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NATA

LumCAT: LM01D08515BK(63.0011.00)
Luminaire: 92.70.045.00

Report No: NATA0100	Voltage(V): 34.4500
Test No: GC2019010710	Current(A): 0.6000
LampCAT: LUMILEDS LUXEON 1208	Power (W): 20.6700
Lamp flux(lm): 2682.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 85	Width(mm): 85
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 2437.29
Efficiency(%): 90.88%
Lumens(lm)/Power(W): 118.10
Central intensity(cd): 16734.380
Maximum intensity(cd): 16734.380
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=18.2
[C90/270]Total=18.2
Field angle(10%Imax): [C0/180]Total=36.9
[C90/270]Total=36.9
Maximum s/h(1/2): C0_180=0.31 C90_270=0.31
Maximum s/h(1/4): C0_180=0.32 C90_270=0.32
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 91.02%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 95.746%

Equipment: GMS1980	Date: 2019/1/7	Operator: NT07
Temperature(°C): 10.0	Humidity(%): 65.0%	Distance(m): 7.50

NATA LM01D08515BK(63.0011.00)

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	16734.375	4.004	4.004	.149%	.164%
1.0	16635.938	31.839	35.842	1.187%	1.471%
2.0	16266.094	62.252	98.094	2.321%	4.025%
3.0	15657.188	89.860	187.954	3.350%	7.712%
4.0	14855.625	113.639	301.593	4.237%	12.374%
5.0	13651.875	130.479	432.072	4.865%	17.728%
6.0	12360.094	141.680	573.752	5.283%	23.541%
7.0	11141.719	148.901	722.653	5.552%	29.650%
8.0	9730.406	148.504	871.157	5.537%	35.743%
9.0	8475.328	145.392	1016.549	5.421%	41.708%
10.0	7275.797	138.549	1155.098	5.166%	47.393%
11.0	6098.344	127.603	1282.701	4.758%	52.628%
12.0	5204.531	118.662	1401.363	4.424%	57.497%
13.0	4365.211	107.682	1509.046	4.015%	61.915%
14.0	3579.469	94.961	1604.007	3.541%	65.811%
15.0	3046.852	86.477	1690.484	3.224%	69.359%
16.0	2631.305	79.535	1770.019	2.966%	72.622%
17.0	2233.195	71.600	1841.619	2.670%	75.560%
18.0	1809.492	61.318	1902.938	2.286%	78.076%
19.0	1517.288	54.170	1957.108	2.020%	80.298%
20.0	1236.382	46.372	2003.48	1.729%	82.201%
21.0	1030.852	40.511	2043.991	1.510%	83.863%
22.0	851.358	34.974	2078.965	1.304%	85.298%
23.0	678.495	29.072	2108.037	1.084%	86.491%
24.0	535.163	23.870	2131.907	.890%	87.470%
25.0	419.323	19.433	2151.34	.725%	88.268%
26.0	332.740	15.996	2167.336	.596%	88.924%
27.0	243.253	12.110	2179.446	.452%	89.421%
28.0	193.015	9.937	2189.383	.371%	89.828%
29.0	157.605	8.379	2197.762	.312%	90.172%
30.0	123.588	6.776	2204.539	.253%	90.450%
31.0	104.998	5.930	2210.469	.221%	90.694%
32.0	92.672	5.385	2215.854	.201%	90.914%
33.0	82.455	4.925	2220.779	.184%	91.117%
34.0	75.009	4.600	2225.378	.172%	91.305%
35.0	69.321	4.360	2229.739	.163%	91.484%
36.0	64.223	4.140	2233.878	.154%	91.654%
37.0	61.080	4.031	2237.909	.150%	91.819%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	59.105	3.990	2241.9	.149%	91.983%
39.0	58.127	4.011	2245.911	.150%	92.148%
40.0	57.811	4.075	2249.986	.152%	92.315%
41.0	57.902	4.166	2254.152	.155%	92.486%
42.0	58.191	4.270	2258.422	.159%	92.661%
43.0	58.514	4.376	2262.798	.163%	92.841%
44.0	58.648	4.468	2267.266	.167%	93.024%
45.0	58.613	4.545	2271.811	.169%	93.210%
46.0	58.402	4.607	2276.417	.172%	93.399%
47.0	57.832	4.638	2281.056	.173%	93.590%
48.0	56.869	4.634	2285.69	.173%	93.780%
49.0	55.835	4.621	2290.311	.172%	93.969%
50.0	54.563	4.584	2294.895	.171%	94.157%
51.0	53.198	4.534	2299.428	.169%	94.343%
52.0	51.968	4.491	2303.919	.167%	94.528%
53.0	50.745	4.444	2308.363	.166%	94.710%
54.0	49.345	4.378	2312.741	.163%	94.890%
55.0	48.101	4.321	2317.062	.161%	95.067%
56.0	46.835	4.258	2321.32	.159%	95.242%
57.0	45.246	4.161	2325.481	.155%	95.412%
58.0	43.713	4.065	2329.546	.152%	95.579%
59.0	42.202	3.967	2333.513	.148%	95.742%
60.0	40.402	3.837	2337.35	.143%	95.899%
61.0	38.848	3.726	2341.076	.139%	96.052%
62.0	37.378	3.619	2344.695	.135%	96.201%
63.0	35.986	3.516	2348.211	.131%	96.345%
64.0	34.875	3.437	2351.649	.128%	96.486%
65.0	33.898	3.369	2355.018	.126%	96.624%
66.0	32.977	3.304	2358.321	.123%	96.760%
67.0	32.295	3.260	2361.581	.122%	96.894%
68.0	31.627	3.216	2364.797	.120%	97.025%
69.0	31.078	3.182	2367.978	.119%	97.156%
70.0	31.338	3.229	2371.208	.120%	97.289%
71.0	31.296	3.245	2374.453	.121%	97.422%
72.0	31.120	3.246	2377.698	.121%	97.555%
73.0	31.022	3.253	2380.952	.121%	97.688%
74.0	30.881	3.255	2384.207	.121%	97.822%
75.0	31.219	3.307	2387.514	.123%	97.958%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	31.739	3.377	2390.891	.126%	98.096%
77.0	32.224	3.443	2394.334	.128%	98.237%
78.0	32.780	3.516	2397.85	.131%	98.382%
79.0	33.666	3.624	2401.474	.135%	98.530%
80.0	34.692	3.747	2405.221	.140%	98.684%
81.0	35.487	3.844	2409.064	.143%	98.842%
82.0	35.051	3.806	2412.871	.142%	98.998%
83.0	33.286	3.623	2416.494	.135%	99.147%
84.0	31.472	3.432	2419.926	.128%	99.287%
85.0	30.867	3.372	2423.298	.126%	99.426%
86.0	30.171	3.301	2426.598	.123%	99.561%
87.0	29.123	3.189	2429.788	.119%	99.692%
88.0	28.132	3.083	2432.871	.115%	99.818%
89.0	27.464	3.011	2435.882	.112%	99.942%
90.0	25.763	1.413	2437.295	.053%	100.000%

