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NATA

Client:
LumCAT: 1-1379-L Luminaire:
92.70.410.00 Report No: 2023829-
B015 Ballast type: AC
Test No: 2023829-C015
LampCAT: LUXEON CoB 1203 LES9
Lamp flux(lm): 1615.6 Number of
Lamps: 1 Length(mm): 0
Phm Type: C

Voltage(V): 35.810
Current(A): 0.378
Power (W): 13.536
PF: 0.000
Width(mm): 0
Height(mm): 0

Photometric Results

Lumens(lm): 1472.50, Efficiency(%): 91.14% , Luminous Efficacy(lm/W): 108.78
Central intensity(cd): 3663.177, Maximum intensity(cd): 3663.177
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=35.4
[C90/270]Total=35.4
Field angle(10%Imax): [C0/180]Total=59.6
[C90/270]Total=59.6
Maximum s/h(1/2): C0_180=0.59 C90_270=0.59
Maximum s/h(1/4): C0_180=0.57 C90_270=0.57
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 91.14%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.020%

Equipment: GMS1980 Date: 2023/8/29 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.44

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3663.177	0.000	0	0.00%	0.00%
1.0	3661.862	3.505	3.505	0.22%	0.24%
2.0	3651.898	10.497	14.002	0.65%	0.95%
3.0	3626.297	17.407	31.409	1.08%	2.13%
4.0	3592.186	24.163	55.572	1.50%	3.77%
5.0	3537.040	30.670	86.241	1.90%	5.86%
6.0	3475.666	36.854	123.095	2.28%	8.36%
7.0	3396.511	42.655	165.751	2.64%	11.26%
8.0	3305.592	47.966	213.716	2.97%	14.51%
9.0	3199.521	52.720	266.437	3.26%	18.09%
10.0	3080.096	56.828	323.265	3.52%	21.95%
11.0	2951.399	60.267	383.532	3.73%	26.05%
12.0	2803.328	62.907	446.439	3.89%	30.32%
13.0	2647.853	64.692	511.131	4.00%	34.71%
14.0	2484.906	65.699	576.83	4.07%	39.17%
15.0	2308.812	65.810	642.64	4.07%	43.64%
16.0	2141.852	65.215	707.855	4.04%	48.07%
17.0	1958.909	63.860	771.715	3.95%	52.41%
18.0	1784.891	61.727	833.442	3.82%	56.60%
19.0	1613.986	59.134	892.575	3.66%	60.62%
20.0	1412.084	55.385	947.961	3.43%	64.38%
21.0	1240.474	50.934	998.895	3.15%	67.84%
22.0	1141.889	47.875	1046.77	2.96%	71.09%
23.0	1037.589	45.731	1092.501	2.83%	74.19%
24.0	911.487	42.614	1135.115	2.64%	77.09%
25.0	801.036	38.939	1174.054	2.41%	79.73%
26.0	692.176	35.247	1209.302	2.18%	82.13%
27.0	593.806	31.462	1240.763	1.95%	84.26%
28.0	504.756	27.813	1268.577	1.72%	86.15%
29.0	419.684	24.186	1292.763	1.50%	87.79%
30.0	349.108	20.757	1313.52	1.28%	89.20%
31.0	282.497	17.577	1331.097	1.09%	90.40%
32.0	241.321	15.007	1346.103	0.93%	91.42%
33.0	189.814	12.701	1358.805	0.79%	92.28%
34.0	131.029	9.710	1368.514	0.60%	92.94%
35.0	107.566	7.410	1375.924	0.46%	93.44%
36.0	90.863	6.318	1382.242	0.39%	93.87%
37.0	79.868	5.568	1387.811	0.34%	94.25%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	69.974	5.002	1392.812	0.31%	94.59%
39.0	62.287	4.514	1397.327	0.28%	94.89%
40.0	55.347	4.103	1401.429	0.25%	95.17%
41.0	49.701	3.741	1405.17	0.23%	95.43%
42.0	44.518	3.423	1408.593	0.21%	95.66%
43.0	39.972	3.130	1411.723	0.19%	95.87%
44.0	36.146	2.873	1414.596	0.18%	96.07%
45.0	32.659	2.644	1417.24	0.16%	96.25%
46.0	29.753	2.441	1419.681	0.15%	96.41%
47.0	27.352	2.271	1421.952	0.14%	96.57%
48.0	25.317	2.129	1424.081	0.13%	96.71%
49.0	23.629	2.010	1426.091	0.12%	96.85%
50.0	22.072	1.905	1427.996	0.12%	96.98%
51.0	20.675	1.809	1429.805	0.11%	97.10%
52.0	19.512	1.724	1431.529	0.11%	97.22%
53.0	18.523	1.655	1433.184	0.10%	97.33%
54.0	17.658	1.595	1434.779	0.10%	97.44%
55.0	16.807	1.538	1436.317	0.10%	97.54%
56.0	16.129	1.488	1437.805	0.09%	97.64%
57.0	15.464	1.445	1439.25	0.09%	97.74%
58.0	14.883	1.403	1440.653	0.09%	97.84%
59.0	14.357	1.367	1442.02	0.08%	97.93%
60.0	13.838	1.332	1443.352	0.08%	98.02%
61.0	13.389	1.299	1444.652	0.08%	98.11%
62.0	12.953	1.269	1445.921	0.08%	98.19%
63.0	12.593	1.242	1447.163	0.08%	98.28%
64.0	12.171	1.215	1448.378	0.08%	98.36%
65.0	11.866	1.190	1449.568	0.07%	98.44%
66.0	11.520	1.167	1450.735	0.07%	98.52%
67.0	11.237	1.144	1451.879	0.07%	98.60%
68.0	10.918	1.122	1453.002	0.07%	98.68%
69.0	10.635	1.100	1454.101	0.07%	98.75%
70.0	10.379	1.079	1455.18	0.07%	98.82%
71.0	10.116	1.059	1456.24	0.07%	98.90%
72.0	9.853	1.038	1457.278	0.06%	98.97%
73.0	9.590	1.017	1458.295	0.06%	99.04%
74.0	9.362	0.996	1459.291	0.06%	99.10%
75.0	9.099	0.975	1460.266	0.06%	99.17%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	8.850	0.953	1461.219	0.06%	99.23%
77.0	8.607	0.931	1462.15	0.06%	99.30%
78.0	8.372	0.909	1463.059	0.06%	99.36%
79.0	8.130	0.887	1463.945	0.05%	99.42%
80.0	7.895	0.864	1464.809	0.05%	99.48%
81.0	7.715	0.844	1465.654	0.05%	99.53%
82.0	7.549	0.828	1466.481	0.05%	99.59%
83.0	7.355	0.810	1467.291	0.05%	99.65%
84.0	7.189	0.792	1468.084	0.05%	99.70%
85.0	7.023	0.776	1468.859	0.05%	99.75%
86.0	6.878	0.760	1469.619	0.05%	99.80%
87.0	6.719	0.744	1470.363	0.05%	99.85%
88.0	6.552	0.727	1471.09	0.04%	99.90%
89.0	6.428	0.711	1471.802	0.04%	99.95%
90.0	6.345	0.700	1472.502	0.04%	100.00%

