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NATA

LumCAT: 4-2273-M
Luminaire: 92.70.134.00

Report No: NATA0100	Voltage(V): 34.9000
Test No: GC2019010913	Current(A): 0.7000
LampCAT: OSRAM SOLERIQ S19	Power (W): 24.4300
Lamp flux(lm): 3440.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 100	Width(mm): 100
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 2947.29
Efficiency(%): 85.68%
Lumens(lm)/Power(W): 120.89
Central intensity(cd): 26046.560
Maximum intensity(cd): 26046.560
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=13.3
[C90/270]Total=13.3
Field angle(10%Imax): [C0/180]Total=27.0
[C90/270]Total=27.0
Maximum s/h(1/2): C0_180=0.23 C90_270=0.23
Maximum s/h(1/4): C0_180=0.24 C90_270=0.24
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 85.86%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.432%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	26046.563	6.231	6.231	.181%	.211%
1.0	25924.219	49.615	55.846	1.442%	1.895%
2.0	25380.000	97.132	152.979	2.824%	5.190%
3.0	23845.781	136.856	289.834	3.978%	9.834%
4.0	21528.984	164.687	454.522	4.787%	15.422%
5.0	18802.969	179.711	634.232	5.224%	21.519%
6.0	15165.914	173.842	808.074	5.054%	27.418%
7.0	11822.555	158.000	966.075	4.593%	32.778%
8.0	9773.789	149.166	1115.241	4.336%	37.839%
9.0	7547.414	129.474	1244.715	3.764%	42.232%
10.0	5824.898	110.920	1355.635	3.224%	45.996%
11.0	4604.414	96.344	1451.979	2.801%	49.265%
12.0	3596.625	82.002	1533.981	2.384%	52.047%
13.0	2853.281	70.386	1604.367	2.046%	54.435%
14.0	2377.617	63.077	1667.443	1.834%	56.575%
15.0	1976.906	56.109	1723.553	1.631%	58.479%
16.0	1723.078	52.083	1775.635	1.514%	60.246%
17.0	1554.188	49.830	1825.465	1.449%	61.937%
18.0	1424.813	48.283	1873.748	1.404%	63.575%
19.0	1339.734	47.831	1921.579	1.390%	65.198%
20.0	1280.180	48.015	1969.594	1.396%	66.827%
21.0	1236.094	48.577	2018.171	1.412%	68.475%
22.0	1203.961	49.458	2067.63	1.438%	70.154%
23.0	1178.578	50.500	2118.129	1.468%	71.867%
24.0	1156.781	51.596	2169.725	1.500%	73.618%
25.0	1134.176	52.563	2222.288	1.528%	75.401%
26.0	1118.714	53.779	2276.067	1.563%	77.226%
27.0	1104.054	54.965	2331.033	1.598%	79.091%
28.0	1088.121	56.019	2387.052	1.628%	80.991%
29.0	1070.402	56.908	2443.96	1.654%	82.922%
30.0	1055.215	57.858	2501.817	1.682%	84.885%
31.0	1039.015	58.683	2560.501	1.706%	86.876%
32.0	1005.912	58.455	2618.955	1.699%	88.860%
33.0	932.878	55.717	2674.672	1.620%	90.750%
34.0	826.221	50.665	2725.337	1.473%	92.469%
35.0	701.248	44.108	2769.445	1.282%	93.966%
36.0	572.105	36.876	2806.321	1.072%	95.217%
37.0	442.062	29.174	2835.495	.848%	96.207%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	311.428	21.026	2856.521	.611%	96.920%
39.0	214.481	14.802	2871.323	.430%	97.422%
40.0	98.965	6.976	2878.299	.203%	97.659%
41.0	48.509	3.490	2881.789	.101%	97.777%
42.0	37.027	2.717	2884.506	.079%	97.870%
43.0	27.921	2.088	2886.594	.061%	97.941%
44.0	17.360	1.322	2887.916	.038%	97.985%
45.0	15.638	1.213	2889.129	.035%	98.027%
46.0	15.272	1.205	2890.333	.035%	98.067%
47.0	14.934	1.198	2891.531	.035%	98.108%
48.0	14.695	1.198	2892.729	.035%	98.149%
49.0	14.414	1.193	2893.922	.035%	98.189%
50.0	14.189	1.192	2895.114	.035%	98.230%
51.0	13.971	1.191	2896.304	.035%	98.270%
52.0	13.781	1.191	2897.495	.035%	98.310%
53.0	13.591	1.190	2898.686	.035%	98.351%
54.0	13.430	1.191	2899.877	.035%	98.391%
55.0	13.282	1.193	2901.07	.035%	98.432%
56.0	13.170	1.197	2902.267	.035%	98.472%
57.0	13.050	1.200	2903.468	.035%	98.513%
58.0	12.945	1.204	2904.671	.035%	98.554%
59.0	12.853	1.208	2905.88	.035%	98.595%
60.0	12.783	1.214	2907.094	.035%	98.636%
61.0	12.670	1.215	2908.309	.035%	98.677%
62.0	12.607	1.221	2909.529	.035%	98.719%
63.0	12.551	1.226	2910.756	.036%	98.760%
64.0	12.502	1.232	2911.988	.036%	98.802%
65.0	12.445	1.237	2913.225	.036%	98.844%
66.0	12.403	1.243	2914.467	.036%	98.886%
67.0	12.347	1.246	2915.714	.036%	98.929%
68.0	12.319	1.253	2916.966	.036%	98.971%
69.0	12.312	1.260	2918.227	.037%	99.014%
70.0	12.305	1.268	2919.495	.037%	99.057%
71.0	12.319	1.277	2920.772	.037%	99.100%
72.0	12.340	1.287	2922.059	.037%	99.144%
73.0	12.368	1.297	2923.356	.038%	99.188%
74.0	12.410	1.308	2924.664	.038%	99.232%
75.0	12.473	1.321	2925.985	.038%	99.277%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	12.565	1.337	2927.322	.039%	99.322%
77.0	12.649	1.352	2928.674	.039%	99.368%
78.0	12.797	1.373	2930.047	.040%	99.415%
79.0	12.945	1.393	2931.44	.041%	99.462%
80.0	13.106	1.415	2932.855	.041%	99.510%
81.0	13.275	1.438	2934.293	.042%	99.559%
82.0	13.444	1.460	2935.753	.042%	99.608%
83.0	13.634	1.484	2937.237	.043%	99.659%
84.0	13.894	1.515	2938.752	.044%	99.710%
85.0	14.182	1.549	2940.302	.045%	99.763%
86.0	14.583	1.595	2941.897	.046%	99.817%
87.0	14.899	1.632	2943.528	.047%	99.872%
88.0	14.780	1.620	2945.148	.047%	99.927%
89.0	13.570	1.488	2946.636	.043%	99.978%
90.0	11.967	0.656	2947.292	.019%	100.000%

