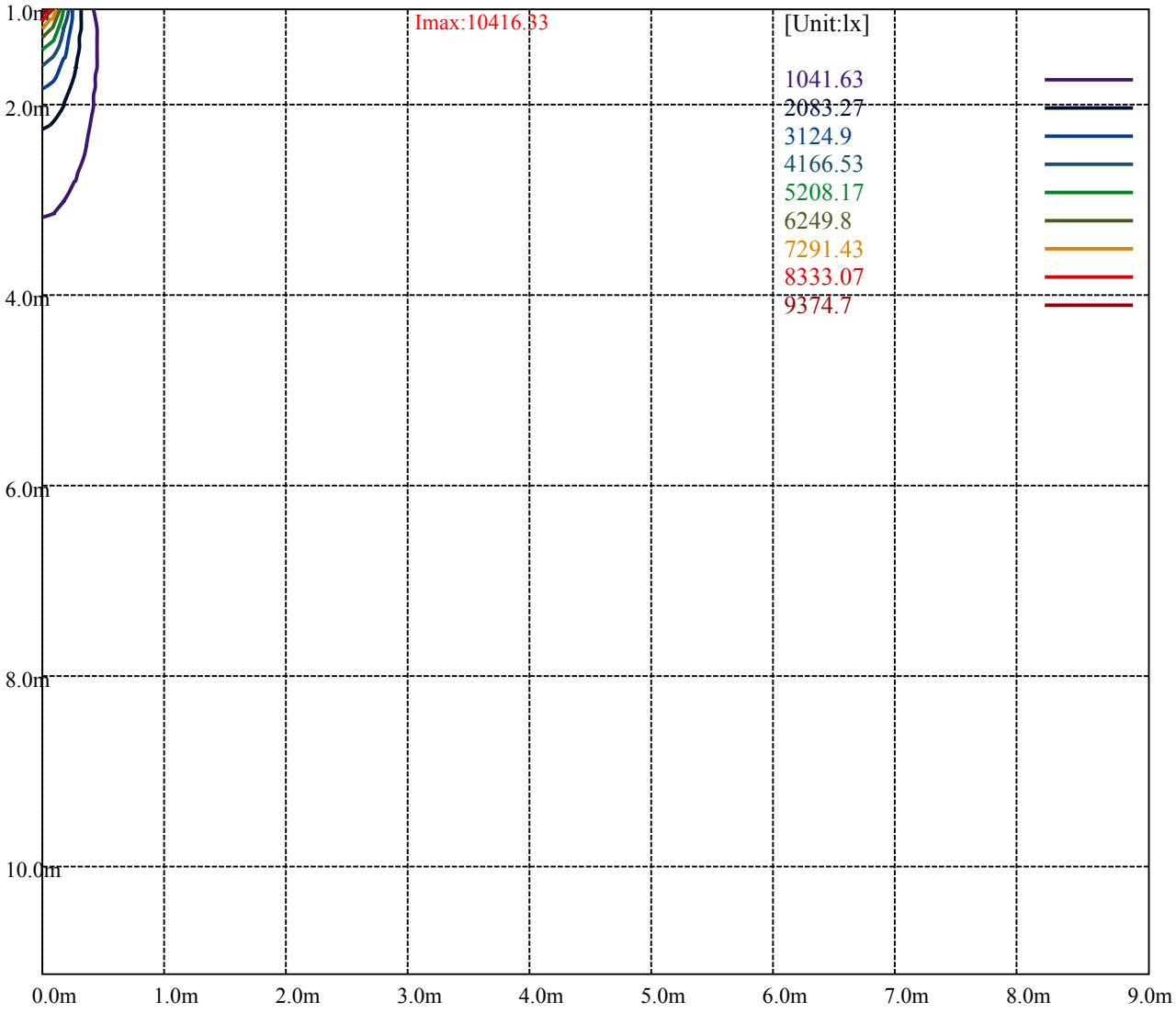
ISO illuminance diagram



(10%Emax) 260.4075
(20%Emax) 520.815
(30%Emax) 781.225
(40%Emax) 1041.632
(50%Emax) 1302.04
(60%Emax) 1562.448
(70%Emax) 1822.855
(80%Emax) 2083.265
(90%Emax) 2343.673

Equipment: GMS1980
Temperature(°C): 25.0
Date: 2024/2/27
Humidity(%): 60.0%
Operator: NT07
Distance(m): 7.65

