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NATA

Client:
LumCAT: 2-2644-L
Luminaire: 92.70.412.00
Report No: 20231013-B004
Ballast type: AC

Test No: 20231013-C004	Voltage(V): 34.190
LampCAT: LUMINUS CXM-14-AC40	Current(A): 0.530
Lamp flux(lm): 2320.0	Power (W): 18.120
Number of Lamps: 1	PF: 0.000
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 2099.89, Efficiency(%): 90.51% , Luminous Efficacy(lm/W): 115.89
Central intensity(cd): 6969.295, Maximum intensity(cd): 6969.295
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=26.0
[C90/270]Total=26.0
Field angle(10%Imax): [C0/180]Total=56.8
[C90/270]Total=56.8
Maximum s/h(1/2): C0_180=0.44 C90_270=0.44
Maximum s/h(1/4): C0_180=0.48 C90_270=0.48
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 90.51%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.944%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	6969.295	0.000	0	0.00%	0.00%
1.0	6929.717	6.650	6.65	0.29%	0.32%
2.0	6841.774	19.766	26.417	0.85%	1.26%
3.0	6708.649	32.408	58.825	1.40%	2.80%
4.0	6515.465	44.265	103.09	1.91%	4.91%
5.0	6284.986	55.067	158.157	2.37%	7.53%
6.0	6018.182	64.656	222.813	2.79%	10.61%
7.0	5702.597	72.751	295.564	3.14%	14.08%
8.0	5363.349	79.197	374.761	3.41%	17.85%
9.0	4986.598	83.881	458.642	3.62%	21.84%
10.0	4623.340	86.966	545.608	3.75%	25.98%
11.0	4226.939	88.432	634.04	3.81%	30.19%
12.0	3859.115	88.392	722.433	3.81%	34.40%
13.0	3498.071	87.311	809.744	3.76%	38.56%
14.0	3189.267	85.597	895.341	3.69%	42.64%
15.0	2912.430	83.767	979.108	3.61%	46.63%
16.0	2637.668	81.324	1060.432	3.51%	50.50%
17.0	2402.900	78.495	1138.928	3.38%	54.24%
18.0	2173.597	75.457	1214.384	3.25%	57.83%
19.0	1981.451	72.289	1286.674	3.12%	61.27%
20.0	1785.154	68.939	1355.613	2.97%	64.56%
21.0	1620.407	65.394	1421.006	2.82%	67.67%
22.0	1418.526	61.069	1482.075	2.63%	70.58%
23.0	1275.589	56.530	1538.605	2.44%	73.27%
24.0	1157.783	53.202	1591.807	2.29%	75.80%
25.0	1055.503	50.325	1642.132	2.17%	78.20%
26.0	956.275	47.488	1689.621	2.05%	80.46%
27.0	847.381	44.127	1733.748	1.90%	82.56%
28.0	736.798	40.108	1773.856	1.73%	84.47%
29.0	637.694	35.961	1809.816	1.55%	86.19%
30.0	543.219	31.884	1841.701	1.37%	87.70%
31.0	455.415	27.791	1869.491	1.20%	89.03%
32.0	370.156	23.652	1893.143	1.02%	90.15%
33.0	294.585	19.584	1912.726	0.84%	91.09%
34.0	248.676	16.441	1929.167	0.71%	91.87%