Zonal flux distribution table

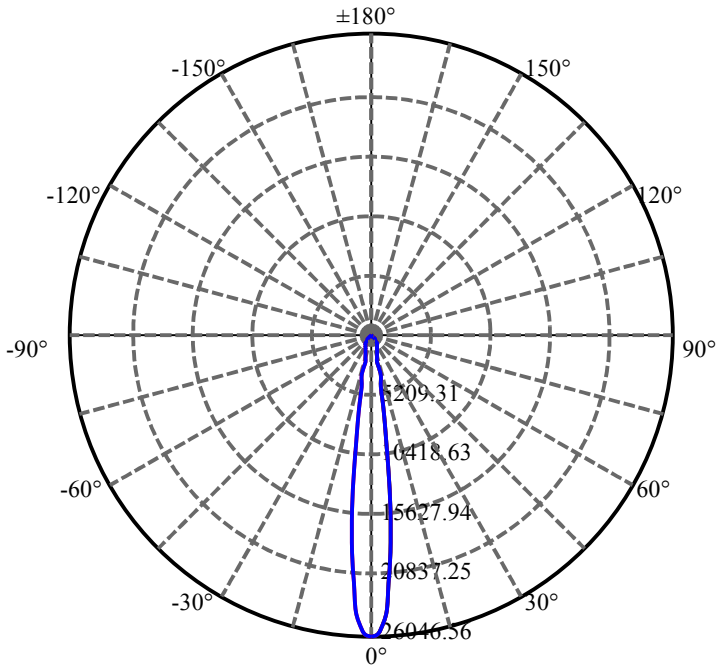
ZONAL LUMEN SUMMARY

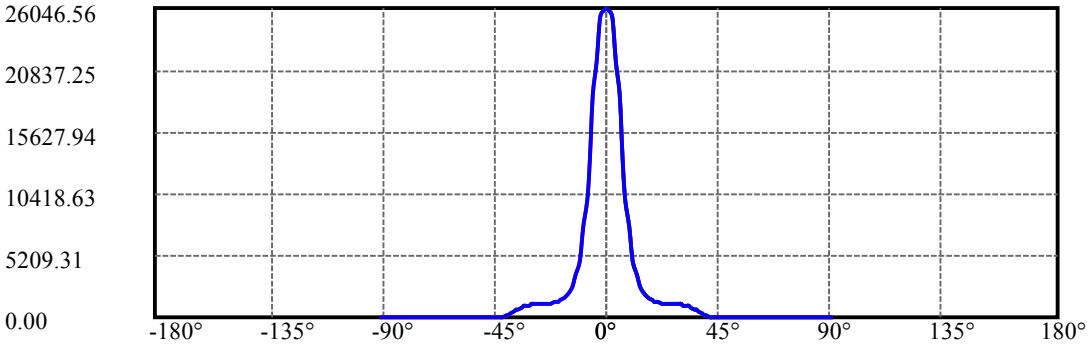
Zone	Lumens	%Lamp	%Fixt
0-30	2501.82	72.73%	84.89%
0-40	2878.30	83.67%	97.66%
0-60	2907.09	84.51%	98.64%
0-90	2946.64	85.66%	99.98%
0-120	2946.64	85.66%	99.98%
0-180	2947.29	85.68%	100.00%
60-90	40.76	1.18%	1.38%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-27.48	2357.83	68.54%	80.00%

ZONAL LUMEN SUMMARY

0-10	1355.63
10-20	613.96
20-30	532.22
30-40	376.48
40-50	16.81
50-60	11.98
60-70	12.40
70-80	13.36
80-90	13.78
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):

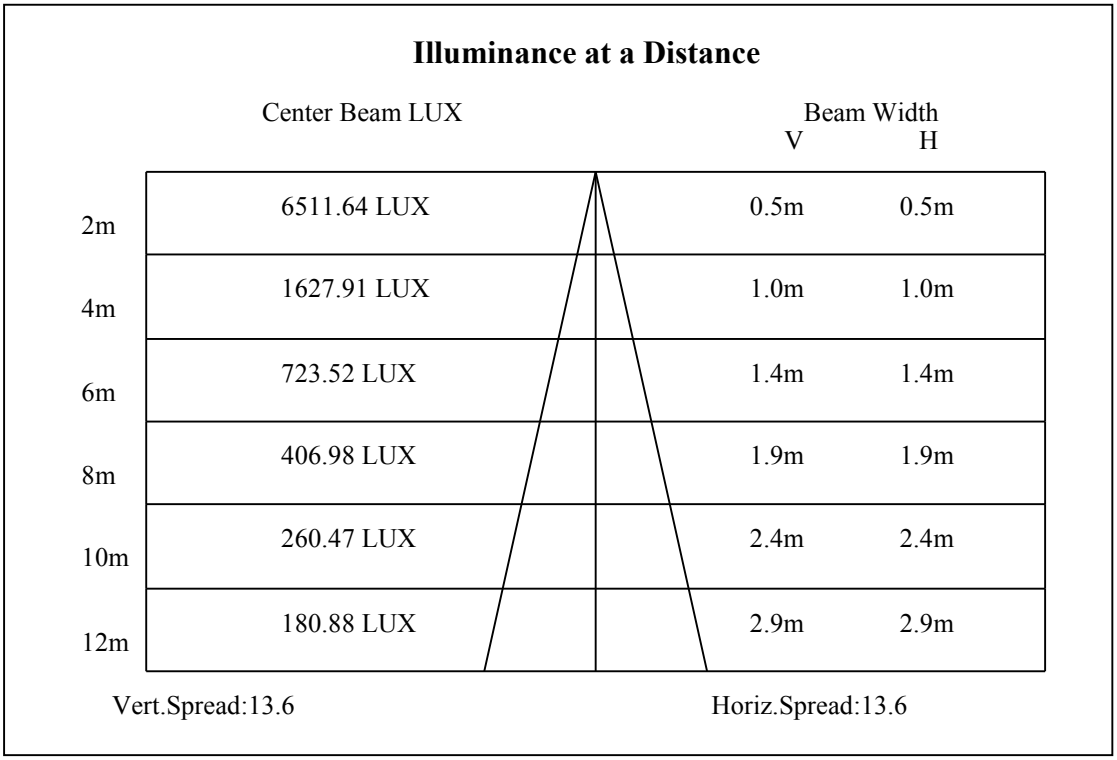
C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:13.5 Right:13.5
:C90/270Left:13.5 Right:13.5