Zonal flux distribution table

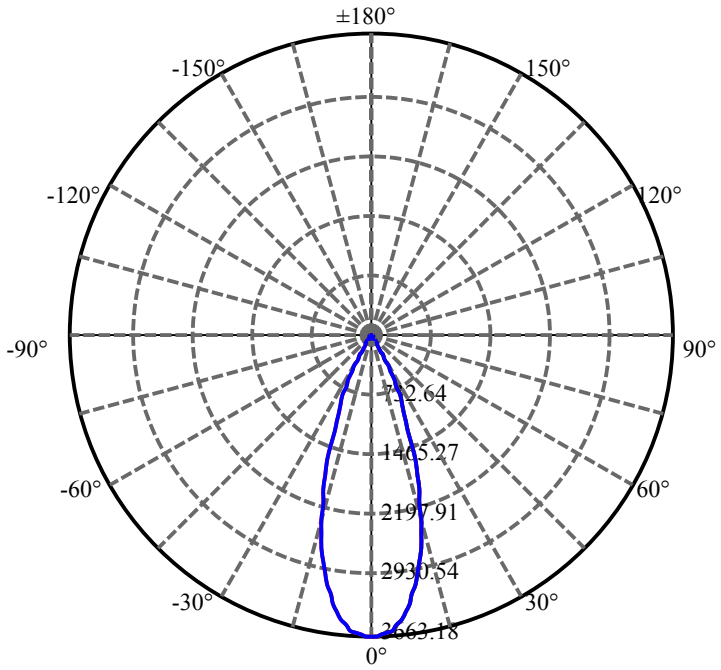
ZONAL LUMEN SUMMARY

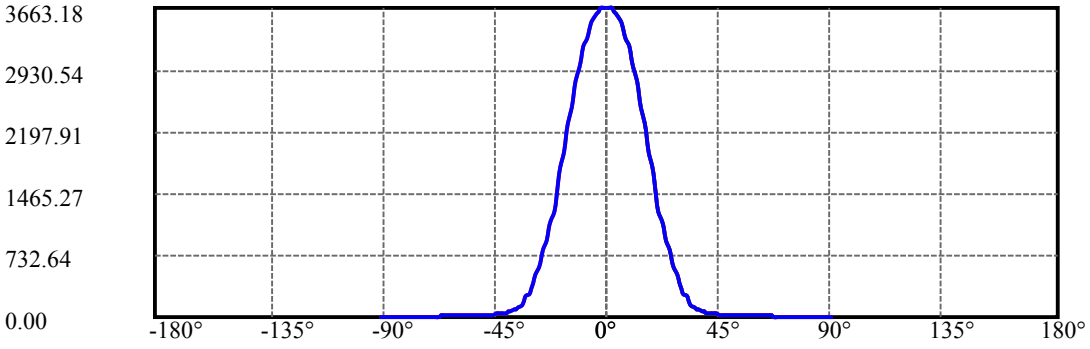
Zone	Lumens	%Lamp	%Fixt
0-30	1313.52	81.30%	89.20%
0-40	1401.43	86.74%	95.17%
0-60	1443.35	89.34%	98.02%
0-90	1471.80	91.10%	99.95%
0-120	1471.80	91.10%	99.95%
0-180	1472.50	91.14%	100.00%
60-90	28.45	1.76%	1.93%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-25.11	1178.00	72.91%	80.00%

ZONAL LUMEN SUMMARY

0-10	323.26
10-20	624.70
20-30	365.56
30-40	87.91
40-50	26.57
50-60	15.36
60-70	11.83
70-80	9.63
80-90	6.99
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):

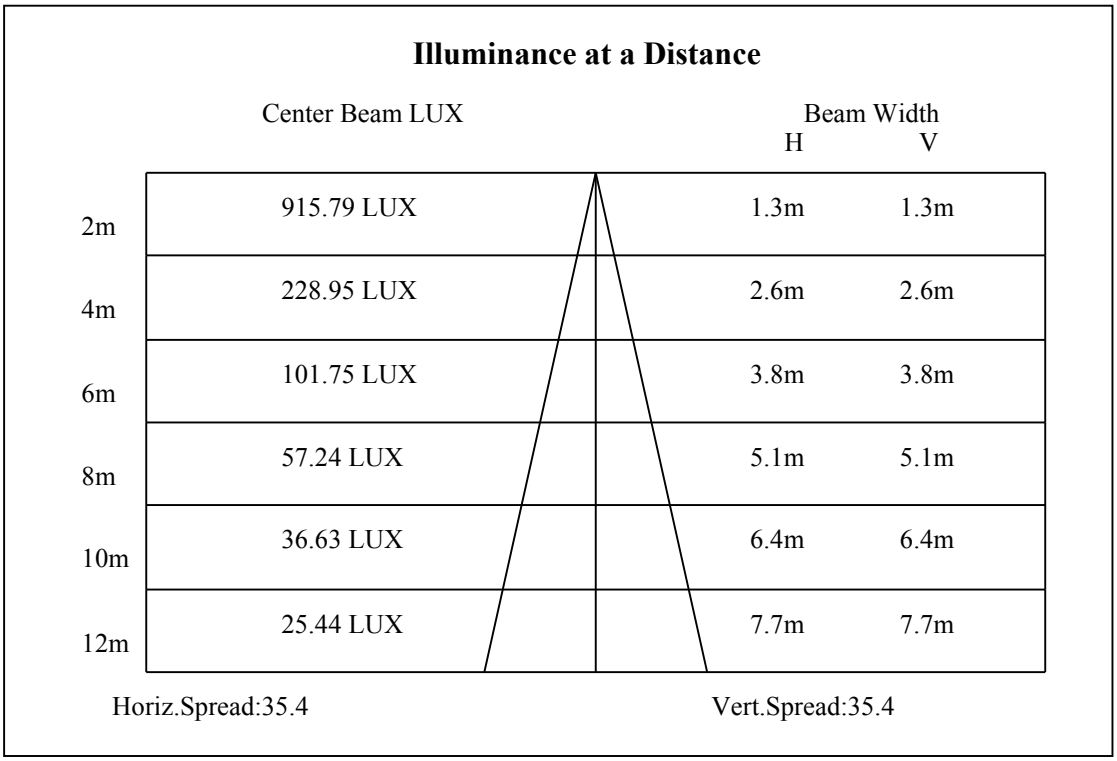
C0/C180:

C90/C270:

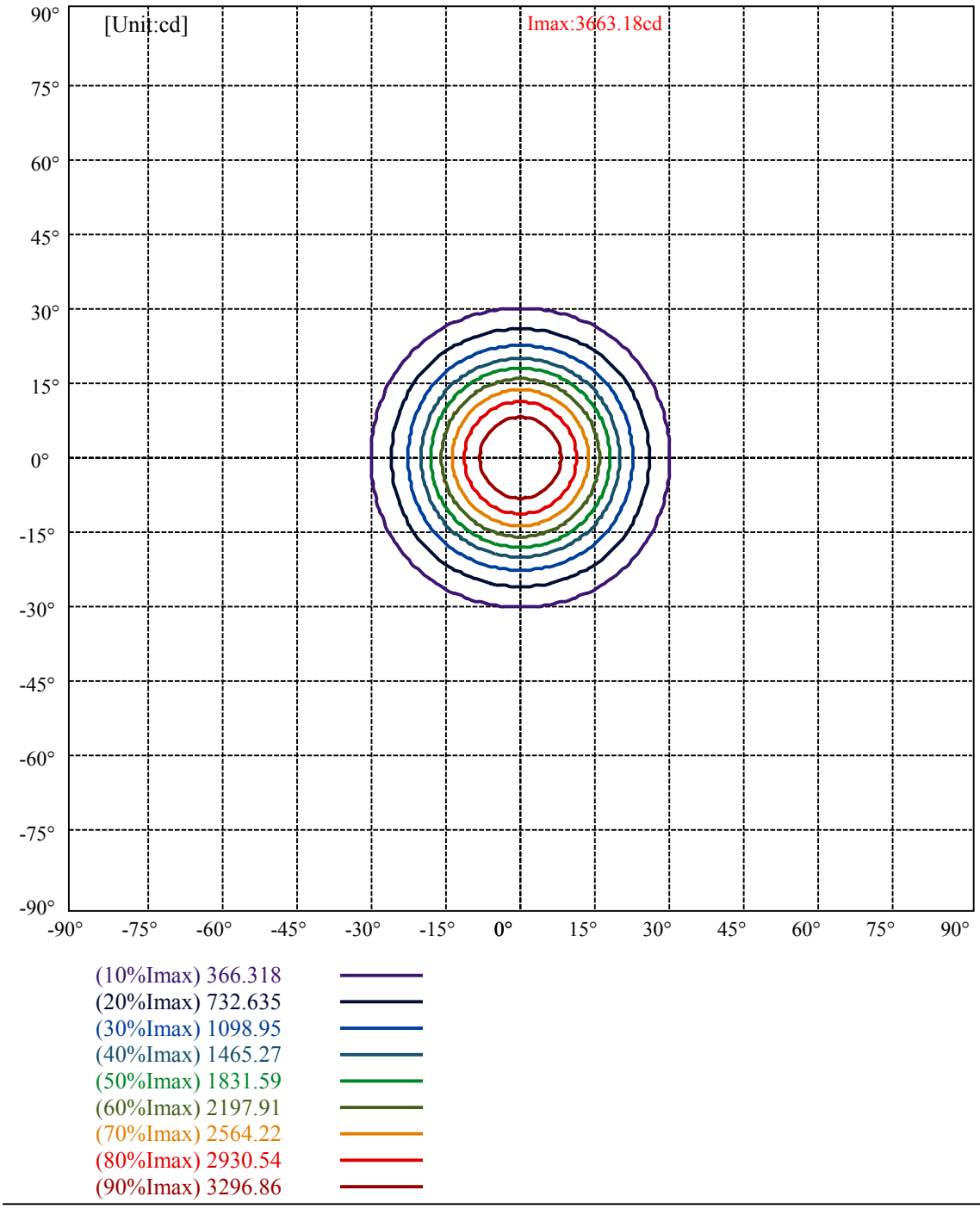
Field angle(10%Imax):C0/180Left:29.8 Right:29.8
:C90/270Left:29.8 Right:29.8

Beam Angle(50%Imax):C0/180Left:17.7 Right:17.7
:C90/270Left:17.7 Right:17.7

Lux distance Curve



ISO-Intensity(V-H)

