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NATA

Client:
LumCAT: 2-2645-L Luminaire:
92.70.411.00 Report No: 2023828-B009
Ballast type: AC
Test No: 2023828-C009

LampCAT: LUXEON CoB 1208 LES15	Voltage(V): 34.150
Lamp flux(lm): 2364.6 Number of Lamps: 1	Current(A): 0.503
Length(mm): 0	Power (W): 17.177
Phm Type: C	PF: 0.000
	Width(mm): 0
	Height(mm): 0

Photometric Results

Lumens(lm): 2219.92, Efficiency(%): 93.88% , Luminous Efficacy(lm/W): 129.24
Central intensity(cd): 4794.121, Maximum intensity(cd): 4794.121
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=39.6
[C90/270]Total=39.6
Field angle(10%Imax): [C0/180]Total=63.2
[C90/270]Total=63.2
Maximum s/h(1/2): C0_180=0.65 C90_270=0.65
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(%): 93.88%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.092%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4794.120	0.000	0	0.00%	0.00%
1.0	4786.440	4.584	4.584	0.19%	0.21%
2.0	4760.562	13.703	18.287	0.58%	0.82%
3.0	4723.337	22.682	40.969	0.96%	1.85%
4.0	4672.550	31.451	72.42	1.33%	3.26%
5.0	4608.201	39.925	112.346	1.69%	5.06%
6.0	4525.032	47.998	160.343	2.03%	7.22%
7.0	4438.819	55.638	215.982	2.35%	9.73%
8.0	4337.591	62.811	278.793	2.66%	12.56%
9.0	4236.986	69.492	348.285	2.94%	15.69%
10.0	4122.542	75.651	423.936	3.20%	19.10%
11.0	4001.733	81.178	505.114	3.43%	22.75%
12.0	3868.123	86.029	591.143	3.64%	26.63%
13.0	3725.795	90.121	681.263	3.81%	30.69%
14.0	3562.433	93.289	774.552	3.95%	34.89%
15.0	3396.096	95.530	870.082	4.04%	39.19%
16.0	3211.076	96.814	966.895	4.09%	43.56%
17.0	3009.589	96.872	1063.768	4.10%	47.92%
18.0	2801.667	95.815	1159.583	4.05%	52.24%
19.0	2586.134	93.737	1253.32	3.96%	56.46%
20.0	2354.133	90.421	1343.74	3.82%	60.53%
21.0	2148.079	86.452	1430.192	3.66%	64.43%
22.0	1936.075	82.073	1512.265	3.47%	68.12%
23.0	1737.425	77.080	1589.345	3.26%	71.59%
24.0	1511.963	71.043	1660.388	3.00%	74.79%
25.0	1351.334	65.105	1725.493	2.75%	77.73%
26.0	1183.633	59.838	1785.331	2.53%	80.42%
27.0	1058.077	54.844	1840.175	2.32%	82.89%
28.0	909.487	49.815	1889.99	2.11%	85.14%
29.0	774.148	44.049	1934.038	1.86%	87.12%
30.0	657.428	38.652	1972.69	1.63%	88.86%
31.0	539.608	33.312	2006.002	1.41%	90.36%
32.0	435.564	27.938	2033.94	1.18%	91.62%
33.0	341.179	22.883	2056.823	0.97%	92.65%
34.0	269.219	18.472	2075.295	0.78%	93.49%
35.0	197.536	14.496	2089.791	0.61%	94.14%
36.0	155.959	11.255	2101.046	0.48%	94.65%
37.0	108.133	8.613	2109.66	0.36%	95.03%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	82.851	6.375	2116.034	0.27%	95.32%
39.0	71.807	5.279	2121.313	0.22%	95.56%
40.0	63.484	4.718	2126.032	0.20%	95.77%
41.0	56.724	4.281	2130.312	0.18%	95.96%
42.0	50.662	3.902	2134.214	0.16%	96.14%
43.0	45.902	3.577	2137.791	0.15%	96.30%
44.0	41.750	3.308	2141.099	0.14%	96.45%
45.0	38.187	3.072	2144.171	0.13%	96.59%
46.0	35.412	2.878	2147.049	0.12%	96.72%
47.0	33.150	2.727	2149.776	0.12%	96.84%
48.0	31.040	2.595	2152.371	0.11%	96.96%
49.0	29.324	2.479	2154.85	0.10%	97.07%
50.0	27.760	2.380	2157.23	0.10%	97.18%
51.0	26.521	2.297	2159.527	0.10%	97.28%
52.0	25.297	2.224	2161.75	0.09%	97.38%
53.0	24.245	2.155	2163.905	0.09%	97.48%
54.0	23.249	2.093	2165.999	0.09%	97.57%
55.0	22.397	2.038	2168.036	0.09%	97.66%
56.0	21.636	1.990	2170.026	0.08%	97.75%
57.0	20.910	1.945	2171.971	0.08%	97.84%
58.0	20.246	1.903	2173.874	0.08%	97.93%
59.0	19.664	1.866	2175.74	0.08%	98.01%
60.0	19.111	1.832	2177.572	0.08%	98.09%
61.0	18.599	1.800	2179.372	0.08%	98.17%
62.0	18.101	1.768	2181.14	0.07%	98.25%
63.0	17.672	1.740	2182.88	0.07%	98.33%
64.0	17.222	1.712	2184.592	0.07%	98.41%
65.0	16.827	1.685	2186.277	0.07%	98.48%
66.0	16.447	1.660	2187.937	0.07%	98.56%
67.0	16.032	1.633	2189.57	0.07%	98.63%
68.0	15.665	1.606	2191.176	0.07%	98.71%
69.0	15.298	1.580	2192.756	0.07%	98.78%
70.0	14.945	1.553	2194.309	0.07%	98.85%
71.0	14.579	1.526	2195.835	0.06%	98.92%
72.0	14.267	1.500	2197.335	0.06%	98.98%
73.0	13.956	1.476	2198.811	0.06%	99.05%
74.0	13.645	1.451	2200.262	0.06%	99.11%
75.0	13.347	1.426	2201.688	0.06%	99.18%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	13.050	1.401	2203.089	0.06%	99.24%
77.0	12.745	1.375	2204.464	0.06%	99.30%
78.0	12.427	1.347	2205.812	0.06%	99.36%
79.0	12.116	1.319	2207.13	0.06%	99.42%
80.0	11.839	1.291	2208.422	0.05%	99.48%
81.0	11.534	1.264	2209.686	0.05%	99.54%
82.0	11.271	1.237	2210.923	0.05%	99.59%
83.0	10.981	1.210	2212.132	0.05%	99.65%
84.0	10.732	1.183	2213.315	0.05%	99.70%
85.0	10.483	1.158	2214.473	0.05%	99.75%
86.0	10.254	1.134	2215.606	0.05%	99.81%
87.0	10.012	1.109	2216.716	0.05%	99.86%
88.0	9.798	1.085	2217.801	0.05%	99.90%
89.0	9.645	1.066	2218.866	0.05%	99.95%
90.0	9.583	1.054	2219.921	0.04%	100.00%

