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Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

NATA

LumCAT: 3-2033-M
Luminaire: 92.70.134.00
Report No: NATA0100
Test No: GC2019010908
LampCAT: OSRAM SOLERIQ S19
Lamp flux(lm): 3440.0
Number of Lamps: 1
Length(mm): 79
Phm Type: C

Voltage(V): 34.9000
Current(A): 0.7000
Power (W): 24.4300
PF: 0.0000
Ballast type: DC
Width(mm): 79
Height(mm): 0

Photometric Results

Lumens(lm): 2952.35
Efficiency(%): 85.82%
Lumens(lm)/Power(W): 121.00
Central intensity(cd): 16160.620
Maximum intensity(cd): 16160.620
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=18.4
[C90/270]Total=18.4
Field angle(10%Imax): [C0/180]Total=39.4
[C90/270]Total=39.4
Maximum s/h(1/2): C0_180=0.32 C90_270=0.32
Maximum s/h(1/4): C0_180=0.31 C90_270=0.31
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 85.93%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.570%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	16160.625	3.866	3.866	.112%	.131%
1.0	16093.125	30.800	34.666	.895%	1.174%
2.0	15870.938	60.740	95.406	1.766%	3.232%
3.0	15406.172	88.419	183.825	2.570%	6.226%
4.0	14707.969	112.509	296.335	3.271%	10.037%
5.0	13771.406	131.621	427.956	3.826%	14.495%
6.0	12517.383	143.483	571.439	4.171%	19.355%
7.0	11142.070	148.906	720.345	4.329%	24.399%
8.0	9834.398	150.091	870.436	4.363%	29.483%
9.0	8388.984	143.911	1014.346	4.183%	34.357%
10.0	6941.953	132.192	1146.538	3.843%	38.835%
11.0	5764.430	120.617	1267.155	3.506%	42.920%
12.0	4700.391	107.168	1374.322	3.115%	46.550%
13.0	3799.688	93.732	1468.054	2.725%	49.725%
14.0	3177.352	84.293	1552.348	2.450%	52.580%
15.0	2772.914	78.702	1631.049	2.288%	55.246%
16.0	2361.516	71.381	1702.43	2.075%	57.664%
17.0	2094.609	67.157	1769.587	1.952%	59.938%
18.0	1874.953	63.537	1833.123	1.847%	62.090%
19.0	1705.641	60.895	1894.018	1.770%	64.153%
20.0	1573.172	59.004	1953.022	1.715%	66.151%
21.0	1464.469	57.552	2010.574	1.673%	68.101%
22.0	1378.688	56.636	2067.21	1.646%	70.019%
23.0	1311.750	56.206	2123.416	1.634%	71.923%
24.0	1254.797	55.968	2179.384	1.627%	73.819%
25.0	1208.672	56.016	2235.399	1.628%	75.716%
26.0	1172.672	56.373	2291.772	1.639%	77.625%
27.0	1135.013	56.507	2348.279	1.643%	79.539%
28.0	1110.572	57.175	2405.454	1.662%	81.476%
29.0	1088.845	57.888	2463.342	1.683%	83.437%
30.0	1062.513	58.258	2521.6	1.694%	85.410%
31.0	1013.105	57.220	2578.82	1.663%	87.348%
32.0	935.205	54.346	2633.166	1.580%	89.189%
33.0	844.066	50.412	2683.578	1.465%	90.896%
34.0	745.601	45.721	2729.3	1.329%	92.445%
35.0	640.526	40.288	2769.588	1.171%	93.810%
36.0	529.298	34.117	2803.705	.992%	94.965%
37.0	427.809	28.234	2831.939	.821%	95.921%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	321.349	21.696	2853.634	.631%	96.656%
39.0	251.241	17.339	2870.973	.504%	97.244%
40.0	138.839	9.787	2880.759	.284%	97.575%
41.0	71.409	5.137	2885.897	.149%	97.749%
42.0	38.658	2.837	2888.733	.082%	97.845%
43.0	29.883	2.235	2890.968	.065%	97.921%
44.0	24.525	1.868	2892.837	.054%	97.984%
45.0	19.427	1.506	2894.343	.044%	98.035%
46.0	17.290	1.364	2895.707	.040%	98.081%
47.0	16.805	1.348	2897.055	.039%	98.127%
48.0	16.411	1.337	2898.392	.039%	98.172%
49.0	16.010	1.325	2899.717	.039%	98.217%
50.0	15.645	1.314	2901.031	.038%	98.262%
51.0	15.335	1.307	2902.338	.038%	98.306%
52.0	15.040	1.300	2903.638	.038%	98.350%
53.0	14.766	1.293	2904.931	.038%	98.394%
54.0	14.484	1.285	2906.216	.037%	98.437%
55.0	14.203	1.276	2907.492	.037%	98.481%
56.0	13.985	1.271	2908.763	.037%	98.524%
57.0	13.802	1.269	2910.033	.037%	98.567%
58.0	13.634	1.268	2911.301	.037%	98.610%
59.0	13.465	1.266	2912.566	.037%	98.652%
60.0	13.338	1.267	2913.833	.037%	98.695%
61.0	13.233	1.269	2915.102	.037%	98.738%
62.0	13.113	1.270	2916.372	.037%	98.781%
63.0	12.987	1.269	2917.641	.037%	98.824%
64.0	12.909	1.272	2918.913	.037%	98.867%
65.0	12.811	1.273	2920.186	.037%	98.910%
66.0	12.748	1.277	2921.463	.037%	98.954%
67.0	12.684	1.280	2922.744	.037%	98.997%
68.0	12.607	1.282	2924.026	.037%	99.041%
69.0	12.558	1.286	2925.311	.037%	99.084%
70.0	12.523	1.290	2926.602	.038%	99.128%
71.0	12.473	1.293	2927.895	.038%	99.172%
72.0	12.410	1.294	2929.189	.038%	99.215%
73.0	12.382	1.298	2930.488	.038%	99.259%
74.0	12.340	1.301	2931.789	.038%	99.303%
75.0	12.319	1.305	2933.093	.038%	99.348%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	12.291	1.308	2934.401	.038%	99.392%
77.0	12.270	1.311	2935.712	.038%	99.436%
78.0	12.248	1.314	2937.026	.038%	99.481%
79.0	12.241	1.318	2938.344	.038%	99.526%
80.0	12.213	1.319	2939.663	.038%	99.570%
81.0	12.220	1.324	2940.986	.038%	99.615%
82.0	12.213	1.326	2942.313	.039%	99.660%
83.0	12.206	1.329	2943.641	.039%	99.705%
84.0	12.206	1.331	2944.972	.039%	99.750%
85.0	12.227	1.336	2946.308	.039%	99.795%
86.0	12.241	1.339	2947.647	.039%	99.841%
87.0	12.298	1.347	2948.994	.039%	99.886%
88.0	12.431	1.362	2950.356	.040%	99.932%
89.0	12.178	1.335	2951.692	.039%	99.978%
90.0	12.052	0.661	2952.353	.019%	100.000%