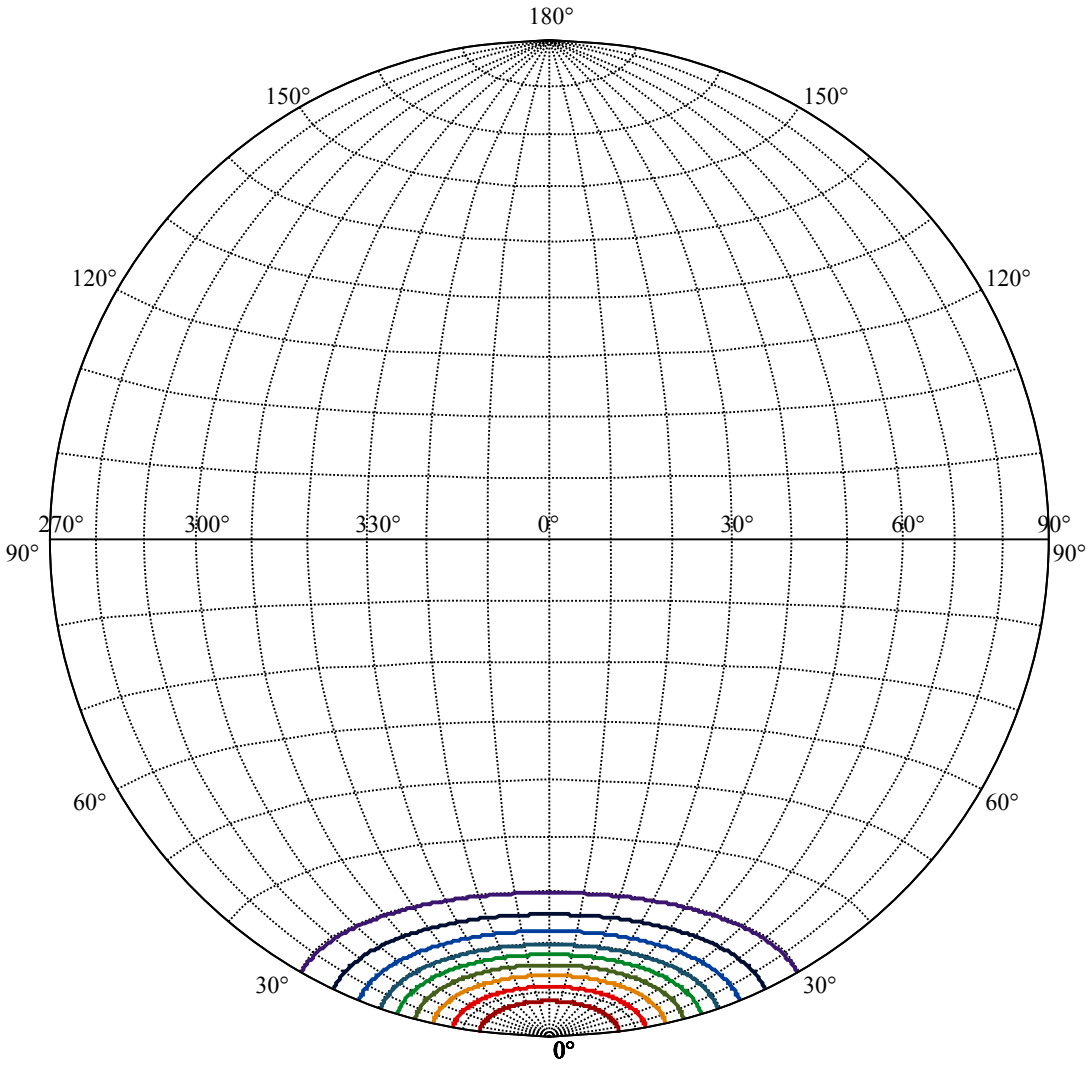


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2023/8/29
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.44

ISO candela diagram on circular web



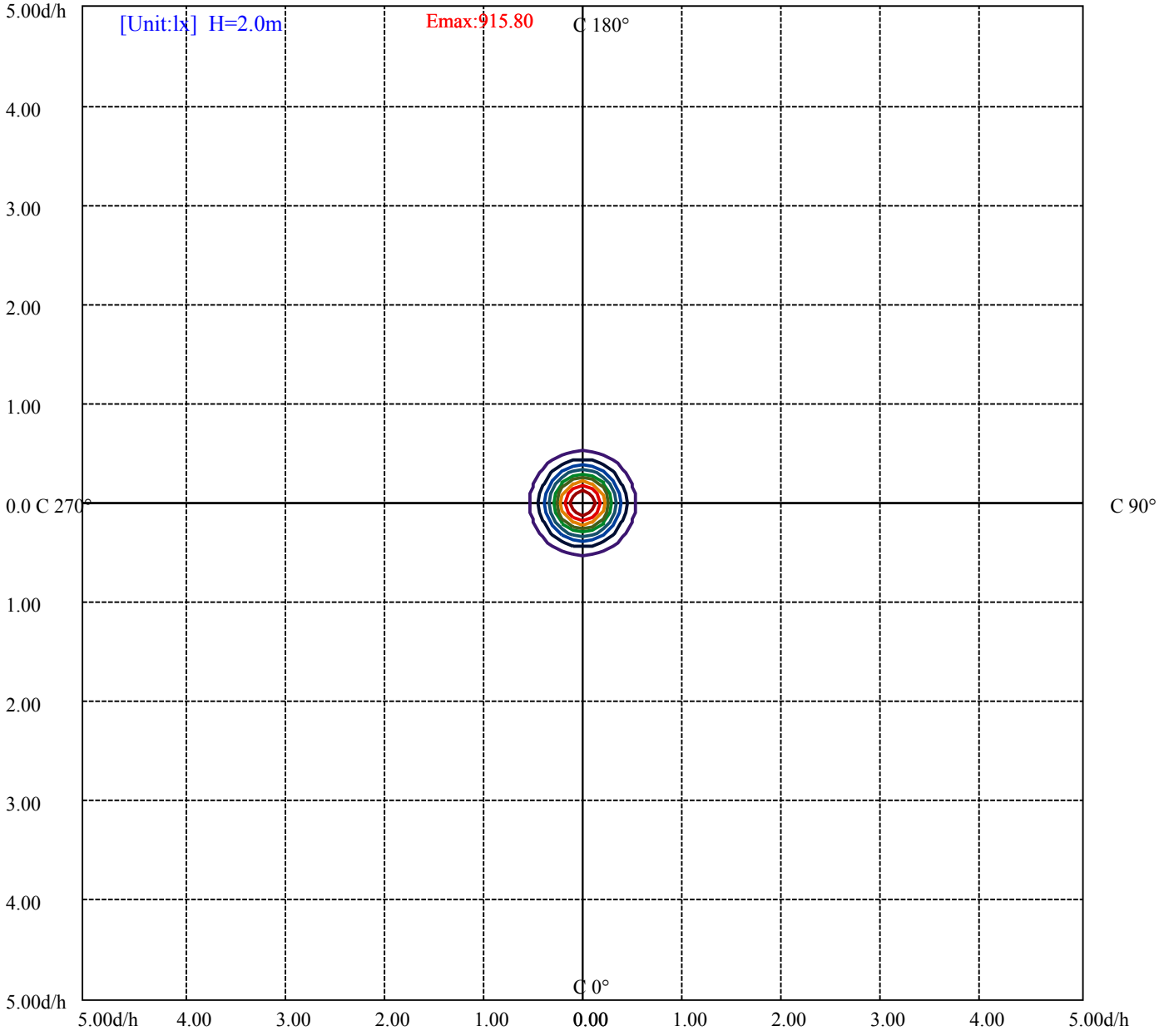
House [Unit:cd] Road

Imax:3663.18

(10%Imax) 366.318
(20%Imax) 732.635
(30%Imax) 1098.95
(40%Imax) 1465.27
(50%Imax) 1831.59
(60%Imax) 2197.91
(70%Imax) 2564.22
(80%Imax) 2930.54
(90%Imax) 3296.86

Equipment: GMS1980 Date: 2023/8/29 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.44