Zonal flux distribution table

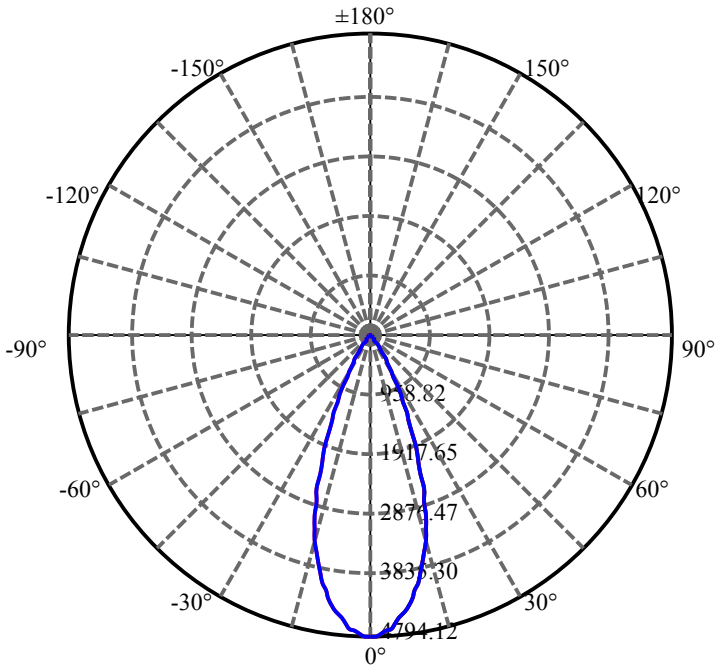
ZONAL LUMEN SUMMARY

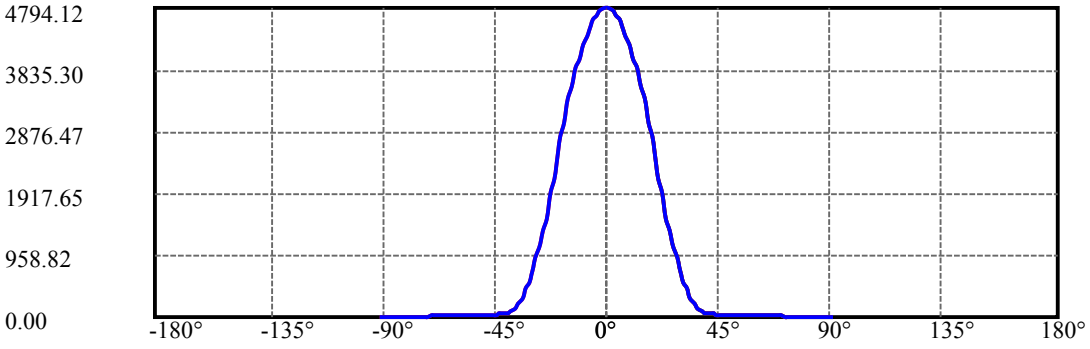
Zone	Lumens	%Lamp	%Fixt
0-30	1972.69	83.43%	88.86%
0-40	2126.03	89.91%	95.77%
0-60	2177.57	92.09%	98.09%
0-90	2218.87	93.84%	99.95%
0-120	2218.87	93.84%	99.95%
0-180	2219.92	93.88%	100.00%
60-90	41.29	1.75%	1.86%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-25.84	1775.94	75.10%	80.00%

ZONAL LUMEN SUMMARY

0-10	423.94
10-20	919.80
20-30	628.95
30-40	153.34
40-50	31.20
50-60	20.34
60-70	16.74
70-80	14.11
80-90	10.44
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):

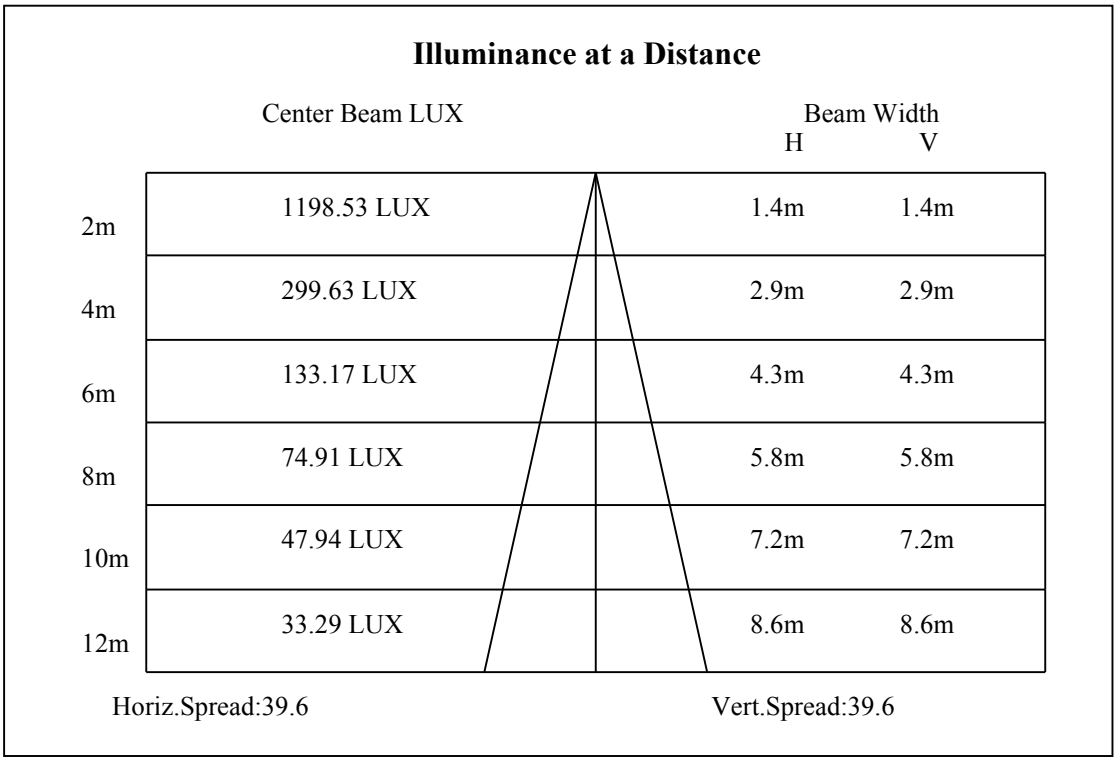
C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:31.6 Right:31.6
:C90/270Left:31.6 Right:31.6