Zonal flux distribution table

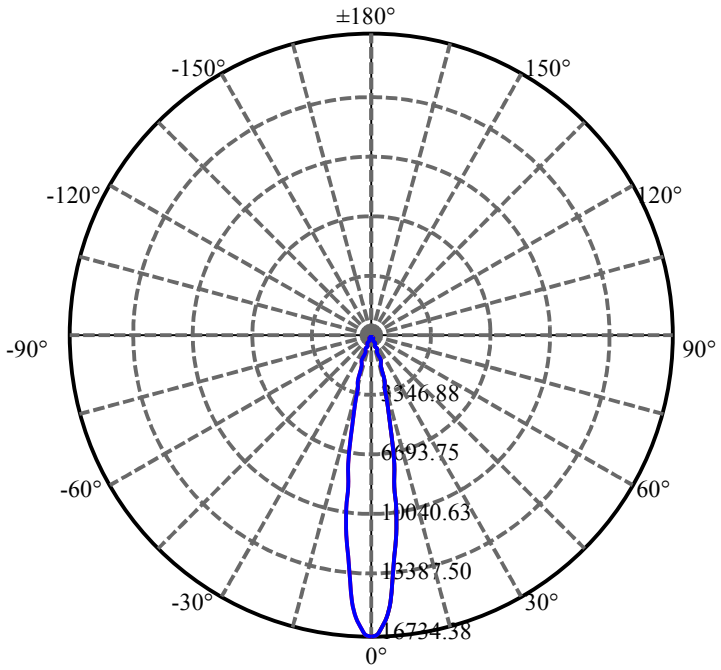
ZONAL LUMEN SUMMARY

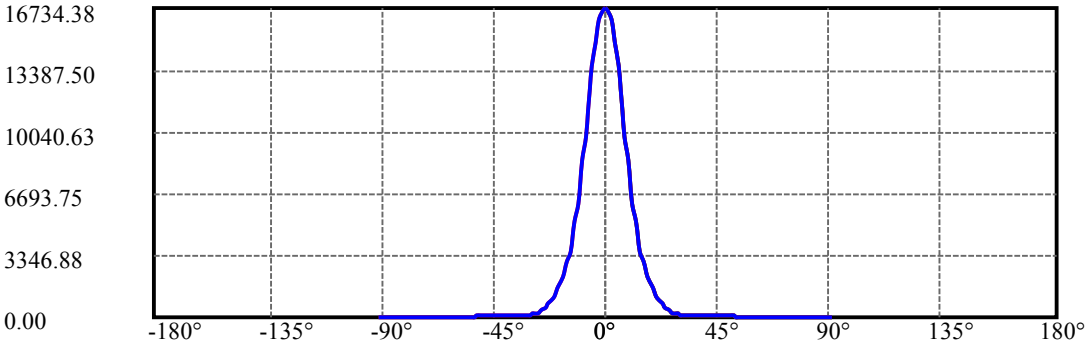
Zone	Lumens	%Lamp	%Fixt
0-30	2204.54	82.20%	90.45%
0-40	2249.99	83.89%	92.31%
0-60	2337.35	87.15%	95.90%
0-90	2435.88	90.82%	99.94%
0-120	2435.88	90.82%	99.94%
0-180	2437.29	90.88%	100.00%
60-90	102.37	3.82%	4.20%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-18.87	1949.84	72.70%	80.00%

ZONAL LUMEN SUMMARY

0-10	1155.10
10-20	848.38
20-30	201.06
30-40	45.45
40-50	44.91
50-60	42.46
60-70	33.86
70-80	34.01
80-90	30.66
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):

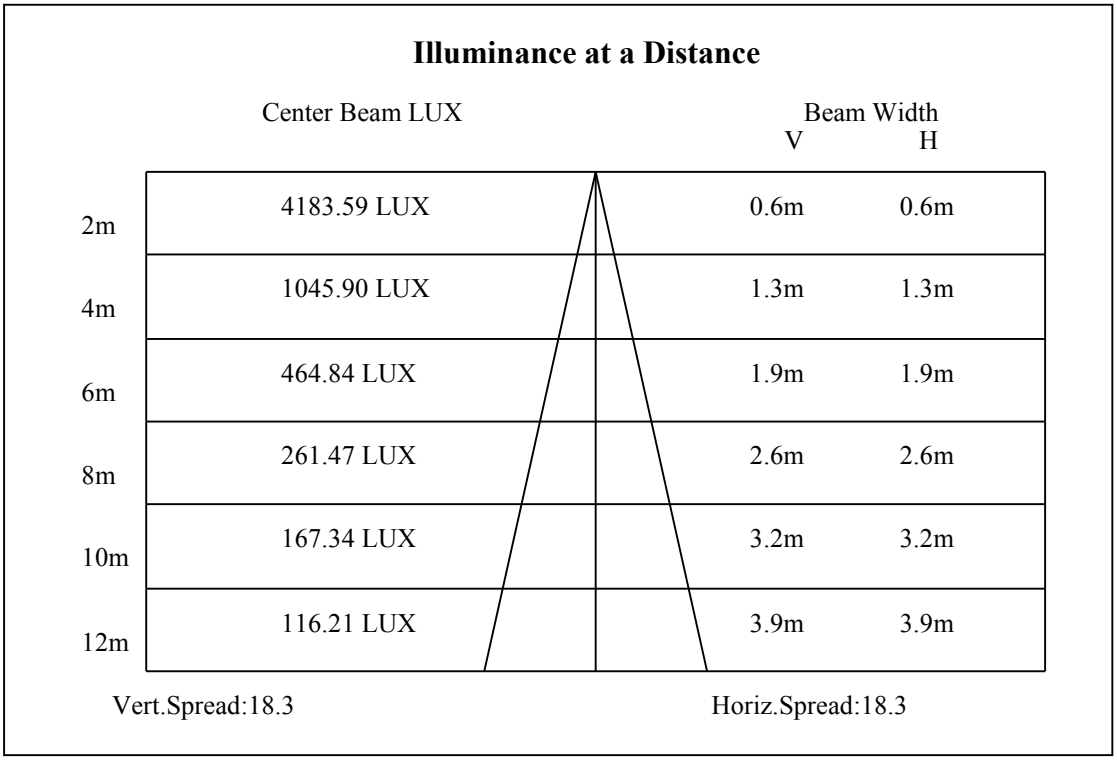
C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:18.5 Right:18.5
:C90/270Left:18.5 Right:18.5