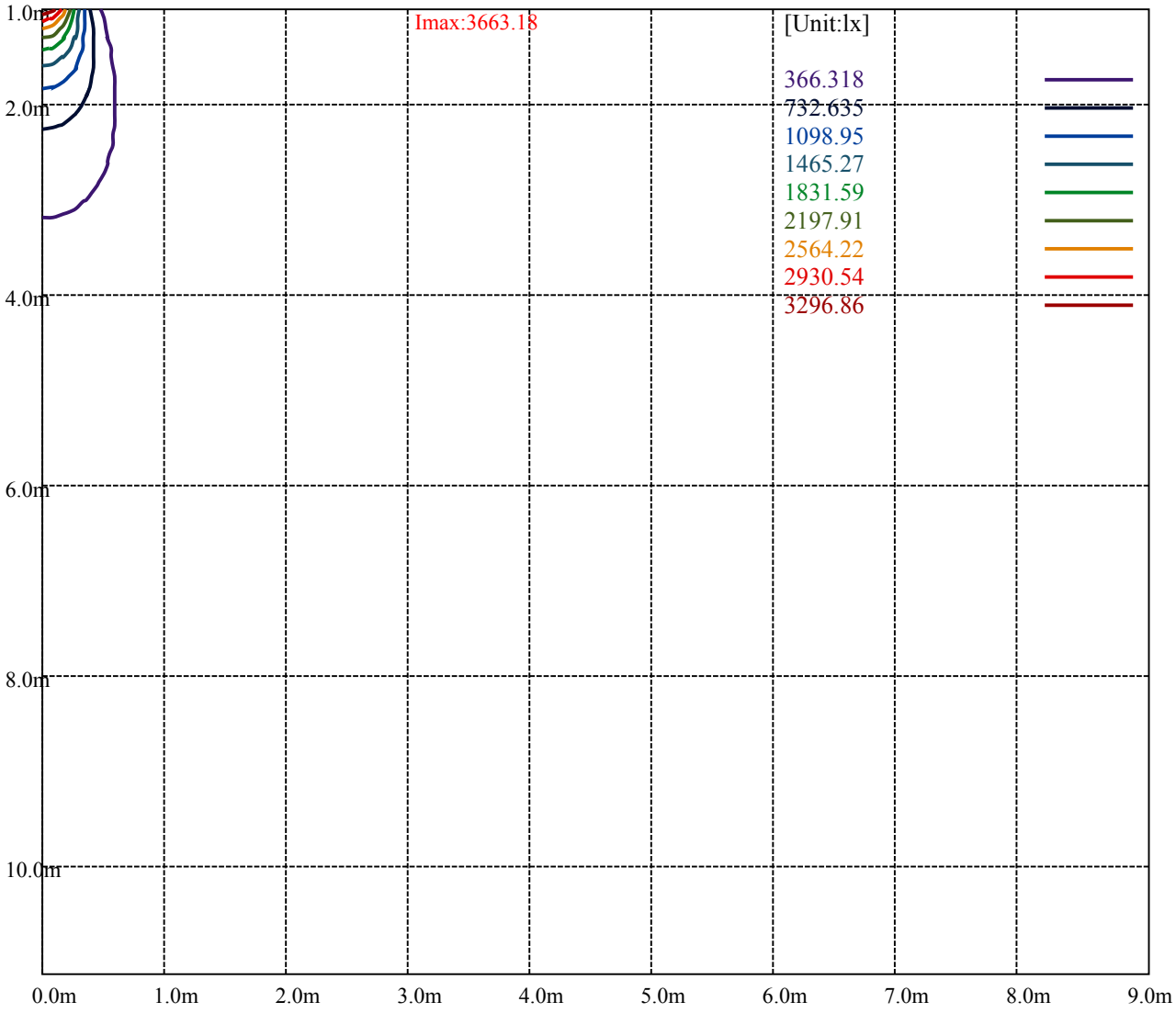
ISO illuminance diagram



(10%Emax) 91.5795
(20%Emax) 183.1588
(30%Emax) 274.7375
(40%Emax) 366.3175
(50%Emax) 457.8975
(60%Emax) 549.4775
(70%Emax) 641.055
(80%Emax) 732.635
(90%Emax) 824.215

Equipment: GMS1980
Temperature(°C): 25.0
Date: 2023/8/29
Humidity(%): 60.0%
Operator: NT07
Distance(m): 7.44

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2023/8/29
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.44

Luminance Limitting Curve(no luminous side)

Luminance Table

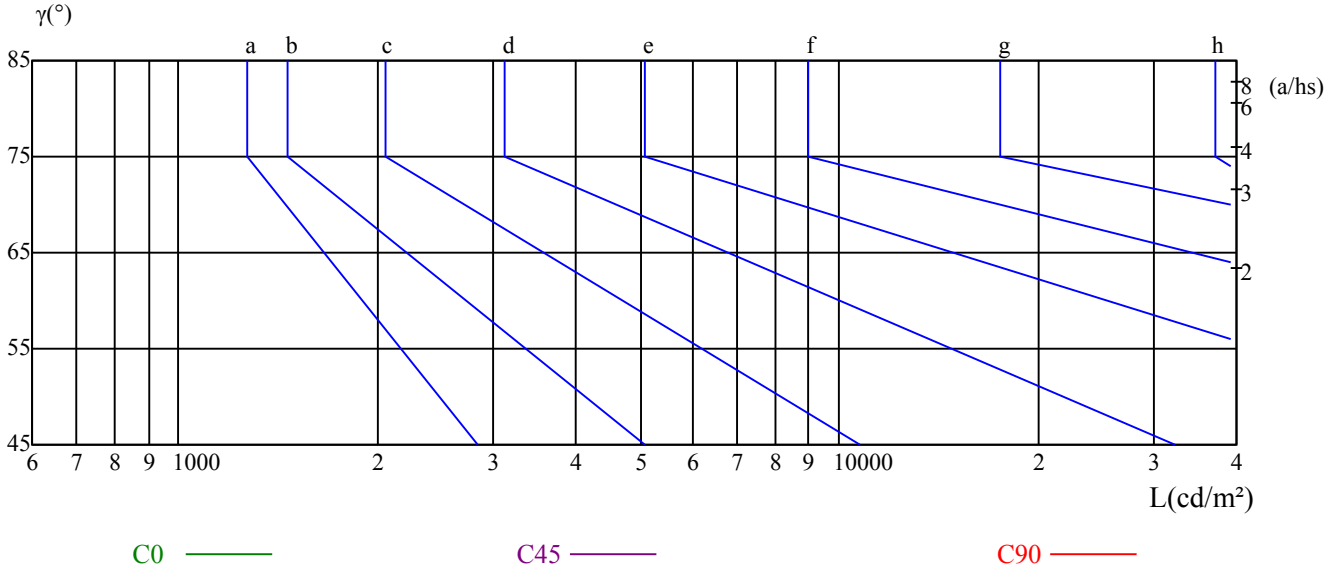
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