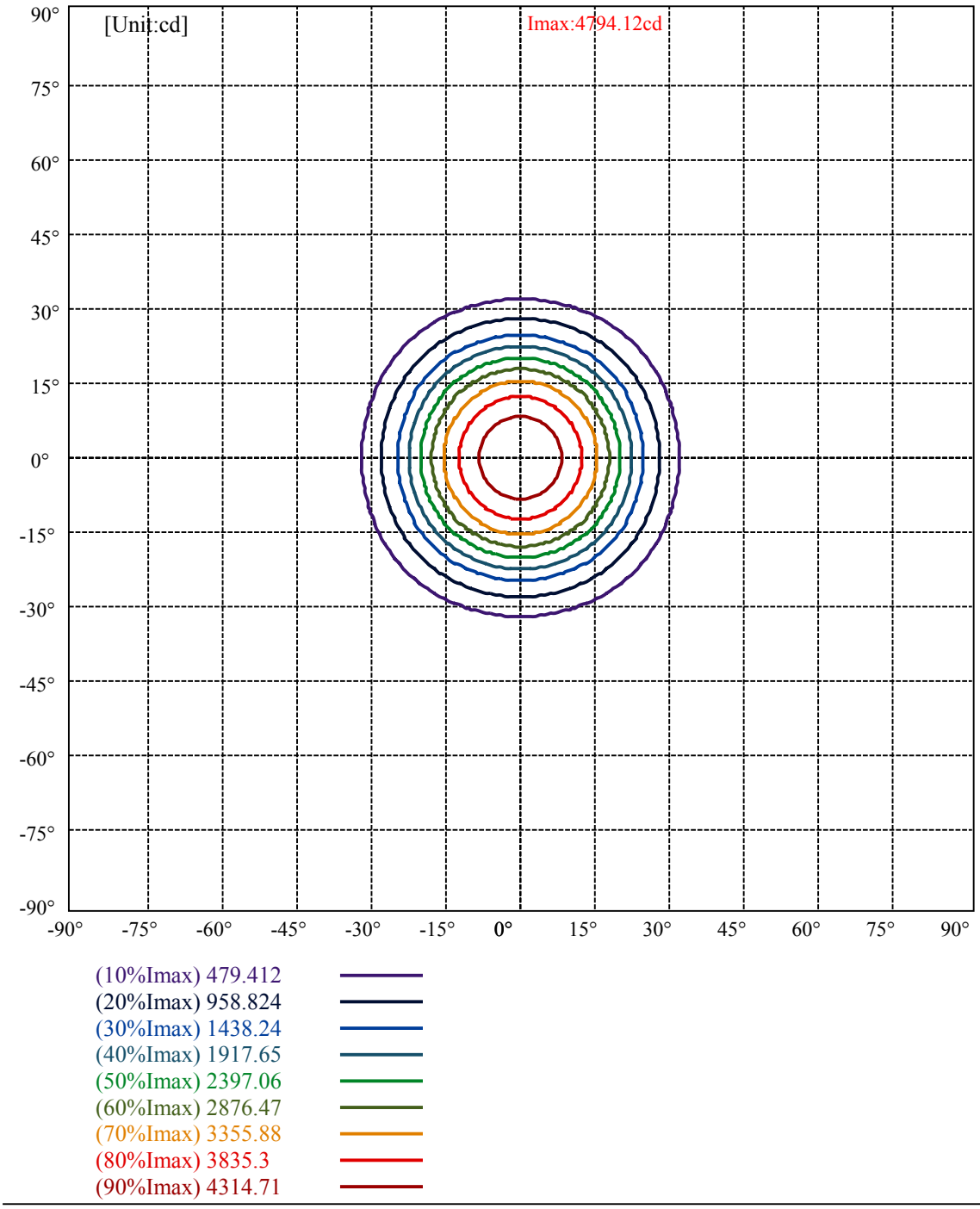
Beam Angle(50%Imax):C0/180Left:19.8 Right:19.8
:C90/270Left:19.8 Right:19.8

Lux distance Curve



Equipment: GMS1980 Date: 2023/8/28 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.44

ISO-Intensity(V-H)