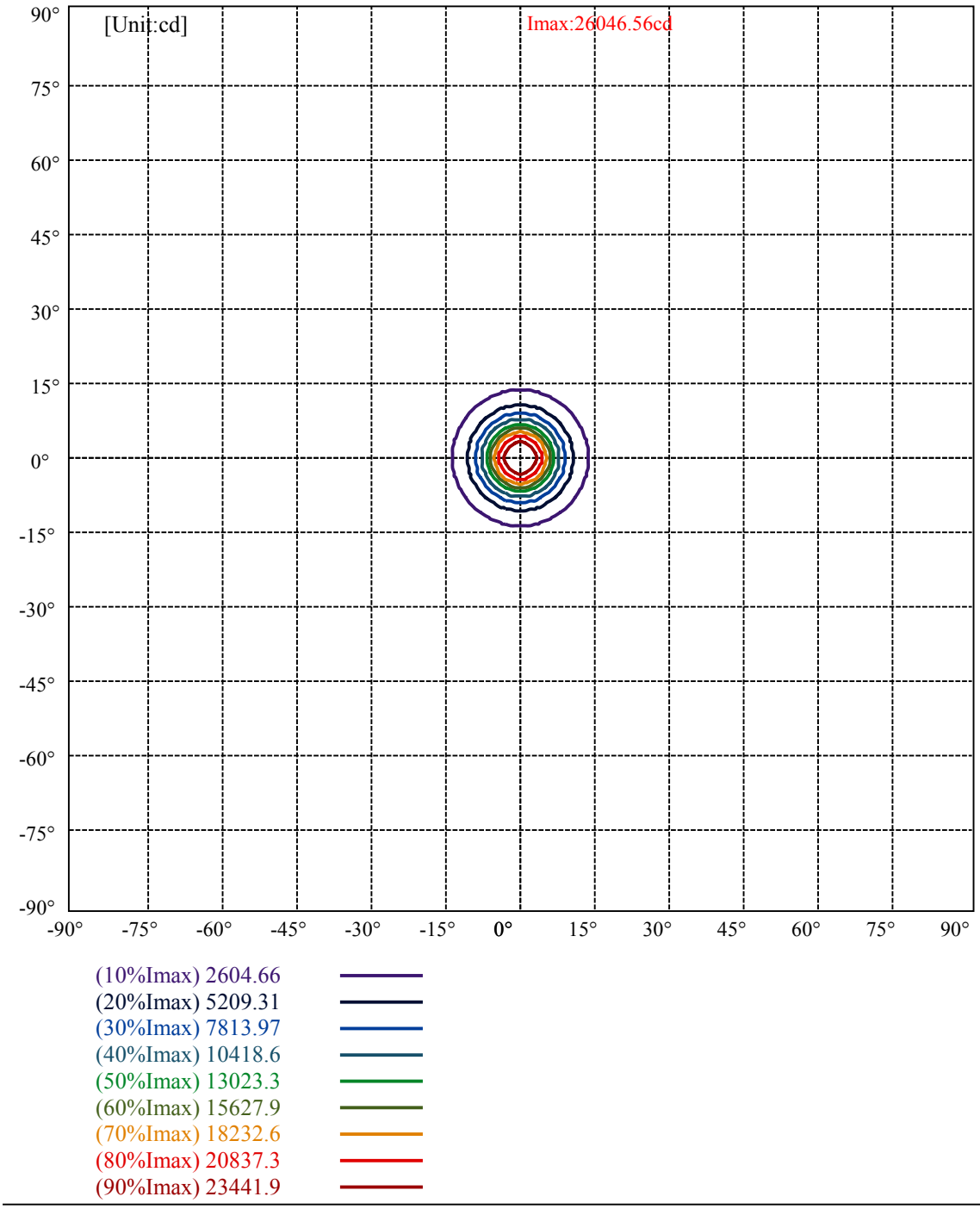
Beam Angle(50%Imax):C0/180Left:6.6 Right:6.6
:C90/270Left:6.6 Right:6.6

Lux distance Curve



Equipment: GMS1980 Date: 2019/1/9 Operator: NT07
Temperature(°C): 10.0 Humidity(%): 65.0% Distance(m): 7.50

ISO-Intensity(V-H)