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

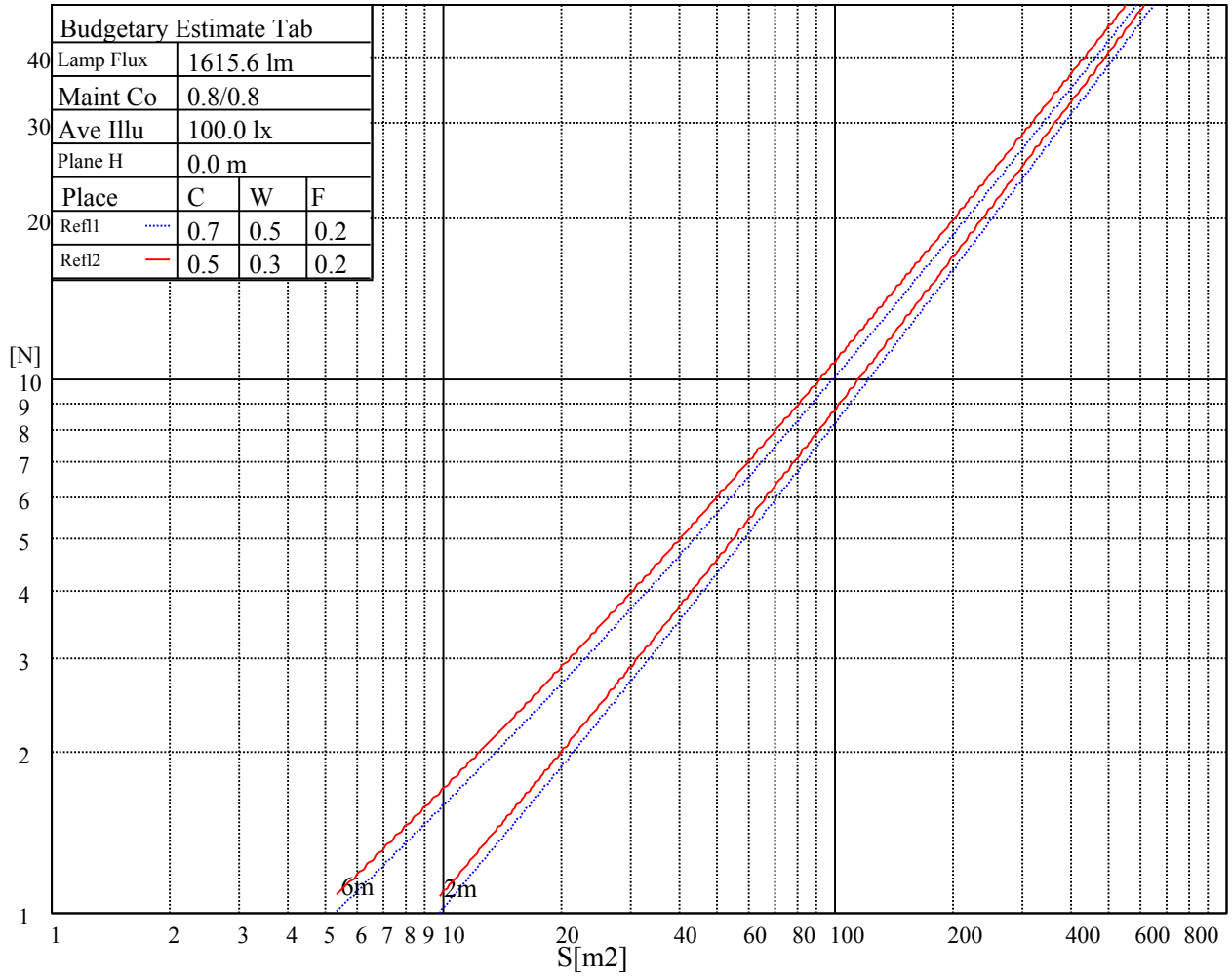


UGR Glare

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

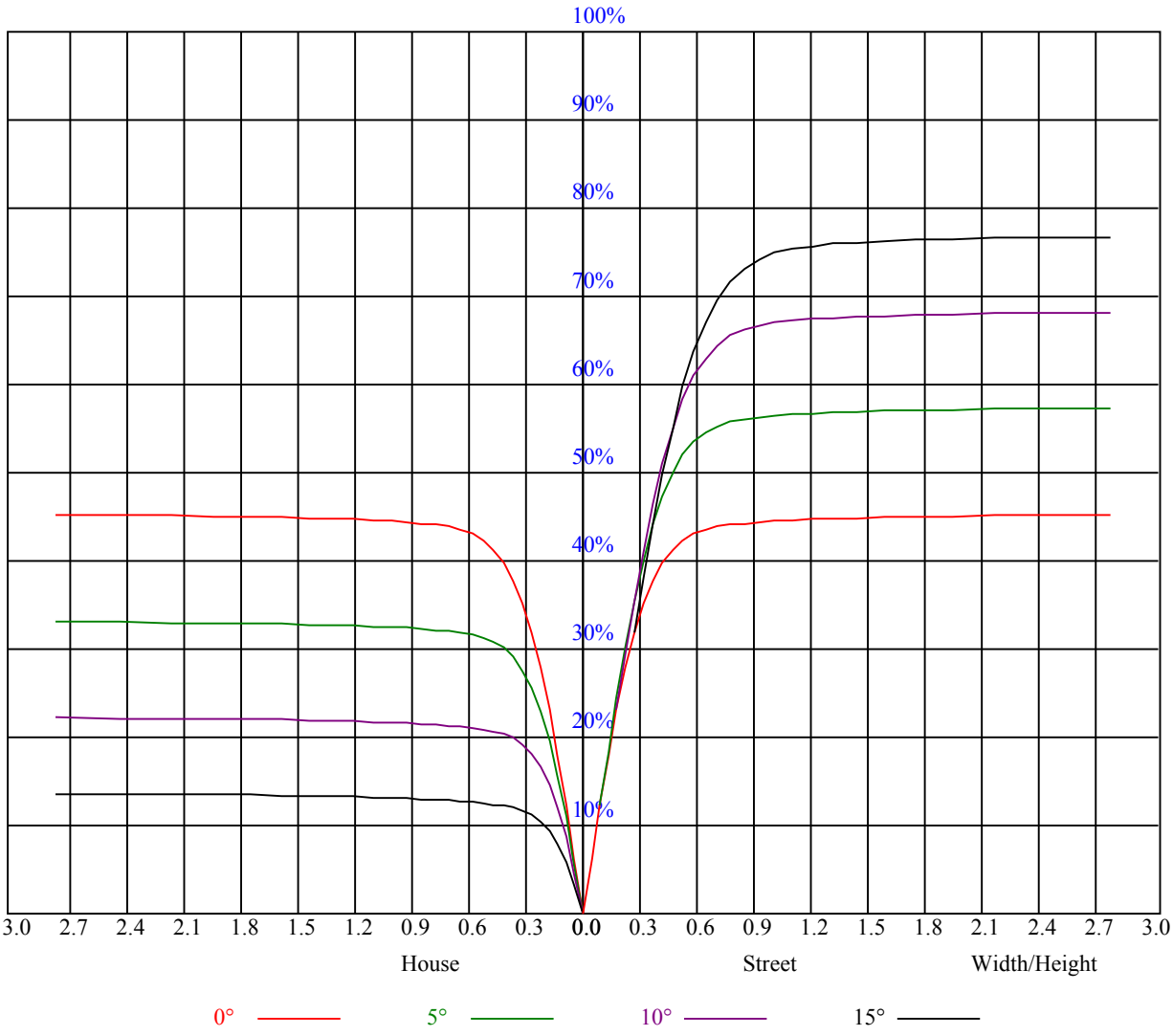


Equipment: GMS1980 Date: 2023/8/29 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.44

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	1.09	1.09	1.09	1.06	1.06	1.06	1.01	1.01	1.01	0.97	0.97	0.97	0.93	0.93	0.93	0.91
1	1.02	1.00	0.98	1.00	0.98	0.96	0.96	0.95	0.93	0.93	0.92	0.90	0.90	0.89	0.88	0.86
2	0.96	0.93	0.90	0.94	0.91	0.89	0.91	0.89	0.87	0.89	0.87	0.85	0.86	0.85	0.83	0.82
3	0.91	0.87	0.84	0.90	0.86	0.83	0.87	0.84	0.82	0.85	0.83	0.81	0.83	0.81	0.79	0.78
4	0.86	0.82	0.79	0.85	0.81	0.78	0.83	0.80	0.77	0.82	0.79	0.77	0.80	0.78	0.76	0.74
5	0.82	0.78	0.75	0.81	0.77	0.74	0.80	0.76	0.74	0.78	0.75	0.73	0.77	0.74	0.72	0.71
6	0.79	0.74	0.71	0.78	0.74	0.71	0.77	0.73	0.70	0.75	0.72	0.70	0.74	0.71	0.69	0.68
7	0.75	0.71	0.68	0.75	0.70	0.67	0.74	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.66	0.65
8	0.72	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.64	0.70	0.67	0.64	0.69	0.66	0.64	0.63
9	0.69	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.62	0.68	0.64	0.62	0.67	0.64	0.61	0.60
10	0.67	0.63	0.60	0.67	0.62	0.60	0.66	0.62	0.59	0.65	0.62	0.59	0.65	0.61	0.59	0.58

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2023/8/29	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	3655.50	3654.94	3625.61	3582.43	3539.25	3458.44	3374.85	3289.06	3188.31
45.0	3649.41	3669.33	3668.23	3656.05	3626.71	3585.75	3527.08	3452.35	3343.86
90.0	3686.49	3699.23	3683.73	3650.51	3612.32	3544.79	3464.53	3377.62	3285.18
135.0	3662.14	3679.85	3691.48	3672.10	3637.23	3594.05	3533.72	3446.26	3364.89
180.0	3655.50	3648.30	3642.77	3640.55	3620.62	3580.22	3534.27	3483.90	3414.71
