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NATA

Client:
LumCAT: 2-2645-L
Luminaire: 92.70.429.00
Report No: 20231010-B009
Ballast type: AC

Test No: 20231010-C009	Voltage(V): 35.920
LampCAT: CREE CXA1830 LES14	Current(A): 0.530
Lamp flux(lm): 1997.0	Power (W): 19.037
Number of Lamps: 1	PF: 0.000
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1897.70, Efficiency(%): 95.03% , Luminous Efficacy(lm/W): 99.68
Central intensity(cd): 4213.046, Maximum intensity(cd): 4213.046
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=39.0
[C90/270]Total=39.0
Field angle(10%Imax): [C0/180]Total=62.8
[C90/270]Total=62.8
Maximum s/h(1/2): C0_180=0.64 C90_270=0.64
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(%): 95.03%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.209%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4213.046	0.000	0	0.00%	0.00%
1.0	4203.843	4.027	4.027	0.20%	0.21%
2.0	4177.273	12.029	16.057	0.60%	0.85%
3.0	4133.682	19.877	35.934	1.00%	1.89%
4.0	4079.367	27.492	63.425	1.38%	3.34%
5.0	4011.697	34.807	98.233	1.74%	5.18%
6.0	3942.297	41.800	140.033	2.09%	7.38%
7.0	3858.160	48.417	188.45	2.42%	9.93%
8.0	3771.185	54.602	243.052	2.73%	12.81%
9.0	3674.524	60.343	303.396	3.02%	15.99%
10.0	3584.090	65.688	369.083	3.29%	19.45%
11.0	3474.144	70.526	439.61	3.53%	23.17%
12.0	3360.393	74.711	514.321	3.74%	27.10%
13.0	3230.242	78.214	592.535	3.92%	31.22%
14.0	3101.130	81.041	673.576	4.06%	35.49%
15.0	2937.837	82.906	756.482	4.15%	39.86%
16.0	2754.547	83.409	839.891	4.18%	44.26%
17.0	2587.241	83.186	923.077	4.17%	48.64%
18.0	2390.321	82.069	1005.146	4.11%	52.97%
19.0	2202.326	79.903	1085.049	4.00%	57.18%
20.0	2002.776	76.965	1162.014	3.85%	61.23%
21.0	1815.404	73.317	1235.331	3.67%	65.10%
22.0	1638.065	69.399	1304.73	3.48%	68.75%
23.0	1404.480	63.841	1368.571	3.20%	72.12%
24.0	1233.853	57.683	1426.254	2.89%	75.16%
25.0	1150.033	54.204	1480.458	2.71%	78.01%
26.0	1029.535	51.449	1531.907	2.58%	80.72%
27.0	897.434	47.144	1579.051	2.36%	83.21%
28.0	780.292	42.476	1621.528	2.13%	85.45%
29.0	661.026	37.709	1659.236	1.89%	87.43%
30.0	561.126	32.998	1692.234	1.65%	89.17%
31.0	459.795	28.411	1720.645	1.42%	90.67%
32.0	367.043	23.688	1744.333	1.19%	91.92%
33.0	279.771	19.055	1763.388	0.95%	92.92%
34.0	230.402	15.439	1778.828	0.77%	93.74%
35.0	174.661	12.580	1791.408	0.63%	94.40%
36.0	106.715	8.959	1800.367	0.45%	94.87%
37.0	84.428	6.234	1806.601	0.31%	95.20%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	70.977	5.187	1811.788	0.26%	95.47%
39.0	61.871	4.534	1816.322	0.23%	95.71%
40.0	54.599	4.062	1820.384	0.20%	95.93%
41.0	49.023	3.690	1824.074	0.18%	96.12%
42.0	43.778	3.372	1827.446	0.17%	96.30%
43.0	39.709	3.093	1830.539	0.15%	96.46%
44.0	35.994	2.857	1833.396	0.14%	96.61%
45.0	33.025	2.652	1836.048	0.13%	96.75%
46.0	30.375	2.479	1838.528	0.12%	96.88%
47.0	28.251	2.332	1840.859	0.12%	97.00%
48.0	26.307	2.206	1843.065	0.11%	97.12%
49.0	24.702	2.095	1845.16	0.10%	97.23%
50.0	23.283	2.001	1847.16	0.10%	97.34%
51.0	21.962	1.914	1849.074	0.10%	97.44%
52.0	20.841	1.837	1850.911	0.09%	97.53%
53.0	19.810	1.768	1852.679	0.09%	97.63%
54.0	18.952	1.708	1854.388	0.09%	97.72%
55.0	18.135	1.655	1856.043	0.08%	97.80%
56.0	17.450	1.608	1857.651	0.08%	97.89%
57.0	16.807	1.566	1859.218	0.08%	97.97%
58.0	16.260	1.529	1860.747	0.08%	98.05%
59.0	15.714	1.495	1862.242	0.07%	98.13%
60.0	15.264	1.463	1863.705	0.07%	98.21%
61.0	14.793	1.434	1865.139	0.07%	98.28%
62.0	14.399	1.407	1866.546	0.07%	98.36%
63.0	14.004	1.381	1867.928	0.07%	98.43%
64.0	13.665	1.358	1869.285	0.07%	98.50%
65.0	13.326	1.336	1870.621	0.07%	98.57%
66.0	13.008	1.314	1871.935	0.07%	98.64%
67.0	12.690	1.292	1873.227	0.06%	98.71%
68.0	12.399	1.271	1874.498	0.06%	98.78%
69.0	12.116	1.251	1875.749	0.06%	98.84%
70.0	11.839	1.230	1876.979	0.06%	98.91%
71.0	11.583	1.211	1878.19	0.06%	98.97%
72.0	11.334	1.192	1879.381	0.06%	99.03%
73.0	11.119	1.174	1880.555	0.06%	99.10%
74.0	10.898	1.157	1881.713	0.06%	99.16%
75.0	10.662	1.139	1882.852	0.06%	99.22%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	10.448	1.121	1883.972	0.06%	99.28%
77.0	10.213	1.102	1885.074	0.06%	99.33%
78.0	9.984	1.081	1886.155	0.05%	99.39%
79.0	9.784	1.062	1887.217	0.05%	99.45%
80.0	9.562	1.043	1888.26	0.05%	99.50%
81.0	9.369	1.024	1889.284	0.05%	99.56%
82.0	9.182	1.006	1890.29	0.05%	99.61%
83.0	8.960	0.986	1891.276	0.05%	99.66%
84.0	8.774	0.966	1892.242	0.05%	99.71%
85.0	8.594	0.948	1893.19	0.05%	99.76%
86.0	8.435	0.931	1894.121	0.05%	99.81%
87.0	8.282	0.915	1895.036	0.05%	99.86%
88.0	8.172	0.901	1895.937	0.05%	99.91%
89.0	8.006	0.887	1896.824	0.04%	99.95%
90.0	7.971	0.876	1897.7	0.04%	100.00%

