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NATA

Client:
LumCAT: 2-2645-L
Luminaire: 92.70.412.00
Report No: 20231008-B007
Ballast type: AC

Test No: 20231008-C007	Voltage(V): 35.980
LampCAT: CITIZEN CLU038 LES14.5	Current(A): 0.540
Lamp flux(lm): 2889.2	Power (W): 19.429
Number of Lamps: 1	PF: 0.000
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 2733.93, Efficiency(%): 94.63% , Luminous Efficacy(lm/W): 140.71
Central intensity(cd): 6108.353, Maximum intensity(cd): 6108.353
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=38.8
[C90/270]Total=38.8
Field angle(10%Imax): [C0/180]Total=62.8
[C90/270]Total=62.8
Maximum s/h(1/2): C0_180=0.63 C90_270=0.63
Maximum s/h(1/4): C0_180=0.62 C90_270=0.62
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 94.63%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.295%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	6108.353	0.000	0	0.00%	0.00%
1.0	6093.477	5.838	5.838	0.20%	0.21%
2.0	6049.470	17.429	23.267	0.60%	0.85%
3.0	5993.010	28.802	52.069	1.00%	1.90%
4.0	5917.106	39.867	91.936	1.38%	3.36%
5.0	5825.288	50.515	142.451	1.75%	5.21%
6.0	5710.499	60.624	203.074	2.10%	7.43%
7.0	5586.783	70.122	273.197	2.43%	9.99%
8.0	5457.187	79.040	352.236	2.74%	12.88%
9.0	5326.483	87.396	439.632	3.02%	16.08%
10.0	5154.887	94.853	534.484	3.28%	19.55%
11.0	4991.801	101.386	635.871	3.51%	23.26%
12.0	4803.461	107.076	742.947	3.71%	27.18%
13.0	4604.741	111.652	854.599	3.86%	31.26%
14.0	4396.197	115.211	969.81	3.99%	35.47%
15.0	4176.028	117.683	1087.493	4.07%	39.78%
16.0	3936.762	118.875	1206.368	4.11%	44.13%
17.0	3672.725	118.500	1324.868	4.10%	48.46%
18.0	3427.301	117.064	1441.932	4.05%	52.74%
19.0	3154.477	114.509	1556.442	3.96%	56.93%
20.0	2886.912	110.574	1667.016	3.83%	60.98%
21.0	2624.466	105.830	1772.846	3.66%	64.85%
22.0	2368.041	100.327	1873.172	3.47%	68.52%
23.0	2122.548	94.225	1967.397	3.26%	71.96%
24.0	1874.148	87.382	2054.779	3.02%	75.16%
25.0	1632.392	79.731	2134.51	2.76%	78.07%
26.0	1425.826	72.190	2206.7	2.50%	80.72%
27.0	1216.935	64.656	2271.355	2.24%	83.08%
28.0	1085.159	58.284	2329.64	2.02%	85.21%
29.0	934.812	52.848	2382.488	1.83%	87.15%
30.0	794.054	46.679	2429.167	1.62%	88.85%
31.0	657.622	40.398	2469.565	1.40%	90.33%
32.0	539.961	34.309	2503.874	1.19%	91.59%
33.0	435.591	28.740	2532.614	0.99%	92.64%
34.0	351.779	23.828	2556.442	0.82%	93.51%
35.0	284.518	19.761	2576.203	0.68%	94.23%
36.0	243.106	16.800	2593.003	0.58%	94.85%
37.0	189.164	14.098	2607.101	0.49%	95.36%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	139.574	10.973	2618.074	0.38%	95.76%
39.0	105.795	8.375	2626.449	0.29%	96.07%
40.0	85.466	6.670	2633.12	0.23%	96.31%
41.0	67.905	5.461	2638.581	0.19%	96.51%
42.0	57.595	4.560	2643.141	0.16%	96.68%
43.0	49.285	3.959	2647.1	0.14%	96.82%
44.0	43.508	3.502	2650.602	0.12%	96.95%
45.0	39.363	3.185	2653.787	0.11%	97.07%
46.0	36.125	2.952	2656.739	0.10%	97.18%
47.0	33.475	2.768	2659.507	0.10%	97.28%
48.0	31.157	2.613	2662.12	0.09%	97.37%
49.0	29.310	2.483	2664.603	0.09%	97.46%
50.0	27.698	2.377	2666.98	0.08%	97.55%
51.0	26.203	2.280	2669.261	0.08%	97.63%
52.0	25.027	2.198	2671.459	0.08%	97.71%
53.0	23.968	2.131	2673.59	0.07%	97.79%
54.0	23.110	2.075	2675.665	0.07%	97.87%
55.0	22.308	2.027	2677.693	0.07%	97.94%
56.0	21.629	1.985	2679.678	0.07%	98.02%
57.0	21.007	1.949	2681.627	0.07%	98.09%
58.0	20.502	1.919	2683.547	0.07%	98.16%
59.0	20.038	1.895	2685.442	0.07%	98.23%
60.0	19.574	1.871	2687.314	0.06%	98.29%
61.0	19.194	1.850	2689.164	0.06%	98.36%
62.0	18.799	1.831	2690.994	0.06%	98.43%
63.0	18.447	1.811	2692.806	0.06%	98.50%
64.0	18.108	1.794	2694.6	0.06%	98.56%
65.0	17.796	1.777	2696.376	0.06%	98.63%
66.0	17.457	1.759	2698.135	0.06%	98.69%
67.0	17.090	1.737	2699.872	0.06%	98.75%
68.0	16.807	1.717	2701.59	0.06%	98.82%
69.0	16.482	1.698	2703.288	0.06%	98.88%
70.0	16.163	1.677	2704.964	0.06%	98.94%
71.0	15.845	1.654	2706.619	0.06%	99.00%
72.0	15.575	1.634	2708.252	0.06%	99.06%
73.0	15.285	1.614	2709.866	0.06%	99.12%
74.0	15.015	1.593	2711.459	0.06%	99.18%
75.0	14.786	1.575	2713.034	0.05%	99.24%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	14.565	1.558	2714.592	0.05%	99.29%
77.0	14.267	1.537	2716.129	0.05%	99.35%
78.0	13.977	1.512	2717.641	0.05%	99.40%
79.0	13.714	1.488	2719.129	0.05%	99.46%
80.0	13.458	1.465	2720.594	0.05%	99.51%
81.0	13.160	1.439	2722.033	0.05%	99.56%
82.0	12.890	1.413	2723.446	0.05%	99.62%
83.0	12.634	1.388	2724.833	0.05%	99.67%
84.0	12.372	1.362	2726.196	0.05%	99.72%
85.0	12.150	1.338	2727.534	0.05%	99.77%
86.0	11.943	1.317	2728.851	0.05%	99.81%
87.0	11.742	1.296	2730.147	0.04%	99.86%
88.0	11.569	1.277	2731.424	0.04%	99.91%
89.0	11.417	1.260	2732.684	0.04%	99.95%
90.0	11.327	1.247	2733.931	0.04%	100.00%