Zonal flux distribution table

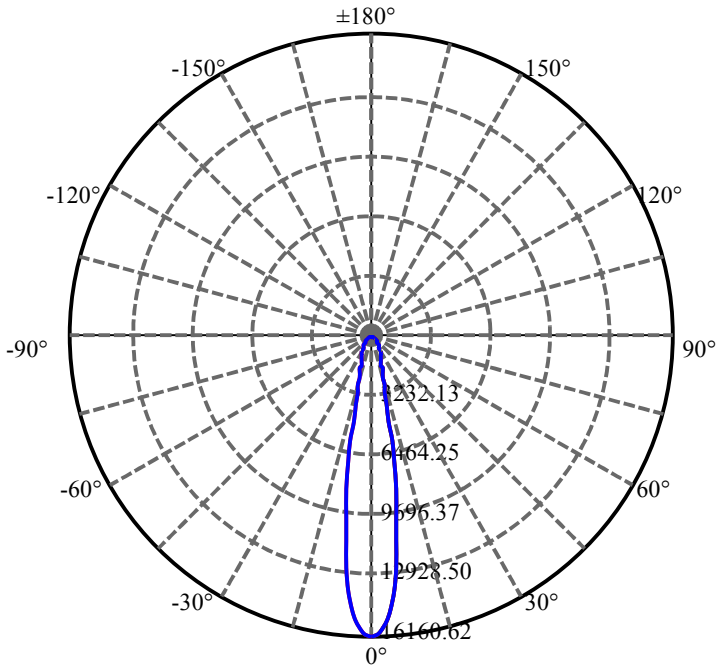
ZONAL LUMEN SUMMARY

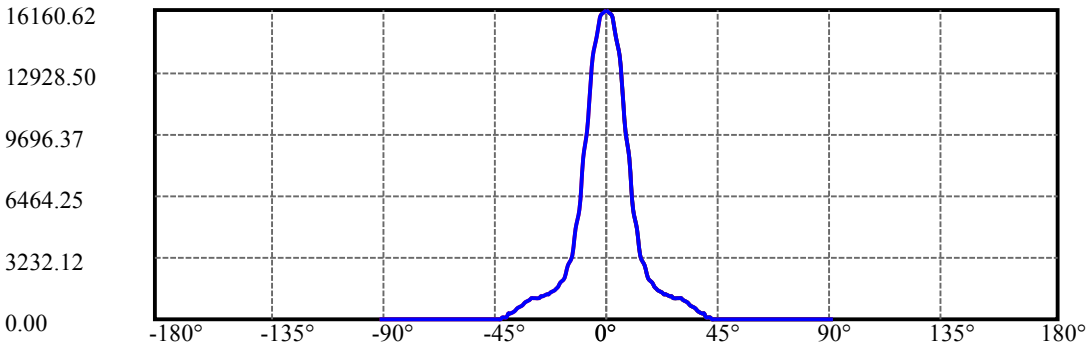
Zone	Lumens	%Lamp	%Fixt
0-30	2521.60	73.30%	85.41%
0-40	2880.76	83.74%	97.58%
0-60	2913.83	84.70%	98.70%
0-90	2951.69	85.80%	99.98%
0-120	2951.69	85.80%	99.98%
0-180	2952.35	85.82%	100.00%
60-90	39.13	1.14%	1.33%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-27.24	2361.88	68.66%	80.00%

ZONAL LUMEN SUMMARY

0-10	1146.54
10-20	806.48
20-30	568.58
30-40	359.16
40-50	20.27
50-60	12.80
60-70	12.77
70-80	13.06
80-90	12.03
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):

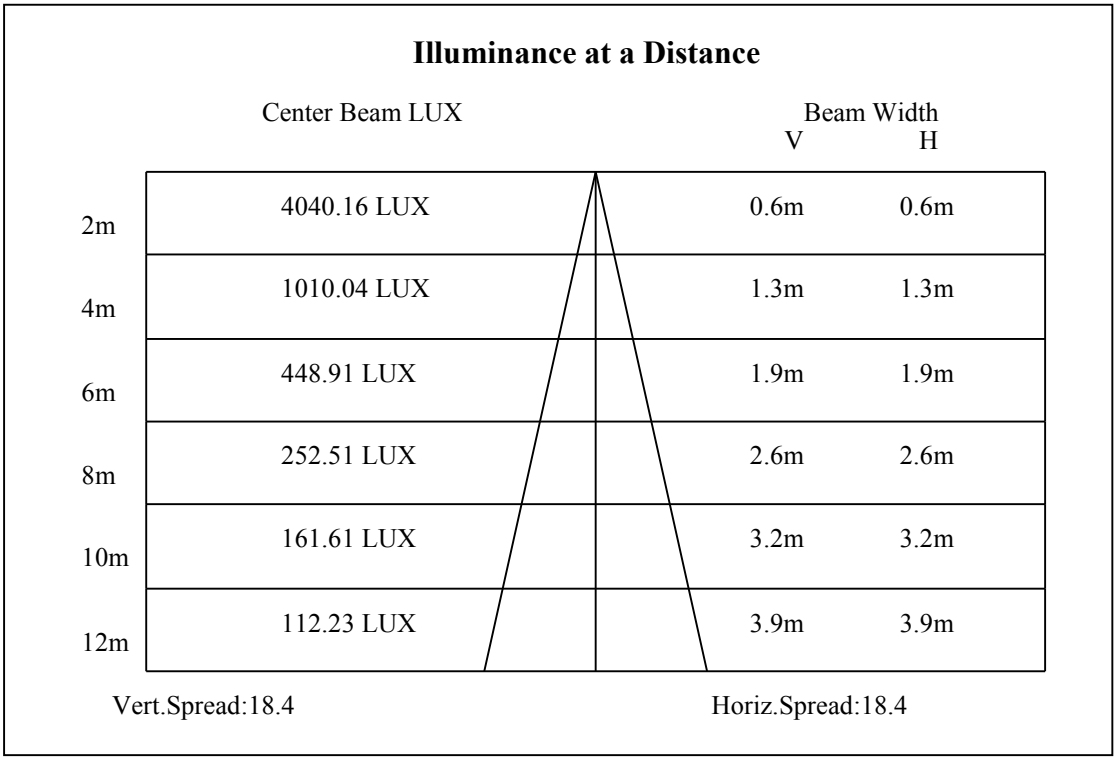
C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:19.7 Right:19.7
:C90/270Left:19.7 Right:19.7