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2024/2/27
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.65

Luminance Limitting Curve(no luminous side)

Luminance Table

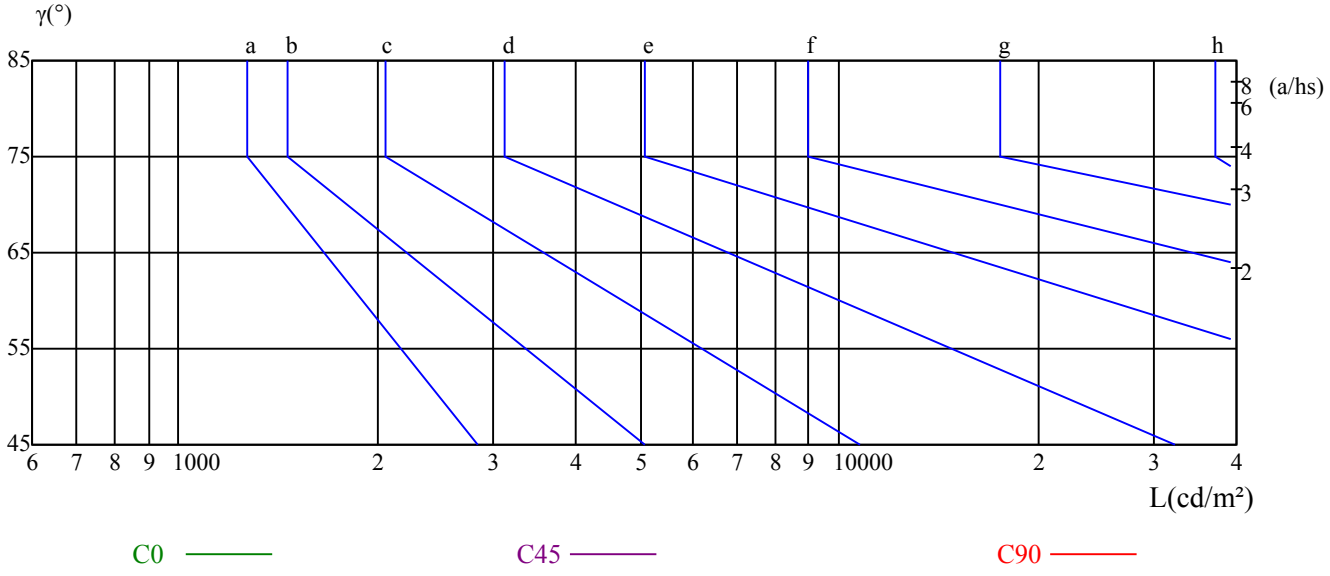
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