Zonal flux distribution table

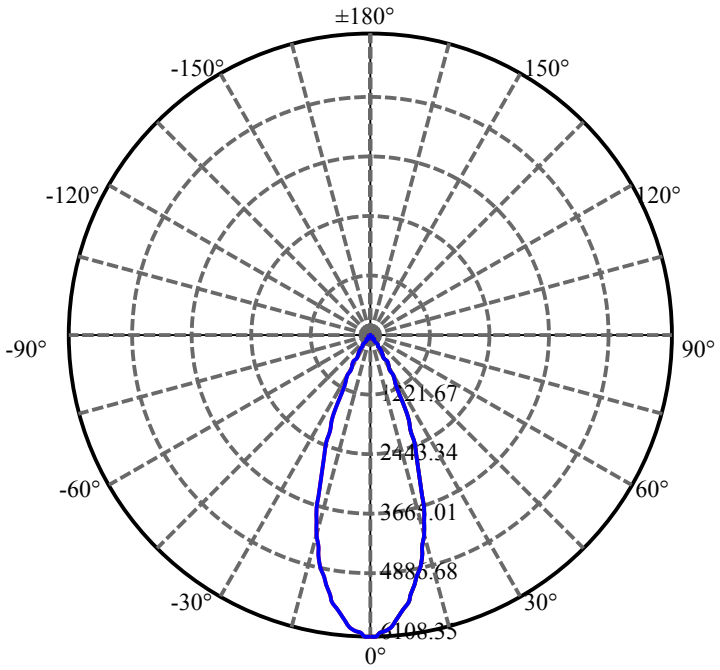
ZONAL LUMEN SUMMARY

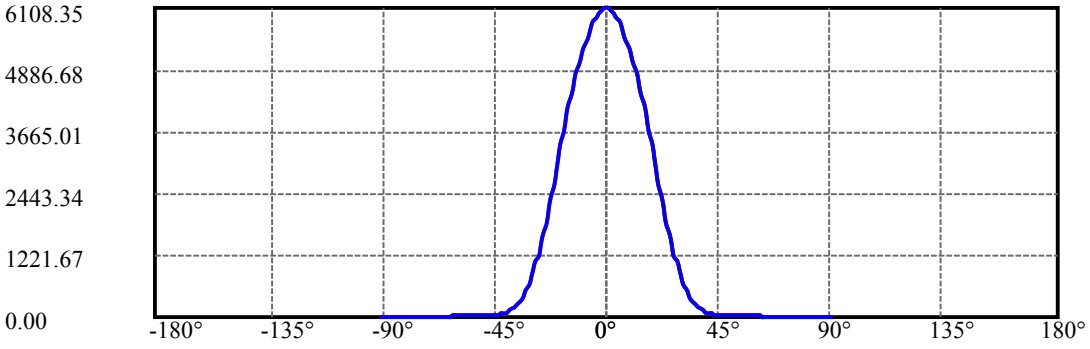
Zone	Lumens	%Lamp	%Fixt
0-30	2429.17	84.08%	88.85%
0-40	2633.12	91.14%	96.31%
0-60	2687.31	93.01%	98.29%
0-90	2732.68	94.58%	99.95%
0-120	2732.68	94.58%	99.95%
0-180	2733.93	94.63%	100.00%
60-90	45.37	1.57%	1.66%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-25.73	2187.15	75.70%	80.00%

ZONAL LUMEN SUMMARY

0-10	534.48
10-20	1132.53
20-30	762.15
30-40	203.95
40-50	33.86
50-60	20.33
60-70	17.65
70-80	15.63
80-90	12.09
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):

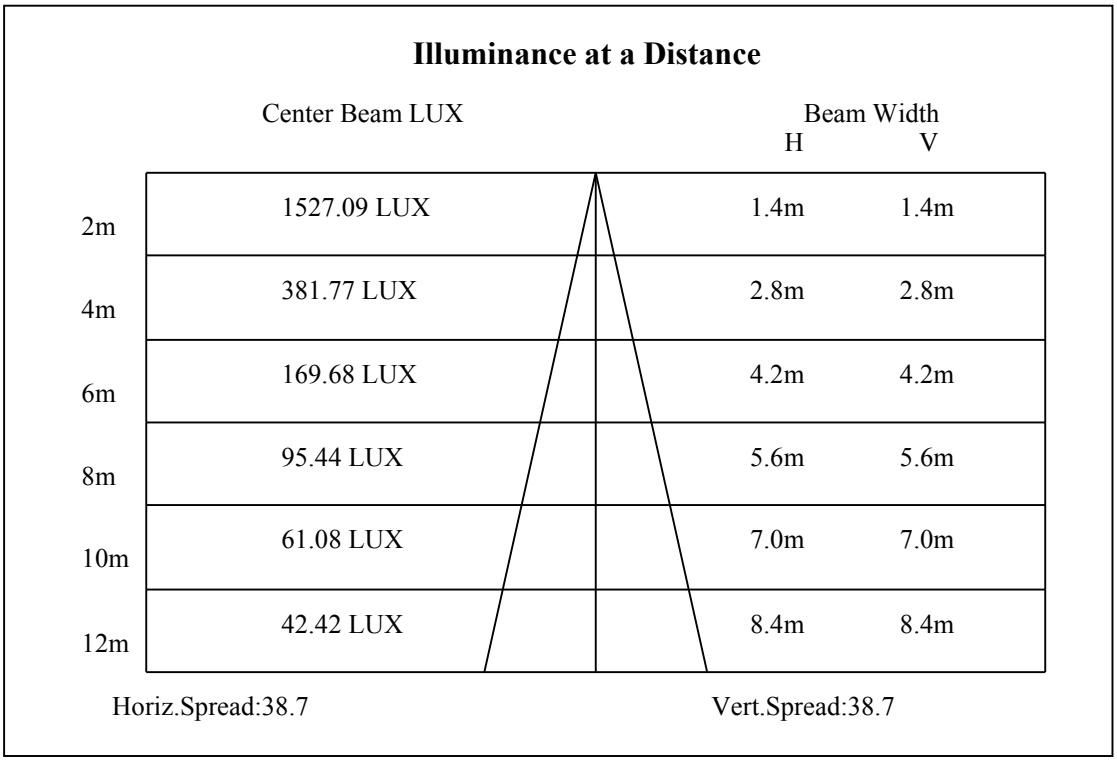
C0/C180:

C90/C270:

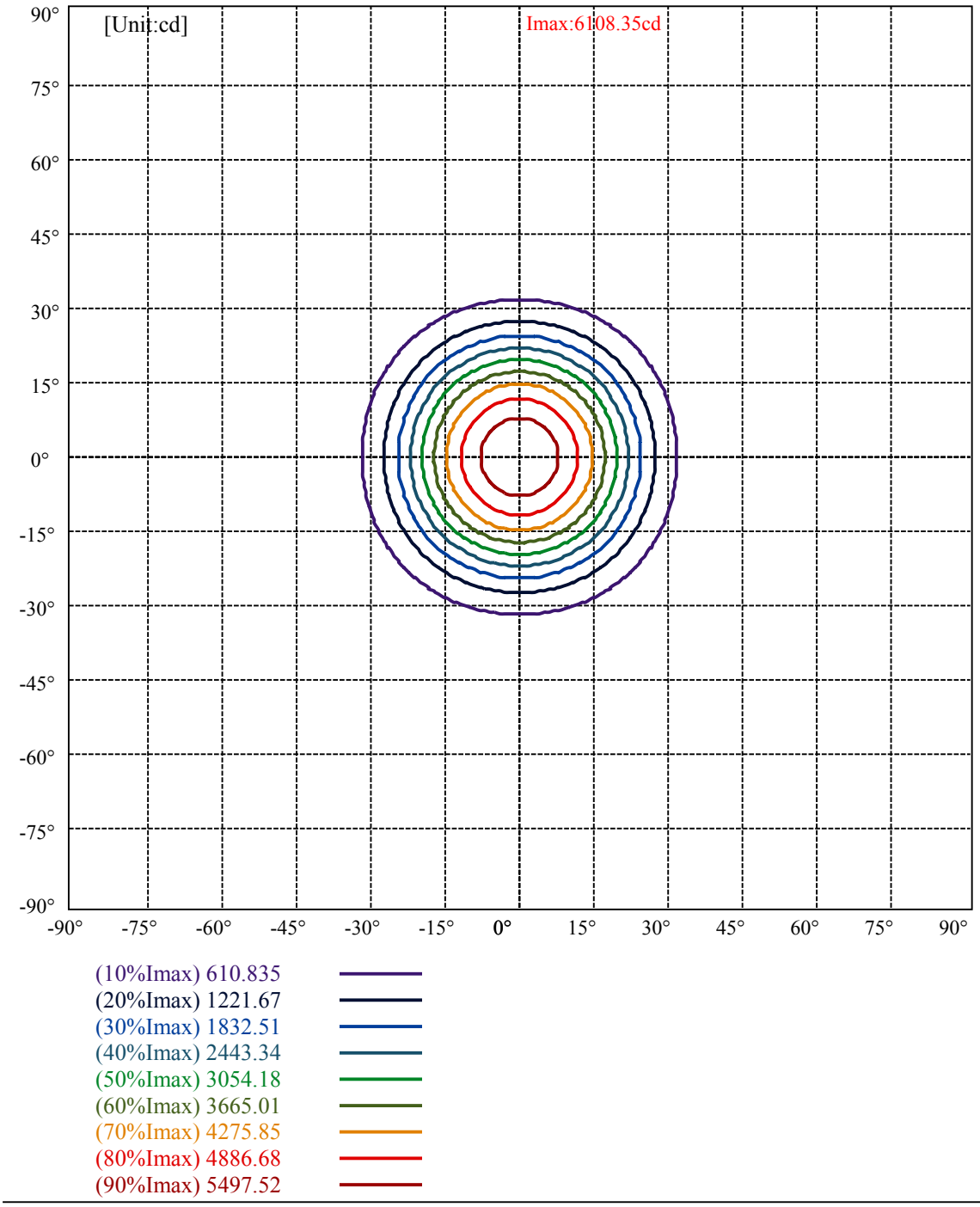
Field angle(10%Imax):C0/180Left:31.4 Right:31.4
:C90/270Left:31.4 Right:31.4

Beam Angle(50%Imax):C0/180Left:19.4 Right:19.4
:C90/270Left:19.4 Right:19.4

Lux distance Curve



ISO-Intensity(V-H)