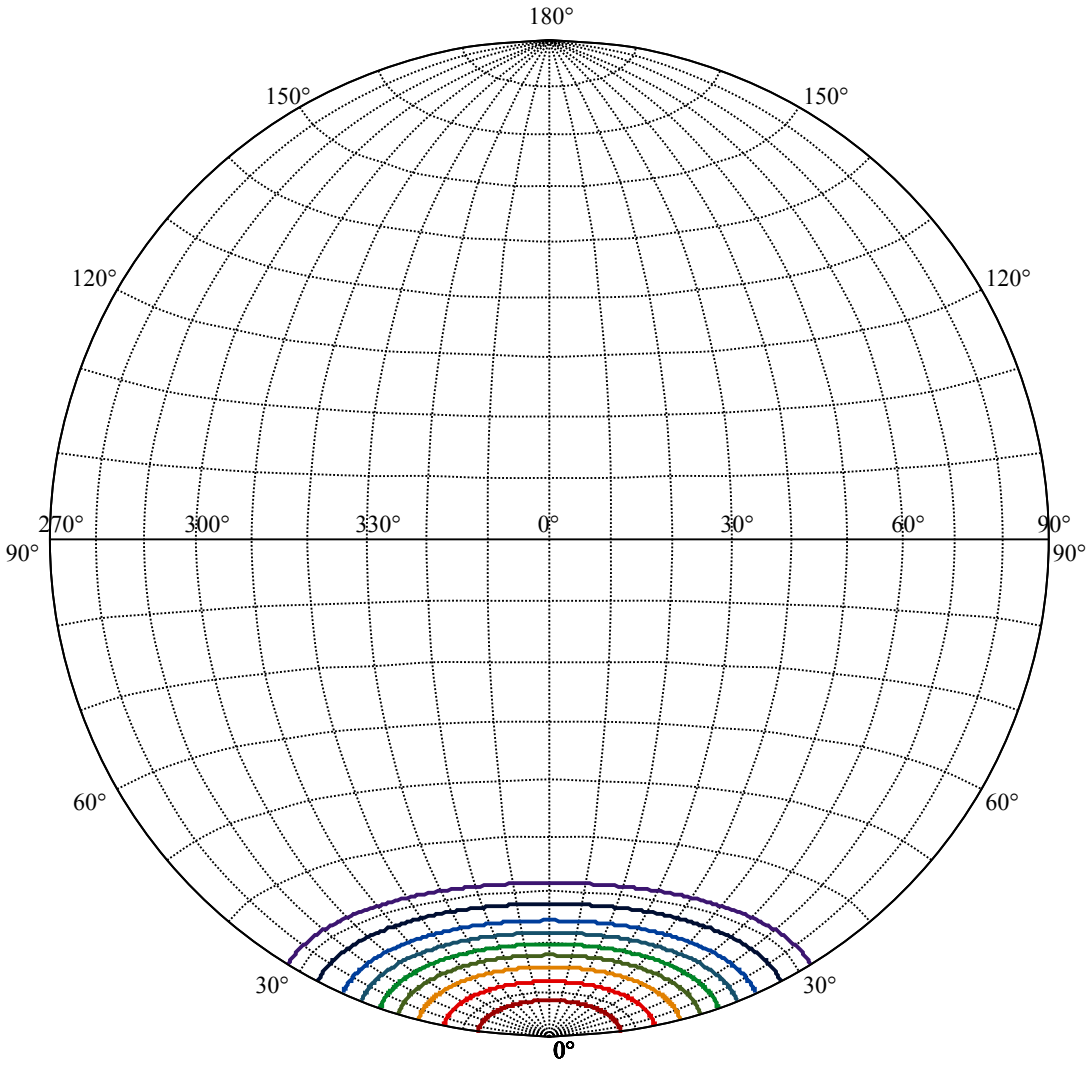


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2023/8/28
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.44

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:4794.12

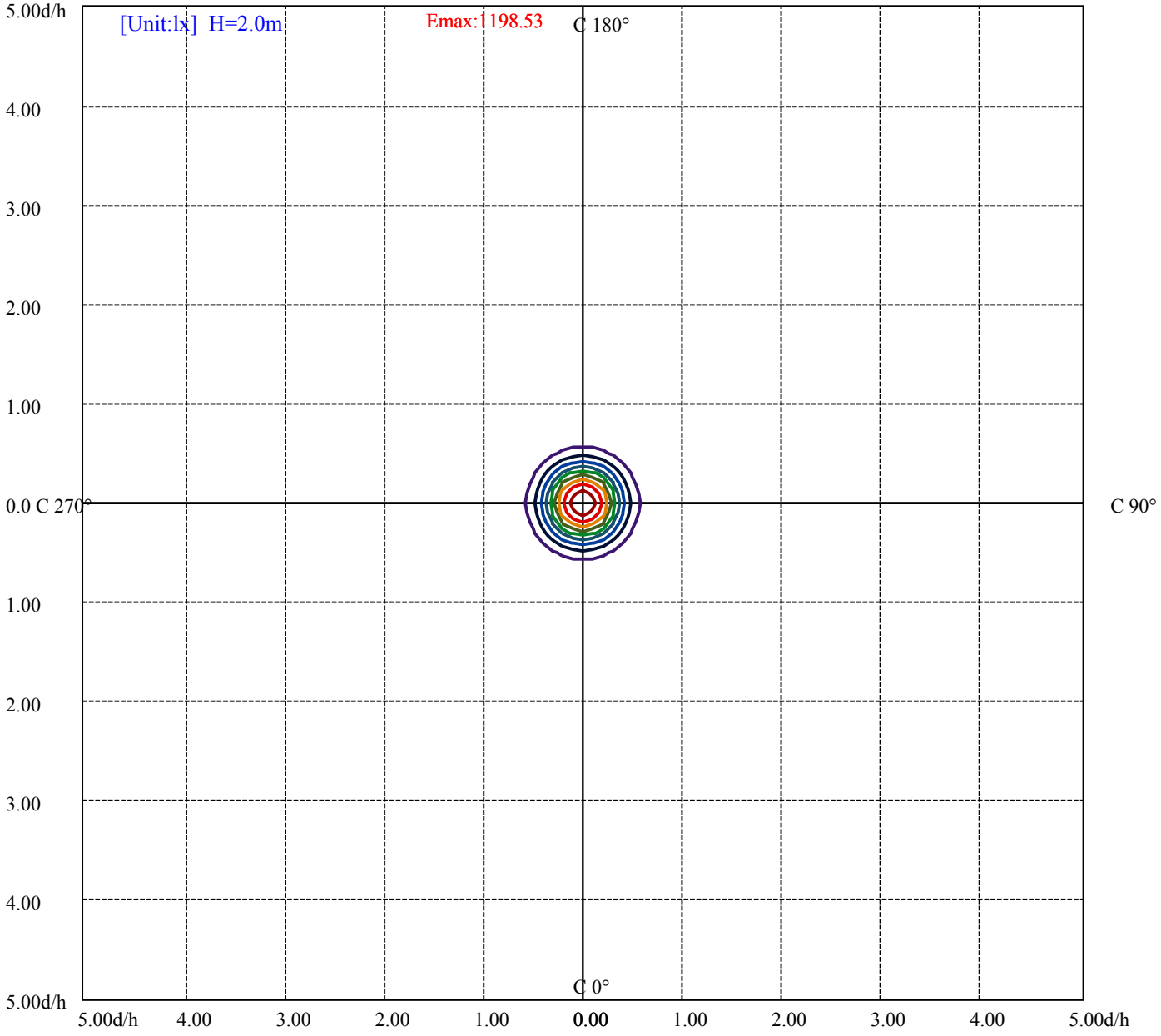
(10%Imax) 479.412
(20%Imax) 958.824
(30%Imax) 1438.24
(40%Imax) 1917.65
(50%Imax) 2397.06
(60%Imax) 2876.47
(70%Imax) 3355.88
(80%Imax) 3835.3
(90%Imax) 4314.71

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2023/8/28
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.44