Zonal flux distribution table

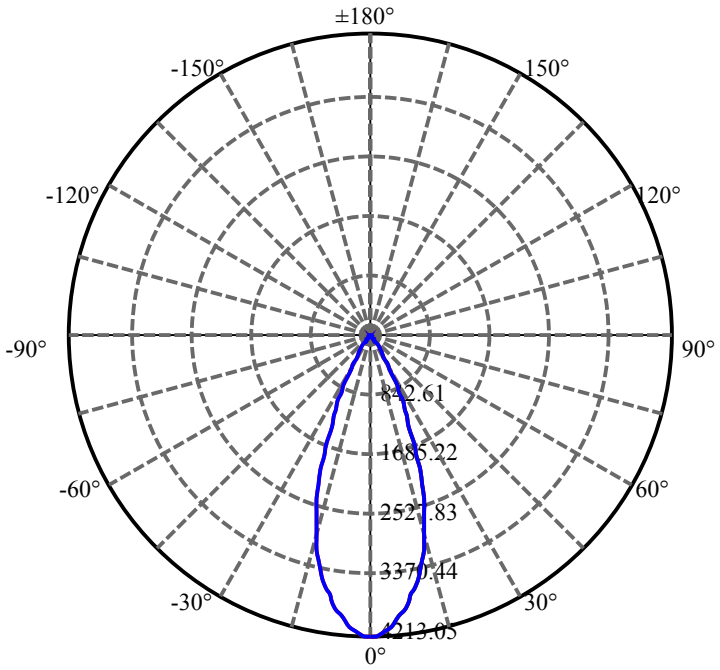
ZONAL LUMEN SUMMARY

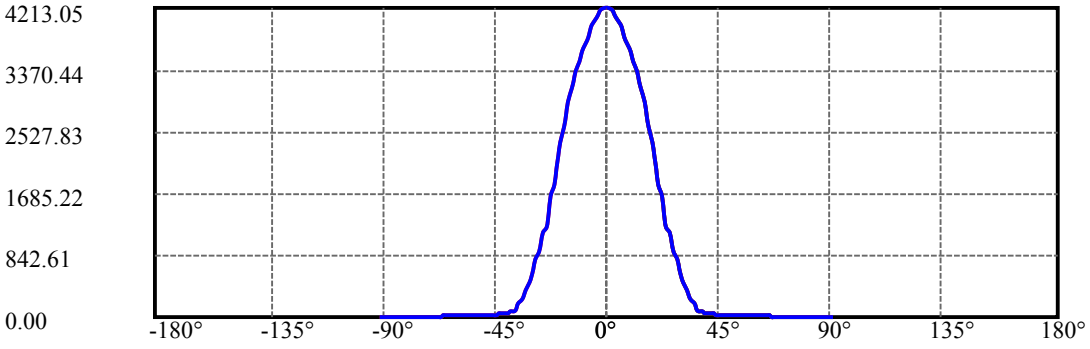
Zone	Lumens	%Lamp	%Fixt
0-30	1692.23	84.74%	89.17%
0-40	1820.38	91.15%	95.93%
0-60	1863.71	93.32%	98.21%
0-90	1896.82	94.98%	99.95%
0-120	1896.82	94.98%	99.95%
0-180	1897.70	95.03%	100.00%
60-90	33.12	1.66%	1.75%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-25.73	1518.16	76.02%	80.00%

ZONAL LUMEN SUMMARY

0-10	369.08
10-20	792.93
20-30	530.22
30-40	128.15
40-50	26.78
50-60	16.54
60-70	13.27
70-80	11.28
80-90	8.56
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):

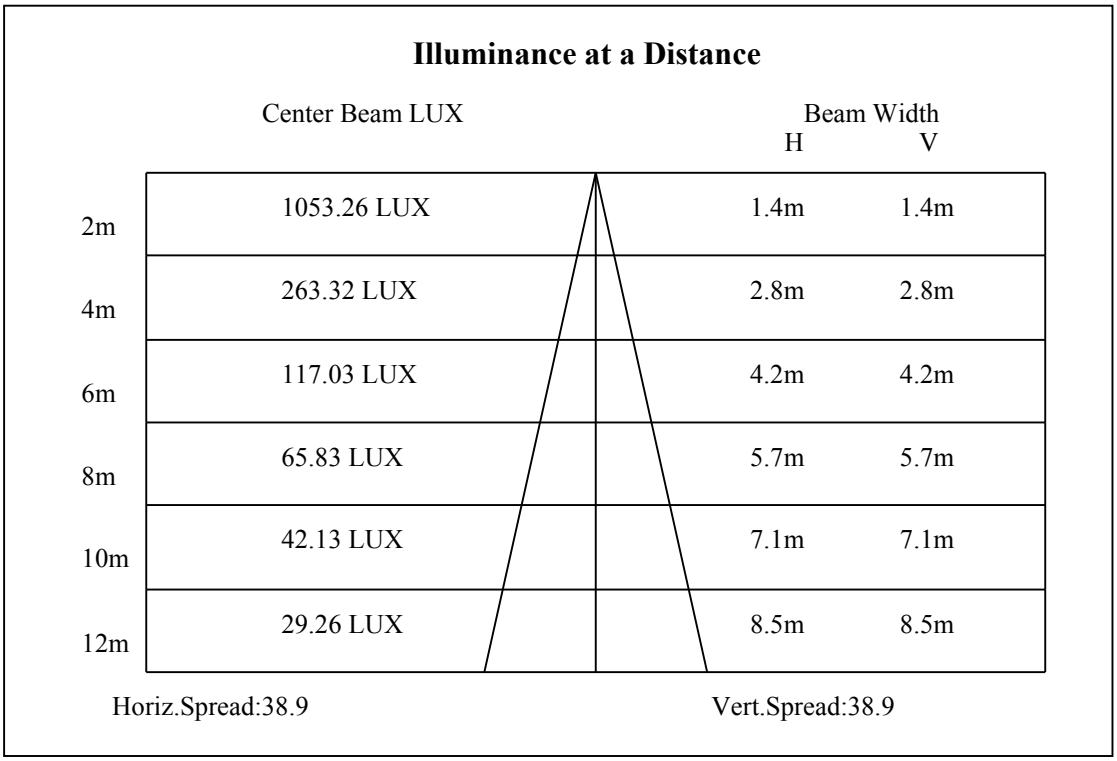
C0/C180:

C90/C270:

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

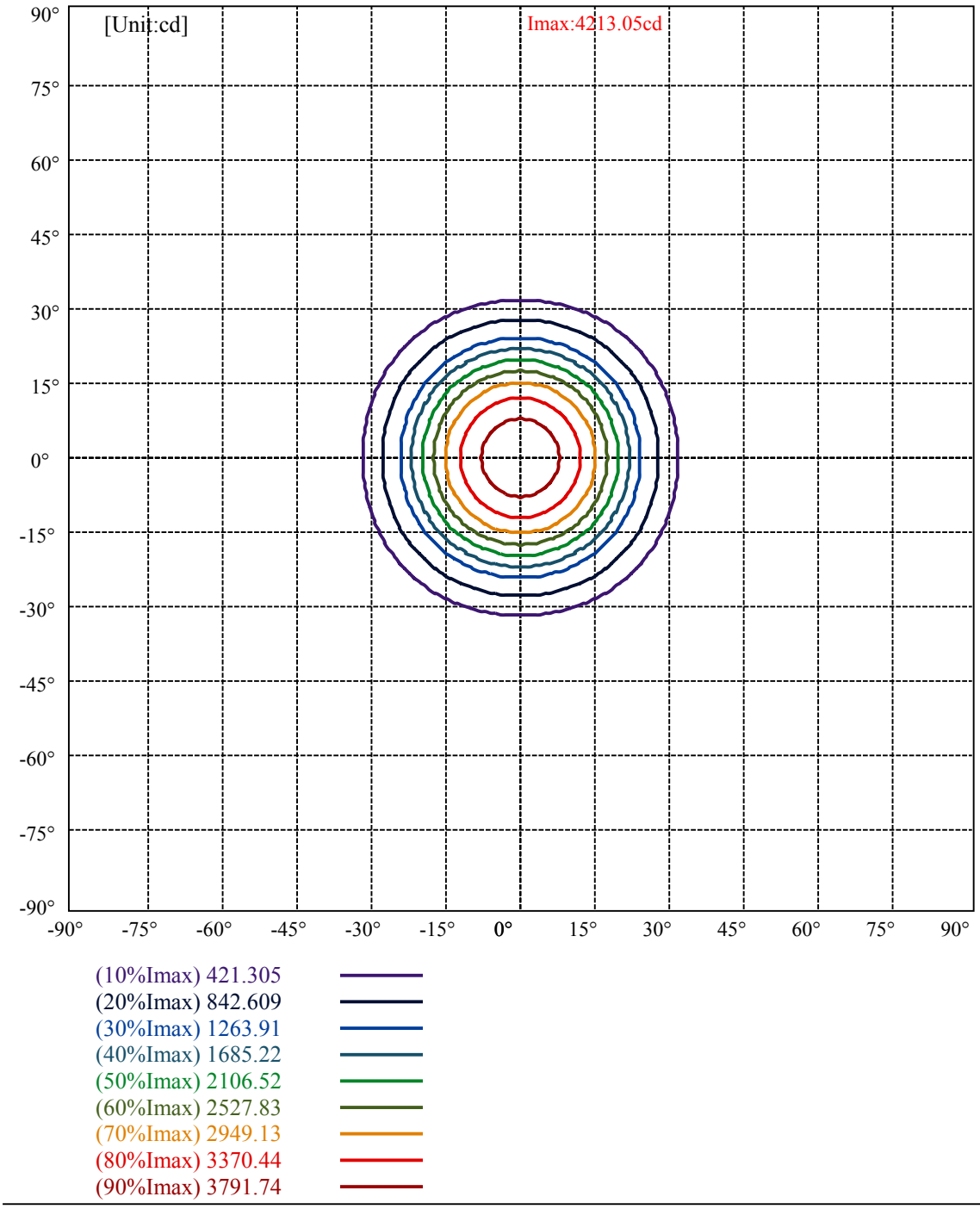
Beam Angle(50%Imax):C0/180Left:19.5 Right:19.5
:C90/270Left:19.5 Right:19.5

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)