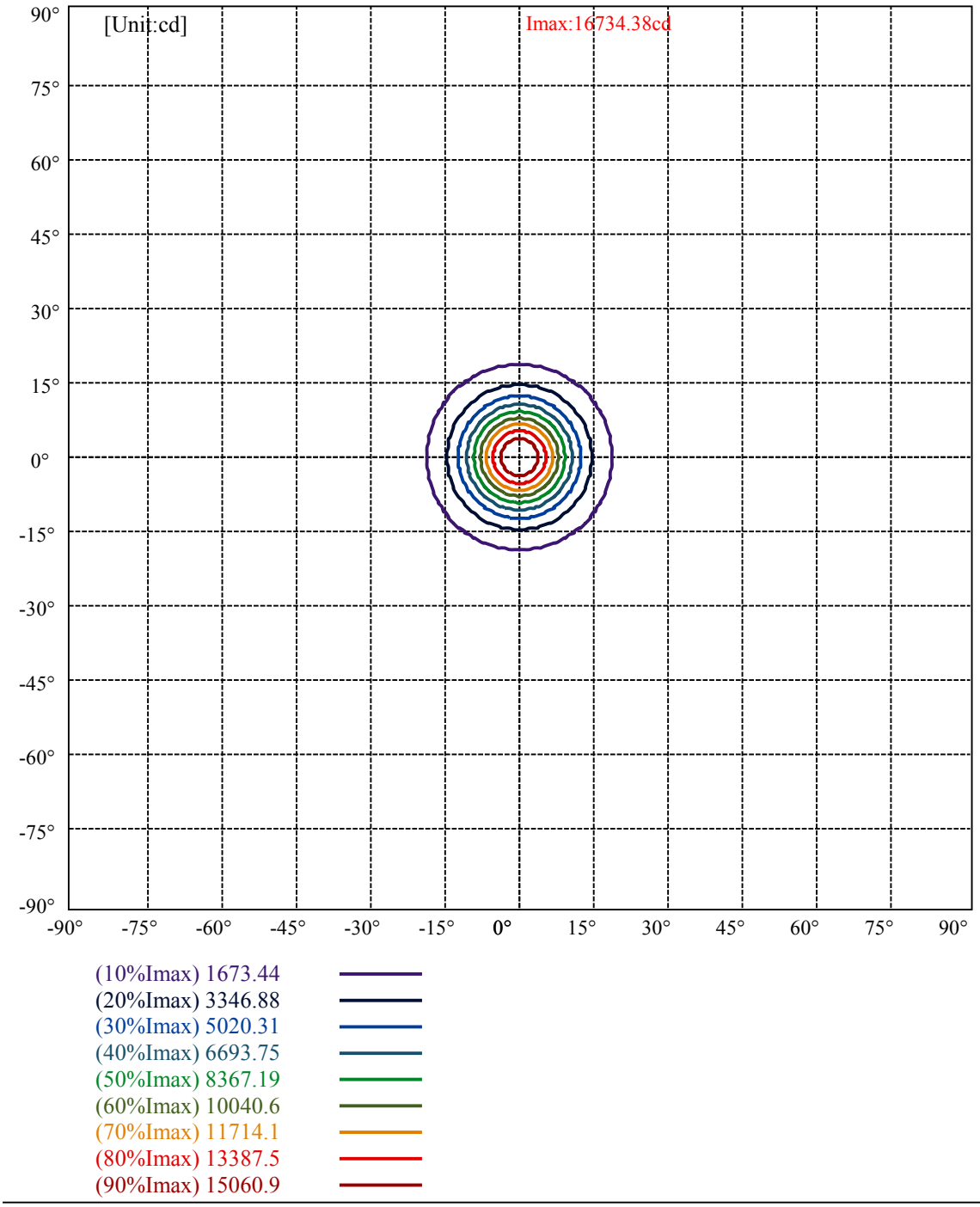
Beam Angle(50%Imax):C0/180Left:9.1 Right:9.1
:C90/270Left:9.1 Right:9.1

Lux distance Curve



Equipment: GMS1980 Date: 2019/1/7 Operator: NT07
Temperature(°C): 10.0 Humidity(%): 65.0% Distance(m): 7.50

ISO-Intensity(V-H)