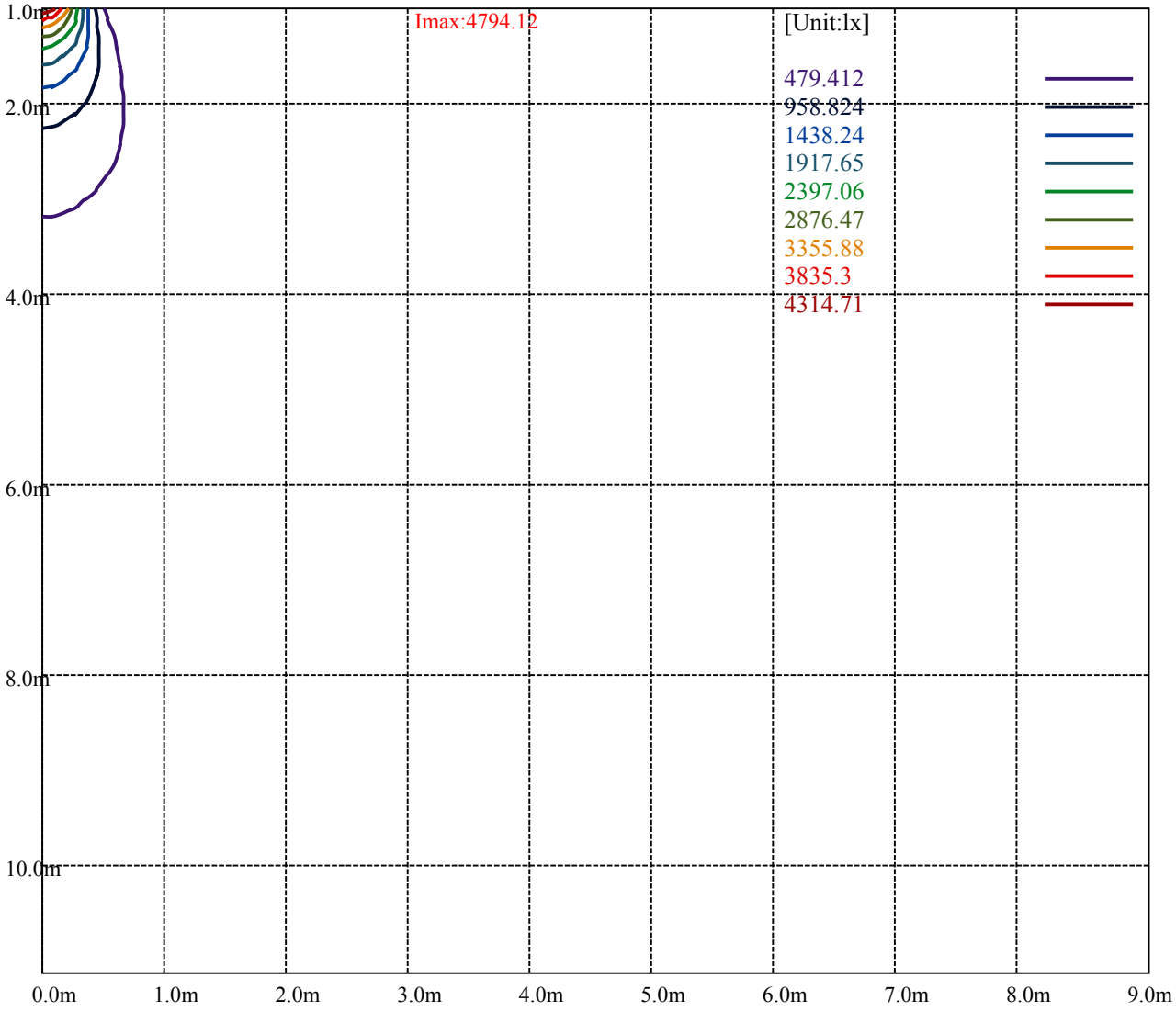
ISO illuminance diagram



(10%Emax) 119.853
(20%Emax) 239.706
(30%Emax) 359.56
(40%Emax) 479.4125
(50%Emax) 599.265
(60%Emax) 719.1175
(70%Emax) 838.97
(80%Emax) 958.825
(90%Emax) 1078.677

Equipment: GMS1980
Temperature(°C): 25.0
Date: 2023/8/28
Humidity(%): 60.0%
Operator: NT07
Distance(m): 7.44

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2023/8/28
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.44

Luminance Limitting Curve(no luminous side)

Luminance Table

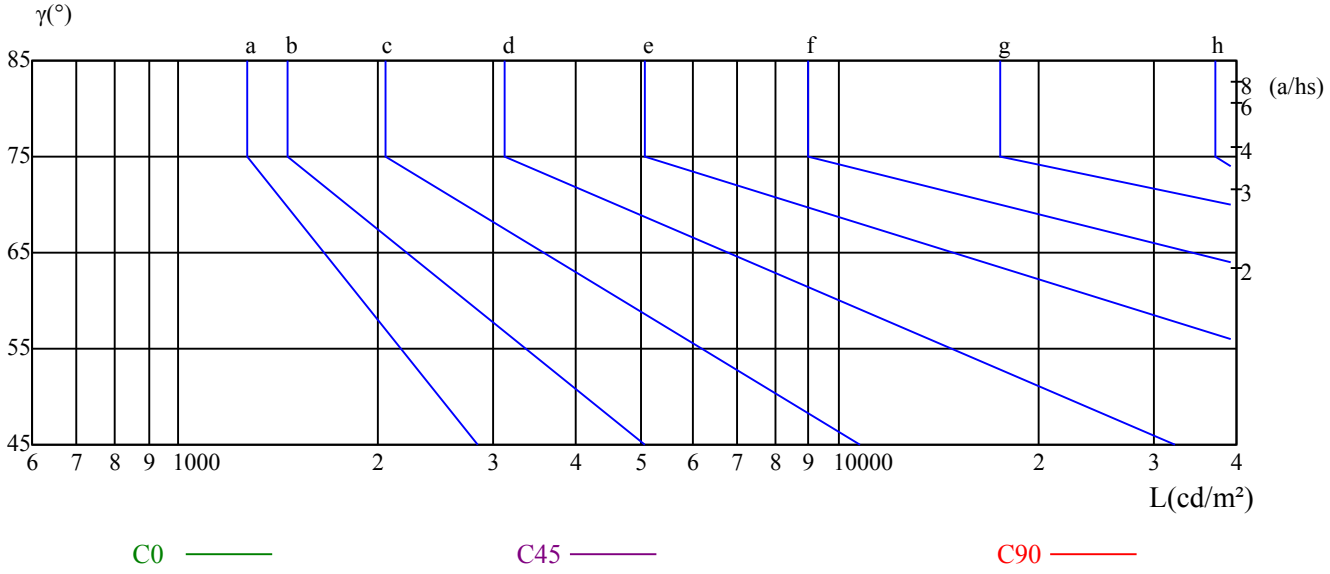
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