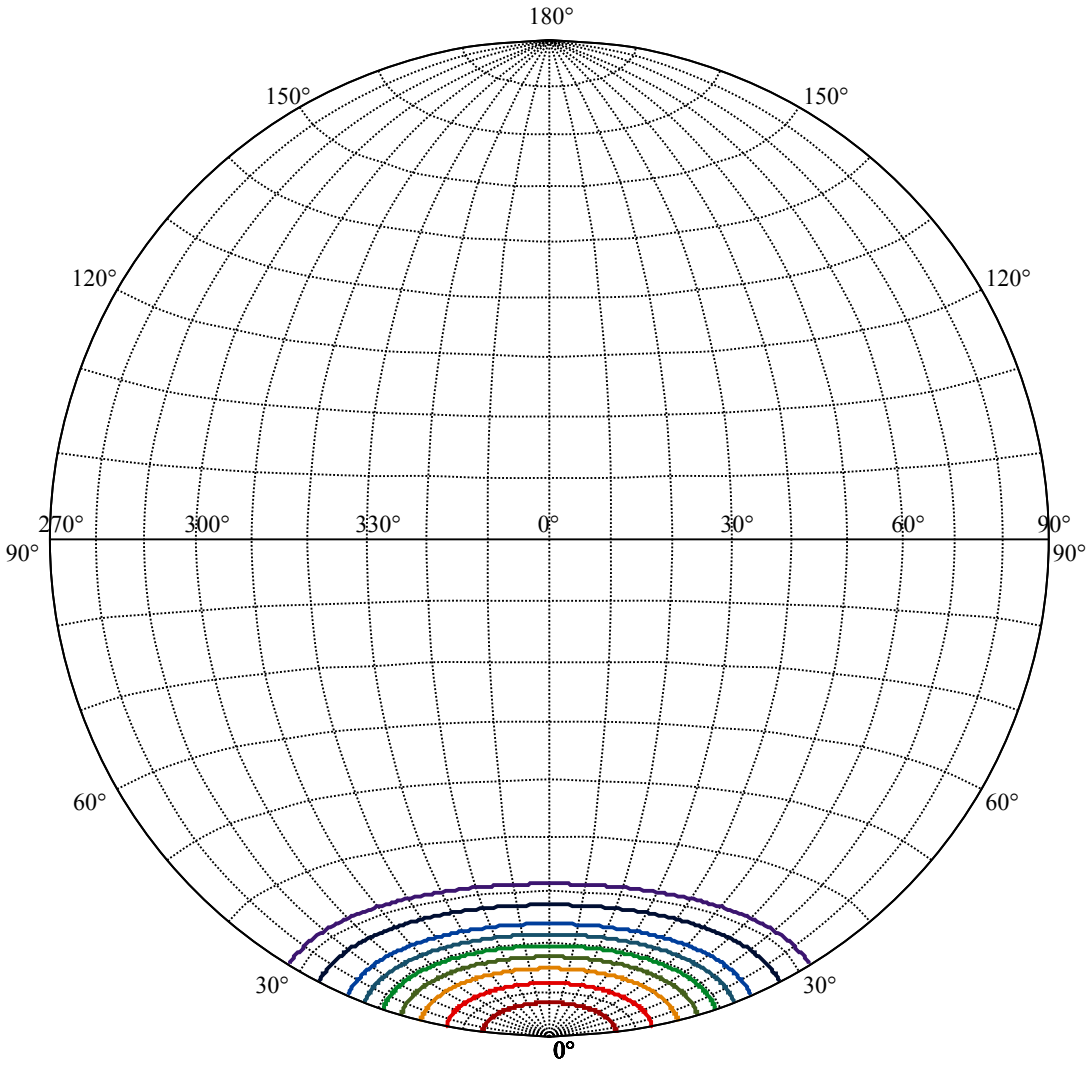


Equipment: GMS1980
Temperature(°C): 25.0

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

Operator: NT07
Distance(m): 7.44

ISO candela diagram on circular web



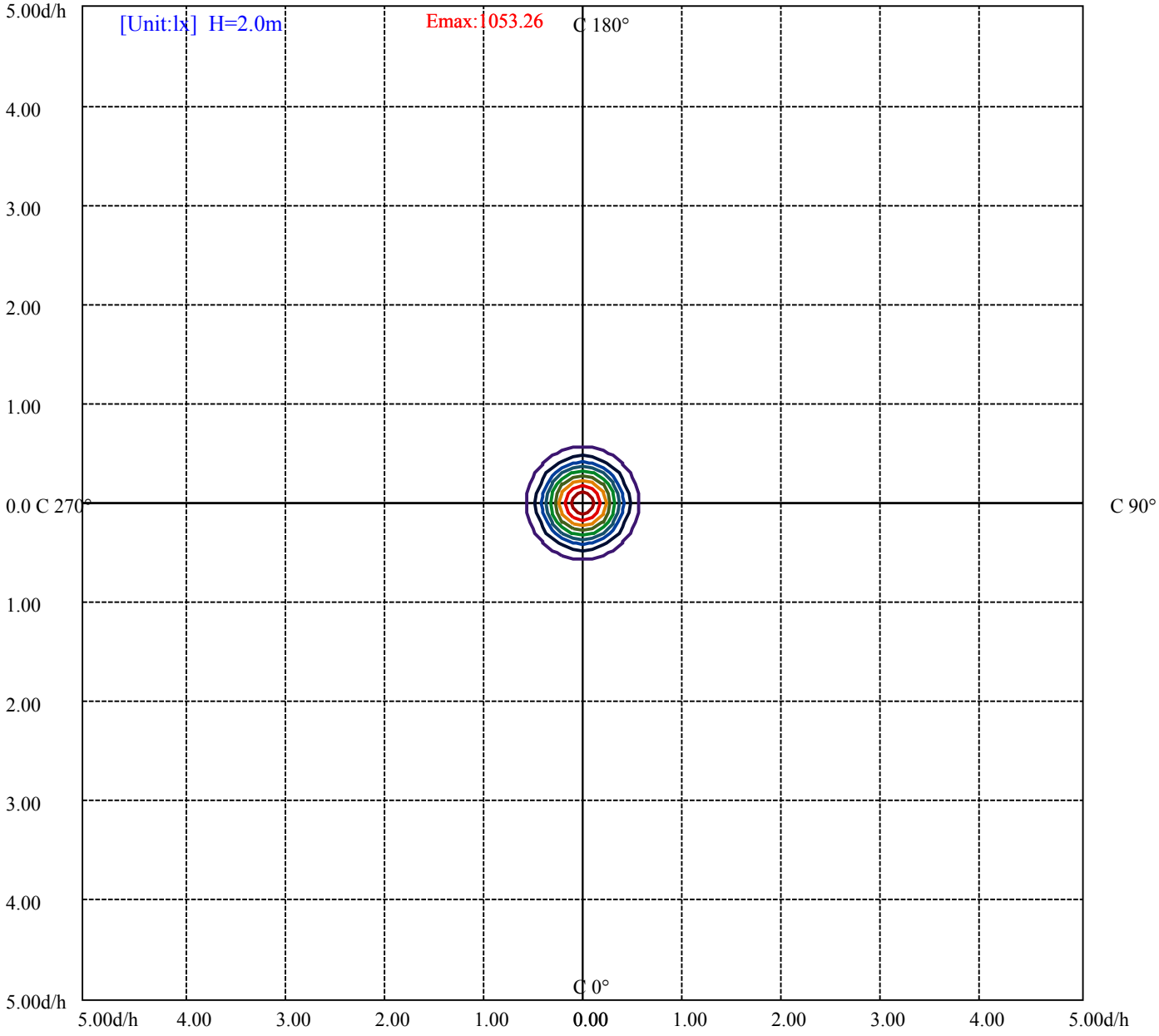
House [Unit:cd] Road

Imax:4213.05

(10%Imax) 421.305
(20%Imax) 842.609
(30%Imax) 1263.91
(40%Imax) 1685.22
(50%Imax) 2106.52
(60%Imax) 2527.83
(70%Imax) 2949.13
(80%Imax) 3370.44
(90%Imax) 3791.74