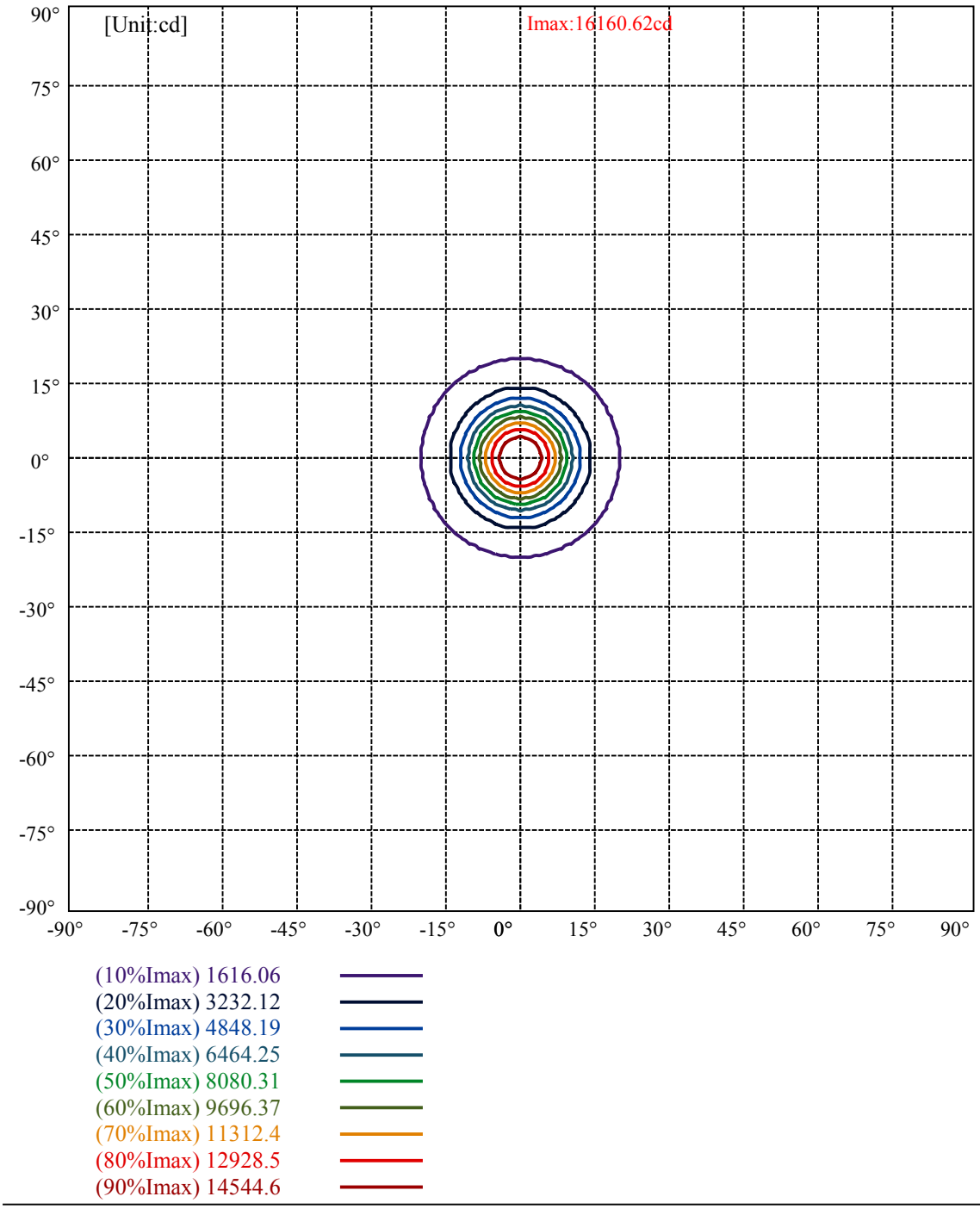
Beam Angle(50%Imax):C0/180Left:9.2 Right:9.2
:C90/270Left:9.2 Right:9.2

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)