35.0	204.538	14.075	1943.242	0.61%	92.54%
36.0	159.847	11.602	1954.844	0.50%	93.09%
37.0	126.469	9.338	1964.182	0.40%	93.54%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	112.873	7.989	1972.171	0.34%	93.92%
39.0	101.477	7.316	1979.488	0.32%	94.27%
40.0	90.642	6.700	1986.188	0.29%	94.59%
41.0	81.999	6.148	1992.336	0.26%	94.88%
42.0	73.980	5.667	1998.003	0.24%	95.15%
43.0	67.075	5.225	2003.228	0.23%	95.40%
44.0	60.841	4.828	2008.056	0.21%	95.63%
45.0	55.388	4.467	2012.522	0.19%	95.84%
46.0	50.849	4.155	2016.677	0.18%	96.04%
47.0	46.580	3.875	2020.552	0.17%	96.22%
48.0	43.203	3.630	2024.182	0.16%	96.39%
49.0	40.048	3.419	2027.6	0.15%	96.56%
50.0	37.239	3.222	2030.823	0.14%	96.71%
51.0	34.880	3.051	2033.874	0.13%	96.86%
52.0	32.887	2.908	2036.782	0.13%	96.99%
53.0	31.199	2.788	2039.57	0.12%	97.13%
54.0	29.656	2.682	2042.252	0.12%	97.26%
55.0	28.389	2.591	2044.843	0.11%	97.38%
56.0	27.234	2.513	2047.356	0.11%	97.50%
57.0	26.196	2.443	2049.799	0.11%	97.61%
58.0	25.200	2.377	2052.176	0.10%	97.73%
59.0	24.217	2.310	2054.486	0.10%	97.84%
60.0	23.193	2.240	2056.726	0.10%	97.94%
61.0	22.121	2.162	2058.889	0.09%	98.05%
62.0	21.145	2.085	2060.973	0.09%	98.15%
63.0	20.169	2.009	2062.983	0.09%	98.24%
64.0	19.298	1.937	2064.919	0.08%	98.33%
65.0	18.578	1.874	2066.794	0.08%	98.42%
66.0	17.852	1.818	2068.612	0.08%	98.51%
67.0	17.194	1.762	2070.374	0.08%	98.59%
68.0	16.558	1.710	2072.083	0.07%	98.68%
69.0	15.990	1.660	2073.744	0.07%	98.75%
70.0	15.388	1.612	2075.355	0.07%	98.83%
71.0	14.869	1.564	2076.919	0.07%	98.91%
72.0	14.337	1.519	2078.438	0.07%	98.98%
73.0	13.859	1.474	2079.912	0.06%	99.05%
74.0	13.396	1.433	2081.345	0.06%	99.12%
75.0	12.987	1.394	2082.739	0.06%	99.18%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	12.628	1.360	2084.099	0.06%	99.25%
77.0	12.226	1.325	2085.424	0.06%	99.31%
78.0	11.901	1.292	2086.716	0.06%	99.37%
79.0	11.562	1.261	2087.976	0.05%	99.43%
80.0	11.223	1.228	2089.205	0.05%	99.49%
81.0	10.939	1.198	2090.403	0.05%	99.55%
82.0	10.607	1.168	2091.572	0.05%	99.60%
83.0	10.317	1.137	2092.709	0.05%	99.66%
84.0	10.033	1.109	2093.818	0.05%	99.71%
85.0	9.742	1.079	2094.897	0.05%	99.76%
86.0	9.389	1.046	2095.943	0.05%	99.81%
87.0	9.147	1.014	2096.957	0.04%	99.86%
88.0	8.960	0.992	2097.949	0.04%	99.91%
89.0	8.850	0.976	2098.925	0.04%	99.95%
90.0	8.801	0.968	2099.893	0.04%	100.00%