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

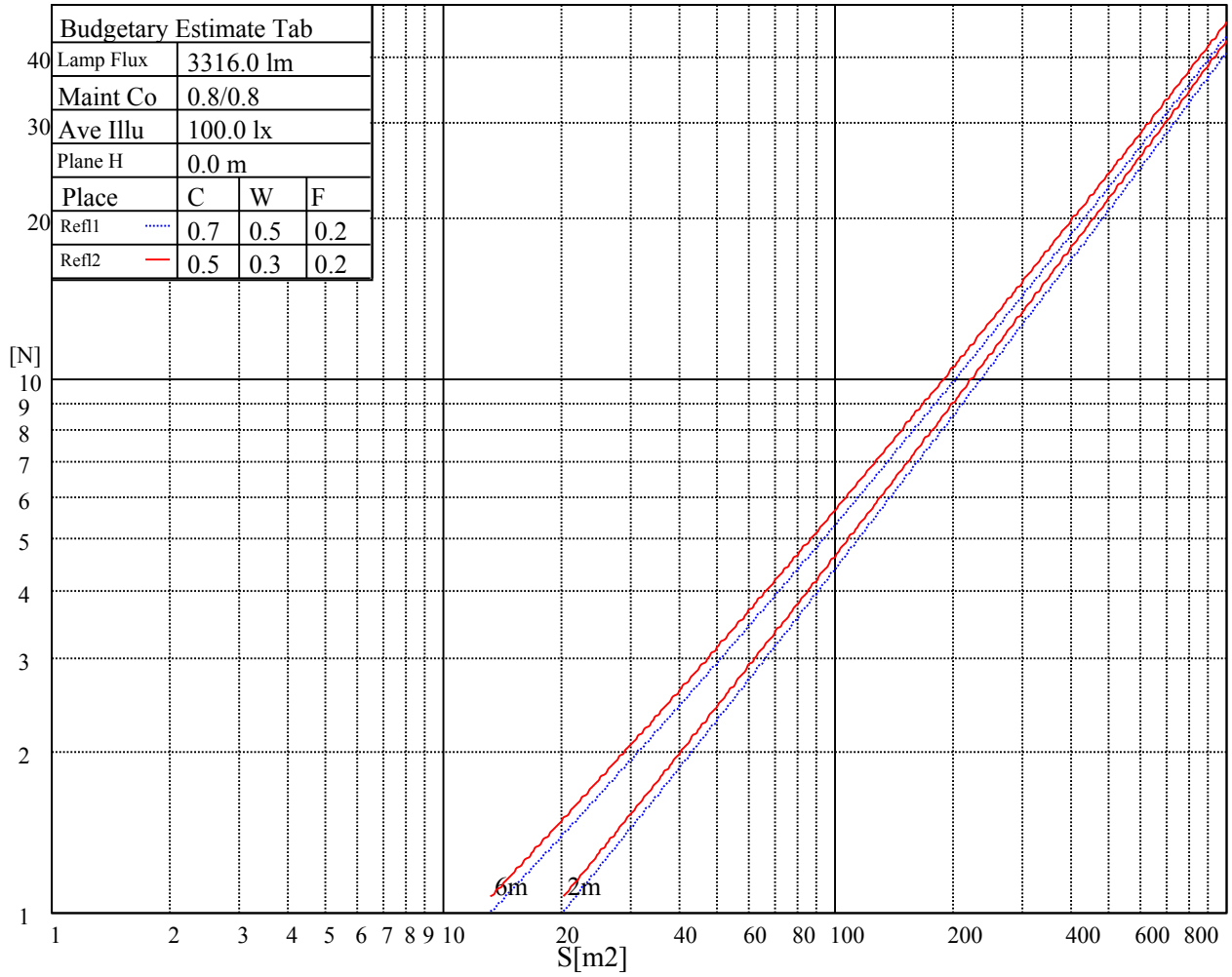
Luminance Limitting Curve



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

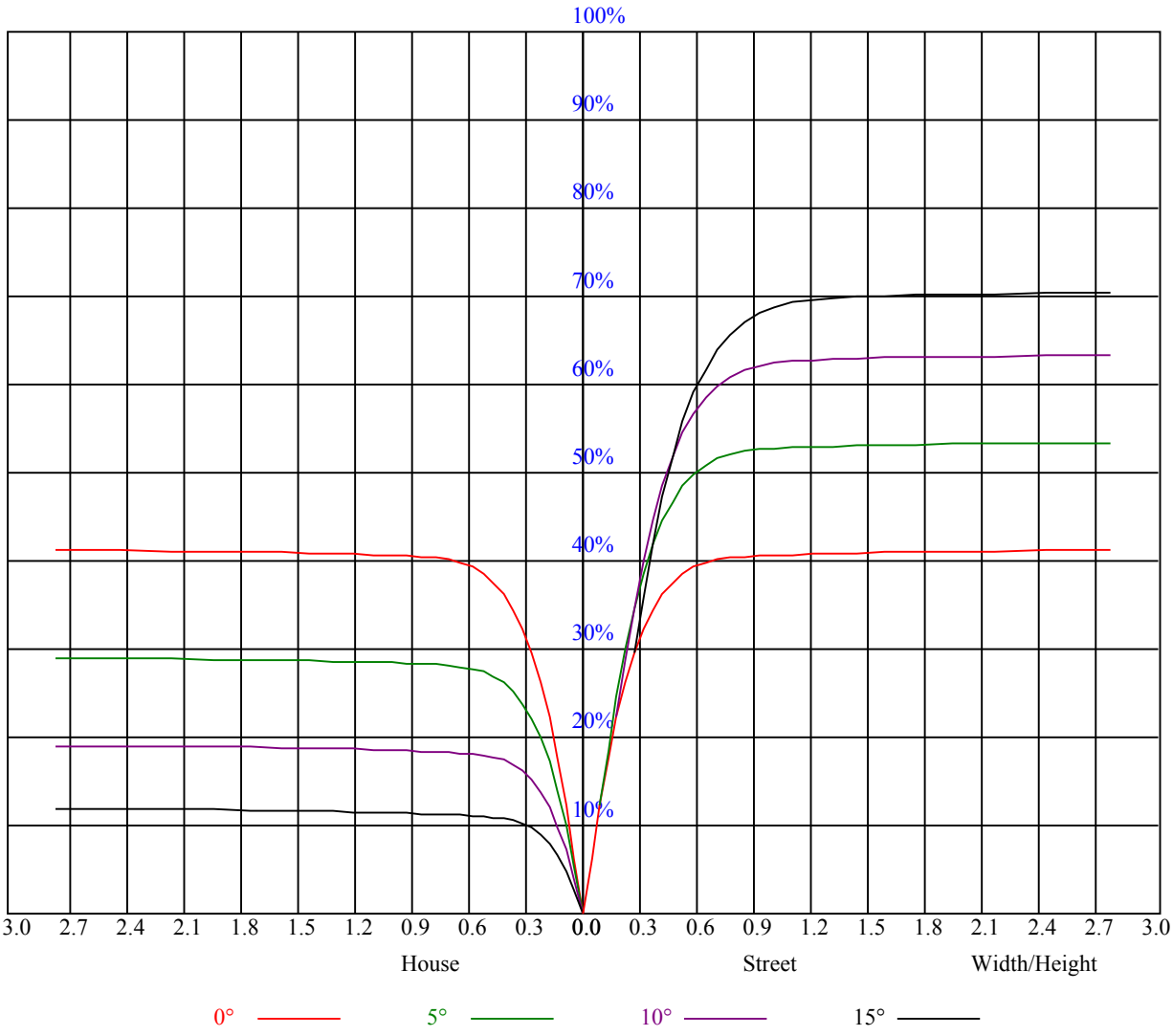