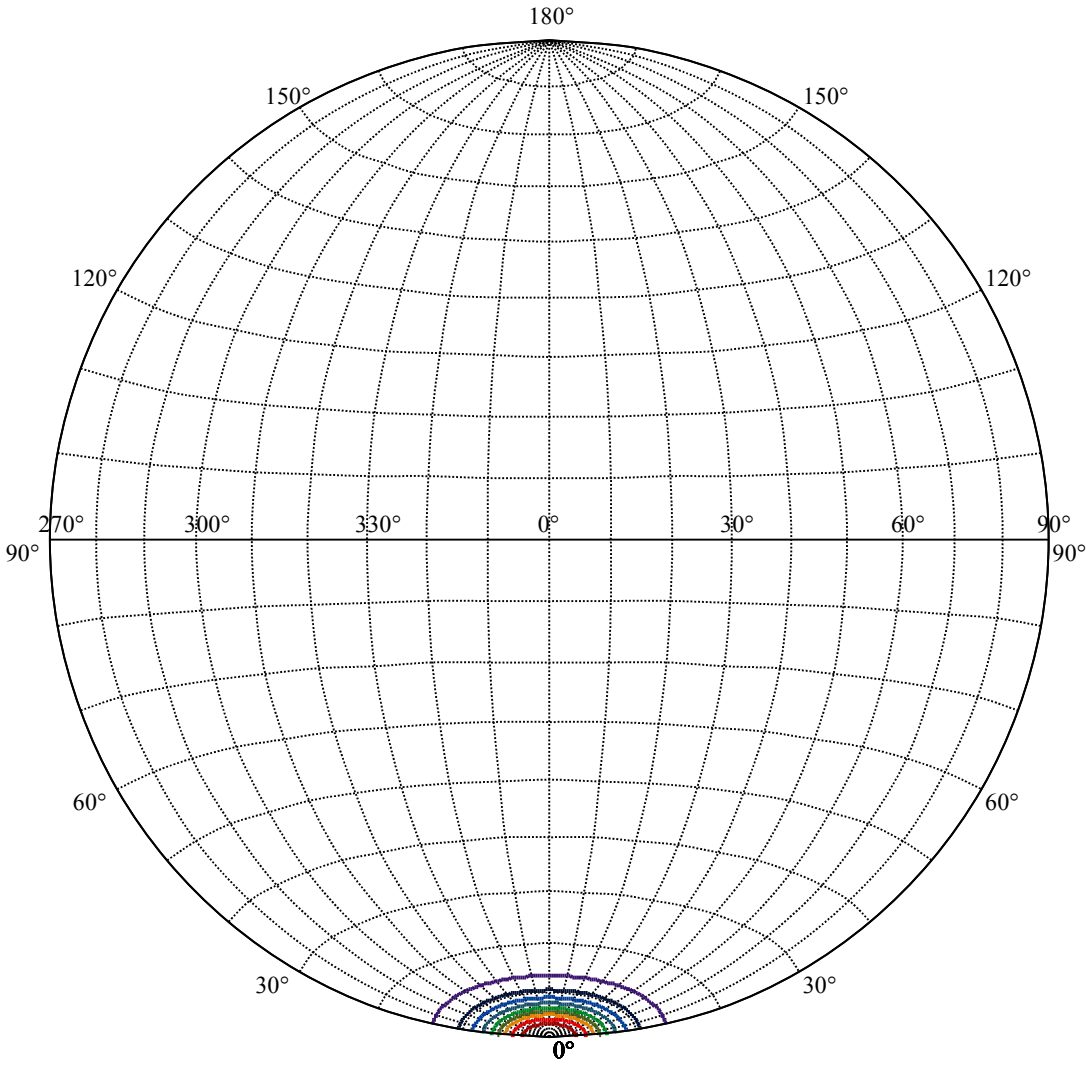


Equipment: GMS1980
Temperature(°C): 10.0

Date: 2019/1/9
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

ISO candela diagram on circular web



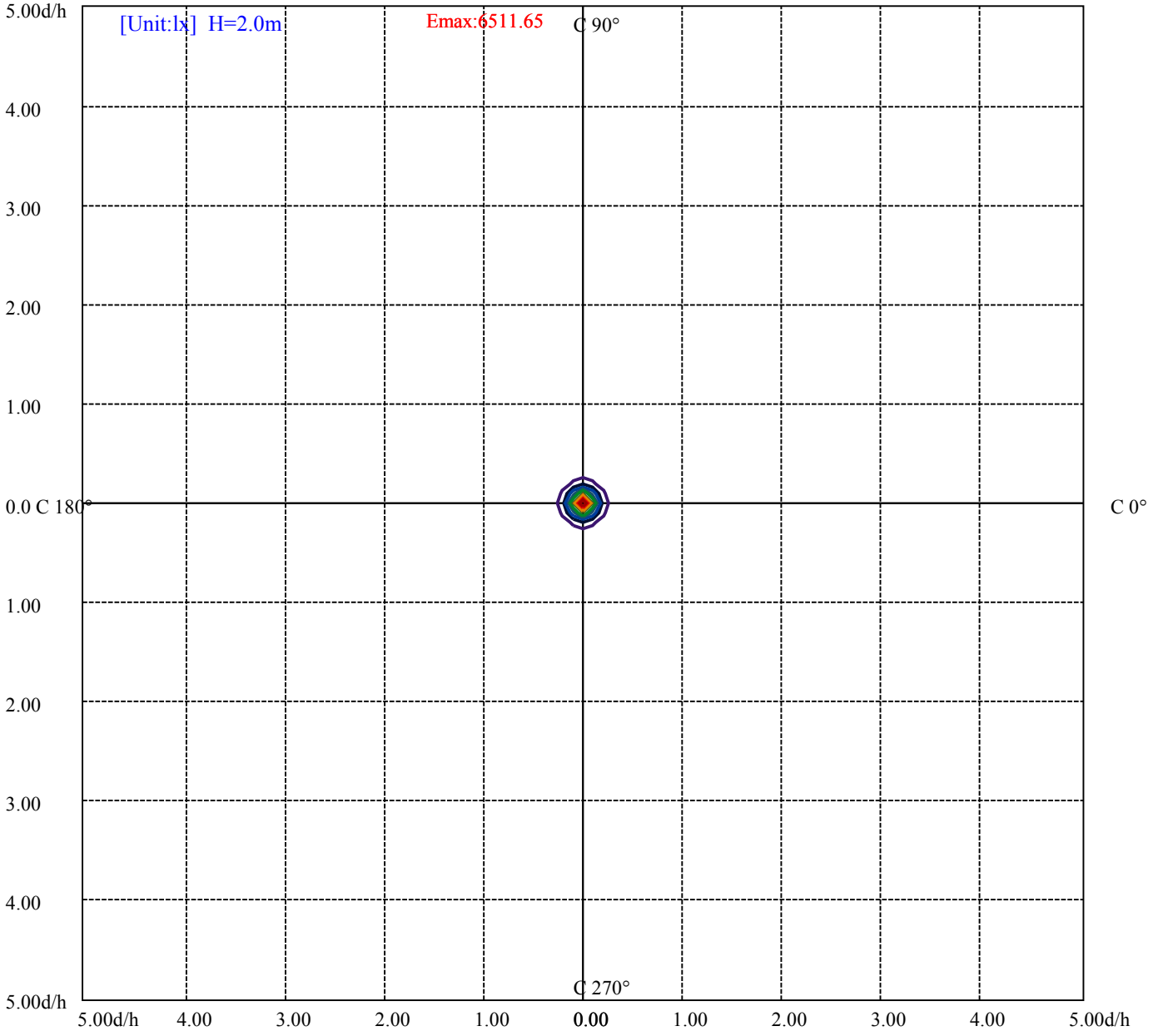
House [Unit:cd] Road

Imax:26046.56

(10%Imax) 2604.66
(20%Imax) 5209.31
(30%Imax) 7813.97
(40%Imax) 10418.6
(50%Imax) 13023.3
(60%Imax) 15627.9
(70%Imax) 18232.6
(80%Imax) 20837.3
(90%Imax) 23441.9

Equipment: GMS1980 Date: 2019/1/9 Operator: NT07
Temperature(°C): 10.0 Humidity(%): 65.0% Distance(m): 7.50