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

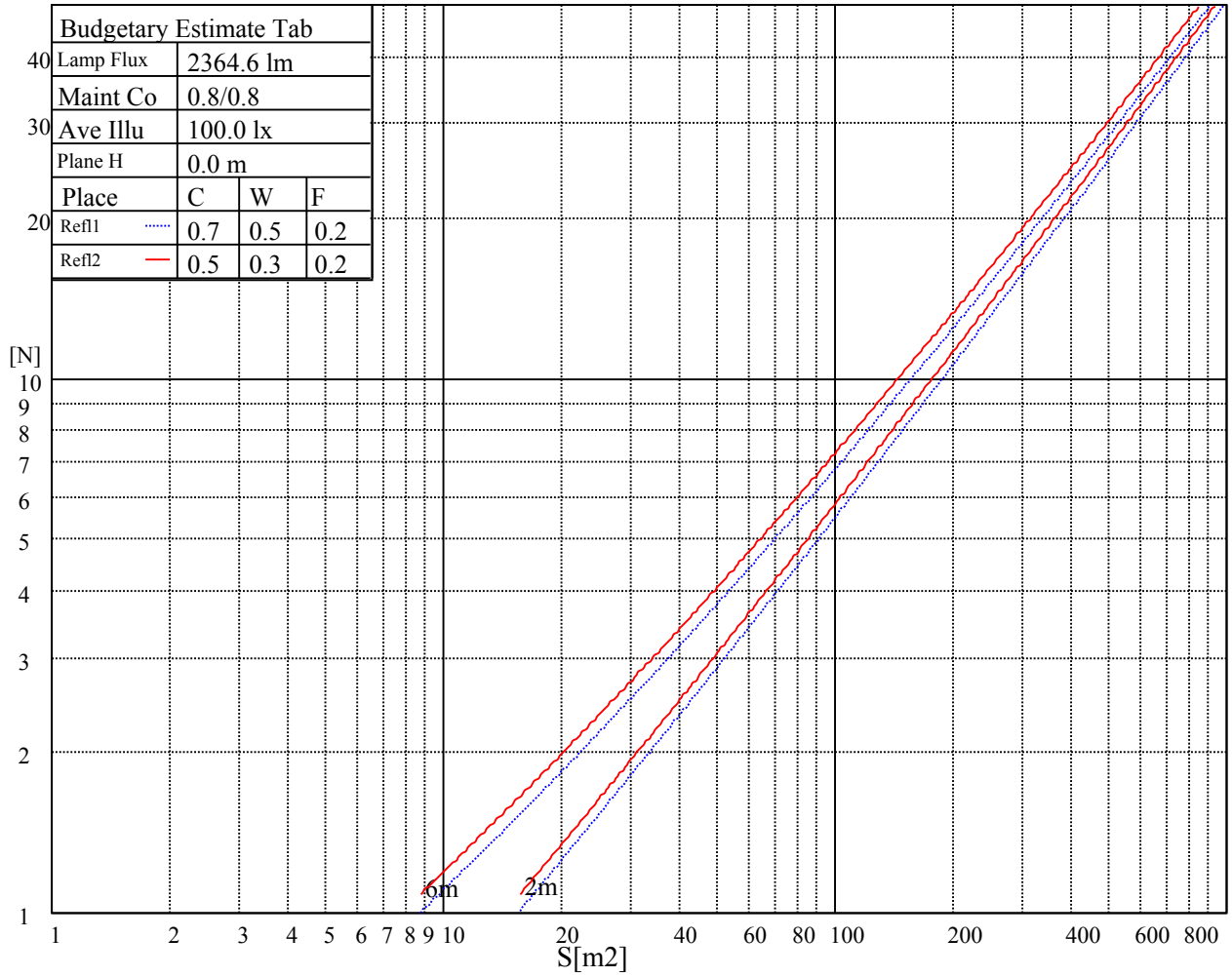


UGR Glare

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

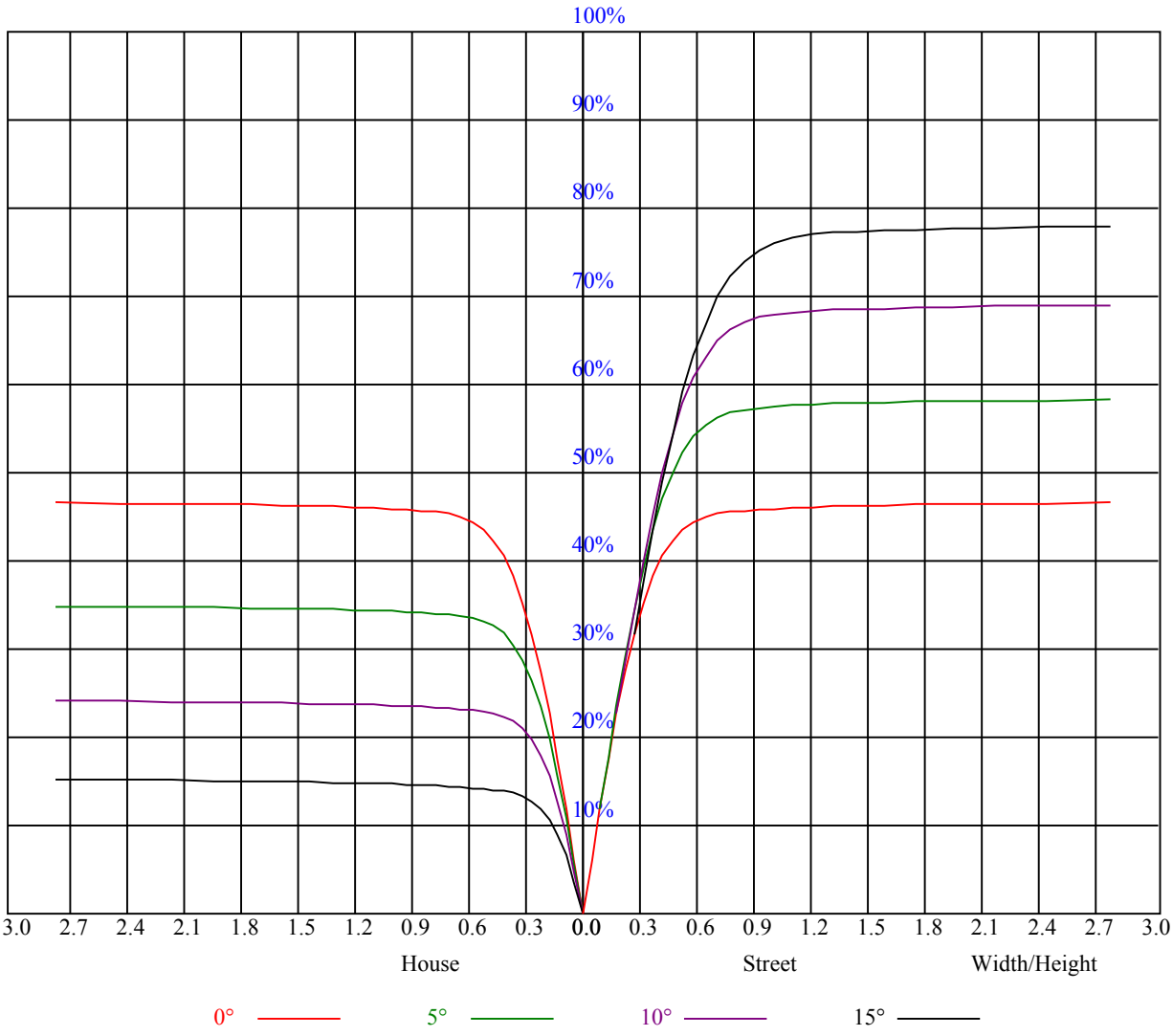


Equipment: GMS1980 Date: 2023/8/28 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.44

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	1.12	1.12	1.12	1.09	1.09	1.09	1.04	1.04	1.04	1.00	1.00	1.00	0.96	0.96	0.96	0.94
1	1.05	1.02	1.00	1.03	1.01	0.99	0.99	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89
2	0.98	0.95	0.92	0.97	0.94	0.91	0.94	0.91	0.89	0.91	0.89	0.87	0.89	0.87	0.86	0.84
3	0.93	0.89	0.86	0.92	0.88	0.85	0.89	0.86	0.84	0.87	0.85	0.82	0.85	0.83	0.81	0.80
4	0.88	0.84	0.80	0.87	0.83	0.80	0.85	0.82	0.79	0.84	0.81	0.78	0.82	0.79	0.77	0.76
5	0.84	0.79	0.76	0.83	0.79	0.76	0.82	0.78	0.75	0.80	0.77	0.74	0.79	0.76	0.74	0.72
6	0.80	0.75	0.72	0.79	0.75	0.72	0.78	0.74	0.71	0.77	0.73	0.71	0.76	0.73	0.70	0.69
7	0.77	0.72	0.68	0.76	0.71	0.68	0.75	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.67	0.66
8	0.73	0.69	0.65	0.73	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.64	0.63
9	0.70	0.66	0.62	0.70	0.65	0.62	0.69	0.65	0.62	0.68	0.65	0.62	0.68	0.64	0.62	0.61
10	0.68	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.66	0.62	0.59	0.65	0.62	0.59	0.58

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2023/8/28	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	4781.94	4744.86	4696.14	4623.08	4551.12	4468.09	4350.74	4257.19	4154.79
45.0	4805.19	4779.17	4747.07	4693.38	4621.97	4554.44	4466.98	4345.76	4250.55
90.0	4780.28	4754.82	4704.45	4644.11	4575.47	4493.00	4383.95	4282.10	4160.87
135.0	4809.07	4800.21	4776.41	4745.96	4695.59	4635.26	4561.63	4460.34	4362.36
180.0	4781.94	4809.62	4799.66	4792.46	4767.00	4743.19	4680.65	4626.40	4531.74