Equipment: GMS1980 Date: 2024/2/27 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.65

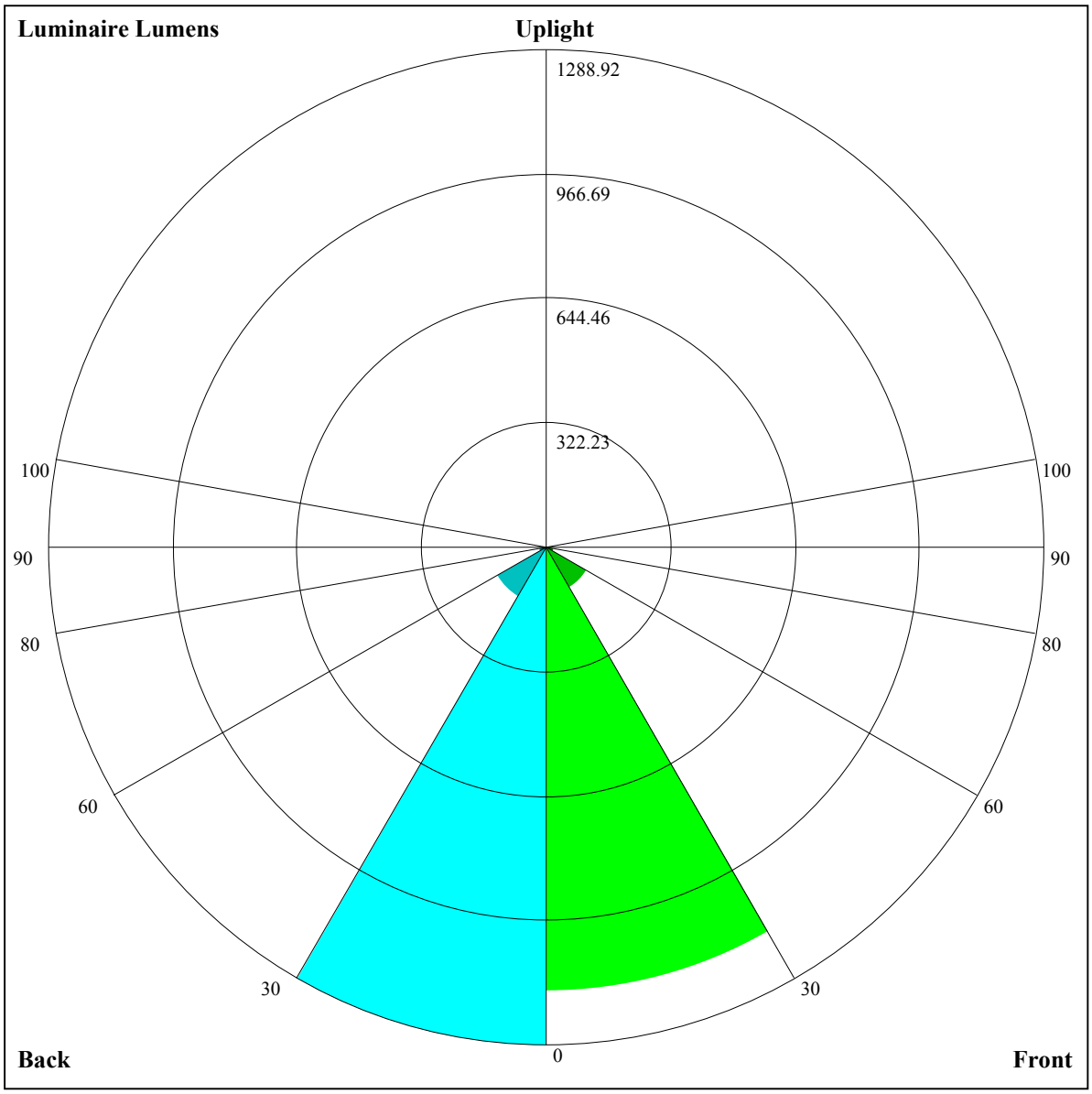
Utilization factor table for indoor luminaire