225.0	3649.41	3625.61	3607.34	3578.00	3544.24	3480.58	3426.33	3336.11	3245.88
270.0	3686.49	3661.59	3647.75	3617.86	3587.41	3543.68	3491.65	3429.10	3338.32
315.0	3660.48	3656.05	3648.30	3612.87	3569.70	3508.81	3452.90	3357.69	3263.59
360.0	3655.50	3654.94	3625.61	3582.43	3539.25	3458.44	3374.85	3289.06	3188.31

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	3043.29	2914.31	2768.73	2618.17	2420.00	2260.59	2092.86	1923.48	1724.21
45.0	3240.90	3085.35	2959.70	2812.46	2610.42	2458.20	2288.26	2120.54	1912.41
90.0	3145.14	3018.38	2875.01	2682.93	2530.16	2367.42	2146.00	1969.43	1801.15
135.0	3269.68	3160.64	3011.18	2871.69	2727.22	2573.89	2371.29	2204.12	1986.59
180.0	3326.14	3229.27	3129.08	2976.86	2845.12	2703.97	2517.98	2361.33	2199.70
225.0	3144.03	3010.63	2894.38	2765.41	2625.92	2434.95	2279.96	2124.42	1965.55
270.0	3255.29	3156.76	3051.59	2907.12	2771.50	2618.72	2465.95	2274.98	2118.33
315.0	3171.71	3065.43	2921.51	2791.98	2652.49	2461.52	2308.19	2156.52	1963.34
360.0	3043.29	2914.31	2768.73	2618.17	2420.00	2260.59	2092.86	1923.48	1724.21

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1571.43	1381.57	1080.95	1080.95	971.51	865.56	761.11	646.03	563.00
45.0	1750.23	1589.70	1432.50	1256.47	1134.69	1023.43	887.26	784.86	685.22
90.0	1590.81	1431.39	1091.02	1091.02	1002.95	890.75	777.61	679.41	567.60
135.0	1817.76	1654.46	1459.07	1310.16	1176.76	1058.31	913.83	798.14	691.86
180.0	2005.96	1846.54	1678.27	1523.28	1350.57	1214.40	1076.02	965.86	816.41
225.0	1768.49	1616.27	1469.03	1094.67	1094.67	1036.33	897.84	792.61	691.42
270.0	1968.87	1777.35	1622.91	1476.23	1312.93	1178.42	1054.98	925.46	809.21
315.0	1805.58	1614.61	1462.94	1091.02	1091.02	1033.51	923.24	815.91	712.68
360.0	1571.43	1381.57	1080.95	1080.95	971.51	865.56	761.11	646.03	563.00