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

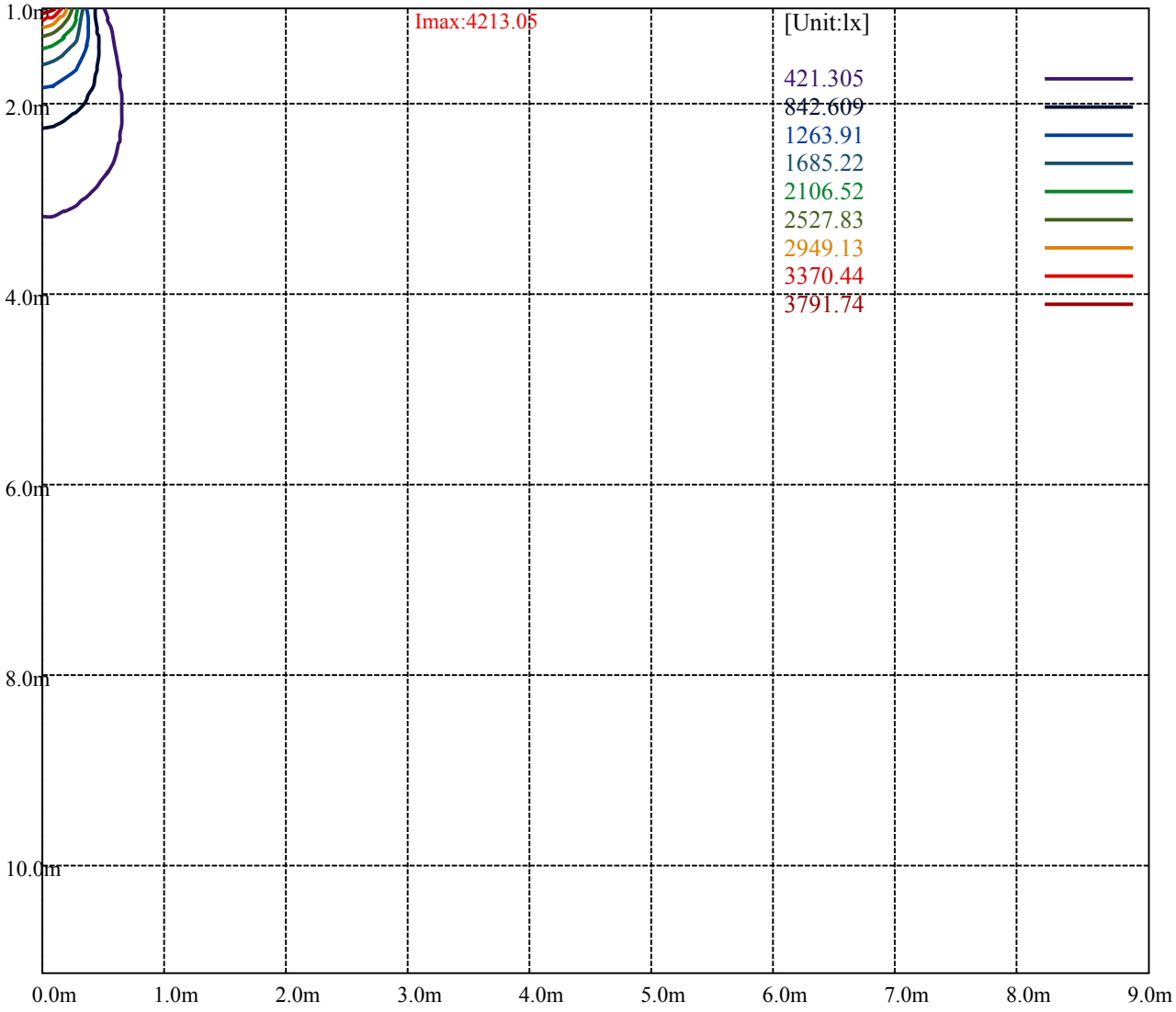
ISO illuminance diagram



(10%Emax) 105.326
(20%Emax) 210.6523
(30%Emax) 315.9775
(40%Emax) 421.305
(50%Emax) 526.63
(60%Emax) 631.9575
(70%Emax) 737.2825
(80%Emax) 842.61
(90%Emax) 947.935

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

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

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

Operator: NT07
Distance(m): 7.44

Luminance Limitting Curve(no luminous side)

Luminance Table

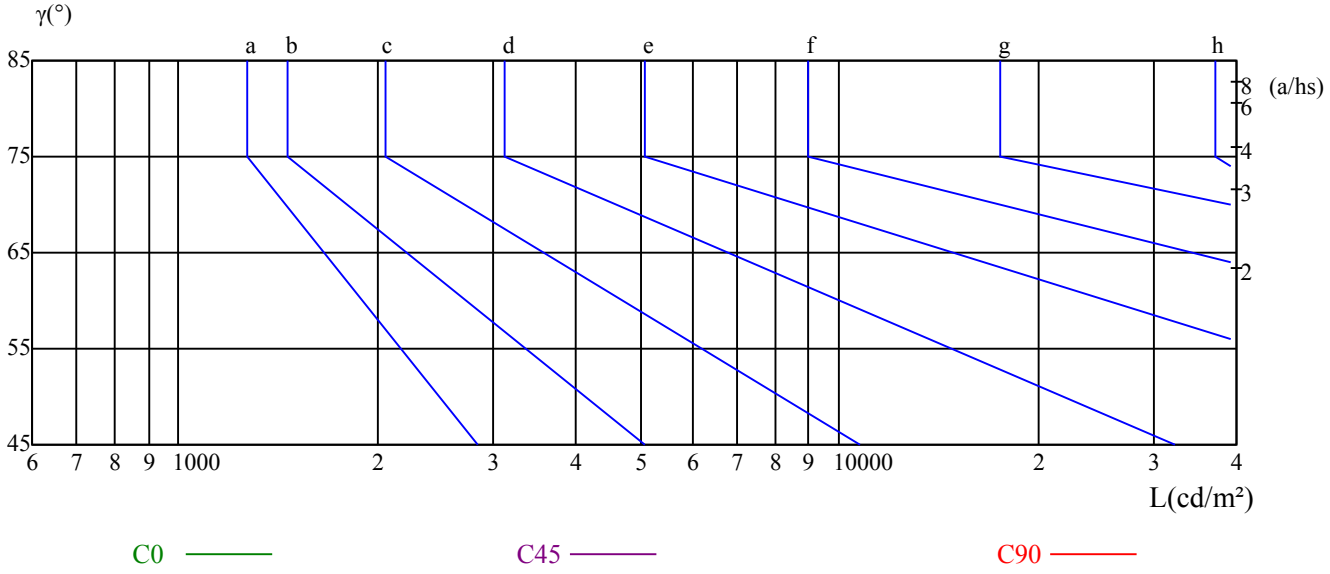
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