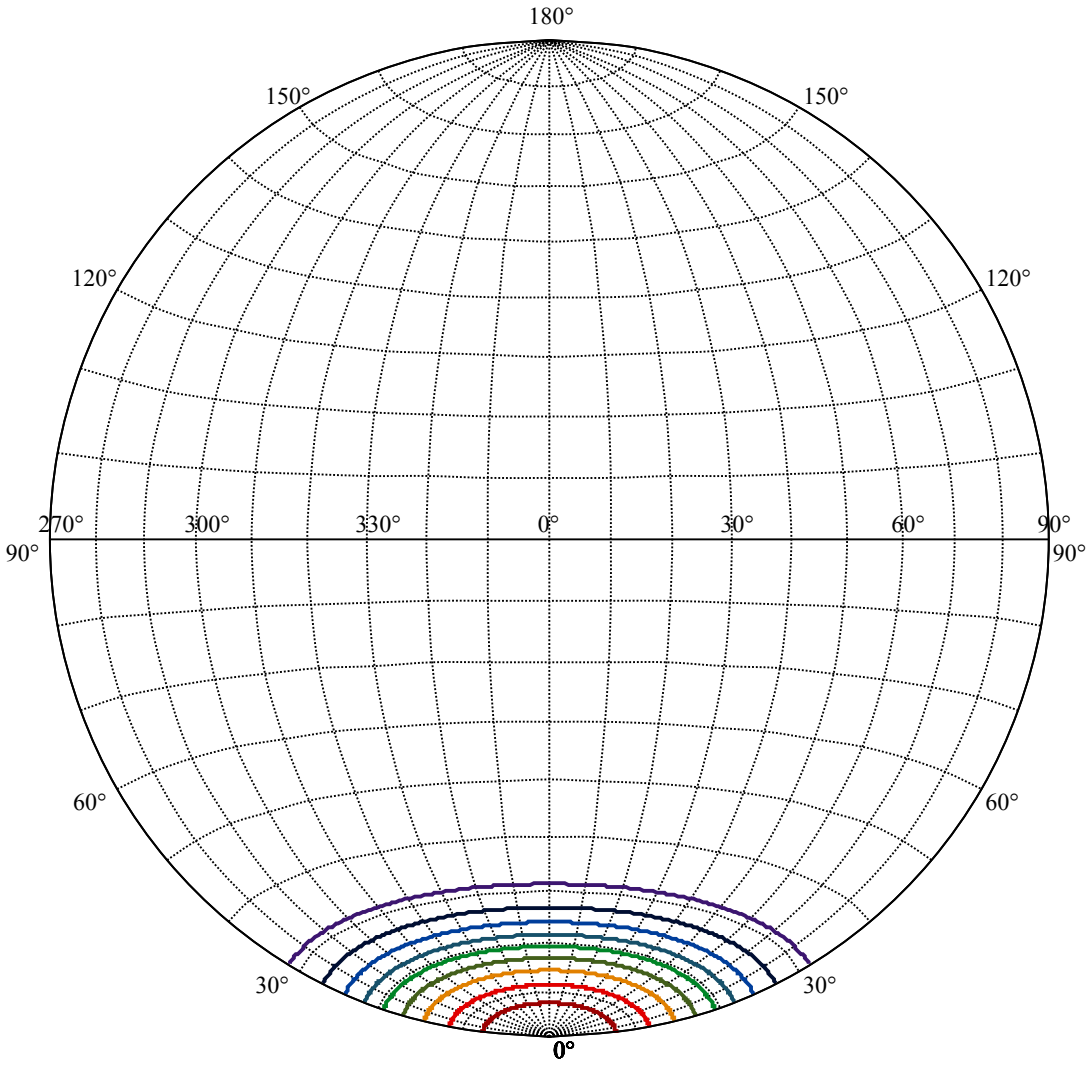


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2023/10/08
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.44

ISO candela diagram on circular web



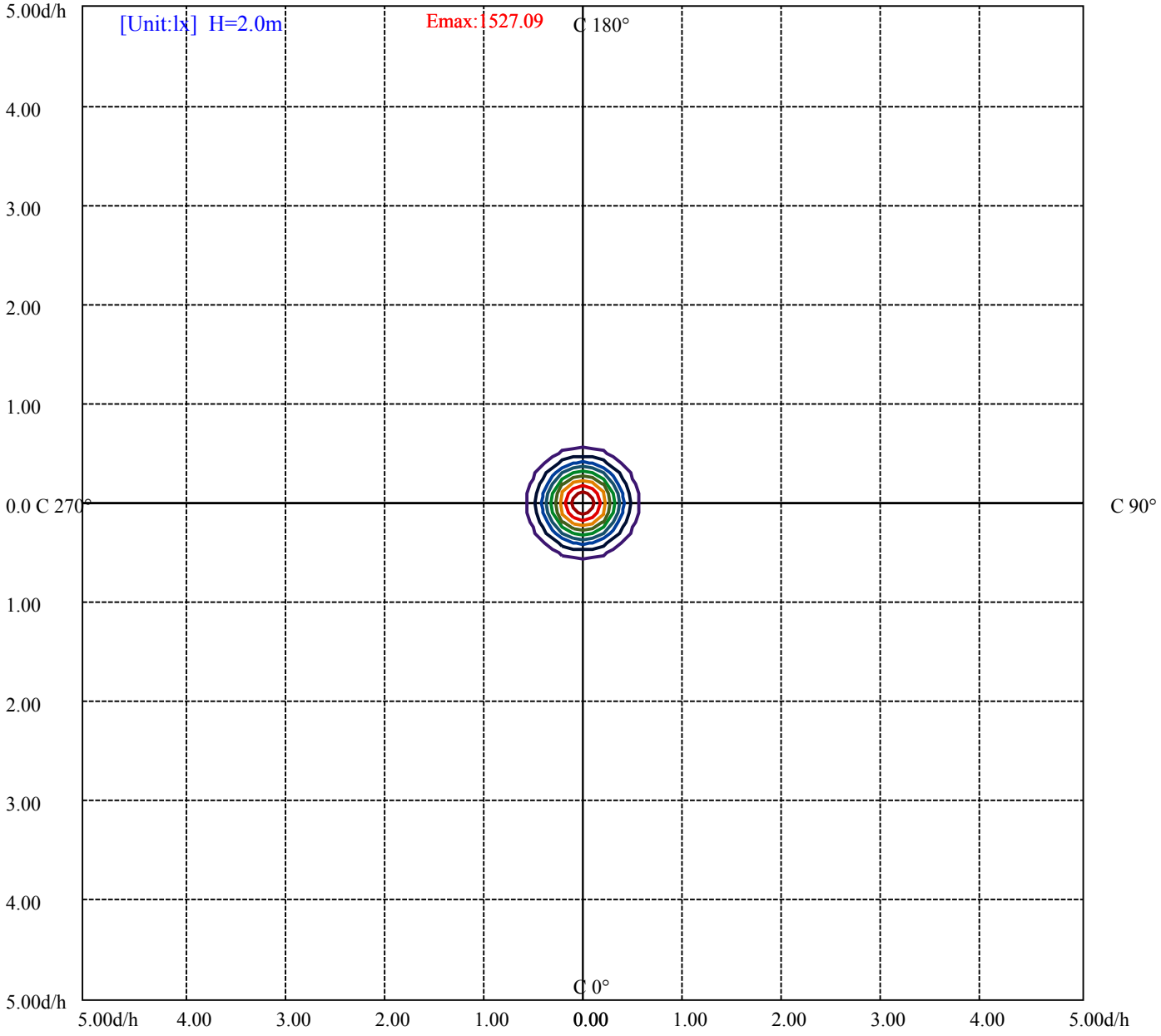
House [Unit:cd] Road

Imax:6108.35

(10%Imax) 610.835
(20%Imax) 1221.67
(30%Imax) 1832.51
(40%Imax) 2443.34
(50%Imax) 3054.18
(60%Imax) 3665.01
(70%Imax) 4275.85
(80%Imax) 4886.68
(90%Imax) 5497.52

Equipment: GMS1980 Date: 2023/10/08 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.44