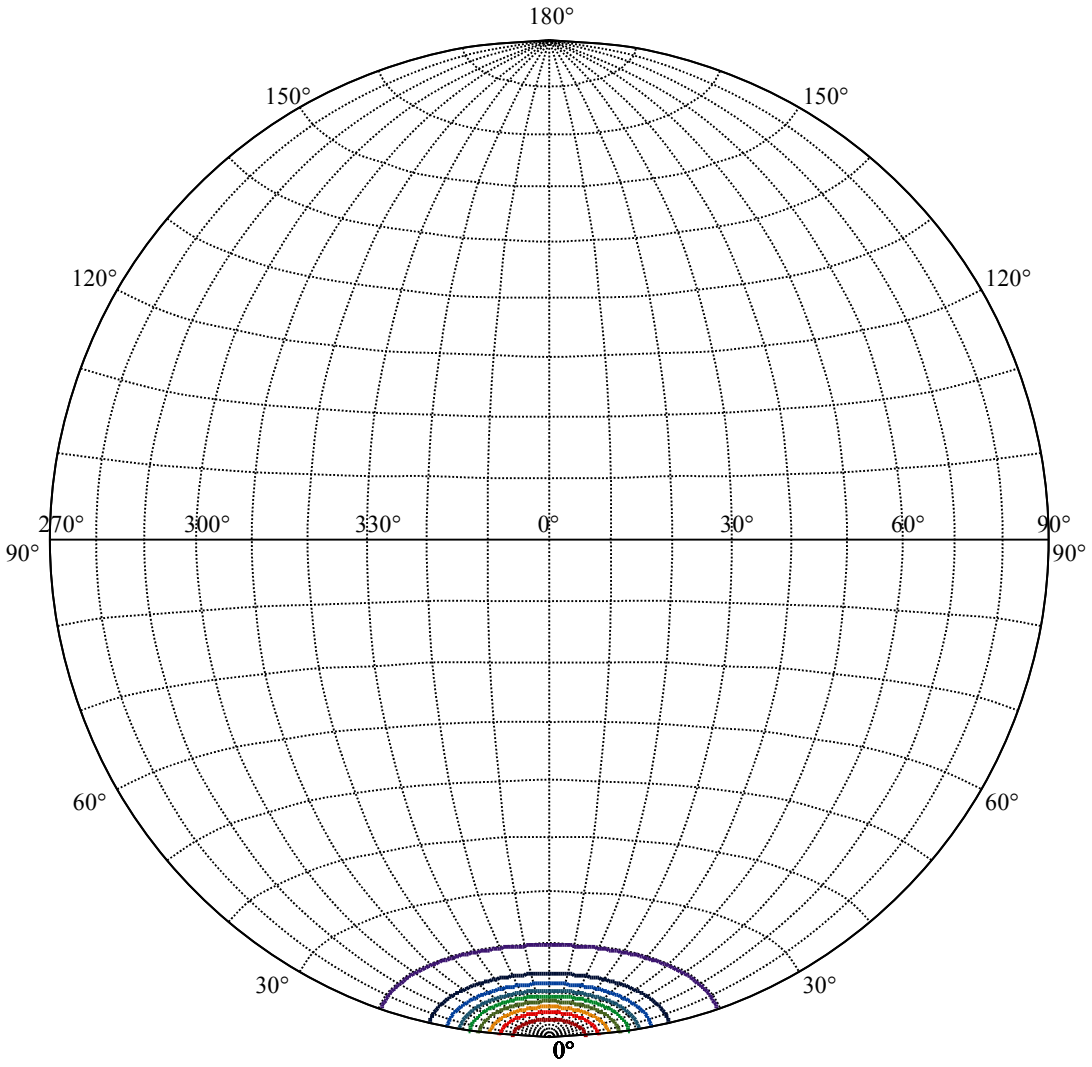


Equipment: GMS1980
Temperature(°C): 10.0

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

Operator: NT07
Distance(m): 7.50

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:16160.62

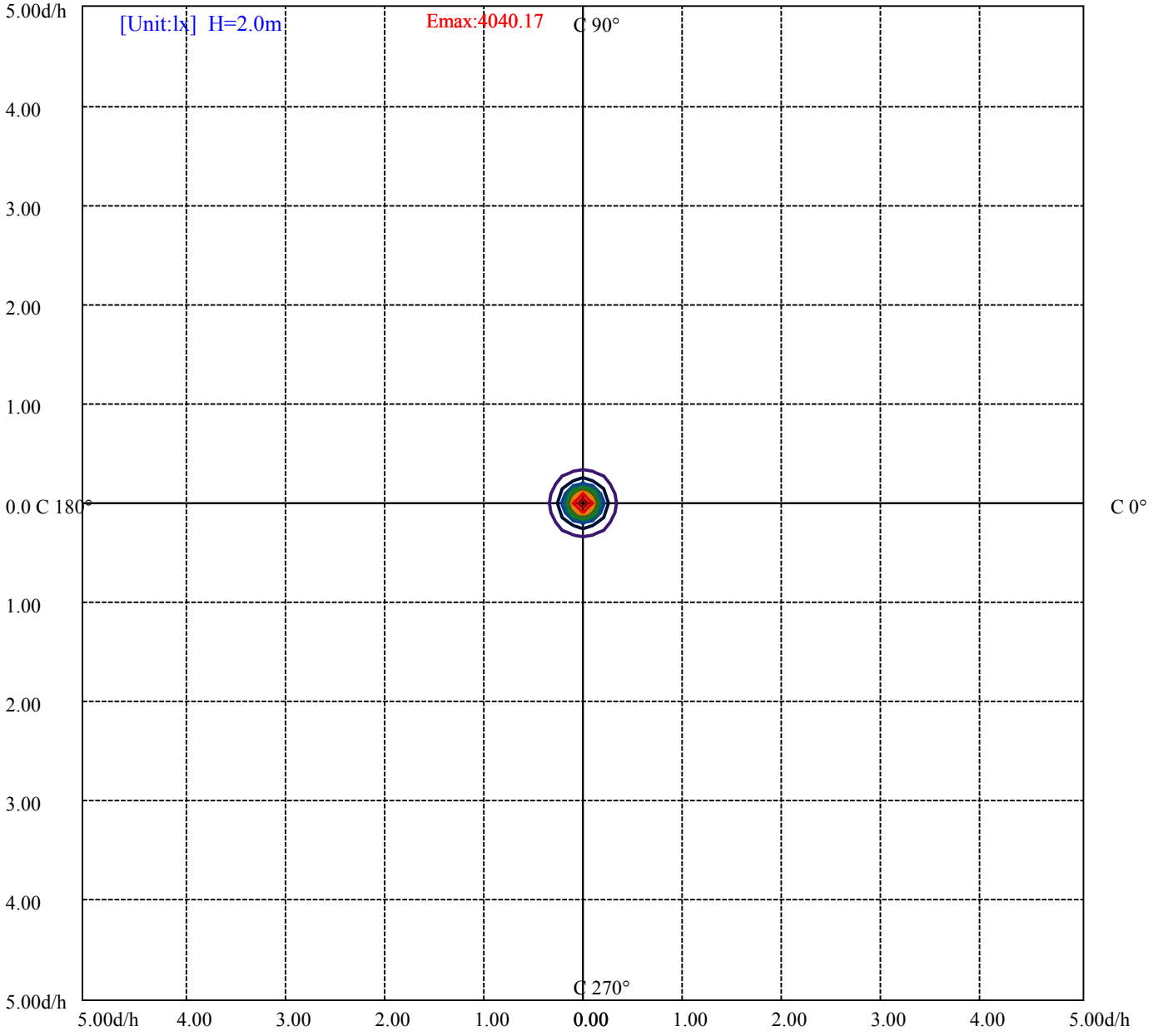
(10%Imax) 1616.06
(20%Imax) 3232.12
(30%Imax) 4848.19
(40%Imax) 6464.25
(50%Imax) 8080.31
(60%Imax) 9696.37
(70%Imax) 11312.4
(80%Imax) 12928.5
(90%Imax) 14544.6