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

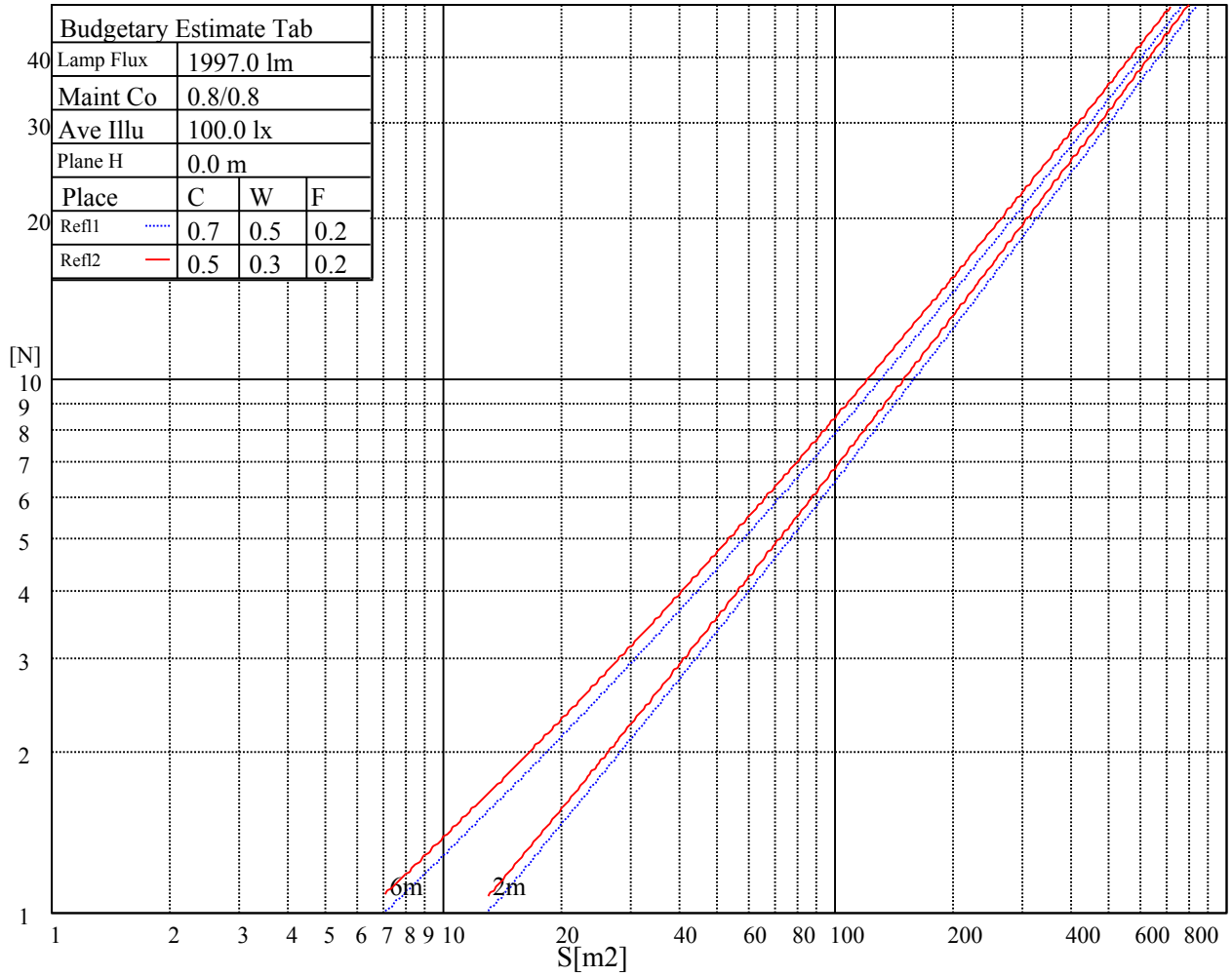


UGR Glare

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

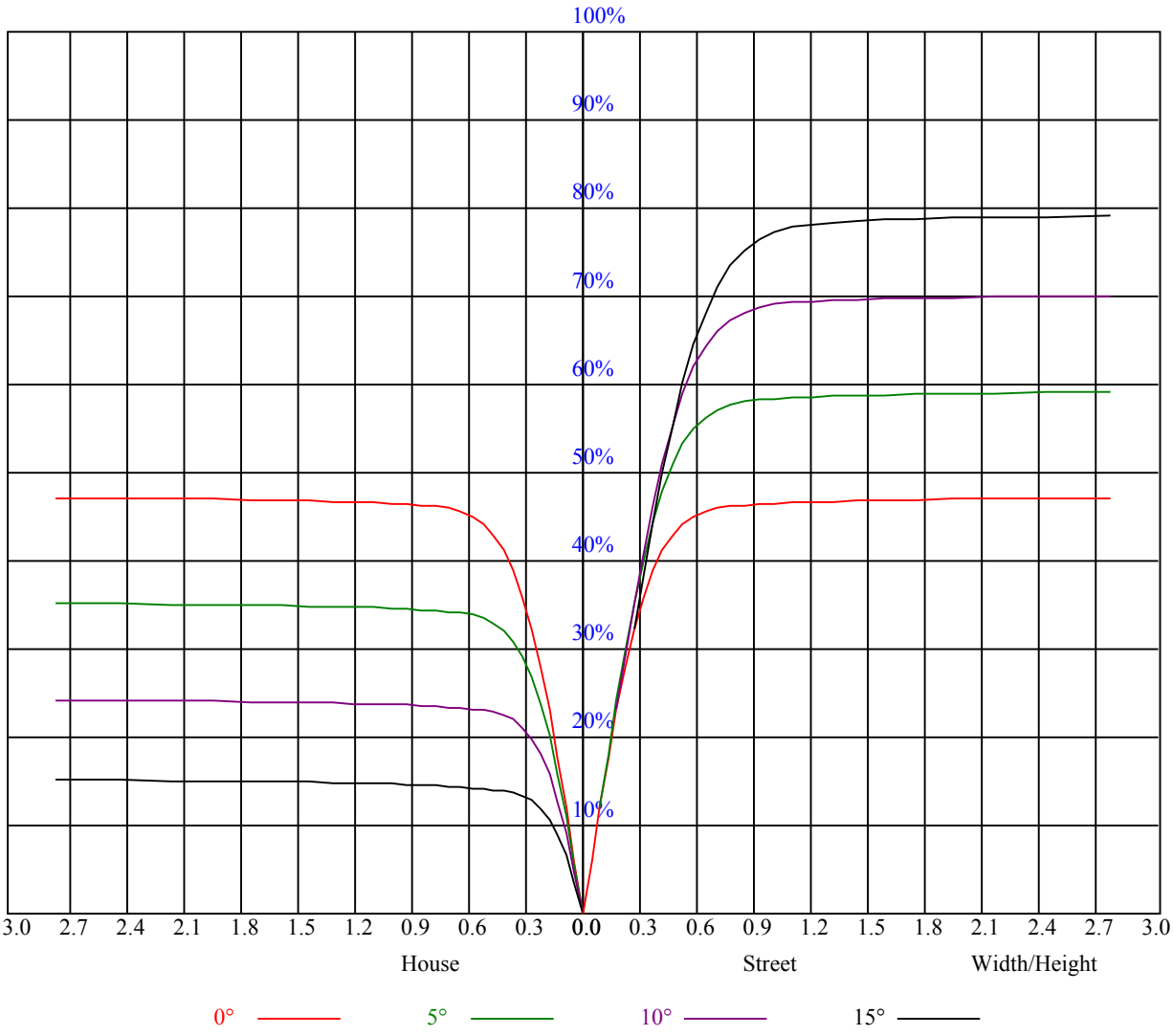


Equipment: GMS1980 Date: 2023/10/10 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.44

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

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	4206.82	4183.02	4127.11	4068.99	4007.55	3917.87	3837.06	3752.92	3658.26
45.0	4219.55	4207.93	4193.53	4141.50	4090.58	4027.47	3956.62	3863.63	3771.74
90.0	4208.48	4166.96	4139.84	4085.59	4019.72	3936.69	3858.09	3779.49	3692.58
135.0	4217.34	4200.18	4173.61	4132.09	4070.65	4003.12	3936.69	3840.38	3758.45
180.0	4206.82	4220.66	4204.05	4170.28	4130.43	4064.01	4002.56	3933.37	3856.43
225.0	4219.55	4211.80	4174.16	4128.22	4069.54	4004.78	3945.55	3845.36	3769.52
270.0	4208.48	4224.53	4215.67	4194.09	4152.02	4111.61	4031.90	3969.90	3869.16
315.0	4217.34	4215.67	4190.21	4148.70	4094.45	4028.03	3969.90	3880.23	3793.33
360.0	4206.82	4183.02	4127.11	4068.99	4007.55	3917.87	3837.06	3752.92	3658.26

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	3543.68	3446.26	3342.20	3223.18	3059.34	2911.54	2753.23	2542.34	2379.04
45.0	3682.07	3581.32	3455.67	3349.94	3197.72	3068.75	2920.95	2717.81	2550.64