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	485.23	415.26	330.24	271.12	217.15	171.54	129.14	107.99	94.43
45.0	578.94	500.89	407.90	341.48	281.14	281.14	165.12	131.13	108.27
90.0	490.49	419.08	337.27	276.71	221.97	164.90	130.19	108.60	92.05
135.0	597.21	495.91	421.19	355.87	292.77	292.77	168.39	124.93	104.23
180.0	716.22	589.46	509.20	432.26	343.69	293.87	293.87	157.04	124.77
225.0	579.39	496.80	418.09	329.41	268.69	214.44	167.06	124.32	102.85
270.0	710.68	614.92	505.32	428.38	355.31	289.44	289.44	164.84	128.14
315.0	592.28	505.71	428.27	357.64	279.26	222.47	175.30	129.36	105.78
360.0	485.23	415.26	330.24	271.12	217.15	171.54	129.14	107.99	94.43

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	80.32	71.24	61.77	55.52	50.10	45.56	40.41	36.64	33.32
45.0	94.49	80.32	70.96	63.27	56.90	50.21	45.72	40.57	36.92
90.0	81.65	72.90	65.21	57.12	51.64	46.83	42.51	37.53	34.15
135.0	88.29	78.10	69.69	62.27	54.41	49.04	44.39	40.13	36.26
180.0	104.23	91.61	78.99	70.41	63.05	56.63	49.54	44.73	40.52
225.0	90.00	80.32	69.80	62.55	54.91	49.65	45.06	40.08	36.31
270.0	99.91	86.68	74.56	66.09	59.06	52.53	45.83	41.46	37.59
315.0	88.01	77.77	68.80	61.06	52.70	47.16	42.68	38.64	34.10
360.0	80.32	71.24	61.77	55.52	50.10	45.56	40.41	36.64	33.32

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	30.72	27.84	25.91	24.19	22.36	21.15	19.98	18.76	17.93
45.0	33.71	30.50	28.17	26.13	24.41	22.47	21.26	20.09	19.04
90.0	30.83	28.40	26.40	24.19	22.69	21.42	19.93	18.93	18.05
135.0	32.33	29.78	27.07	25.13	23.41	21.98	20.48	19.43	18.21
180.0	35.65	32.44	29.84	27.07	25.24	23.64	21.81	20.65	19.54
225.0	32.99	30.39	27.68	25.79	24.19	22.75	21.20	20.09	19.10
270.0	34.10	30.28	27.90	25.91	24.19	22.31	20.98	19.60	18.65
315.0	30.94	28.40	25.85	24.13	22.53	20.87	19.76	18.54	17.66
360.0	30.72	27.84	25.91	24.19	22.36	21.15	19.98	18.76	17.93

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	17.21	16.27	15.67	15.11	14.50	14.00	13.56	13.17	12.68
45.0	17.99	17.21	16.50	15.67	15.11	14.61	14.00	13.51	13.12
90.0	17.27	16.38	15.72	15.17	14.61	14.00	13.56	13.06	12.68
135.0	17.44	16.72	16.11	15.28	14.78	14.28	13.78	13.23	12.84
180.0	18.60	17.55	16.77	16.16	15.55	14.89	14.39	13.95	13.40
225.0	18.10	17.33	16.66	15.89	15.33	14.78	14.17	13.78	13.34
270.0	17.77	16.83	16.16	15.55	14.83	14.39	13.89	13.45	12.95
315.0	16.88	16.16	15.44	14.89	14.34	13.89	13.34	12.95	12.62
360.0	17.21	16.27	15.67	15.11	14.50	14.00	13.56	13.17	12.68

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	12.34	12.01	11.68	11.35	11.07	10.74	10.46	10.24	9.91
45.0	12.68	12.29	11.96	11.62	11.29	11.02	10.74	10.52	10.19
90.0	12.34	11.90	11.62	11.29	11.02	10.68	10.41	10.13	9.91
135.0	12.51	12.07	11.79	11.40	11.13	10.85	10.57	10.30	10.07
180.0	13.01	12.51	12.18	11.85	11.57	11.18	10.90	10.63	10.41
225.0	12.95	12.45	12.18	11.85	11.57	11.18	10.90	10.63	10.35
270.0	12.62	12.23	11.96	11.57	11.29	11.02	10.68	10.41	10.13
315.0	12.29	11.90	11.57	11.24	10.96	10.68	10.41	10.19	9.96
360.0	12.34	12.01	11.68	11.35	11.07	10.74	10.46	10.24	9.91

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	9.69	9.41	9.19	8.91	8.64	8.41	8.19	7.92	7.69
45.0	9.91	9.58	9.35	9.13	8.86	8.58	8.36	8.08	7.86
90.0	9.58	9.35	9.08	8.86	8.58	8.36	8.08	7.86	7.64
135.0	9.80	9.58	9.30	9.02	8.80	8.58	8.30	8.08	7.80
180.0	10.07	9.85	9.63	9.35	9.08	8.86	8.58	8.36	8.08
225.0	10.07	9.80	9.52	9.24	9.02	8.75	8.52	8.30	8.08
270.0	9.96	9.69	9.52	9.24	9.02	8.80	8.58	8.30	8.14
315.0	9.74	9.47	9.30	9.02	8.80	8.52	8.36	8.14	7.86
360.0	9.69	9.41	9.19	8.91	8.64	8.41	8.19	7.92	7.69

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	7.58	7.42	7.25	7.09	6.92	6.81	6.64	6.42	6.37
45.0	7.69	7.53	7.36	7.20	7.03	6.86	6.75	6.59	6.37
90.0	7.47	7.36	7.14	6.97	6.86	6.70	6.53	6.31	6.31
135.0	7.64	7.47	7.25	7.09	6.92	6.81	6.64	6.48	6.31
180.0	7.86	7.69	7.53	7.36	7.14	6.97	6.86	6.70	6.59
225.0	7.86	7.64	7.42	7.25	7.14	6.97	6.81	6.64	6.48
270.0	7.92	7.75	7.53	7.36	7.14	7.03	6.81	6.70	6.59
315.0	7.69	7.53	7.36	7.20	7.03	6.86	6.70	6.59	6.42
360.0	7.58	7.42	7.25	7.09	6.92	6.81	6.64	6.42	6.37

Intensity data(cd)

C/γ(°)	90.0
0.0	6.37
45.0	6.37
90.0	6.31
135.0	6.31
180.0	6.37
225.0	6.37
270.0	6.37
315.0	6.31
360.0	6.37