Equipment: GMS1980
Temperature(°C): 10.0

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

Operator: NT07
Distance(m): 7.50

ISO illuminance diagram

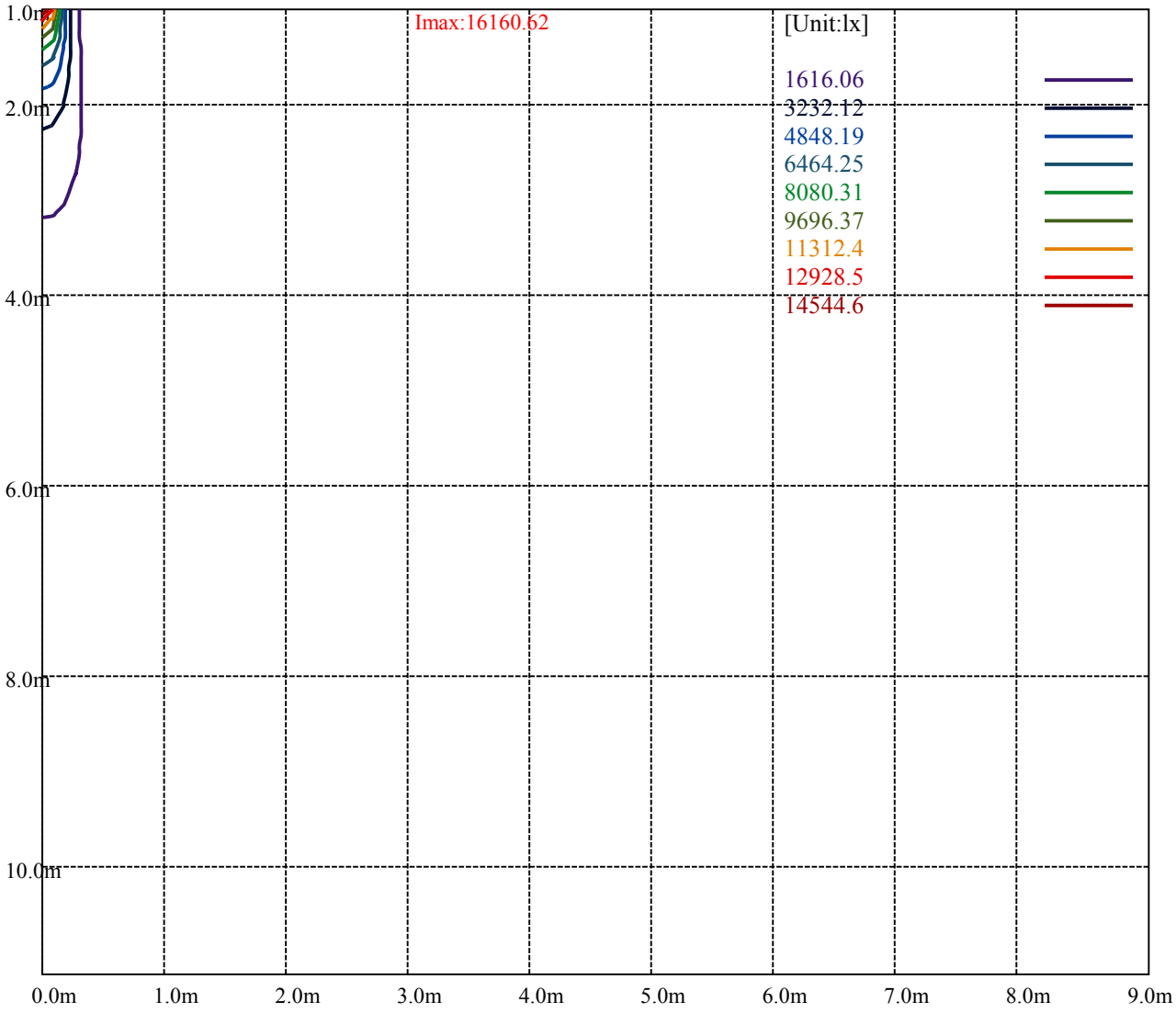


Equipment: GMS1980
Temperature(°C): 10.0

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

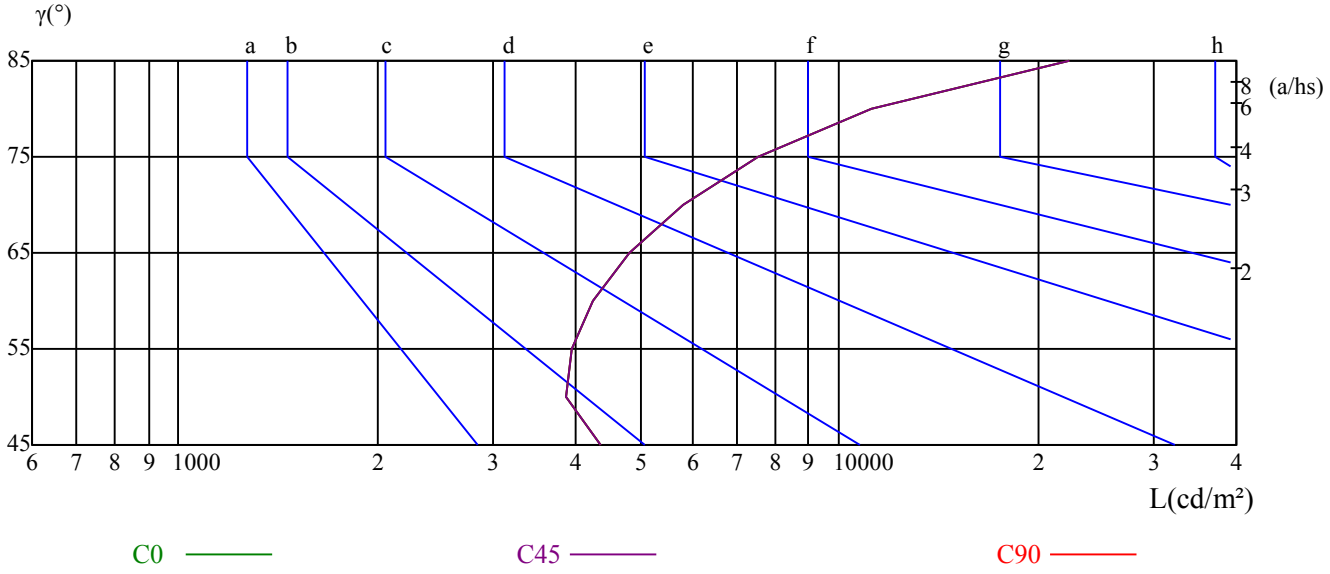
γ	45	50	55	60	65	70	75	80	85
C0	4369	3870	3938	4242	4820	5822	7569	11184	22309
C45	4369	3870	3938	4242	4820	5822	7569	11184	22309
C90	4369	3870	3938	4242	4820	5822	7569	11184	22309

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4820	4820	4820	7569	7569	7569	22309	22309	22309