ISO illuminance diagram

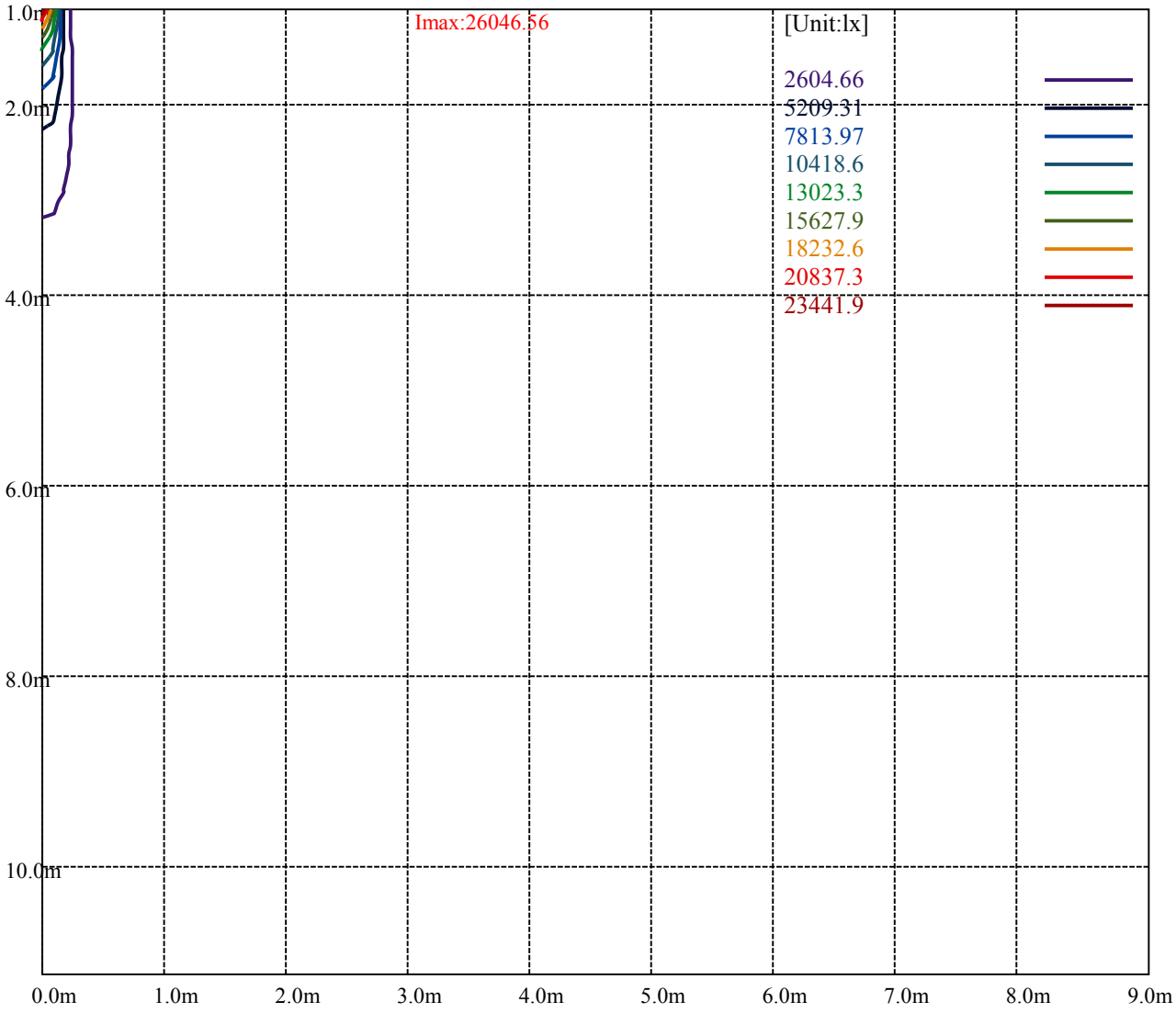


Equipment: GMS1980
Temperature(°C): 10.0

Date: 2019/1/9
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 10.0

Date: 2019/1/9
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

Luminance Limitting Curve(no luminous side)

Luminance Table

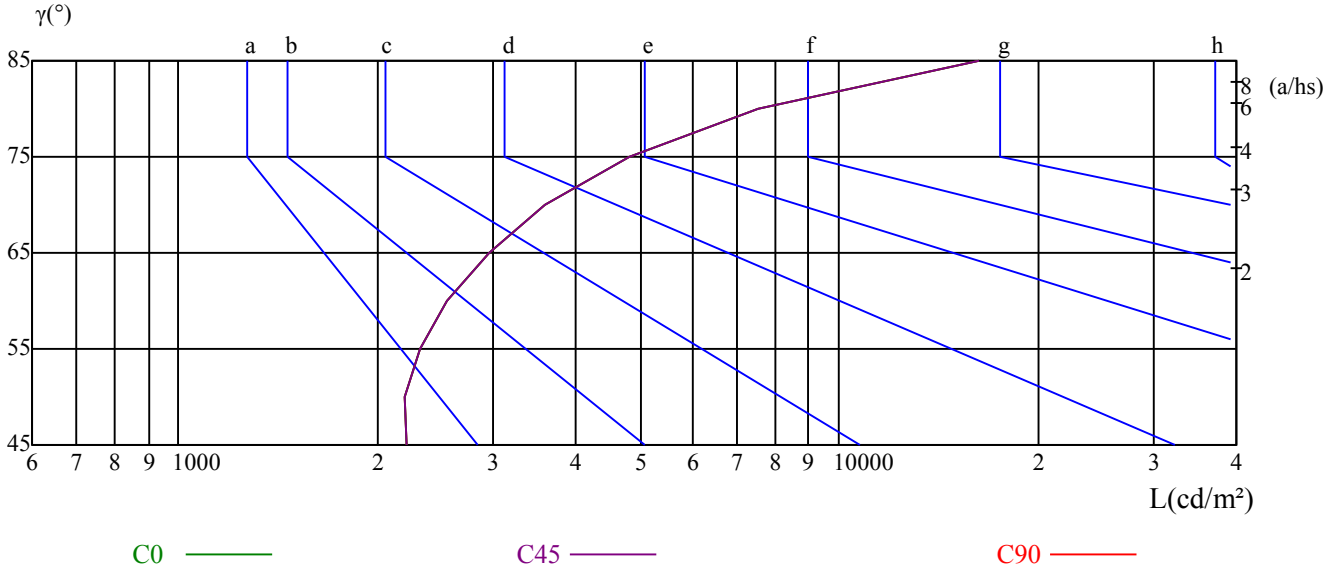
γ	45	50	55	60	65	70	75	80	85
C0	2211	2207	2316	2557	2945	3598	4819	7548	16272
C45	2211	2207	2316	2557	2945	3598	4819	7548	16272
C90	2211	2207	2316	2557	2945	3598	4819	7548	16272

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2945	2945	2945	4819	4819	4819	16272	16272	16272