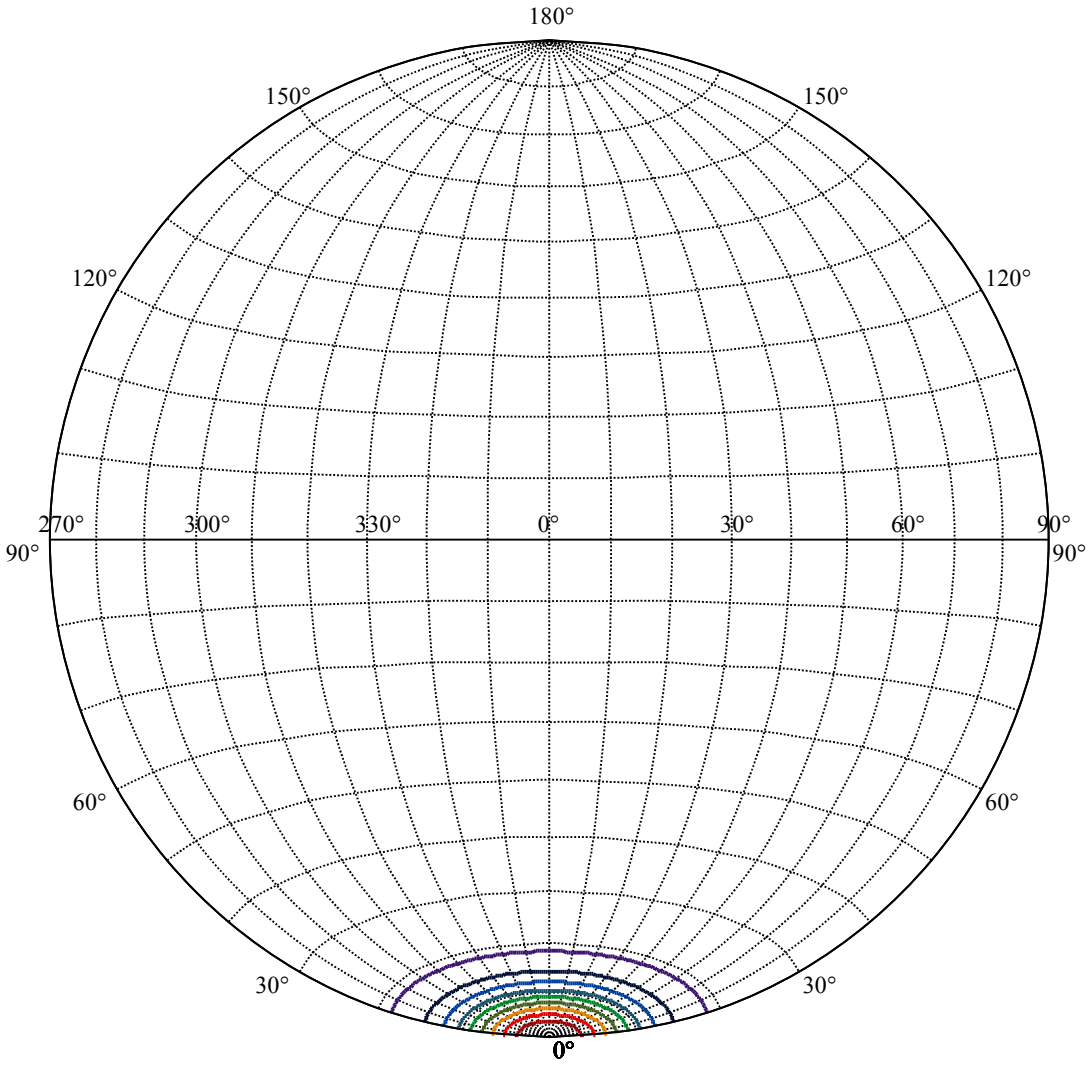


Equipment: GMS1980
Temperature(°C): 10.0

Date: 2019/1/7
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:16734.38

(10%Imax) 1673.44
(20%Imax) 3346.88
(30%Imax) 5020.31
(40%Imax) 6693.75
(50%Imax) 8367.19
(60%Imax) 10040.6
(70%Imax) 11714.1
(80%Imax) 13387.5
(90%Imax) 15060.9

Equipment: GMS1980 Date: 2019/1/7 Operator: NT07
Temperature(°C): 10.0 Humidity(%): 65.0% Distance(m): 7.50

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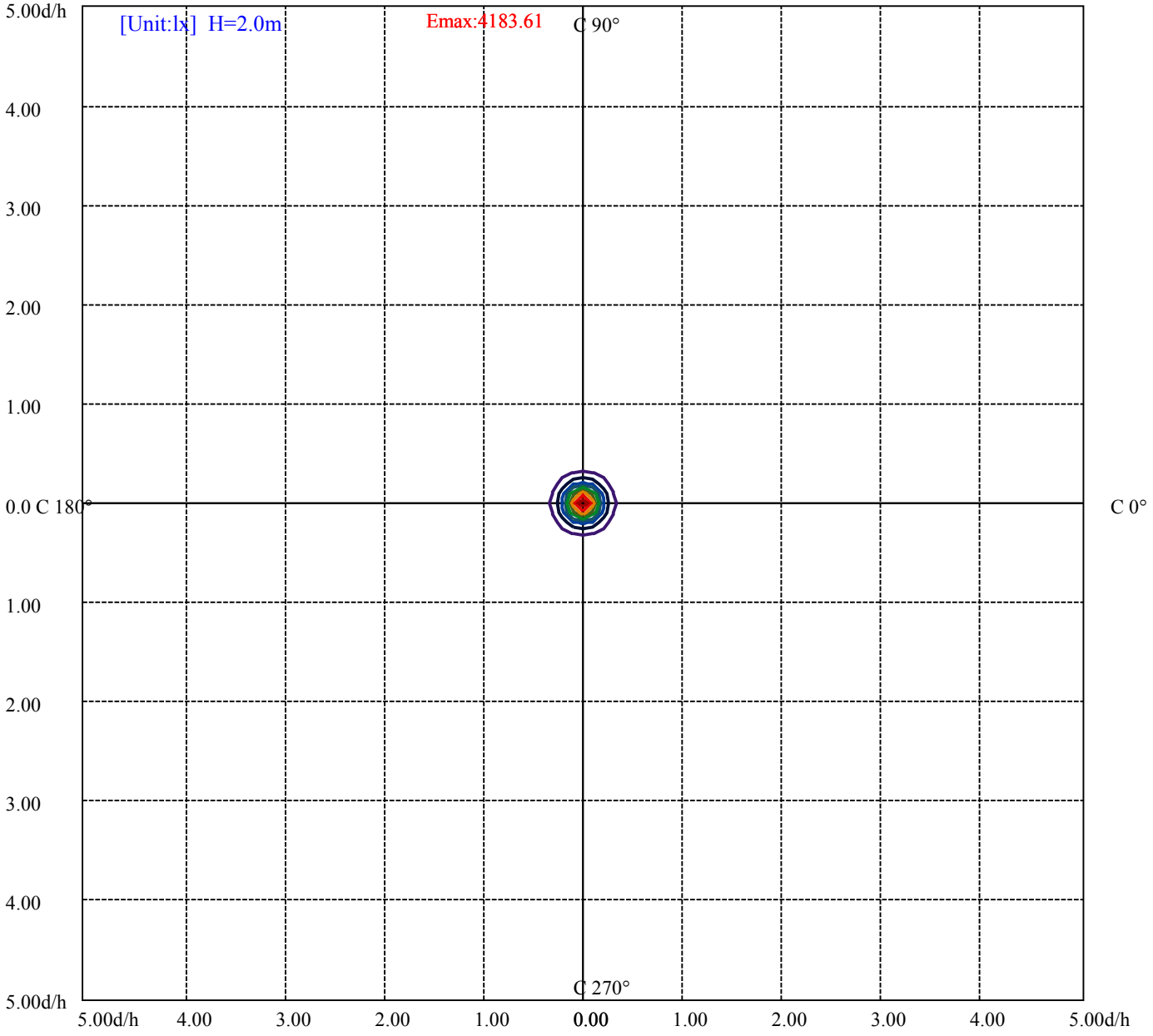
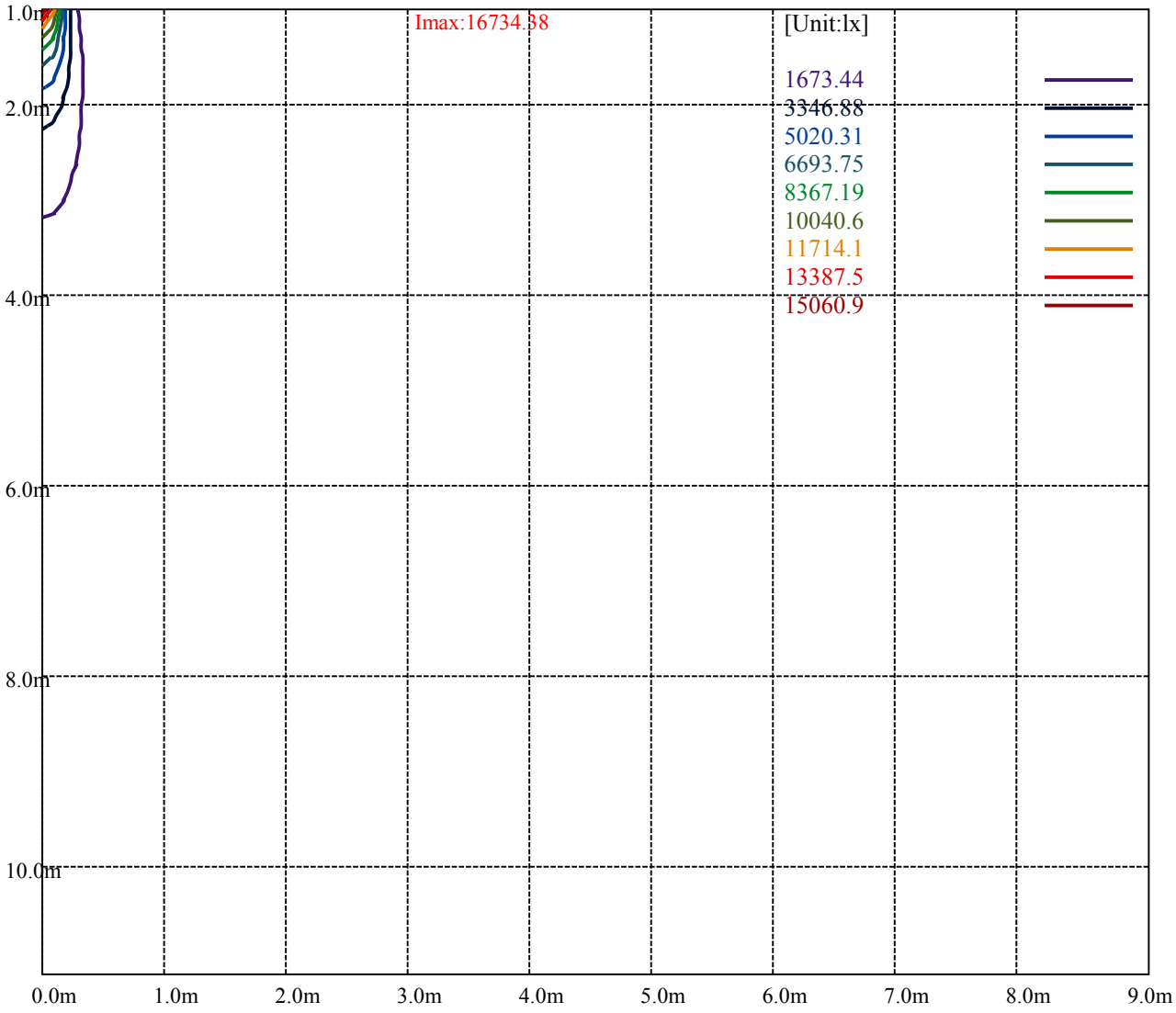
ISO illuminance diagram