Zonal flux distribution table

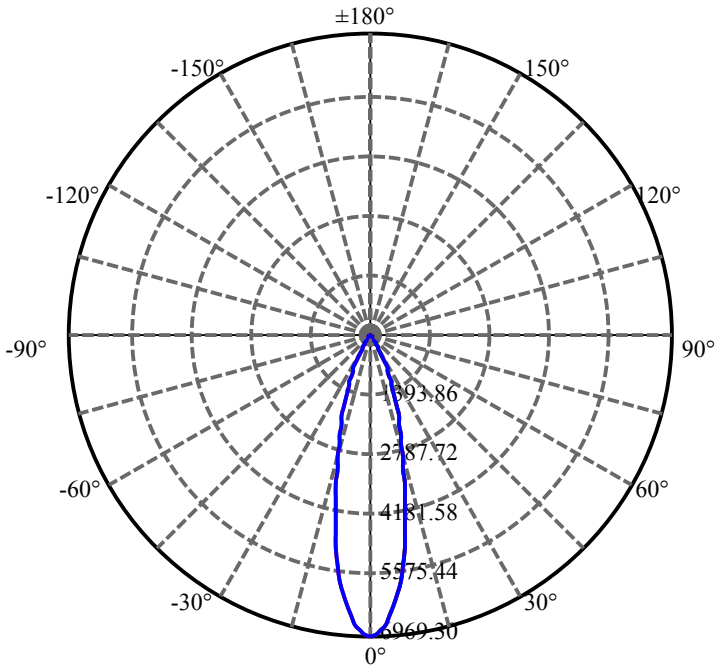
ZONAL LUMEN SUMMARY

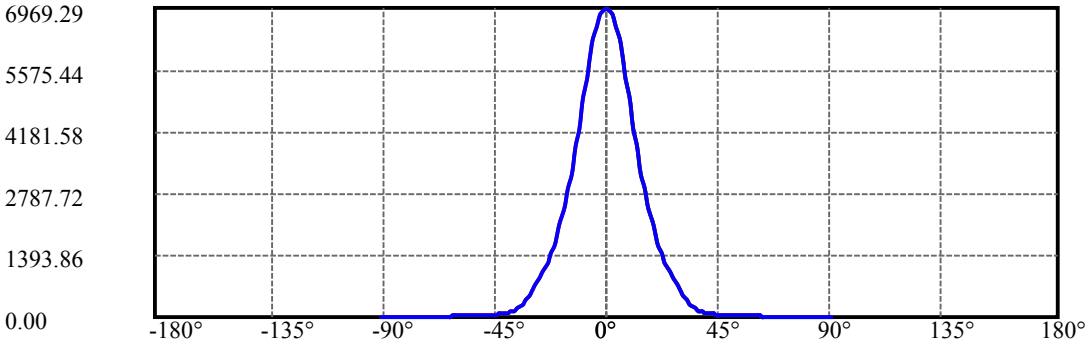
Zone	Lumens	%Lamp	%Fixt
0-30	1841.70	79.38%	87.70%
0-40	1986.19	85.61%	94.59%
0-60	2056.73	88.65%	97.94%
0-90	2098.93	90.47%	99.95%
0-120	2098.93	90.47%	99.95%
0-180	2099.89	90.51%	100.00%
60-90	42.20	1.82%	2.01%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-25.80	1679.91	72.41%	80.00%

ZONAL LUMEN SUMMARY

0-10	545.61
10-20	810.00
20-30	486.09
30-40	144.49
40-50	44.63
50-60	25.90
60-70	18.63
70-80	13.85
80-90	9.72
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:28.4 Right:28.4
:C90/270Left:28.4 Right:28.4

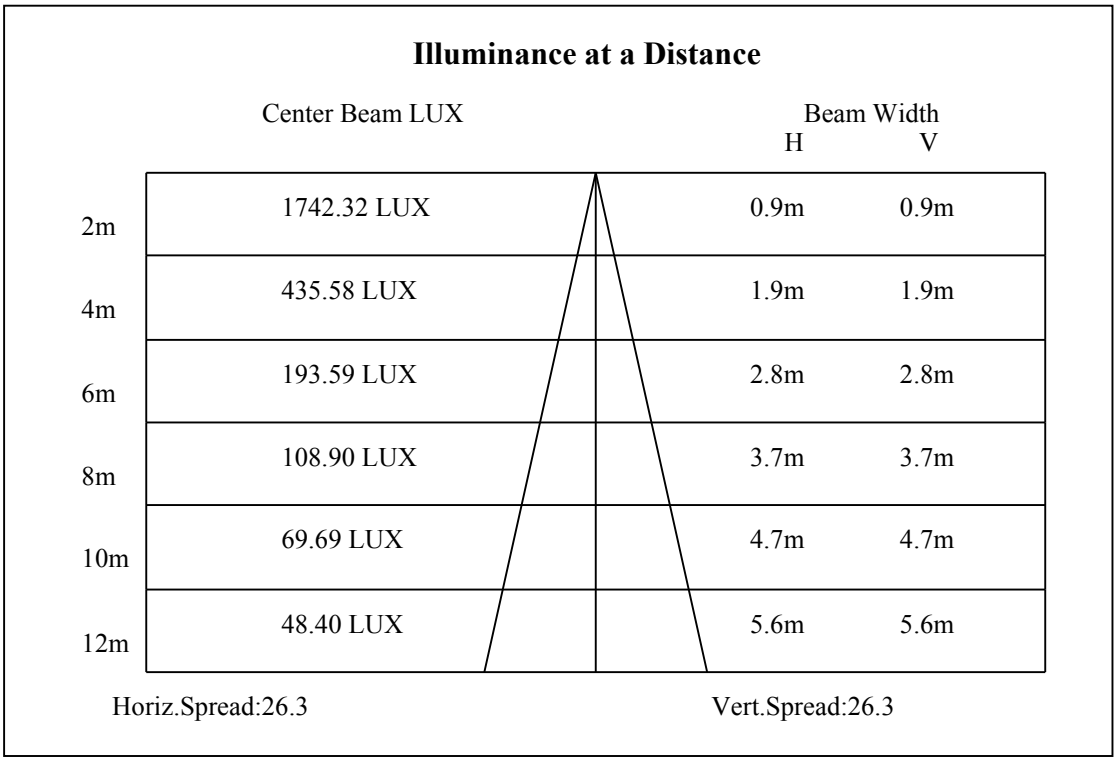
Beam Angle(50%Imax):C0/180Left:13.0 Right:13.0
:C90/270Left:13.0 Right:13.0