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



Equipment: GMS1980
Temperature(°C): 10.0

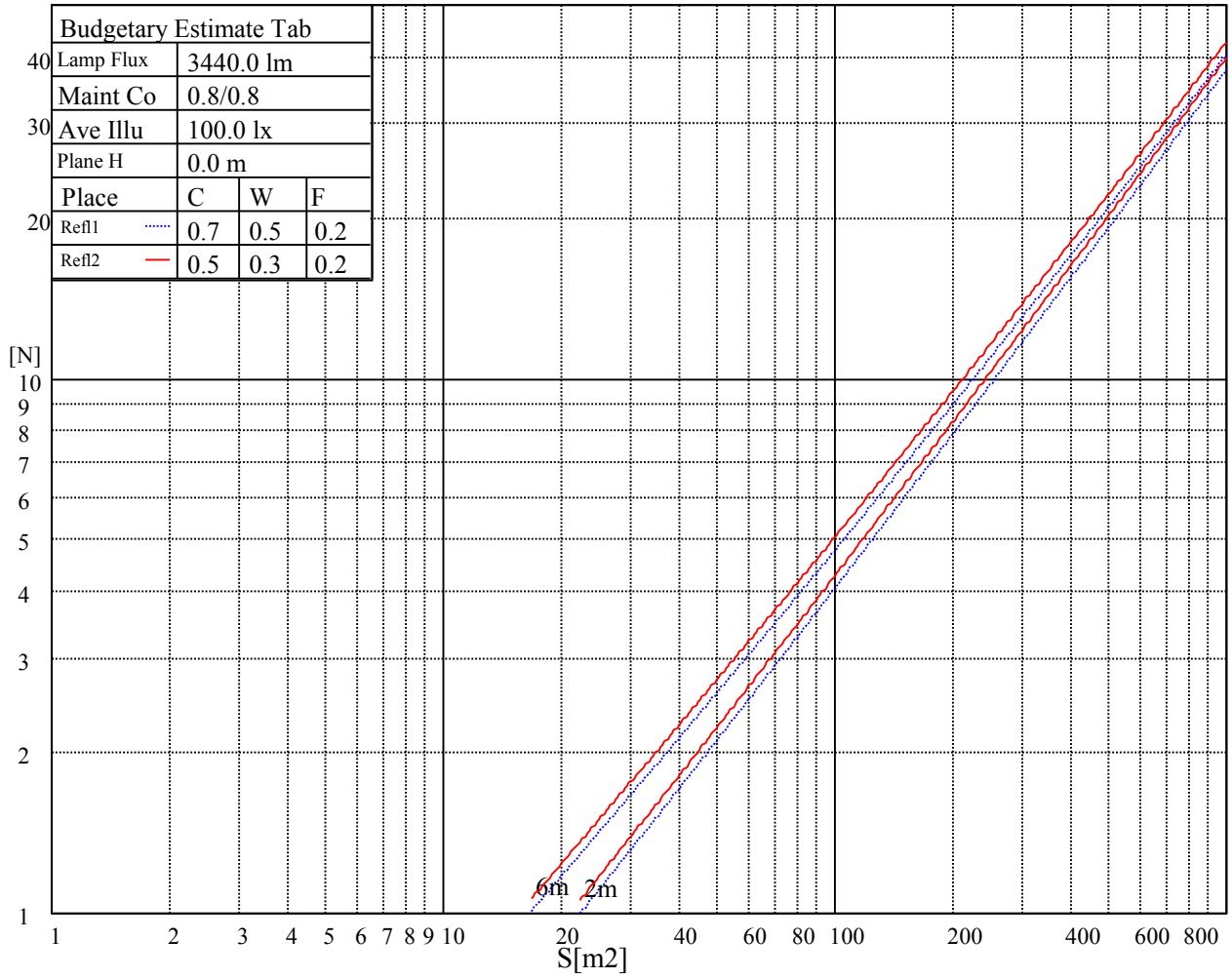
Date: 2019/1/9
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

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	-0.08	0.83	0.28	1.14	1.45	-0.18	0.72	0.18	1.03	1.35
	3H	3.17	3.97	3.56	4.31	4.68	3.11	3.91	3.49	4.24	4.61
	4H	5.02	5.76	5.43	6.12	6.51	4.94	5.69	5.35	6.04	6.43
	6H	7.22	7.89	7.64	8.27	8.67	7.11	7.79	7.53	8.17	8.56
	8H	8.49	9.12	8.92	9.51	9.92	8.36	9.00	8.80	9.39	9.80
	12H	10.54	11.15	10.98	11.53	11.96	10.38	10.99	10.82	11.37	11.80
4H	2H	0.82	1.56	1.23	1.92	2.31	0.75	1.49	1.16	1.85	2.24
	3H	4.34	4.95	4.76	5.36	5.76	4.28	4.89	4.70	5.30	5.71
	4H	6.36	6.91	6.80	7.33	7.78	6.29	6.84	6.73	7.26	7.71
	6H	8.66	9.13	9.14	9.58	10.06	8.58	9.05	9.06	9.50	9.98
	8H	10.06	10.49	10.54	10.94	11.42	9.95	10.38	10.43	10.83	11.31
	12H	12.01	12.38	12.50	12.87	13.35	11.86	12.23	12.35	12.72	13.20
8H	4H	7.14	7.57	7.62	8.03	8.50	7.09	7.52	7.57	7.98	8.45
	6H	9.74	10.08	10.26	10.59	11.08	9.68	10.02	10.20	10.53	11.02
	8H	11.33	11.63	11.87	12.16	12.65	11.24	11.54	11.78	12.07	12.57
	12H	13.38	13.63	13.90	14.13	14.71	13.25	13.51	13.77	14.01	14.59
12H	4H	7.39	7.76	7.88	8.25	8.73	7.34	7.71	7.84	8.20	8.68
	6H	10.31	10.41	10.65	10.89	11.44	10.25	10.36	10.60	10.83	11.38
	8H	11.83	12.09	12.36	12.59	13.17	11.76	12.01	12.28	12.51	13.10
Variation with the observer position at spacings:											
S = 1.0H		5.7/-8.0					5.7/-8.0				
S = 1.5H		7.9/-5.8					7.9/-5.8				
S = 2.0H		9.2/-4.2					9.2/-4.2				
Standard tables:		BK3					BK3				
Uncorrected UGR		0.3					0.3				