(10%Emax) 418.36
(20%Emax) 836.7175
(30%Emax) 1255.078
(40%Emax) 1673.435
(50%Emax) 2091.795
(60%Emax) 2510.15
(70%Emax) 2928.525
(80%Emax) 3346.875
(90%Emax) 3765.225

Equipment: GMS1980
Temperature(°C): 10.0
Date: 2019/1/7
Humidity(%): 65.0%
Operator: NT07
Distance(m): 7.50

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 10.0

Date: 2019/1/7
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

NATA LM01D08515BK(63.0011.00)

Luminance Limitting Curve(no luminous side)

Luminance Table

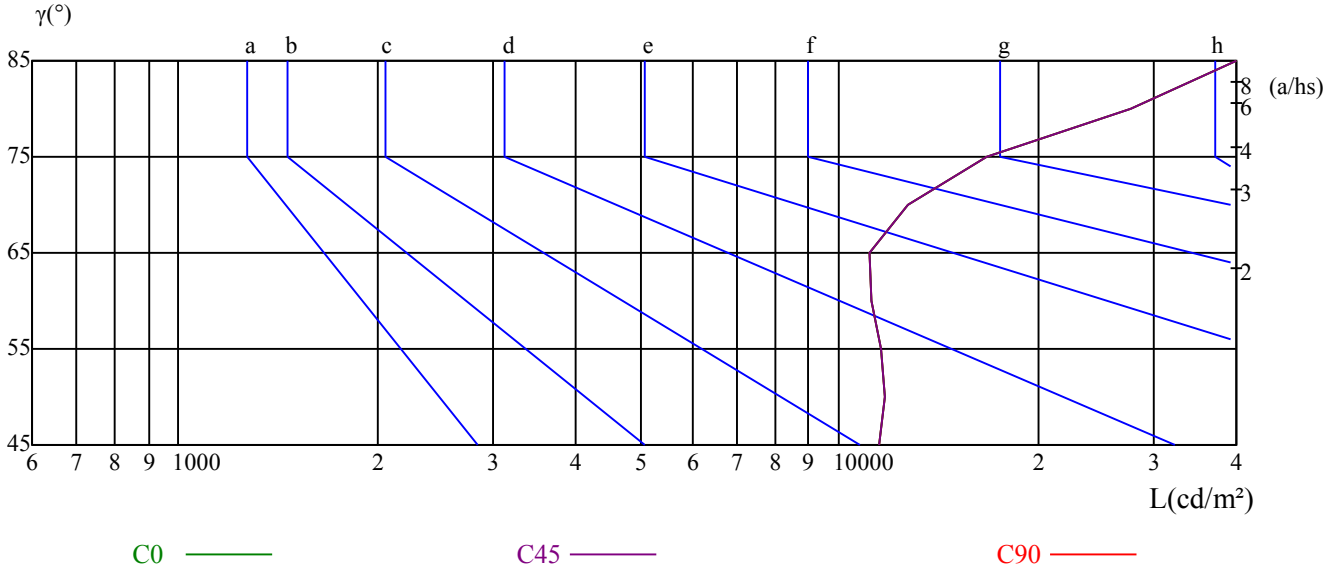
γ	45	50	55	60	65	70	75	80	85
C0	11473	11749	11607	11184	11102	12682	16695	27652	49019
C45	11473	11749	11607	11184	11102	12682	16695	27652	49019
C90	11473	11749	11607	11184	11102	12682	16695	27652	49019

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
11102	11102	11102	16695	16695	16695	49019	49019	49019