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

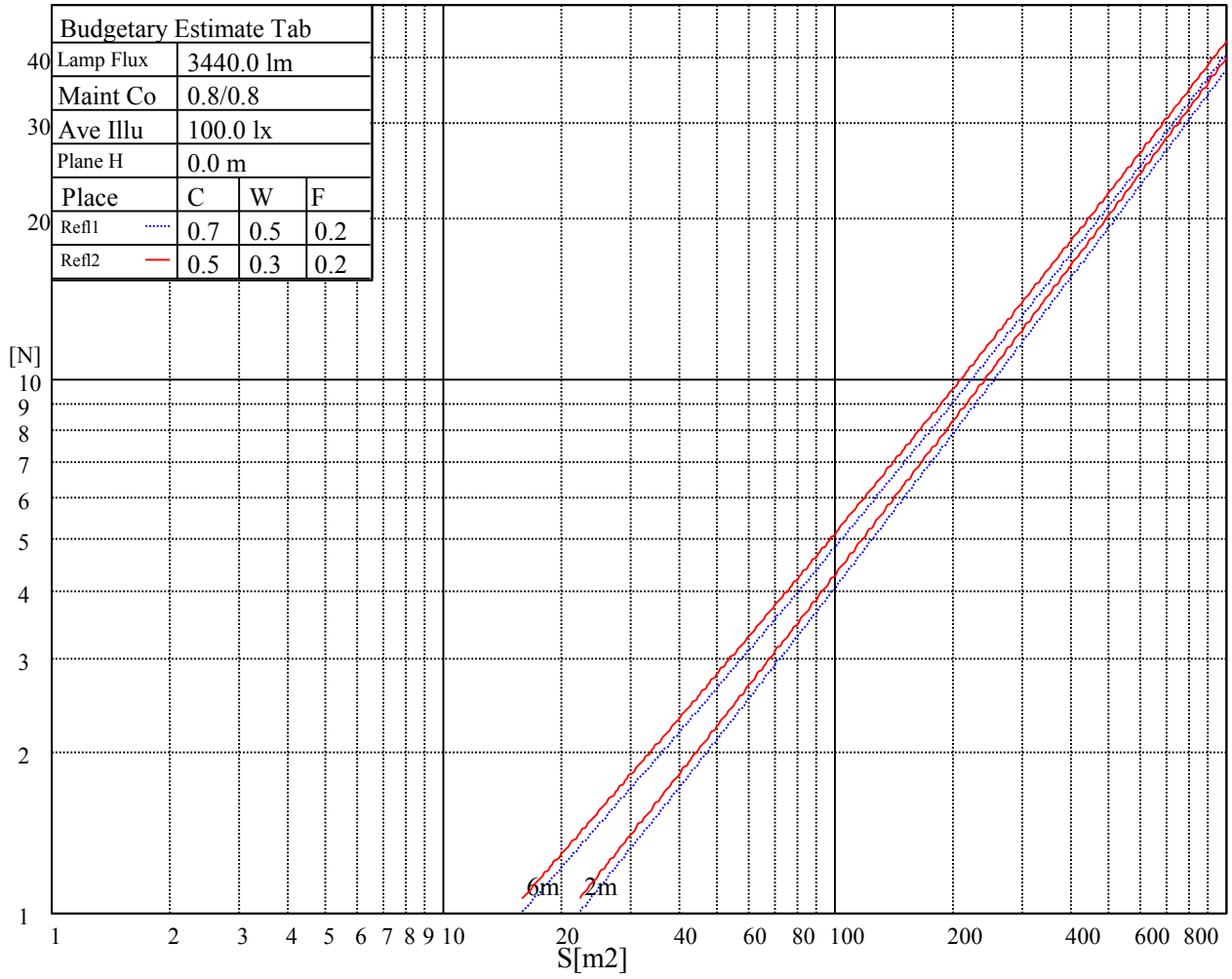
Date: 2019/1/9
Humidity(%): 65.0%

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	1.87	2.78	2.23	3.09	3.41	1.84	2.75	2.21	3.06	3.38
	3H	4.99	5.79	5.37	6.12	6.49	4.94	5.74	5.32	6.08	6.45
	4H	6.72	7.46	7.12	7.81	8.20	6.68	7.42	7.08	7.77	8.16
	6H	8.66	9.34	9.08	9.72	10.11	8.63	9.31	9.05	9.69	10.08
	8H	9.75	10.39	10.19	10.78	11.19	9.73	10.36	10.16	10.75	11.17
	12H	11.53	12.14	11.97	12.52	12.96	11.51	12.12	11.95	12.50	12.94
4H	2H	2.73	3.47	3.14	3.83	4.22	2.71	3.45	3.12	3.81	4.20
	3H	6.11	6.72	6.53	7.13	7.54	6.08	6.69	6.50	7.10	7.51
	4H	8.02	8.57	8.46	8.99	9.44	7.99	8.54	8.43	8.96	9.41
	6H	10.13	10.60	10.60	11.05	11.53	10.11	10.58	10.58	11.03	11.50
	8H	11.32	11.75	11.80	12.20	12.68	11.30	11.74	11.78	12.19	12.66
	12H	13.00	13.37	13.49	13.86	14.34	12.99	13.36	13.48	13.85	14.33
8H	4H	8.74	9.17	9.22	9.62	10.10	8.72	9.15	9.19	9.60	10.08
	6H	11.12	11.46	11.63	11.97	12.45	11.11	11.45	11.62	11.95	12.44
	8H	12.50	12.80	13.03	13.33	13.82	12.49	12.79	13.03	13.32	13.81
	12H	14.32	14.58	14.84	15.07	15.66	14.31	14.57	14.84	15.07	15.65
12H	4H	8.94	9.31	9.44	9.80	10.28	8.92	9.29	9.41	9.78	10.26
	6H	11.64	11.74	11.98	12.22	12.77	11.62	11.73	11.96	12.20	12.75
	8H	12.95	13.21	13.47	13.71	14.29	12.94	13.20	13.47	13.70	14.28
Variation with the observer position at spacings:											
S = 1.0H		5.6/-7.3					5.6/-7.3				
S = 1.5H		7.7/-5.4					7.7/-5.4				
S = 2.0H		9.0/-4.0					9.0/-4.0				
Standard tables:		BK3					BK3				
Uncorrected UGR		1.4					1.4				