Budgetary Estimate Table

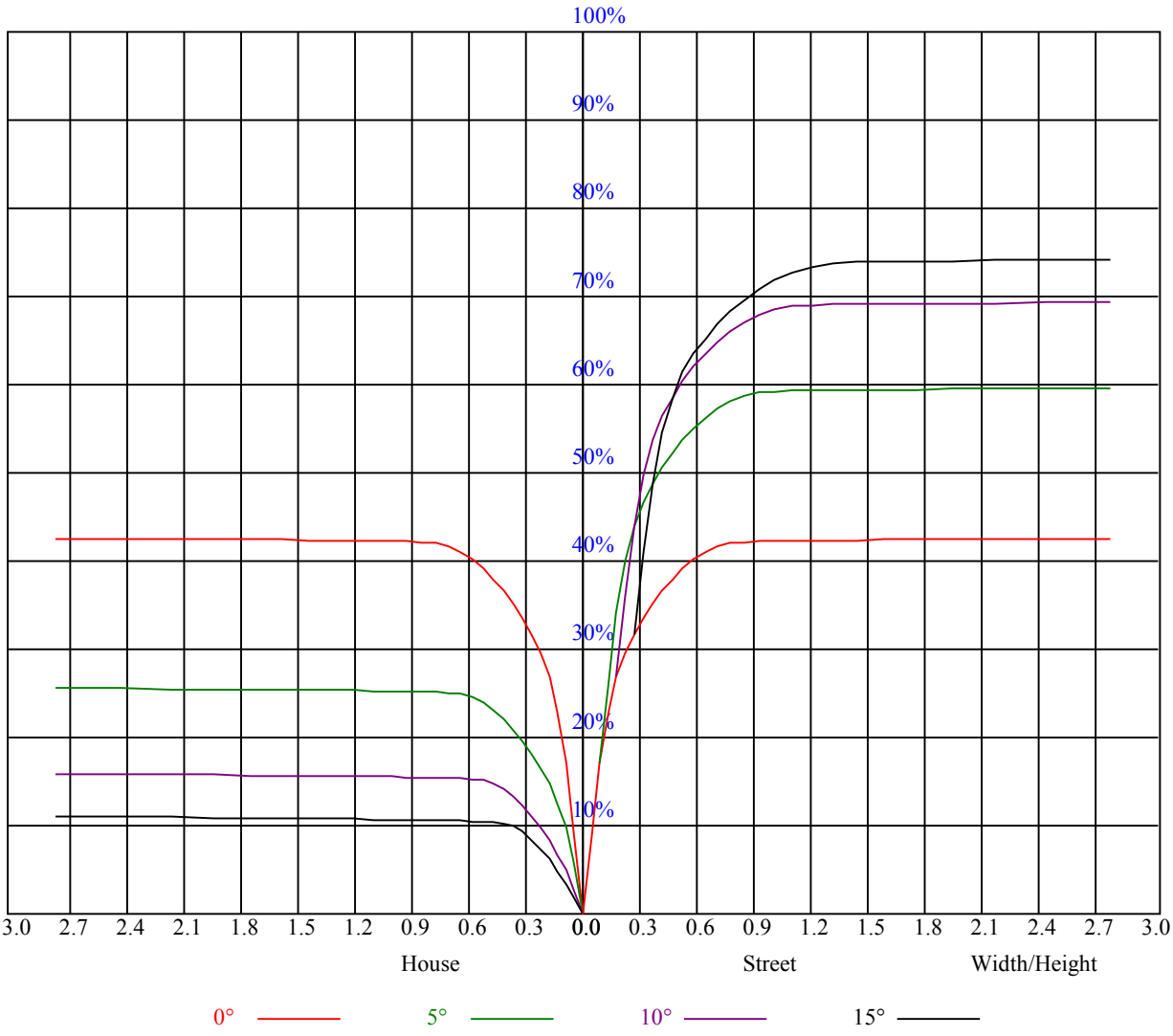


Equipment: GMS1980 Date: 2019/1/9 Operator: NT07
Temperature(°C): 10.0 Humidity(%): 65.0% Distance(m): 7.50

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

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2019/1/9	Operator: NT07
Temperature(°C): 10.0	Humidity(%): 65.0%	Distance(m): 7.50

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	26038.13	25942.50	25335.00	23653.13	21459.38	18714.38	14872.50	11998.13	9607.50
45.0	26060.63	26038.13	25745.63	24367.50	22269.38	19614.38	15733.13	12600.00	10012.50
90.0	26071.88	26055.00	25796.25	24676.88	22213.13	19378.13	16222.50	11169.56	9625.50
135.0	26015.63	26071.88	25959.38	25340.63	23754.38	21065.63	17803.13	14658.75	11778.75
180.0	26038.13	25948.13	25486.88	23934.38	21515.63	18905.63	15536.25	10976.06	9807.19
225.0	26060.63	25824.38	25171.88	23332.50	20542.50	18196.88	15238.13	10899.00	9497.81
270.0	26071.88	25931.25	25205.63	23349.38	21144.38	18140.63	14788.13	12048.75	9725.63
315.0	26015.63	25582.50	24339.38	22111.88	19333.13	16408.13	11133.56	10230.19	8135.44
360.0	26038.13	25942.50	25335.00	23653.13	21459.38	18714.38	14872.50	11998.13	9607.50

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	7228.13	5743.13	4567.50	3583.13	2868.75	2279.81	1953.00	1695.38	1519.88
45.0	7520.63	5940.00	4674.38	3555.00	2874.38	2255.06	1887.19	1645.88	1505.81
90.0	7596.00	5673.94	4506.75	3560.06	2823.19	2235.38	1911.38	1686.38	1505.81
135.0	8887.50	7014.38	5540.63	4235.63	3189.38	2851.88	2116.13	1806.19	1624.50
180.0	7740.56	5783.63	4593.94	3610.13	2784.94	2340.00	2010.38	1721.81	1557.00
225.0	7574.63	5847.75	4473.00	3539.25	2892.94	2338.88	2030.06	1801.13	1607.63
270.0	7351.88	5878.13	4668.75	3605.63	2874.38	2609.44	2058.75	1797.19	1626.19
315.0	6480.00	4718.25	3810.38	3084.19	2518.31	2110.50	1848.38	1630.69	1486.69
360.0	7228.13	5743.13	4567.50	3583.13	2868.75	2279.81	1953.00	1695.38	1519.88

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1406.25	1322.44	1267.88	1234.69	1203.19	1177.31	1153.69	1135.69	1119.38
45.0	1383.19	1312.31	1260.56	1225.13	1200.38	1174.50	1146.38	1130.63	1113.75
90.0	1380.94	1309.50	1257.19	1219.50	1192.50	1166.63	1148.06	1120.95	1105.09
135.0	1469.81	1372.50	1299.94	1249.31	1215.56	1184.06	1159.88	1141.88	1123.88
180.0	1431.00	1328.63	1279.13	1230.19	1193.63	1174.50	1154.25	1121.46	1115.66
225.0	1467.00	1377.56	1303.31	1249.31	1213.88	1187.44	1168.88	1150.88	1121.85
270.0	1482.75	1392.19	1316.81	1261.13	1222.31	1194.19	1170.56	1151.44	1136.25
315.0	1377.56	1302.75	1256.63	1219.50	1190.25	1170.00	1152.56	1120.50	1113.86
360.0	1406.25	1322.44	1267.88	1234.69	1203.19	1177.31	1153.69	1135.69	1119.38