225.0	4805.19	4806.85	4789.14	4766.44	4733.78	4663.49	4598.17	4530.64	4413.29
270.0	4780.28	4801.32	4805.74	4787.48	4754.82	4692.82	4639.68	4573.81	4486.91
315.0	4809.07	4794.67	4765.89	4733.78	4680.65	4615.33	4518.46	4434.32	4340.22
360.0	4781.94	4744.86	4696.14	4623.08	4551.12	4468.09	4350.74	4257.19	4154.79

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	4020.28	3899.05	3766.76	3624.50	3424.12	3244.22	3059.34	2863.94	2614.30
45.0	4140.39	4005.88	3888.54	3720.81	3575.79	3416.37	3245.88	3022.25	2827.96
90.0	4053.49	3907.36	3773.95	3629.48	3448.47	3281.86	3059.89	2866.15	2676.29
135.0	4267.15	4152.02	4039.65	3884.66	3749.04	3578.55	3429.10	3263.59	3039.96
180.0	4445.39	4350.74	4219.55	4120.47	4015.85	3870.27	3727.46	3579.11	3374.30
225.0	4328.60	4230.62	4100.54	3988.73	3870.27	3709.19	3558.07	3392.01	3210.45
270.0	4401.11	4313.10	4221.21	4093.90	3973.78	3839.82	3701.99	3498.85	3318.95
315.0	4239.48	4121.57	4003.67	3882.45	3749.04	3559.18	3387.03	3202.70	3014.50
360.0	4020.28	3899.05	3766.76	3624.50	3424.12	3244.22	3059.34	2863.94	2614.30

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2406.72	2196.93	1946.18	1762.40	1554.27	1282.49	1100.82	1100.82	934.31
45.0	2640.31	2447.13	2192.50	2004.30	1826.06	1657.23	1463.49	1307.95	1112.55
90.0	2475.91	2227.37	2034.19	1852.63	1688.78	1490.62	1099.10	1099.10	1022.77
135.0	2844.01	2643.08	2386.24	2175.34	1987.69	1809.45	1595.24	1431.39	1260.90
180.0	3191.08	2999.00	2788.11	2530.16	2325.90	2128.29	1929.57	1709.82	1532.69
225.0	2968.00	2754.89	2552.85	2340.29	2083.45	1885.84	1664.98	1498.92	1095.95
270.0	3131.85	2877.22	2656.92	2448.23	2190.84	1988.80	1746.35	1578.08	1425.30
315.0	2755.45	2543.44	2276.08	2071.28	1831.60	1656.68	1496.15	1084.60	1084.60
360.0	2406.72	2196.93	1946.18	1762.40	1554.27	1282.49	1100.82	1100.82	934.31