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



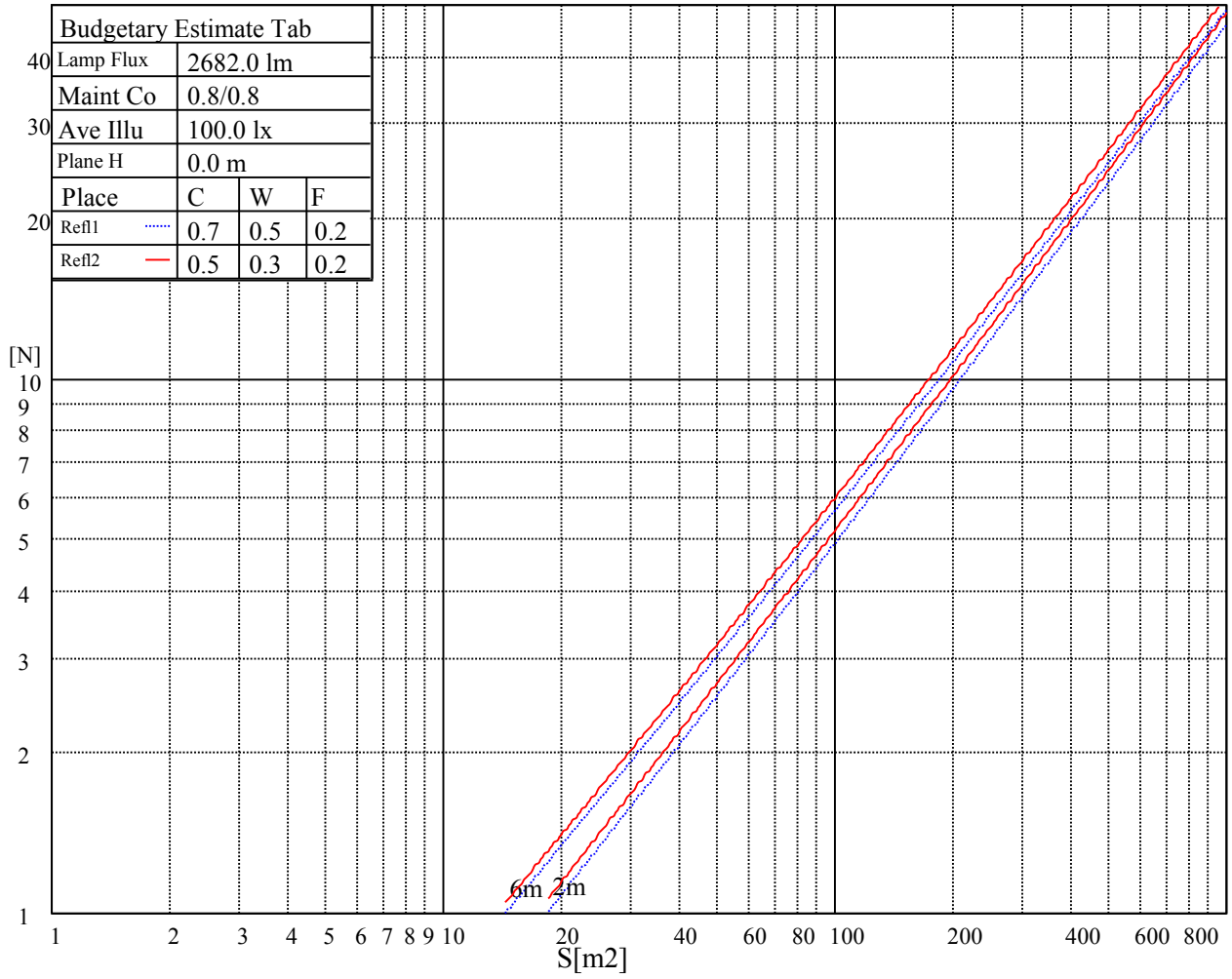
Equipment: GMS1980
Temperature(°C): 10.0

Date: 2019/1/7
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

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	10.52	11.52	10.89	11.83	12.15	10.81	11.81	11.17	12.12	12.43
	3H	12.72	13.61	13.11	13.94	14.31	13.24	14.13	13.63	14.46	14.83
	4H	14.09	14.91	14.50	15.26	15.65	14.71	15.53	15.11	15.88	16.27
	6H	16.22	16.98	16.64	17.35	17.75	16.89	17.65	17.31	18.02	18.42
	8H	17.43	18.14	17.87	18.54	18.95	17.99	18.70	18.43	19.10	19.51
	12H	19.26	19.93	19.69	20.32	20.75	19.48	20.16	19.92	20.55	20.98
4H	2H	11.05	11.88	11.46	12.23	12.62	11.28	12.10	11.69	12.46	12.85
	3H	13.62	14.30	14.04	14.71	15.12	14.07	14.75	14.49	15.16	15.57
	4H	15.27	15.88	15.71	16.30	16.75	15.79	16.41	16.23	16.83	17.28
	6H	17.47	17.99	17.94	18.44	18.92	18.02	18.55	18.49	19.00	19.47
	8H	18.85	19.34	19.32	19.79	20.26	19.30	19.79	19.77	20.24	20.71
	12H	20.62	21.04	21.11	21.53	22.01	20.77	21.20	21.26	21.69	22.17
8H	4H	16.02	16.51	16.49	16.96	17.43	16.42	16.92	16.90	17.37	17.84
	6H	18.52	18.91	19.03	19.42	19.90	18.96	19.35	19.47	19.86	20.34
	8H	20.05	20.40	20.58	20.92	21.42	20.39	20.75	20.93	21.27	21.76
	12H	21.92	22.23	22.44	22.73	23.30	22.01	22.32	22.53	22.81	23.39
12H	4H	16.27	16.70	16.76	17.18	17.66	16.63	17.05	17.12	17.54	18.02
	6H	19.17	19.21	19.39	19.68	20.22	19.55	19.59	19.77	20.06	20.61
	8H	20.49	20.79	21.01	21.29	21.87	20.78	21.09	21.30	21.58	22.16
Variation with the observer position at spacings:											
S = 1.0H		0.2/-1.3					0.2/-1.3				
S = 1.5H		0.2/-1.4					0.2/-1.4				
S = 2.0H		0.2/-1.0					0.2/-1.0				
Standard tables:		BKBF					BKBF				
Uncorrected UGR		5.3					5.3				