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	1106.44	1087.31	1072.13	1059.19	1038.94	1010.25	947.81	823.50	696.38
45.0	1096.31	1082.81	1066.50	1050.75	1033.31	1002.94	912.94	808.88	691.88
90.0	1090.58	1074.54	1056.43	1041.58	1027.86	986.12	909.23	810.56	685.58
135.0	1105.88	1090.13	1074.94	1058.63	1040.06	1024.88	981.00	878.63	768.94
180.0	1100.53	1081.24	1062.79	1046.70	1032.98	1003.95	933.98	831.66	685.35
225.0	1114.65	1100.19	1078.43	1062.79	1048.78	1016.78	943.65	843.64	715.84
270.0	1118.81	1105.88	1088.44	1072.69	1055.25	1031.06	955.69	846.00	732.94
315.0	1099.24	1082.87	1063.58	1049.40	1034.94	971.33	878.74	766.91	633.09
360.0	1106.44	1087.31	1072.13	1059.19	1038.94	1010.25	947.81	823.50	696.38

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	591.75	437.06	313.88	228.60	85.89	48.60	40.78	30.26	16.03
45.0	551.25	430.31	298.13	214.03	90.39	47.70	38.14	29.25	15.98
90.0	549.06	425.48	294.58	176.29	91.80	44.33	37.29	27.45	16.48
135.0	651.38	516.38	376.88	291.38	145.29	70.59	42.81	35.44	24.98
180.0	565.76	432.84	319.67	200.59	107.10	44.49	34.54	26.21	16.48
225.0	577.18	452.64	318.04	195.02	105.53	44.33	34.59	27.00	16.31
270.0	596.25	469.69	331.31	287.44	108.96	51.19	38.53	29.98	16.88
315.0	494.21	372.09	238.95	122.51	56.76	36.84	29.53	17.78	15.75
360.0	591.75	437.06	313.88	228.60	85.89	48.60	40.78	30.26	16.03

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	15.47	15.02	14.74	14.46	14.18	13.95	13.78	13.61	13.39
45.0	15.53	15.24	14.96	14.68	14.40	14.23	14.06	13.84	13.67
90.0	15.81	15.47	15.08	14.91	14.63	14.40	14.18	14.01	13.73
135.0	15.69	15.36	15.02	14.79	14.51	14.34	14.12	13.89	13.73
180.0	15.36	15.08	14.74	14.51	14.29	14.06	13.84	13.67	13.50
225.0	15.75	15.36	14.96	14.74	14.46	14.12	13.89	13.73	13.56
270.0	16.14	15.69	15.36	15.08	14.74	14.51	14.29	14.01	13.78
315.0	15.36	14.96	14.63	14.40	14.12	13.89	13.61	13.50	13.39
360.0	15.47	15.02	14.74	14.46	14.18	13.95	13.78	13.61	13.39

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	13.28	13.11	13.05	12.88	12.83	12.71	12.66	12.60	12.54
45.0	13.50	13.33	13.22	13.11	12.99	12.94	12.83	12.71	12.66
90.0	13.61	13.50	13.33	13.22	13.11	12.99	12.88	12.77	12.71
135.0	13.56	13.39	13.28	13.11	12.99	12.94	12.88	12.71	12.66
180.0	13.33	13.22	13.05	12.94	12.83	12.77	12.71	12.60	12.54
225.0	13.33	13.22	13.11	13.05	12.94	12.83	12.77	12.66	12.54
270.0	13.61	13.44	13.33	13.16	13.05	12.94	12.88	12.77	12.71
315.0	13.22	13.05	12.99	12.94	12.83	12.71	12.66	12.54	12.49
360.0	13.28	13.11	13.05	12.88	12.83	12.71	12.66	12.60	12.54

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	12.43	12.43	12.38	12.32	12.32	12.26	12.32	12.32	12.32
45.0	12.60	12.54	12.49	12.49	12.38	12.38	12.32	12.32	12.32
90.0	12.66	12.60	12.49	12.43	12.38	12.32	12.32	12.26	12.26
135.0	12.60	12.54	12.49	12.43	12.38	12.32	12.26	12.26	12.26
180.0	12.49	12.38	12.38	12.32	12.32	12.26	12.26	12.15	12.15
225.0	12.54	12.49	12.49	12.38	12.38	12.38	12.38	12.43	12.49
270.0	12.66	12.60	12.54	12.54	12.43	12.43	12.43	12.54	12.60
315.0	12.43	12.43	12.32	12.32	12.21	12.21	12.21	12.15	12.15
360.0	12.43	12.43	12.38	12.32	12.32	12.26	12.32	12.32	12.32

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	12.38	12.43	12.49	12.60	12.77	12.94	13.16	13.39	13.61
45.0	12.32	12.38	12.43	12.43	12.49	12.54	12.66	12.83	12.94
90.0	12.21	12.21	12.15	12.15	12.09	12.09	12.15	12.15	12.15
135.0	12.26	12.26	12.26	12.32	12.32	12.38	12.43	12.49	12.60
180.0	12.15	12.15	12.15	12.15	12.15	12.15	12.21	12.21	12.26
225.0	12.60	12.60	12.77	12.94	13.22	13.44	13.78	14.12	14.57
270.0	12.66	12.77	12.88	13.05	13.28	13.44	13.78	14.06	14.29
315.0	12.15	12.15	12.15	12.15	12.21	12.21	12.21	12.32	12.43
360.0	12.38	12.43	12.49	12.60	12.77	12.94	13.16	13.39	13.61

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	13.84	13.95	14.06	14.23	14.57	14.96	15.13	14.91	12.21
45.0	13.05	13.16	13.28	13.44	13.67	14.01	14.40	14.06	13.16
90.0	12.21	12.26	12.32	12.49	12.60	12.71	12.71	12.88	12.43
135.0	12.71	12.88	13.11	13.28	13.50	13.61	13.95	14.12	13.28
180.0	12.38	12.54	12.71	12.99	13.11	13.33	13.67	14.01	13.28
225.0	14.91	15.36	15.92	16.48	17.16	18.39	19.46	19.18	17.27
270.0	14.57	14.74	14.96	15.41	15.98	16.54	16.59	15.98	15.02
315.0	12.54	12.66	12.71	12.83	12.88	13.11	13.28	13.11	11.93
360.0	13.84	13.95	14.06	14.23	14.57	14.96	15.13	14.91	12.21

Intensity data(cd)

C/γ(°)	90.0
0.0	11.93
45.0	11.98
90.0	11.93
135.0	12.09
180.0	11.93
225.0	12.04
270.0	11.93
315.0	11.93
360.0	11.93