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	0.99	0.99	0.99	0.97	0.97	0.97	0.92	0.92	0.92	0.88	0.88	0.88	0.85	0.85	0.85	0.83
1	0.93	0.91	0.89	0.91	0.89	0.88	0.88	0.86	0.85	0.85	0.84	0.83	0.82	0.81	0.80	0.79
2	0.88	0.85	0.82	0.86	0.84	0.81	0.84	0.81	0.80	0.81	0.79	0.78	0.79	0.78	0.76	0.75
3	0.83	0.80	0.77	0.82	0.79	0.76	0.80	0.77	0.75	0.78	0.76	0.74	0.76	0.74	0.73	0.72
4	0.79	0.75	0.72	0.78	0.75	0.72	0.77	0.74	0.71	0.75	0.72	0.70	0.74	0.71	0.70	0.69
5	0.76	0.72	0.69	0.75	0.71	0.68	0.74	0.70	0.68	0.72	0.69	0.67	0.71	0.69	0.67	0.66
6	0.72	0.68	0.66	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.65	0.69	0.66	0.64	0.63
7	0.70	0.66	0.63	0.69	0.65	0.63	0.68	0.65	0.62	0.67	0.64	0.62	0.66	0.64	0.62	0.61
8	0.67	0.63	0.60	0.66	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.60	0.64	0.61	0.59	0.58
9	0.64	0.61	0.58	0.64	0.60	0.58	0.63	0.60	0.58	0.63	0.60	0.57	0.62	0.59	0.57	0.56
10	0.62	0.58	0.56	0.62	0.58	0.56	0.61	0.58	0.56	0.61	0.58	0.55	0.60	0.57	0.55	0.55

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2024/2/27	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 60.0%	Distance(m): 7.65



Luminaire Lumens:
FL=1151.36,FM=119.45,FH=20.52,FVH=6.96
BL=1288.92,BM=145.89,BH=19.74,BVH=7.02
UL=0,UH=0

BUG Rating:B3-U0-G0

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	10154.30	9763.37	9301.04	8783.12	8102.50	7574.04	7046.17	6384.28	5873.38
45.0	10532.94	10292.41	9849.40	9381.22	8855.68	8168.63	7640.17	7125.76	6478.50
90.0	10372.00	10001.55	9573.17	8953.42	8423.20	7883.62	7213.54	6685.67	6168.33
135.0	10606.09	10524.74	10297.68	9873.97	9391.75	8861.54	8320.20	7644.27	7129.85
180.0	10154.30	10491.39	10637.11	10602.58	10384.88	9992.19	9553.86	8924.74	8365.85
225.0	10532.94	10631.26	10499.00	10257.30	9903.24	9445.59	8803.60	8250.56	7689.92
270.0	10372.00	10555.18	10571.56	10426.43	10084.66	9696.65	9229.06	8716.40	8042.81
315.0	10606.09	10506.02	10216.92	9866.37	9425.11	8786.04	8254.07	7720.93	7041.49
360.0	10154.30	9763.37	9301.04	8783.12	8102.50	7574.04	7046.17	6384.28	5873.38