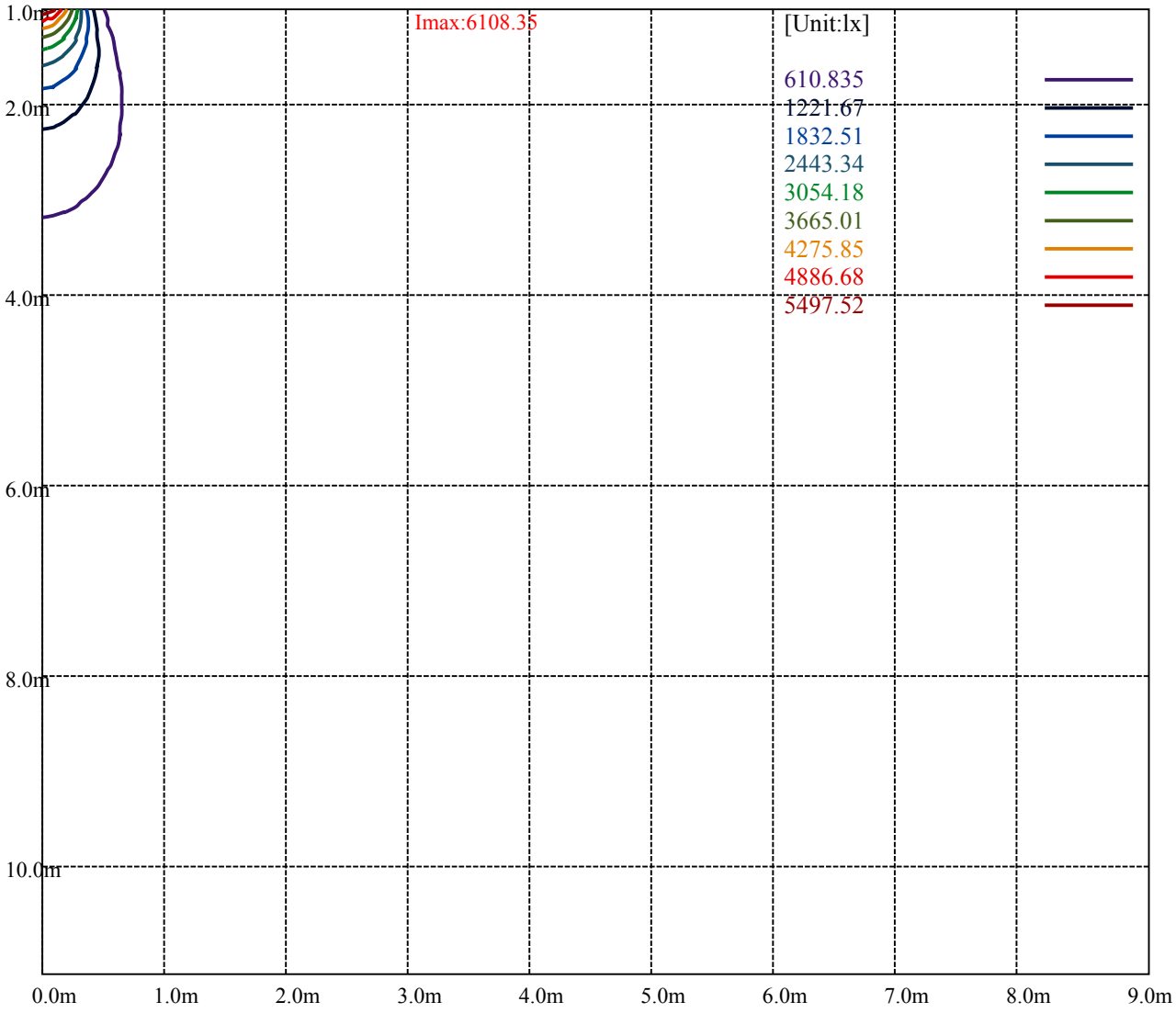
ISO illuminance diagram



(10%Emax) 152.7088
(20%Emax) 305.4175
(30%Emax) 458.1275
(40%Emax) 610.835
(50%Emax) 763.545
(60%Emax) 916.2525
(70%Emax) 1068.963
(80%Emax) 1221.67
(90%Emax) 1374.38

Equipment: GMS1980	Date: 2023/10/08	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 60.0%	Distance(m): 7.44

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2023/10/08
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.44

Luminance Limitting Curve(no luminous side)

Luminance Table

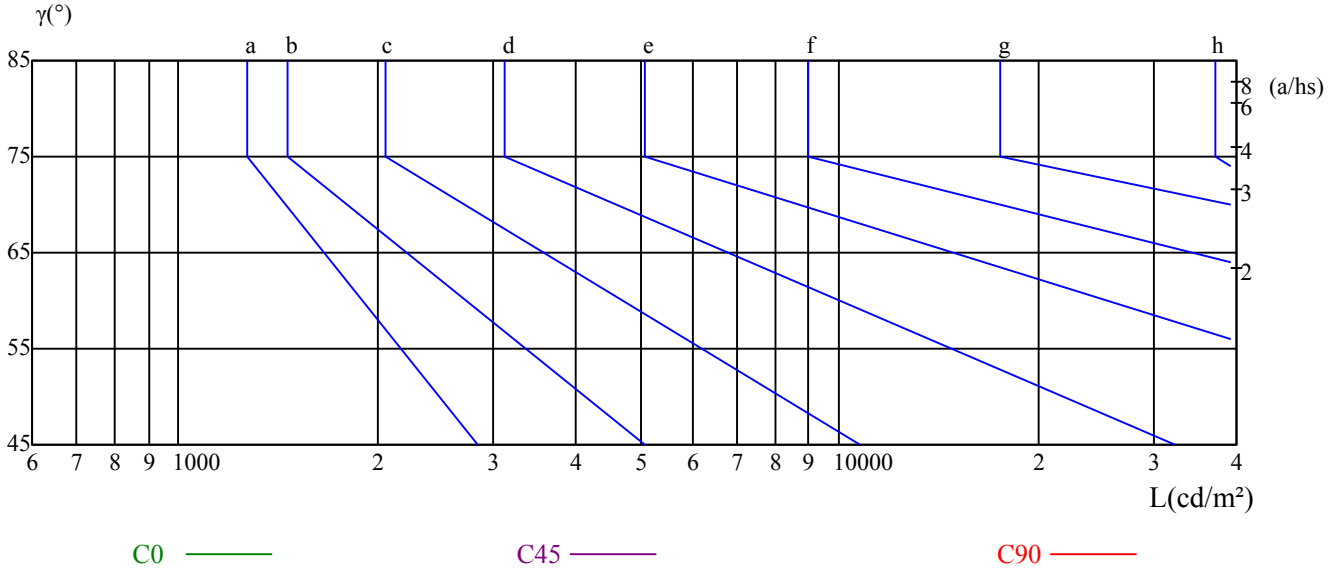
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