Budgetary Estimate Table

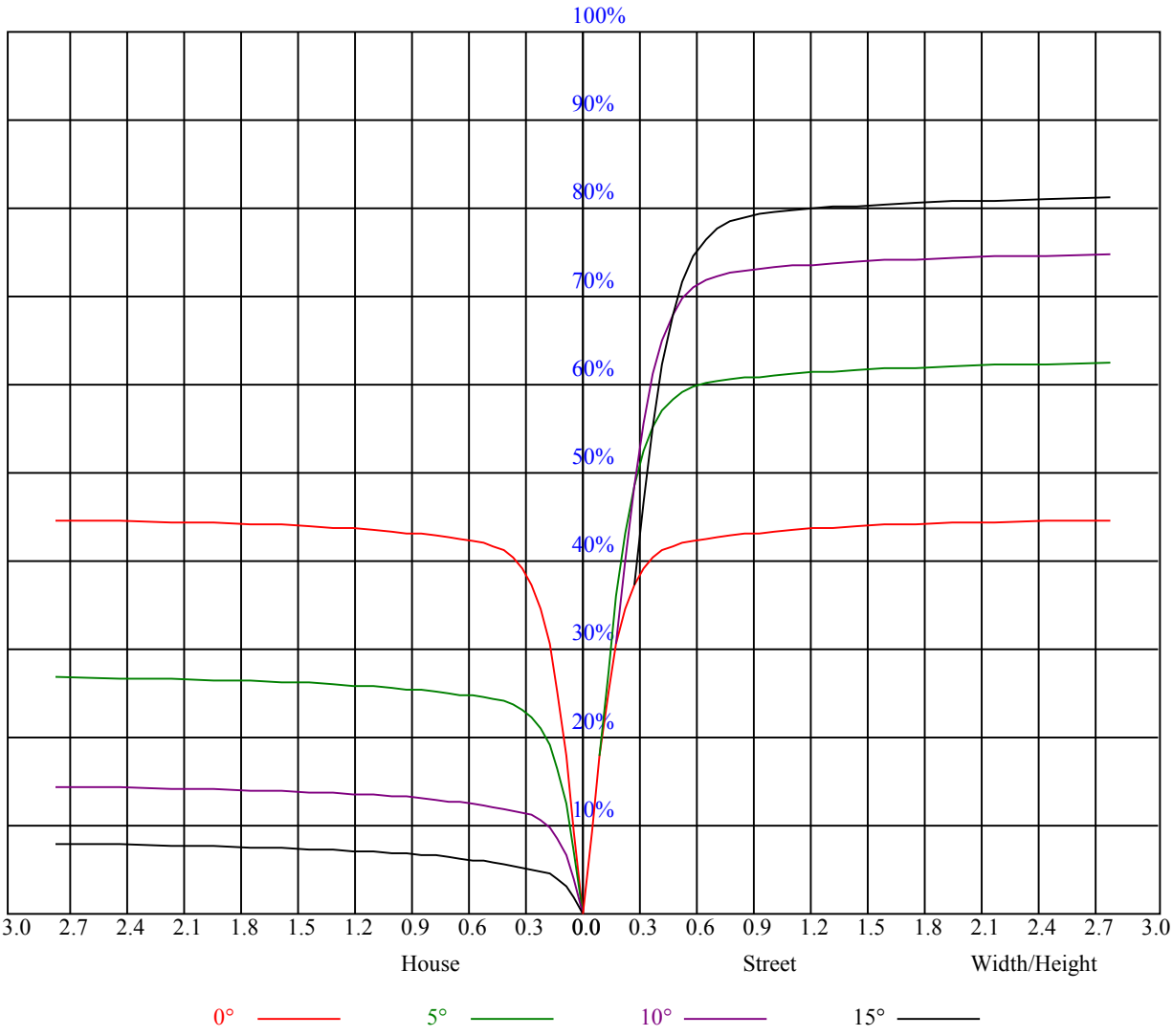


Equipment: GMS1980	Date: 2019/1/7	Operator: NT07
Temperature(°C): 10.0	Humidity(%): 65.0%	Distance(m): 7.50

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	1.08	1.08	1.08	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	0.97	0.94	0.91	0.95	0.92	0.90	0.92	0.90	0.88	0.90	0.88	0.86	0.87	0.86	0.84	0.83
3	0.93	0.89	0.86	0.91	0.88	0.85	0.89	0.86	0.84	0.87	0.85	0.83	0.85	0.83	0.82	0.80
4	0.89	0.85	0.82	0.88	0.85	0.82	0.86	0.83	0.81	0.85	0.82	0.80	0.83	0.81	0.79	0.78
5	0.86	0.82	0.79	0.85	0.82	0.79	0.84	0.81	0.78	0.82	0.80	0.78	0.81	0.79	0.77	0.76
6	0.84	0.80	0.77	0.83	0.79	0.77	0.82	0.79	0.76	0.81	0.78	0.76	0.80	0.77	0.75	0.74
7	0.81	0.77	0.75	0.81	0.77	0.75	0.80	0.77	0.74	0.79	0.76	0.74	0.78	0.75	0.74	0.73
8	0.79	0.75	0.73	0.79	0.75	0.73	0.78	0.75	0.73	0.77	0.74	0.72	0.76	0.74	0.72	0.71
9	0.77	0.74	0.71	0.77	0.74	0.71	0.76	0.73	0.71	0.76	0.73	0.71	0.75	0.72	0.71	0.70
10	0.76	0.72	0.70	0.75	0.72	0.70	0.75	0.72	0.70	0.74	0.71	0.69	0.74	0.71	0.69	0.68

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2019/1/7	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	16706.25	16745.63	16531.88	16121.25	15491.25	14467.50	13505.63	12459.38	11199.38
45.0	16740.00	16756.88	16509.38	16081.88	15440.63	14383.13	13370.63	12256.88	10951.88
90.0	16745.63	16616.25	16211.25	15525.00	14686.88	13528.13	12020.63	10999.69	9627.75
135.0	16745.63	16638.75	16273.13	15710.63	14934.38	13680.00	12459.38	11137.50	9663.75
180.0	16706.25	16470.00	15958.13	15148.13	14152.50	12774.38	11219.06	9836.44	8411.06
225.0	16740.00	16531.88	16048.13	15266.25	14304.38	12926.25	11189.81	9981.00	8537.06
270.0	16745.63	16695.00	16346.25	15817.50	15052.50	13781.25	12560.63	11244.38	9753.75
315.0	16745.63	16633.13	16250.63	15586.88	14782.50	13674.38	12555.00	11218.50	9698.63
360.0	16706.25	16745.63	16531.88	16121.25	15491.25	14467.50	13505.63	12459.38	11199.38

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	9855.00	8634.38	7318.13	6255.00	5231.25	4365.00	3735.00	3155.63	2930.63
45.0	9596.25	8370.00	7048.13	5990.63	4983.75	4145.63	3526.88	2970.00	2925.00
90.0	8419.50	7140.94	5990.06	5097.38	4318.88	3505.50	2982.38	2550.38	2180.25
135.0	8280.00	7143.75	5996.25	5107.50	4218.75	3470.63	2908.13	2581.31	1983.94
180.0	7272.00	6140.25	5144.06	4371.75	3697.31	2991.94	2522.81	2118.94	1686.38
225.0	7382.81	6227.44	5203.69	4410.00	3722.06	3014.44	2552.06	2151.56	1801.13
270.0	8347.50	7194.38	6041.25	5158.13	4291.88	3560.63	3020.63	2840.63	2100.38
315.0	8649.56	7355.25	6045.19	5245.88	4457.81	3582.00	3126.94	2682.00	2257.88
360.0	9855.00	8634.38	7318.13	6255.00	5231.25	4365.00	3735.00	3155.63	2930.63

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2328.19	2019.38	1715.63	1442.81	1229.06	1038.94	825.19	673.88	555.19
45.0	2200.50	1891.69	1568.25	1343.81	1143.00	903.38	749.25	609.19	474.19
90.0	1784.81	1517.06	1099.29	1026.96	849.38	695.08	544.28	414.51	320.79
135.0	1656.56	1380.38	1093.50	900.56	730.69	542.81	429.19	336.94	289.69
180.0	1385.44	1096.54	884.98	685.58	539.78	419.23	313.71	234.79	183.09
225.0	1436.63	1101.83	971.16	737.49	581.46	449.72	332.61	242.72	186.53
270.0	1784.25	1510.88	1213.31	1005.19	821.81	628.31	496.13	384.75	293.06
315.0	1899.56	1620.56	1344.94	1104.41	915.69	750.49	590.96	457.82	359.38
360.0	2328.19	2019.38	1715.63	1442.81	1229.06	1038.94	825.19	673.88	555.19