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	5376.52	4797.73	4378.71	3985.44	3552.96	3260.35	2994.65	2752.37	2479.66
45.0	5974.62	5487.71	4901.32	4470.01	4073.81	3706.87	3315.36	3043.23	2799.19
90.0	5668.55	5064.60	4621.58	4206.66	3833.28	3424.80	3142.72	2892.83	2602.55
135.0	6484.35	5981.64	5495.91	4909.51	4473.52	4080.83	3714.48	3308.92	3039.72
180.0	7804.03	7128.68	6594.37	6072.35	5569.06	4969.79	4529.11	4117.70	3741.99
225.0	7142.73	6471.48	5953.55	5332.04	4863.28	4426.70	3938.62	3584.56	3269.71
270.0	7507.91	6971.26	6307.03	5780.33	5274.69	4697.07	4276.88	3891.22	3461.66
315.0	6507.76	5982.81	5359.55	4891.37	4457.13	3969.05	3620.85	3312.43	3040.30
360.0	5376.52	4797.73	4378.71	3985.44	3552.96	3260.35	2994.65	2752.37	2479.66

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2281.27	2097.50	1931.89	1742.86	1599.48	1315.06	1142.01	1142.01	972.76
45.0	2575.05	2319.89	2132.62	1923.11	1771.53	1624.64	1445.56	1304.53	1166.41
90.0	2397.14	2201.09	1983.39	1827.13	1642.20	1495.89	1148.45	1148.45	1081.14
135.0	2803.87	2573.29	2315.79	2130.28	1962.90	1767.44	1622.89	1442.05	1303.35
180.0	3336.43	3061.96	2814.99	2510.67	2306.43	2085.22	1916.67	1756.90	1618.21
225.0	2999.34	2694.43	2472.05	2268.98	2087.56	1883.31	1734.67	1594.21	1324.42
270.0	3167.30	2900.43	2600.21	2384.27	2195.24	2027.28	1862.83	1672.05	1539.20
315.0	2734.23	2511.26	2306.43	2119.16	1912.57	1761.00	1579.58	1335.54	1166.70
360.0	2281.27	2097.50	1931.89	1742.86	1599.48	1315.06	1142.01	1142.01	972.76

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	842.02	723.16	593.71	499.20	412.70	336.91	258.79	208.28	167.49
45.0	1028.88	865.61	742.71	635.61	540.22	428.44	351.19	300.28	300.28
90.0	912.25	784.73	671.19	570.13	455.13	373.78	303.26	231.57	185.93
135.0	1165.24	1032.40	870.29	747.39	639.12	540.22	426.10	347.10	296.18
180.0	1443.22	1310.38	1178.70	1042.34	877.31	749.73	639.12	516.81	427.27
225.0	1155.23	1155.23	990.73	861.39	737.27	600.79	504.23	417.62	340.43
270.0	1392.89	1233.13	1093.26	965.09	807.08	683.02	560.12	465.31	384.55
315.0	1133.93	1000.15	871.11	747.39	608.69	512.89	424.29	348.62	269.50
360.0	842.02	723.16	593.71	499.20	412.70	336.91	258.79	208.28	167.49

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	135.07	103.70	84.97	67.77	59.58	49.51	44.01	38.92	35.82
45.0	170.89	137.12	104.40	85.15	70.99	58.46	51.27	45.41	41.02
90.0	141.74	114.47	92.99	73.80	62.21	53.49	46.88	41.14	37.69
135.0	296.18	163.86	130.33	104.81	84.68	67.36	57.64	48.57	43.01
180.0	348.85	297.35	297.35	167.67	126.53	101.77	82.69	65.78	56.12
225.0	261.48	210.68	169.31	135.54	103.41	83.80	69.23	58.58	48.87
270.0	314.32	299.11	231.28	156.37	126.53	97.91	80.29	66.72	56.24
315.0	218.23	176.27	142.74	109.61	89.48	70.46	59.34	50.74	43.19
360.0	135.07	103.70	84.97	67.77	59.58	49.51	44.01	38.92	35.82