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

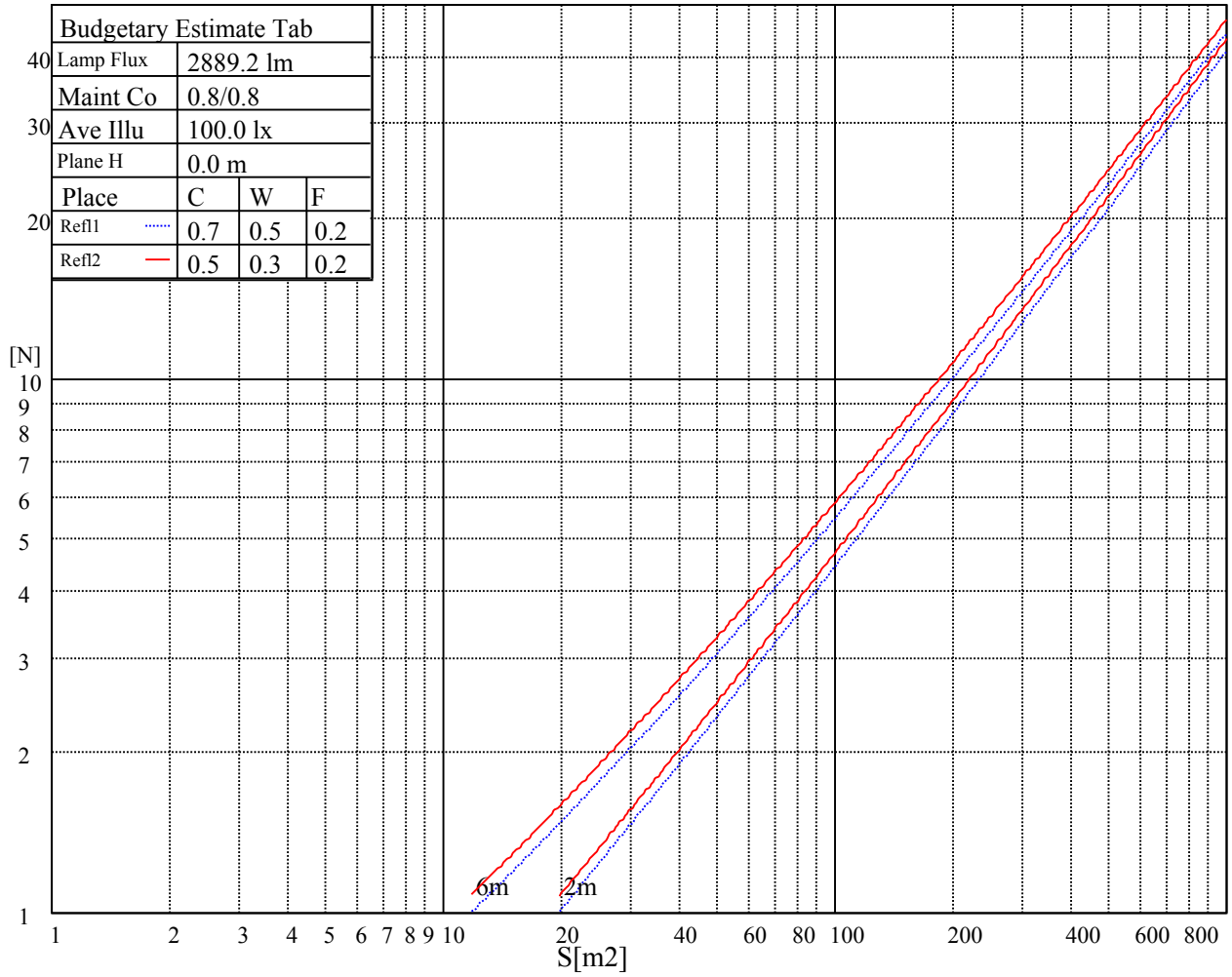


UGR Glare

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

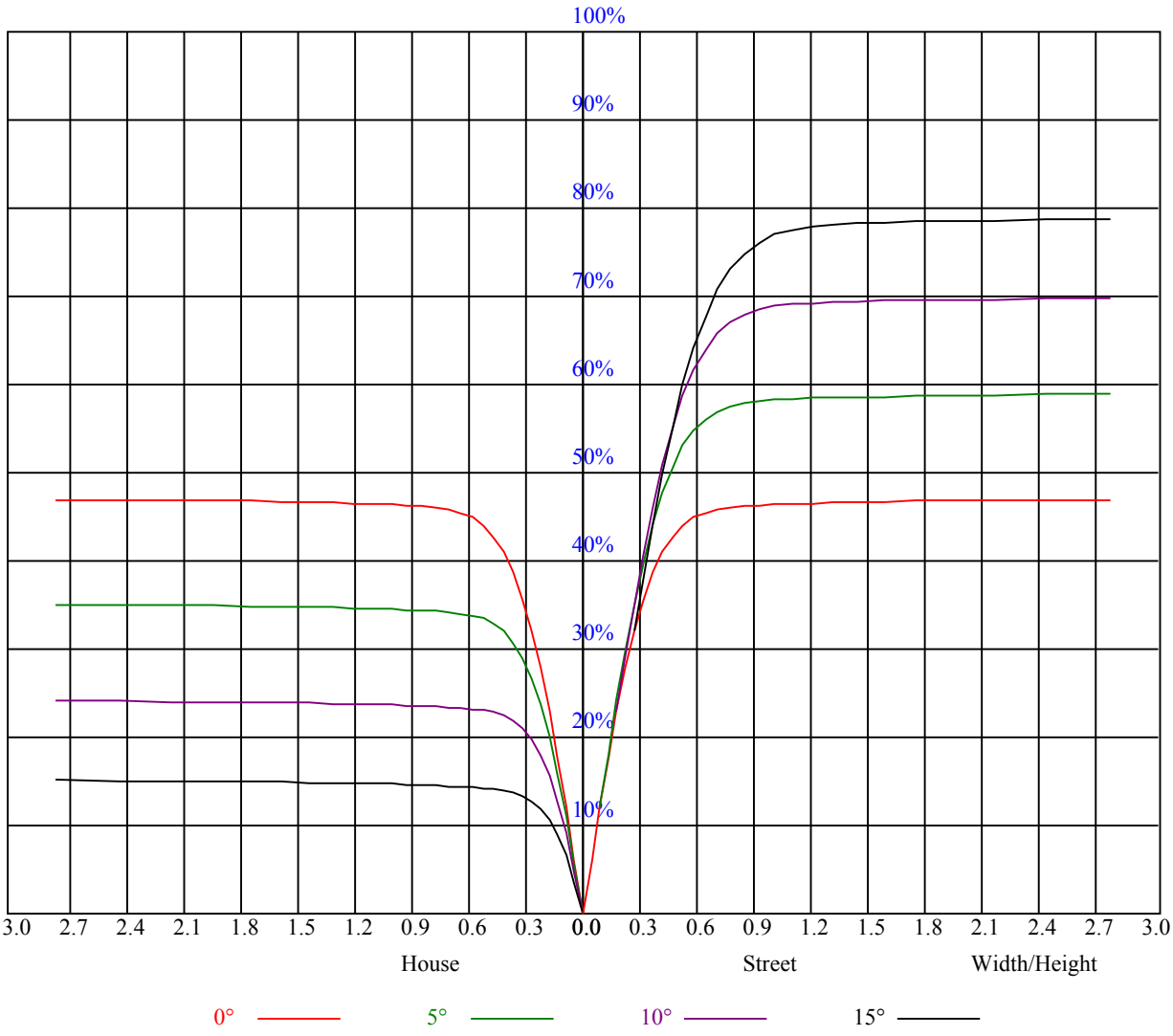


Equipment: GMS1980 Date: 2023/10/08 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.44

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	1.10	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	1.05	1.03	1.01	1.03	1.02	1.00	1.00	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.89
2	0.99	0.96	0.93	0.98	0.95	0.92	0.95	0.92	0.90	0.92	0.90	0.88	0.89	0.88	0.86	0.85
3	0.94	0.90	0.87	0.93	0.89	0.86	0.90	0.87	0.85	0.88	0.85	0.83	0.86	0.84	0.82	0.81
4	0.89	0.85	0.81	0.88	0.84	0.81	0.86	0.83	0.80	0.84	0.81	0.79	0.83	0.80	0.78	0.77
5	0.85	0.80	0.77	0.84	0.80	0.76	0.82	0.79	0.76	0.81	0.78	0.75	0.80	0.77	0.74	0.73
6	0.81	0.76	0.73	0.80	0.76	0.73	0.79	0.75	0.72	0.78	0.74	0.72	0.77	0.74	0.71	0.70
7	0.77	0.73	0.69	0.77	0.72	0.69	0.76	0.72	0.69	0.75	0.71	0.68	0.74	0.71	0.68	0.67
8	0.74	0.69	0.66	0.74	0.69	0.66	0.73	0.69	0.66	0.72	0.68	0.65	0.71	0.68	0.65	0.64
9	0.71	0.66	0.63	0.71	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.63	0.68	0.65	0.63	0.62
10	0.68	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.60	0.67	0.63	0.60	0.66	0.63	0.60	0.59

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2023/10/08	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	6096.59	6063.93	5996.40	5918.91	5805.98	5708.01	5582.36	5432.90	5314.44
45.0	6131.46	6088.84	6051.20	5993.63	5911.71	5824.25	5681.99	5563.53	5408.54
90.0	6074.45	6045.66	5978.13	5855.25	5753.95	5631.62	5477.74	5352.64	5227.54
135.0	6130.91	6078.32	6035.70	5984.78	5877.94	5791.59	5671.47	5519.25	5384.74
180.0	6096.59	6139.77	6111.54	6056.18	6036.25	5943.81	5863.55	5771.11	5622.76