Equipment: GMS1980
Temperature(°C): 0.0

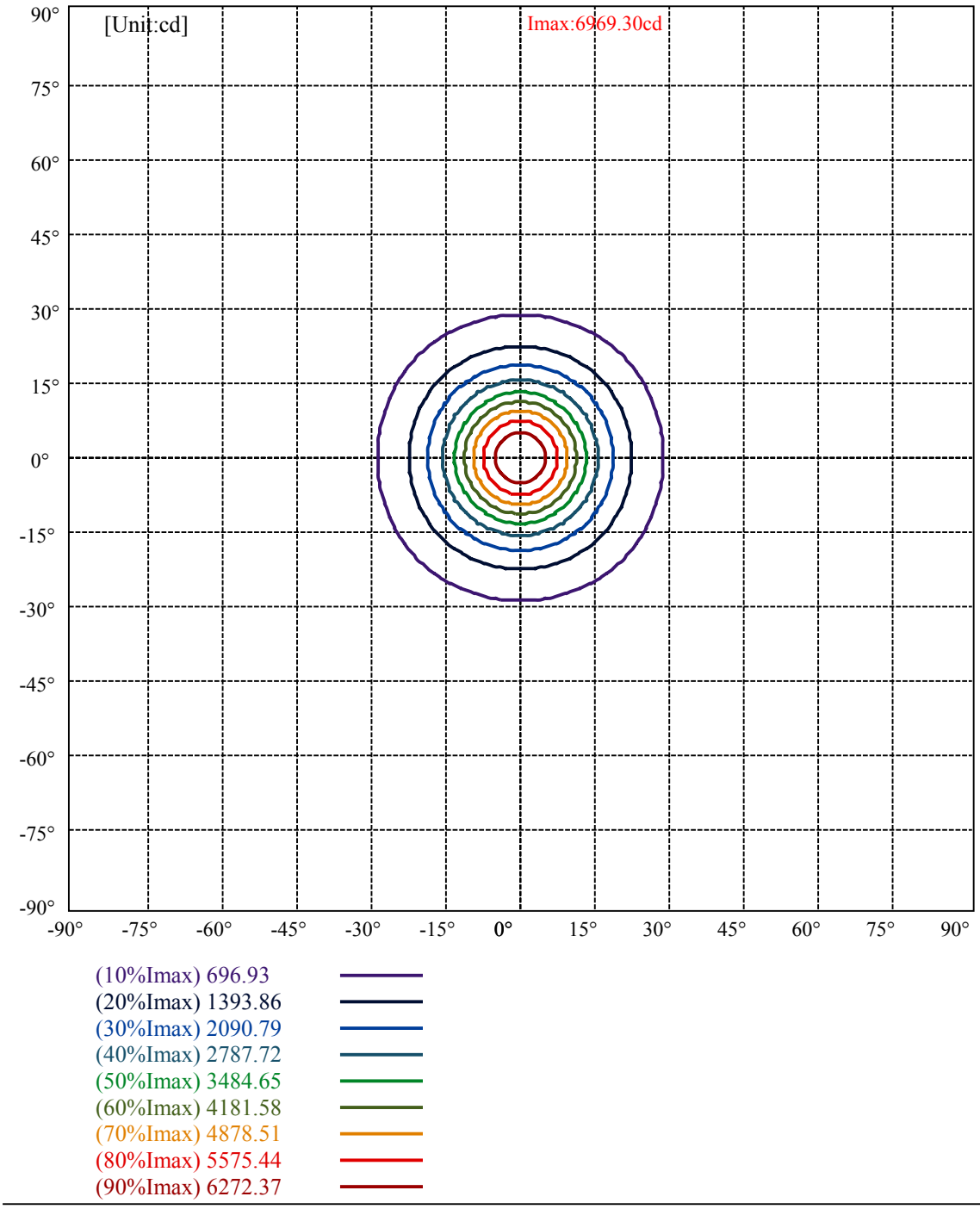
Date: 2023/10/13
Humidity(%): 0.0%

Operator: NT07
Distance(m): 7.44

Lux distance Curve



ISO-Intensity(V-H)