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	33.18	31.02	28.85	27.45	26.22	25.22	24.76	24.40	24.11
45.0	36.99	34.41	32.25	29.96	28.44	27.15	26.28	25.57	25.22
90.0	34.88	32.60	30.14	28.62	27.27	26.28	25.34	24.93	24.46
135.0	39.03	35.17	32.60	30.43	28.15	26.69	25.52	24.70	23.99
180.0	48.87	43.42	38.33	35.23	32.66	30.37	28.56	26.63	25.34
225.0	43.31	38.39	35.23	32.66	30.02	28.32	26.86	25.46	24.64
270.0	46.82	41.67	37.69	33.94	31.43	28.97	27.39	26.16	25.11
315.0	38.98	35.70	32.95	30.26	28.50	27.10	25.69	24.87	24.40
360.0	33.18	31.02	28.85	27.45	26.22	25.22	24.76	24.40	24.11

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	23.94	23.99	24.05	24.52	24.87	25.16	24.76	24.23	23.41
45.0	24.93	24.64	24.70	24.76	25.05	25.40	25.69	25.34	24.76
90.0	24.23	24.23	24.23	24.52	24.87	25.28	25.40	24.81	24.23
135.0	23.64	23.35	23.23	23.29	23.41	23.88	24.23	24.58	24.29
180.0	24.17	23.58	23.17	22.82	22.71	22.71	22.82	23.17	23.58
225.0	24.11	23.76	23.47	23.41	23.41	23.53	23.82	24.05	24.52
270.0	24.35	23.99	23.70	23.47	23.41	23.47	23.70	23.99	24.35
315.0	24.11	23.82	23.76	23.82	23.94	24.23	24.64	24.81	24.46
360.0	23.94	23.99	24.05	24.52	24.87	25.16	24.76	24.23	23.41

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	21.89	20.95	19.90	18.84	18.49	18.73	19.31	19.61	19.78
45.0	23.99	22.82	21.65	21.13	20.83	20.95	21.30	21.95	23.23
90.0	23.23	21.83	21.71	21.59	21.19	21.59	23.41	25.22	23.29
135.0	23.76	22.94	21.77	20.54	19.49	18.38	17.56	16.97	16.56
180.0	23.99	23.88	23.41	22.71	21.65	20.19	19.20	18.08	17.03
225.0	24.23	23.70	22.71	21.59	20.48	19.49	18.14	17.38	16.85
270.0	24.46	23.88	23.23	22.30	20.83	19.84	18.79	17.79	17.21
315.0	23.94	22.88	21.65	20.60	19.61	18.20	17.44	16.97	16.56
360.0	21.89	20.95	19.90	18.84	18.49	18.73	19.31	19.61	19.78

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	20.01	20.13	19.55	19.08	17.91	16.74	16.04	14.28	13.58
45.0	23.76	23.35	23.29	23.06	22.30	20.66	19.20	17.67	15.68
90.0	21.48	22.71	21.54	19.90	19.78	20.01	18.43	16.39	14.16
135.0	16.33	16.04	15.86	15.63	15.33	15.10	14.75	14.46	14.16
180.0	16.56	16.09	15.80	15.57	15.22	14.98	14.81	14.51	14.22
225.0	16.44	16.09	15.86	15.63	15.33	15.04	14.75	14.40	14.16
270.0	16.97	16.68	16.15	15.74	15.45	15.16	14.86	14.57	14.28
315.0	16.21	15.92	15.68	15.39	15.16	14.81	14.51	14.22	13.99
360.0	20.01	20.13	19.55	19.08	17.91	16.74	16.04	14.28	13.58

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	13.28	13.05	12.87	12.64	12.35	12.17	12.00	11.94	11.94
45.0	14.05	13.58	13.23	12.93	12.64	12.29	12.06	11.88	11.88
90.0	13.52	13.17	12.93	12.70	12.35	12.11	12.11	11.88	11.88
135.0	13.93	13.58	13.34	13.05	12.70	12.35	12.23	12.06	11.88
180.0	13.99	13.69	13.40	13.17	12.99	12.82	12.64	12.41	12.29
225.0	13.81	13.58	13.28	13.11	12.82	12.70	12.47	12.23	12.11
270.0	13.99	13.75	13.28	13.05	12.82	12.70	12.47	12.29	12.11
315.0	13.64	13.40	13.17	12.99	12.70	12.47	12.29	12.06	12.00
360.0	13.28	13.05	12.87	12.64	12.35	12.17	12.00	11.94	11.94

Intensity data(cd)

C/γ(°)	90.0
0.0	11.94
45.0	11.82
90.0	11.82
135.0	11.88
180.0	12.06
225.0	12.00
270.0	12.06
315.0	11.82
360.0	11.94