225.0	6131.46	6112.09	6059.50	6036.25	5960.97	5876.84	5768.34	5658.74	5536.41
270.0	6074.45	6127.03	6102.13	6067.25	6036.25	5967.62	5876.84	5763.92	5658.74
315.0	6130.91	6092.16	6061.16	6031.83	5953.78	5858.57	5761.70	5632.17	5504.31
360.0	6096.59	6063.93	5996.40	5918.91	5805.98	5708.01	5582.36	5432.90	5314.44

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	5168.86	4964.06	4785.82	4596.51	4345.20	4130.98	3897.95	3656.60	3354.37
45.0	5276.80	5127.35	4964.61	4757.03	4572.15	4382.29	4174.16	3897.95	3654.94
90.0	5083.62	4890.44	4706.11	4523.99	4321.40	4057.92	3852.00	3617.86	3331.68
135.0	5254.66	5069.23	4914.24	4692.27	4501.30	4305.35	4091.68	3809.93	3582.98
180.0	5488.81	5332.71	5189.90	5025.50	4802.42	4610.90	4411.63	4189.66	3896.28
225.0	5401.90	5223.66	5068.67	4846.71	4671.23	4478.60	4227.85	4005.33	3778.93
270.0	5558.00	5430.69	5254.66	5097.46	4919.77	4739.87	4509.05	4310.33	4016.40
315.0	5379.21	5200.97	5050.41	4888.22	4704.45	4463.66	4243.91	4006.44	3766.20
360.0	5168.86	4964.06	4785.82	4596.51	4345.20	4130.98	3897.95	3656.60	3354.37

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	3103.07	2844.57	2586.62	2279.41	2048.03	1832.70	1587.49	1271.97	1080.72
45.0	3419.14	3115.25	2851.76	2596.03	2298.23	2075.70	1864.25	1609.07	1420.87
90.0	3087.57	2783.12	2539.57	2307.08	2084.56	1821.08	1628.45	1304.63	1097.66
135.0	3359.91	3120.78	2825.19	2591.05	2356.90	2132.72	1872.00	1670.52	1434.16
180.0	3675.42	3436.30	3193.85	2903.24	2648.61	2391.77	2102.27	1884.18	1676.05
225.0	3540.36	3218.76	2959.70	2699.54	2451.00	2157.07	1935.11	1729.74	1491.17
270.0	3783.36	3530.40	3215.44	2960.81	2705.08	2444.91	2146.56	1929.57	1728.08
315.0	3449.58	3186.65	2923.17	2658.58	2351.92	2124.42	1857.06	1659.45	1477.89
360.0	3103.07	2844.57	2586.62	2279.41	2048.03	1832.70	1587.49	1271.97	1080.72