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	397.69	305.44	285.19	172.80	134.61	112.89	97.14	86.01	78.19
45.0	352.69	287.44	193.95	153.51	122.46	106.99	94.05	83.42	75.88
90.0	239.40	181.58	147.94	124.54	110.03	96.98	86.51	78.53	71.72
135.0	192.71	155.81	130.16	111.54	96.92	86.91	76.78	70.20	64.86
180.0	144.00	120.71	103.56	91.24	82.63	75.38	69.92	66.15	63.34
225.0	144.34	122.85	106.93	94.22	84.99	76.89	70.37	65.25	61.26
270.0	205.54	161.10	133.03	113.57	99.39	90.79	80.83	73.69	68.34
315.0	269.66	209.19	160.09	127.29	108.96	94.56	84.04	76.84	70.99
360.0	397.69	305.44	285.19	172.80	134.61	112.89	97.14	86.01	78.19

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	71.72	66.38	62.55	59.96	58.78	58.22	58.11	58.39	58.50
45.0	68.68	63.11	58.50	56.70	56.19	56.14	56.76	57.43	58.05
90.0	64.80	60.64	58.05	56.31	55.58	55.52	55.91	56.19	56.42
135.0	61.09	58.73	58.11	58.28	58.44	59.12	59.63	59.79	59.79
180.0	60.75	59.91	59.29	58.84	59.01	59.06	59.29	59.51	59.51
225.0	58.56	57.88	57.99	58.56	59.12	59.74	60.41	60.75	60.75
270.0	63.17	60.41	58.78	57.94	57.21	56.93	56.64	56.70	56.59
315.0	65.03	61.59	59.57	58.44	58.16	58.50	58.78	59.34	59.57
360.0	71.72	66.38	62.55	59.96	58.78	58.22	58.11	58.39	58.50

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	58.56	58.73	58.33	57.83	57.04	56.25	55.35	54.23	53.27
45.0	58.39	58.44	58.16	57.15	56.25	55.29	53.83	52.76	51.69
90.0	56.64	56.87	56.53	55.52	54.45	53.16	51.75	50.40	49.16
135.0	59.34	58.73	57.83	56.64	55.18	53.66	51.92	50.57	48.99
180.0	59.23	58.89	58.11	57.04	56.03	54.51	52.93	51.75	50.34
225.0	60.69	60.19	59.40	58.28	56.87	55.29	53.66	52.26	50.91
270.0	56.53	56.19	55.74	54.84	54.11	52.82	51.69	50.40	49.22
315.0	59.51	59.18	58.56	57.66	56.76	55.52	54.45	53.38	52.37
360.0	58.56	58.73	58.33	57.83	57.04	56.25	55.35	54.23	53.27

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	52.26	51.24	50.06	48.77	47.36	45.84	43.99	42.47	40.78
45.0	50.34	49.16	47.87	46.13	44.61	43.03	40.95	39.49	37.91
90.0	47.76	46.35	45.23	43.76	42.30	41.06	39.83	38.70	37.91
135.0	47.64	46.41	45.11	43.71	42.24	40.84	38.98	37.63	36.06
180.0	48.94	47.70	46.52	45.00	43.54	42.19	40.44	38.93	37.69
225.0	49.11	47.81	46.35	44.55	42.81	41.12	39.26	37.52	35.89
270.0	47.81	46.46	45.17	43.43	41.96	40.39	38.48	36.84	35.38
315.0	50.91	49.67	48.38	46.63	44.89	43.14	41.29	39.21	37.41
360.0	52.26	51.24	50.06	48.77	47.36	45.84	43.99	42.47	40.78

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	39.15	37.86	36.96	36.23	36.23	36.34	36.34	37.80	38.64
45.0	36.17	34.76	33.47	32.40	31.39	30.54	29.81	29.98	30.49
90.0	37.52	37.41	37.13	36.45	35.66	34.37	32.74	31.56	30.71
135.0	34.54	33.24	32.18	31.16	30.32	29.59	28.86	29.19	29.93
180.0	36.51	35.66	34.93	34.31	33.86	33.30	32.85	34.09	33.08
225.0	34.31	33.08	31.84	30.88	30.15	29.59	29.19	29.64	29.03
270.0	34.03	32.85	31.84	30.77	29.87	29.14	28.63	28.41	28.29
315.0	35.66	34.14	32.85	31.61	30.88	30.15	30.21	30.04	30.21
360.0	39.15	37.86	36.96	36.23	36.23	36.34	36.34	37.80	38.64

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	38.14	36.62	34.65	33.24	32.96	33.19	33.41	34.88	37.35
45.0	30.43	30.83	31.67	32.85	33.36	33.98	33.98	33.64	33.19
90.0	29.98	29.53	29.14	28.80	28.69	28.80	29.59	32.12	35.44
135.0	29.64	30.15	30.09	30.26	30.88	31.16	31.16	30.88	30.60
180.0	32.96	31.89	31.16	32.63	35.38	37.74	40.05	41.51	42.75
225.0	29.31	29.70	29.76	29.87	29.98	29.98	30.09	30.15	29.93
270.0	28.41	28.58	28.69	28.97	29.19	29.48	30.71	33.30	35.94
315.0	30.09	30.88	31.89	33.13	33.47	33.47	33.24	32.85	32.34
360.0	38.14	36.62	34.65	33.24	32.96	33.19	33.41	34.88	37.35

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	39.88	41.23	41.51	36.23	31.44	30.04	30.15	28.58	28.46
45.0	32.85	32.46	32.12	31.78	31.50	31.16	30.38	30.21	32.51
90.0	37.86	37.74	32.96	31.73	32.29	31.28	27.34	26.21	24.47
135.0	30.15	29.70	29.31	29.14	29.08	28.63	27.68	27.17	26.33
180.0	42.75	37.58	32.06	28.46	28.63	26.78	26.27	25.88	23.91
225.0	29.59	29.64	29.70	29.48	28.97	28.58	27.90	27.51	26.94
270.0	39.49	41.18	37.91	34.09	34.20	34.48	33.36	30.21	28.01
315.0	31.33	30.88	30.71	30.88	30.83	30.43	29.93	29.31	29.08
360.0	39.88	41.23	41.51	36.23	31.44	30.04	30.15	28.58	28.46

Intensity data(cd)

C/γ(°)	90.0
0.0	28.41
45.0	27.62
90.0	24.24
135.0	22.16
180.0	22.95
225.0	24.75
270.0	27.00
315.0	28.97
360.0	28.41