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	810.38	699.50	594.05	467.68	371.15	281.69	202.76	131.52	101.24
45.0	961.99	829.14	680.79	574.52	475.99	382.99	293.87	293.87	135.95
90.0	849.79	728.67	593.78	492.98	398.44	289.67	212.39	150.62	106.00
135.0	1096.50	907.19	779.88	665.85	537.43	441.11	328.75	286.68	286.68
180.0	1367.73	1160.16	994.10	860.14	710.68	600.53	494.25	380.78	294.43
225.0	1095.95	984.02	847.91	727.40	592.50	490.49	393.45	306.11	209.24
270.0	1266.99	1084.32	938.19	817.52	707.36	574.52	474.32	376.90	287.78
315.0	1015.30	882.89	764.49	653.34	523.31	423.51	329.63	227.28	158.98
360.0	810.38	699.50	594.05	467.68	371.15	281.69	202.76	131.52	101.24

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	81.59	70.96	63.16	55.19	49.71	44.84	39.91	36.87	34.26
45.0	102.90	82.75	72.13	64.43	56.35	50.93	46.11	41.13	38.08
90.0	88.51	76.61	67.48	58.79	52.97	47.83	43.29	38.97	36.15
135.0	127.92	99.69	84.80	73.73	64.15	57.90	52.53	47.60	43.51
180.0	294.43	202.04	110.15	93.33	80.82	70.91	61.61	55.85	50.32
225.0	148.74	113.09	90.72	78.71	70.08	61.17	55.19	49.82	44.23
270.0	287.78	129.64	97.20	83.36	73.34	65.65	57.35	52.03	47.11
315.0	115.80	90.28	77.16	66.92	60.45	54.58	49.32	44.95	40.35
360.0	81.59	70.96	63.16	55.19	49.71	44.84	39.91	36.87	34.26

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	31.99	29.67	28.12	26.79	25.63	24.30	23.41	22.64	21.75
45.0	35.43	32.66	30.78	29.12	27.34	26.13	25.02	24.02	23.03
90.0	33.77	31.27	29.61	27.79	26.57	25.46	24.47	23.36	22.58
135.0	39.41	36.70	33.93	31.94	30.22	28.40	27.07	25.91	24.85
180.0	44.56	41.02	38.08	35.15	33.10	31.00	29.50	28.17	26.90
225.0	40.85	38.03	35.54	33.05	31.22	29.67	28.23	26.63	25.52
270.0	42.12	39.08	36.48	34.15	31.77	30.06	28.62	26.90	25.74
315.0	37.36	34.87	32.66	30.33	28.73	27.07	25.85	24.74	23.58
360.0	31.99	29.67	28.12	26.79	25.63	24.30	23.41	22.64	21.75

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	21.09	20.31	19.82	19.26	18.82	18.27	17.88	17.44	17.10
45.0	22.25	21.59	20.98	20.20	19.65	19.04	18.60	18.16	17.60
90.0	21.81	21.20	20.48	19.87	19.37	18.88	18.43	17.99	17.49
135.0	23.75	22.86	22.09	21.20	20.54	19.93	19.37	18.88	18.27
180.0	25.46	24.47	23.53	22.75	21.75	21.15	20.48	19.76	19.26
225.0	24.47	23.30	22.47	21.70	20.92	20.31	19.60	19.10	18.60
270.0	24.47	23.53	22.64	21.86	21.03	20.43	19.87	19.21	18.71
315.0	22.69	21.92	21.09	20.43	19.87	19.32	18.65	18.27	17.77
360.0	21.09	20.31	19.82	19.26	18.82	18.27	17.88	17.44	17.10

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	16.72	16.33	16.00	15.67	15.28	14.95	14.56	14.28	14.00
45.0	17.21	16.88	16.50	16.05	15.78	15.39	15.06	14.67	14.34
90.0	17.10	16.77	16.27	15.94	15.55	15.22	14.83	14.50	14.17
135.0	17.82	17.38	16.99	16.61	16.16	15.78	15.44	15.06	14.67
180.0	18.76	18.16	17.71	17.38	16.83	16.44	16.11	15.72	15.28
225.0	18.10	17.60	17.21	16.83	16.38	15.94	15.61	15.22	14.78
270.0	18.27	17.77	17.38	16.94	16.55	16.16	15.72	15.44	15.00
315.0	17.38	16.88	16.55	16.16	15.72	15.44	15.06	14.67	14.39
360.0	16.72	16.33	16.00	15.67	15.28	14.95	14.56	14.28	14.00

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	13.67	13.40	13.17	12.90	12.57	12.29	12.01	11.73	11.40
45.0	14.06	13.67	13.40	13.17	12.84	12.57	12.29	11.96	11.68
90.0	13.89	13.56	13.28	13.01	12.62	12.34	11.96	11.68	11.40
135.0	14.34	14.06	13.67	13.40	13.12	12.84	12.45	12.12	11.85
180.0	14.95	14.61	14.34	13.89	13.62	13.28	13.01	12.68	12.34
225.0	14.50	14.17	13.78	13.51	13.23	12.90	12.62	12.29	12.07
270.0	14.67	14.39	14.00	13.73	13.45	13.17	12.79	12.45	12.18
315.0	14.06	13.78	13.51	13.17	12.95	12.57	12.29	12.01	11.79
360.0	13.67	13.40	13.17	12.90	12.57	12.29	12.01	11.73	11.40

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	11.24	10.90	10.63	10.46	10.24	9.96	9.74	9.58	9.63
45.0	11.40	11.13	10.85	10.63	10.35	10.19	9.85	9.74	9.58
90.0	11.07	10.90	10.63	10.41	10.19	9.96	9.74	9.52	9.52
135.0	11.51	11.29	10.90	10.68	10.41	10.24	10.02	9.80	9.58
180.0	12.07	11.79	11.40	11.18	10.90	10.63	10.41	10.19	9.96
225.0	11.68	11.40	11.18	10.85	10.63	10.41	10.19	9.91	9.69
270.0	11.85	11.57	11.35	11.02	10.74	10.46	10.24	9.96	9.74
315.0	11.46	11.18	10.90	10.63	10.41	10.19	9.91	9.69	9.47
360.0	11.24	10.90	10.63	10.46	10.24	9.96	9.74	9.58	9.63

Intensity data(cd)

C/γ(°)	90.0
0.0	9.63
45.0	9.58
90.0	9.52
135.0	9.47
180.0	9.74
225.0	9.58
270.0	9.58
315.0	9.58
360.0	9.63