Budgetary Estimate Table

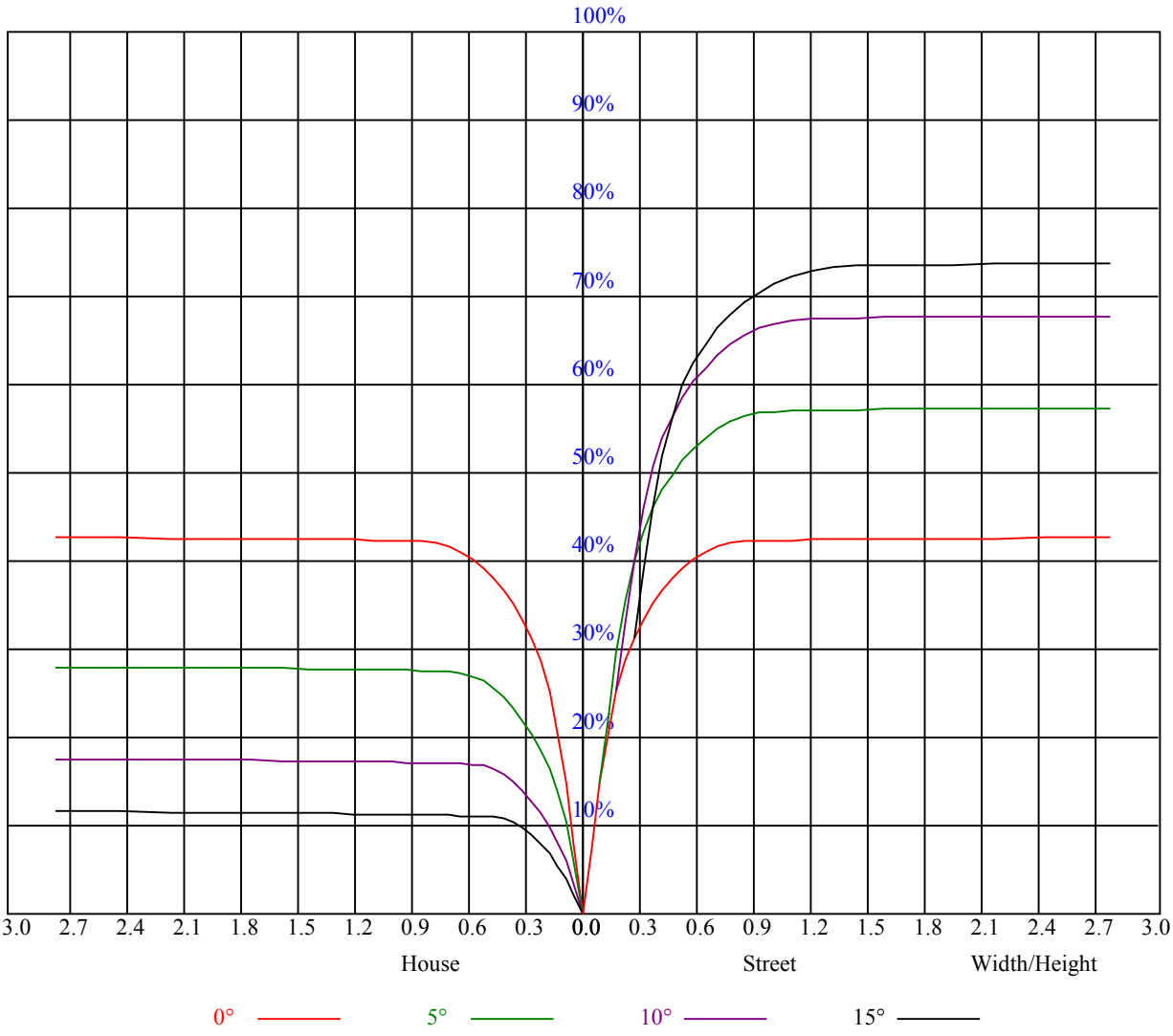


Equipment: GMS1980 Date: 2019/1/9 Operator: NT07
Temperature(°C): 10.0 Humidity(%): 65.0% Distance(m): 7.50

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	0.88	0.86	0.90	0.87	0.85	0.87	0.85	0.83	0.85	0.83	0.81	0.82	0.81	0.80	0.78
3	0.87	0.83	0.81	0.86	0.83	0.80	0.84	0.81	0.79	0.82	0.79	0.78	0.80	0.78	0.77	0.75
4	0.83	0.79	0.77	0.82	0.79	0.76	0.80	0.78	0.75	0.79	0.76	0.74	0.77	0.75	0.74	0.72
5	0.80	0.76	0.73	0.79	0.75	0.73	0.78	0.74	0.72	0.76	0.74	0.71	0.75	0.73	0.71	0.70
6	0.77	0.73	0.70	0.76	0.72	0.70	0.75	0.72	0.69	0.74	0.71	0.69	0.73	0.70	0.68	0.67
7	0.74	0.70	0.67	0.73	0.70	0.67	0.72	0.69	0.67	0.71	0.69	0.66	0.71	0.68	0.66	0.65
8	0.71	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.65	0.69	0.66	0.64	0.69	0.66	0.64	0.63
9	0.69	0.65	0.63	0.69	0.65	0.63	0.68	0.65	0.62	0.67	0.64	0.62	0.67	0.64	0.62	0.61
10	0.67	0.63	0.61	0.67	0.63	0.61	0.66	0.63	0.61	0.66	0.63	0.60	0.65	0.62	0.60	0.59

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	16155.00	16042.50	15789.38	15333.75	14568.75	13528.13	12555.00	11002.50	9686.25
45.0	16194.38	16110.00	15834.38	15316.88	14630.63	13629.38	12363.75	11098.13	9770.63
90.0	16166.25	16076.25	15851.25	15361.88	14596.88	13696.88	12577.50	10773.00	9558.00
135.0	16126.88	16149.38	16031.25	15755.63	15187.50	14445.00	13359.38	12003.75	10693.13
180.0	16155.00	16104.38	15918.75	15423.75	14743.13	13843.13	12740.63	11167.31	9846.00
225.0	16194.38	16149.38	15963.75	15519.38	14788.13	13876.88	12768.75	11223.56	9912.38
270.0	16166.25	16132.50	15952.50	15536.25	14928.75	13944.38	12712.50	11469.38	10141.88
315.0	16126.88	15980.63	15626.25	15001.88	14220.00	13207.50	11061.56	10398.94	9066.94
360.0	16155.00	16042.50	15789.38	15333.75	14568.75	13528.13	12555.00	11002.50	9686.25

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	8398.13	6851.25	5715.00	4713.75	3746.25	3172.50	2885.63	2326.50	2071.13
45.0	8145.00	6879.38	5720.63	4601.25	3729.38	3155.63	2863.13	2308.50	2062.13
90.0	8175.38	6414.19	5424.19	4455.00	3585.94	2981.25	2584.13	2242.69	2006.44
135.0	9151.88	7610.63	6345.00	5208.75	4050.00	3375.00	2880.00	2482.31	2183.63
180.0	8522.44	7101.56	5815.69	4820.63	3902.63	3223.13	2772.56	2387.81	2122.88
225.0	8598.94	7176.38	5854.50	4835.25	3999.38	3233.25	2792.81	2445.75	2145.94
270.0	8493.75	7228.13	6052.50	4882.50	3943.13	3330.00	2874.38	2452.50	2185.31
315.0	7626.38	6274.13	5187.94	4086.00	3440.81	2948.06	2530.69	2246.06	1979.44
360.0	8398.13	6851.25	5715.00	4713.75	3746.25	3172.50	2885.63	2326.50	2071.13

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1865.81	1684.69	1546.88	1448.44	1361.25	1291.50	1242.00	1198.13	1165.50
45.0	1837.13	1676.25	1540.13	1432.69	1355.06	1288.13	1229.06	1193.63	1159.31
90.0	1793.81	1628.44	1518.75	1419.75	1342.13	1285.31	1238.63	1191.38	1157.06
135.0	1961.44	1759.50	1608.19	1503.56	1404.56	1328.06	1263.94	1214.44	1177.88
180.0	1892.25	1716.75	1594.69	1480.50	1388.81	1322.44	1266.75	1212.75	1175.63
225.0	1919.25	1760.06	1616.63	1500.75	1405.69	1337.06	1281.38	1230.75	1189.13
270.0	1967.63	1773.56	1623.94	1504.69	1420.88	1349.44	1278.56	1233.56	1194.19
315.0	1762.31	1645.88	1536.19	1425.38	1351.13	1292.06	1238.06	1194.75	1162.69
360.0	1865.81	1684.69	1546.88	1448.44	1361.25	1291.50	1242.00	1198.13	1165.50