90.0	3572.47	3470.06	3355.48	3207.69	3082.59	2941.43	2748.25	2581.64	2416.68
135.0	3663.80	3576.34	3455.12	3346.07	3231.49	3109.71	2941.43	2782.57	2609.87
180.0	3756.24	3678.74	3589.07	3493.31	3375.41	3264.70	3106.39	2964.13	2805.82
225.0	3684.83	3593.50	3480.03	3373.75	3251.97	3120.23	2930.36	2752.13	2577.21
270.0	3782.81	3701.99	3614.53	3493.86	3387.03	3270.24	3132.96	2929.81	2763.75
315.0	3710.30	3624.50	3501.06	3395.33	3256.40	3122.44	2969.11	2765.96	2594.92
360.0	3543.68	3446.26	3342.20	3223.18	3059.34	2911.54	2753.23	2542.34	2379.04

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2164.82	1986.03	1804.47	1600.22	1447.99	1077.29	1077.29	1012.53	884.27
45.0	2385.68	2219.62	2005.96	1832.15	1667.20	1511.10	1331.75	1199.46	1073.25
90.0	2193.05	2010.39	1829.38	1660.55	1462.94	1082.00	1082.00	1050.22	893.63
135.0	2407.83	2232.36	2013.71	1839.34	1671.07	1513.87	1326.22	1190.60	1059.41
180.0	2608.76	2421.11	2242.87	2066.29	1848.20	1666.09	1488.96	1351.68	1172.33
225.0	2351.92	2162.06	1967.77	1737.49	1570.33	1372.71	1081.00	1081.00	997.97
270.0	2598.24	2405.06	2165.93	1977.73	1798.38	1575.86	1409.80	1240.97	1112.00
315.0	2412.25	2181.98	1992.12	1809.45	1638.41	1436.92	1073.80	1073.80	1043.42
360.0	2164.82	1986.03	1804.47	1600.22	1447.99	1077.29	1077.29	1012.53	884.27