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	1042.70	900.55	766.65	623.12	522.76	434.75	358.25	275.38	220.53
45.0	1242.63	1040.04	891.69	758.29	635.96	503.66	413.44	337.05	287.23
90.0	1058.97	906.91	767.81	639.78	501.39	408.23	329.41	248.70	196.45
135.0	1259.24	1098.16	912.17	772.13	645.37	531.89	410.67	331.51	281.69
180.0	1449.10	1277.51	1069.38	922.14	784.31	654.78	519.71	426.72	347.01
225.0	1075.02	1075.02	962.77	822.06	692.14	546.56	447.59	364.01	277.49
270.0	1538.22	1313.49	1151.30	999.08	820.28	689.65	550.16	456.06	375.24
315.0	1069.60	1069.60	956.73	815.86	658.76	550.16	455.50	374.80	290.50
360.0	1042.70	900.55	766.65	623.12	522.76	434.75	358.25	275.38	220.53

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	174.25	137.17	102.24	82.20	67.59	55.24	48.60	42.46	38.86
45.0	287.23	158.26	125.49	95.48	77.72	62.05	53.19	46.83	42.07
90.0	146.13	116.85	93.82	77.05	61.77	53.14	46.77	42.07	37.59
135.0	281.69	152.44	120.23	96.54	79.21	63.77	55.24	47.27	42.57
180.0	294.43	294.43	165.40	132.35	106.67	82.48	68.64	56.35	49.65
225.0	221.58	176.36	139.82	105.78	86.07	70.85	59.84	50.21	44.73
270.0	304.94	290.00	220.20	144.69	115.19	86.85	70.74	59.17	49.32
315.0	234.59	187.81	149.40	112.26	89.51	68.86	57.73	49.93	43.29
360.0	174.25	137.17	102.24	82.20	67.59	55.24	48.60	42.46	38.86

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	35.92	33.49	30.89	29.23	27.79	26.46	25.08	24.19	23.36
45.0	37.64	34.87	32.49	30.44	28.29	26.90	25.63	24.58	23.41
90.0	34.82	32.55	30.50	28.45	27.01	25.41	24.36	23.47	22.47
135.0	38.80	35.26	32.82	30.72	28.89	27.12	25.79	24.69	23.80
180.0	44.67	39.97	37.09	34.60	32.44	30.56	28.56	27.12	25.85
225.0	39.63	36.64	34.10	31.33	29.56	28.06	26.68	25.19	24.24
270.0	44.06	39.91	36.75	33.49	31.27	29.39	27.51	26.13	24.69
315.0	39.36	36.31	33.16	31.00	29.23	27.68	26.02	24.85	23.91
360.0	35.92	33.49	30.89	29.23	27.79	26.46	25.08	24.19	23.36

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	22.42	21.81	21.26	20.59	20.15	19.76	19.32	18.93	18.60
45.0	22.69	21.86	21.26	20.76	20.15	19.71	19.32	18.99	18.49
90.0	21.81	21.20	20.54	20.04	19.60	19.26	18.88	18.54	18.21
135.0	22.86	22.14	21.53	20.92	20.43	19.98	19.48	19.10	18.65
180.0	24.85	23.75	22.97	22.14	21.59	21.09	20.48	20.09	19.76
225.0	23.41	22.64	21.81	21.31	20.81	20.15	19.76	19.43	18.88
270.0	23.75	22.92	22.14	21.42	20.92	20.43	19.93	19.43	19.15
315.0	23.08	22.14	21.53	20.87	20.37	19.93	19.43	19.04	18.65
360.0	22.42	21.81	21.26	20.59	20.15	19.76	19.32	18.93	18.60

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	18.21	17.93	17.60	17.27	16.94	16.61	16.27	16.00	15.67
45.0	18.27	17.93	17.66	17.27	16.94	16.72	16.33	16.00	15.72
90.0	17.93	17.60	17.27	16.88	16.61	16.33	15.89	15.67	15.39
135.0	18.32	18.05	17.77	17.38	17.05	16.77	16.50	16.11	15.83
180.0	19.26	18.88	18.60	18.27	17.82	17.49	17.21	16.88	16.44
225.0	18.49	18.21	17.82	17.49	17.10	16.88	16.55	16.22	15.89
270.0	18.76	18.32	17.99	17.77	17.27	16.99	16.72	16.38	16.05
315.0	18.32	17.93	17.66	17.33	16.99	16.66	16.38	16.05	15.78
360.0	18.21	17.93	17.60	17.27	16.94	16.61	16.27	16.00	15.67

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	15.39	15.11	14.95	14.67	14.45	14.06	13.84	13.51	13.23
45.0	15.39	15.17	14.83	14.67	14.45	14.17	13.89	13.67	13.45
90.0	15.17	14.83	14.67	14.45	14.23	13.84	13.62	13.40	13.01
135.0	15.55	15.22	14.95	14.72	14.50	14.23	13.95	13.62	13.45
180.0	16.16	15.89	15.55	15.28	15.00	14.78	14.45	14.12	13.84
225.0	15.67	15.33	15.06	14.83	14.61	14.34	13.95	13.73	13.51
270.0	15.78	15.50	15.17	14.95	14.72	14.56	14.23	13.95	13.73
315.0	15.50	15.22	14.95	14.72	14.56	14.17	13.89	13.73	13.45
360.0	15.39	15.11	14.95	14.67	14.45	14.06	13.84	13.51	13.23

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	13.01	12.73	12.51	12.23	12.07	11.85	11.62	11.46	11.40
45.0	13.06	12.84	12.57	12.29	12.07	11.85	11.68	11.51	11.35
90.0	12.79	12.57	12.29	12.07	11.90	11.73	11.57	11.35	11.29
135.0	13.12	12.79	12.57	12.29	12.07	11.85	11.68	11.51	11.29
180.0	13.62	13.23	12.95	12.73	12.40	12.18	11.96	11.79	11.57
225.0	13.17	12.95	12.68	12.40	12.18	12.01	11.79	11.62	11.40
270.0	13.40	13.17	12.84	12.62	12.34	12.12	11.90	11.73	11.57
315.0	13.12	12.84	12.68	12.34	12.18	11.96	11.73	11.57	11.46
360.0	13.01	12.73	12.51	12.23	12.07	11.85	11.62	11.46	11.40

Intensity data(cd)

C/γ(°)	90.0
0.0	11.40
45.0	11.35
90.0	11.29
135.0	11.29
180.0	11.35
225.0	11.29
270.0	11.35
315.0	11.29
360.0	11.40