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	1134.00	1108.69	1088.44	1067.63	1015.31	945.00	861.19	746.44	650.25
45.0	1128.38	1106.44	1085.63	1059.75	1000.69	927.00	828.00	729.56	622.69
90.0	1122.24	1099.24	1075.61	1043.21	983.48	886.05	798.64	705.04	593.89
135.0	1143.56	1112.06	1091.25	1071.56	1029.94	963.00	879.75	786.94	666.56
180.0	1120.61	1101.83	1082.42	1061.49	1021.84	945.84	859.73	752.12	653.29
225.0	1155.94	1121.29	1096.93	1076.34	1044.28	966.04	885.43	794.76	685.29
270.0	1153.13	1128.94	1107.56	1086.19	1033.31	965.25	872.44	768.38	671.06
315.0	1122.24	1106.10	1082.93	1033.93	975.99	883.46	767.36	681.58	581.18
360.0	1134.00	1108.69	1088.44	1067.63	1015.31	945.00	861.19	746.44	650.25

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	551.81	438.19	325.69	289.13	145.18	66.60	39.21	32.51	26.72
45.0	507.94	415.13	302.06	291.94	124.88	65.42	36.79	31.39	25.65
90.0	479.42	382.05	277.71	181.91	108.79	51.30	34.48	29.31	23.57
135.0	569.25	471.94	362.25	293.63	172.58	91.52	42.58	30.88	25.71
180.0	543.32	435.60	343.24	244.35	152.49	82.80	40.84	28.86	24.36
225.0	571.22	469.58	358.43	254.36	172.52	93.54	45.51	29.93	25.09
270.0	568.69	452.81	340.31	292.50	149.96	76.61	38.03	29.93	24.08
315.0	442.74	357.19	261.11	162.11	84.32	43.48	31.84	26.27	21.04
360.0	551.81	438.19	325.69	289.13	145.18	66.60	39.21	32.51	26.72

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	19.46	17.49	17.04	16.59	16.03	15.69	15.36	15.02	14.74
45.0	18.73	17.72	17.33	16.93	16.43	16.09	15.81	15.47	15.19
90.0	19.35	17.89	17.33	16.93	16.59	16.14	15.81	15.58	15.24
135.0	20.81	17.55	17.04	16.59	16.20	15.81	15.53	15.13	14.85
180.0	20.08	16.99	16.54	16.20	15.81	15.47	15.19	14.91	14.63
225.0	19.91	16.93	16.37	16.03	15.69	15.30	15.02	14.74	14.51
270.0	19.52	16.93	16.48	16.03	15.69	15.36	15.02	14.74	14.51
315.0	17.55	16.82	16.31	15.98	15.64	15.30	14.96	14.74	14.46
360.0	19.46	17.49	17.04	16.59	16.03	15.69	15.36	15.02	14.74

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	14.51	14.23	14.01	13.84	13.67	13.44	13.39	13.22	13.11
45.0	14.91	14.57	14.29	14.12	13.89	13.73	13.50	13.39	13.28
90.0	14.85	14.46	14.18	13.95	13.73	13.56	13.44	13.33	13.16
135.0	14.57	14.29	14.06	13.84	13.73	13.50	13.33	13.28	13.11
180.0	14.34	14.06	13.89	13.73	13.56	13.44	13.28	13.22	13.11
225.0	14.29	14.01	13.78	13.67	13.50	13.39	13.28	13.16	13.05
270.0	14.29	14.06	13.89	13.67	13.56	13.39	13.28	13.22	13.11
315.0	14.12	13.95	13.78	13.61	13.44	13.28	13.22	13.05	12.99
360.0	14.51	14.23	14.01	13.84	13.67	13.44	13.39	13.22	13.11

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	12.94	12.88	12.77	12.77	12.66	12.60	12.54	12.49	12.49
45.0	13.11	13.05	12.94	12.83	12.77	12.71	12.66	12.60	12.54
90.0	13.05	12.99	12.88	12.77	12.77	12.66	12.60	12.60	12.49
135.0	12.99	12.94	12.83	12.71	12.66	12.60	12.54	12.54	12.43
180.0	12.99	12.83	12.77	12.71	12.66	12.60	12.54	12.49	12.43
225.0	12.99	12.88	12.77	12.77	12.66	12.60	12.54	12.49	12.49
270.0	12.94	12.88	12.83	12.77	12.71	12.60	12.60	12.54	12.49
315.0	12.88	12.83	12.71	12.66	12.60	12.49	12.43	12.43	12.43
360.0	12.94	12.88	12.77	12.77	12.66	12.60	12.54	12.49	12.49

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	12.38	12.38	12.32	12.32	12.26	12.26	12.26	12.26	12.26
45.0	12.49	12.43	12.43	12.43	12.38	12.32	12.26	12.32	12.26
90.0	12.49	12.43	12.38	12.32	12.32	12.32	12.26	12.26	12.21
135.0	12.38	12.38	12.38	12.26	12.32	12.21	12.21	12.21	12.21
180.0	12.38	12.32	12.26	12.26	12.21	12.21	12.15	12.15	12.09
225.0	12.38	12.38	12.32	12.32	12.26	12.26	12.26	12.21	12.21
270.0	12.43	12.43	12.38	12.38	12.32	12.32	12.32	12.32	12.26
315.0	12.38	12.32	12.26	12.26	12.26	12.26	12.26	12.21	12.21
360.0	12.38	12.38	12.32	12.32	12.26	12.26	12.26	12.26	12.26

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	12.26	12.32	12.32	12.32	12.38	12.49	12.66	12.88	11.98
45.0	12.26	12.21	12.26	12.21	12.26	12.32	12.49	12.71	12.09
90.0	12.26	12.26	12.21	12.26	12.26	12.26	12.32	12.32	12.32
135.0	12.21	12.21	12.15	12.15	12.09	12.09	12.15	12.21	12.38
180.0	12.09	12.09	12.09	12.09	12.09	12.04	12.04	12.09	12.21
225.0	12.21	12.21	12.15	12.15	12.15	12.15	12.09	12.15	12.32
270.0	12.26	12.21	12.26	12.26	12.26	12.21	12.26	12.43	12.09
315.0	12.21	12.21	12.21	12.21	12.32	12.38	12.38	12.66	12.04
360.0	12.26	12.32	12.32	12.32	12.38	12.49	12.66	12.88	11.98

Intensity data(cd)

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