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	763.82	654.61	527.63	435.25	348.23	269.30	183.50	132.30	95.10
45.0	912.17	792.05	678.58	556.25	466.02	359.19	282.25	282.25	197.34
90.0	771.08	663.91	543.96	454.95	352.21	274.78	206.52	151.12	106.94
135.0	924.90	768.81	661.97	566.21	454.95	370.26	290.00	290.00	140.60
180.0	1048.90	932.65	783.75	677.47	580.60	460.49	371.92	292.21	292.21
225.0	861.08	753.36	657.16	563.83	452.68	363.34	281.58	207.58	133.40
270.0	1001.84	895.57	757.18	655.88	562.89	467.68	354.76	291.66	291.66
315.0	895.68	781.37	677.97	579.16	460.76	371.31	267.63	196.12	140.04
360.0	763.82	654.61	527.63	435.25	348.23	269.30	183.50	132.30	95.10

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	80.32	70.13	60.34	54.36	48.93	44.23	39.13	35.92	33.16
45.0	107.50	87.68	75.17	66.04	57.18	51.59	46.39	41.96	37.36
90.0	88.73	76.06	66.15	57.18	51.59	46.61	41.13	37.47	34.43
135.0	105.61	81.31	69.86	61.17	53.25	48.10	43.51	39.41	35.98
180.0	140.21	103.57	79.82	68.75	60.72	54.52	47.49	42.79	38.75
225.0	98.25	80.43	67.53	59.89	52.48	47.27	42.79	38.86	34.93
270.0	134.90	94.99	79.38	66.26	59.23	52.03	46.72	42.35	38.58
315.0	98.20	81.26	69.58	61.33	53.42	47.83	43.07	38.91	34.76
360.0	80.32	70.13	60.34	54.36	48.93	44.23	39.13	35.92	33.16

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	30.78	28.23	26.51	24.96	23.36	22.20	21.15	20.04	19.21
45.0	34.43	31.27	29.23	27.29	25.24	23.86	22.64	21.48	20.26
90.0	31.27	29.17	26.85	25.30	23.91	22.64	21.31	20.37	19.43
135.0	32.49	30.22	28.23	26.02	24.52	23.19	21.75	20.70	19.60
180.0	35.43	32.11	29.89	27.51	25.79	24.36	22.75	21.59	20.54
225.0	32.27	30.06	28.06	25.85	24.41	23.14	21.59	20.54	19.60
270.0	35.43	32.16	29.95	27.90	26.24	24.36	23.08	21.86	20.54
315.0	32.11	29.78	27.29	25.63	24.13	22.53	21.42	20.15	19.32
360.0	30.78	28.23	26.51	24.96	23.36	22.20	21.15	20.04	19.21

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	18.43	17.60	17.05	16.50	16.00	15.50	15.11	14.67	14.34
45.0	19.43	18.65	17.99	17.27	16.72	16.16	15.55	15.17	14.72
90.0	18.65	17.71	17.10	16.55	16.00	15.39	15.00	14.50	14.17
135.0	18.76	18.05	17.38	16.72	16.16	15.67	15.28	14.72	14.34
180.0	19.60	18.60	17.82	17.21	16.66	16.00	15.50	15.06	14.56
225.0	18.54	17.82	17.16	16.44	15.94	15.39	15.00	14.50	14.12
270.0	19.65	18.76	17.88	17.21	16.55	16.00	15.50	15.06	14.61
315.0	18.54	17.88	17.21	16.55	16.05	15.61	15.17	14.67	14.34
360.0	18.43	17.60	17.05	16.50	16.00	15.50	15.11	14.67	14.34

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	13.89	13.56	13.17	12.84	12.57	12.23	11.96	11.73	11.40
45.0	14.28	13.95	13.62	13.23	12.95	12.62	12.34	12.01	11.79
90.0	13.84	13.40	13.12	12.79	12.51	12.18	11.90	11.68	11.40
135.0	14.00	13.73	13.34	13.06	12.68	12.45	12.18	11.85	11.62
180.0	14.23	13.84	13.45	13.17	12.84	12.57	12.29	12.01	11.73
225.0	13.78	13.45	13.06	12.79	12.51	12.18	11.96	11.62	11.40
270.0	14.17	13.84	13.56	13.23	12.84	12.57	12.23	12.01	11.73
315.0	13.84	13.56	13.28	12.95	12.62	12.40	12.07	11.79	11.57
360.0	13.89	13.56	13.17	12.84	12.57	12.23	11.96	11.73	11.40

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	11.18	10.96	10.74	10.52	10.30	10.02	9.85	9.63	9.41
45.0	11.51	11.29	11.02	10.79	10.57	10.30	10.07	9.85	9.63
90.0	11.13	10.96	10.74	10.46	10.30	9.96	9.80	9.63	9.35
135.0	11.40	11.13	10.90	10.68	10.52	10.30	10.02	9.85	9.63
180.0	11.46	11.29	11.07	10.85	10.57	10.41	10.19	9.96	9.74
225.0	11.18	10.96	10.79	10.57	10.35	10.13	9.91	9.74	9.52
270.0	11.46	11.24	11.02	10.74	10.57	10.35	10.07	9.85	9.69
315.0	11.35	11.13	10.90	10.68	10.41	10.24	9.96	9.74	9.52
360.0	11.18	10.96	10.74	10.52	10.30	10.02	9.85	9.63	9.41

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	9.24	9.02	8.86	8.69	8.47	8.36	8.19	8.14	8.03
45.0	9.41	9.19	9.02	8.80	8.64	8.47	8.30	8.19	8.03
90.0	9.19	9.02	8.80	8.64	8.47	8.30	8.19	8.08	7.92
135.0	9.41	9.24	8.97	8.80	8.64	8.47	8.30	8.19	7.97
180.0	9.52	9.35	9.13	8.97	8.75	8.58	8.41	8.30	8.14
225.0	9.35	9.13	8.91	8.69	8.58	8.41	8.25	8.14	7.92
270.0	9.47	9.30	9.02	8.86	8.64	8.47	8.36	8.19	8.08
315.0	9.35	9.19	8.97	8.75	8.58	8.41	8.25	8.14	7.97
360.0	9.24	9.02	8.86	8.69	8.47	8.36	8.19	8.14	8.03

Intensity data(cd)

C/γ(°)	90.0
0.0	8.03
45.0	7.97
90.0	7.97
135.0	7.97
180.0	7.97
225.0	7.97
270.0	7.92
315.0	7.97
360.0	8.03