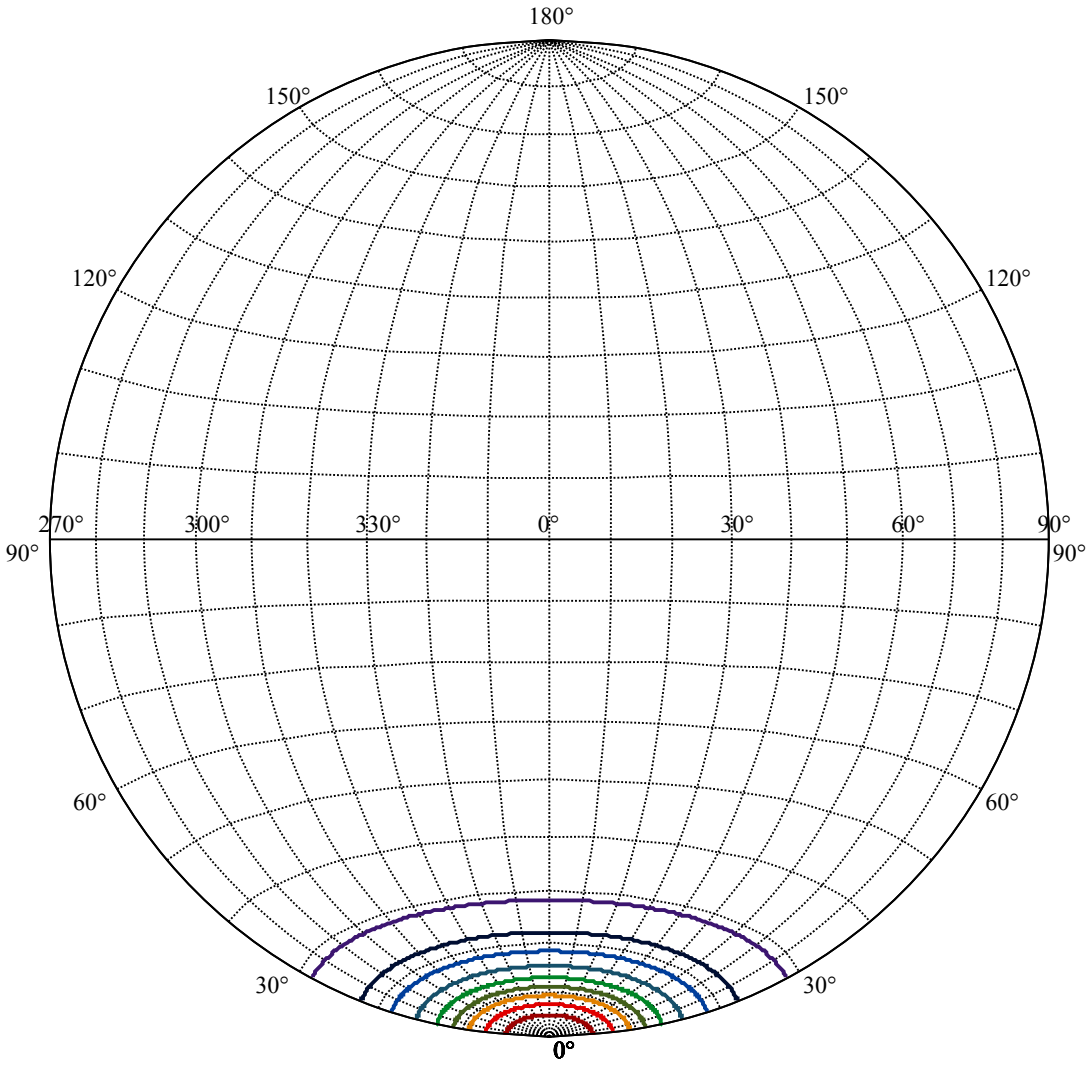


Equipment: GMS1980
Temperature(°C): 0.0

Date: 2023/10/13
Humidity(%): 0.0%

Operator: NT07
Distance(m): 7.44

ISO candela diagram on circular web

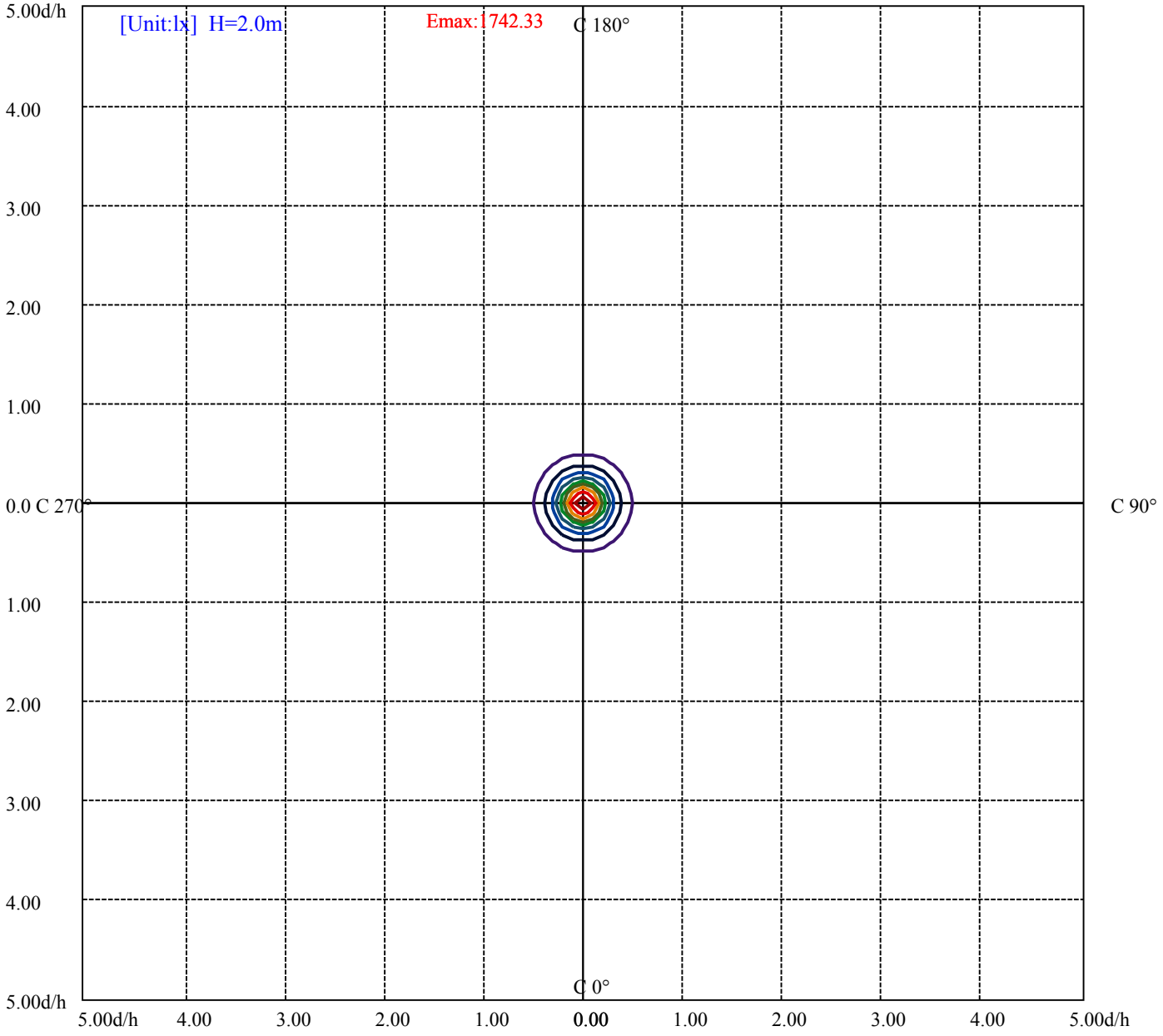


House [Unit:cd] Road

Imax:6969.30

(10%Imax) 696.93
(20%Imax) 1393.86
(30%Imax) 2090.79
(40%Imax) 2787.72
(50%Imax) 3484.65
(60%Imax) 4181.58
(70%Imax) 4878.51
(80%Imax) 5575.44
(90%Imax) 6272.37

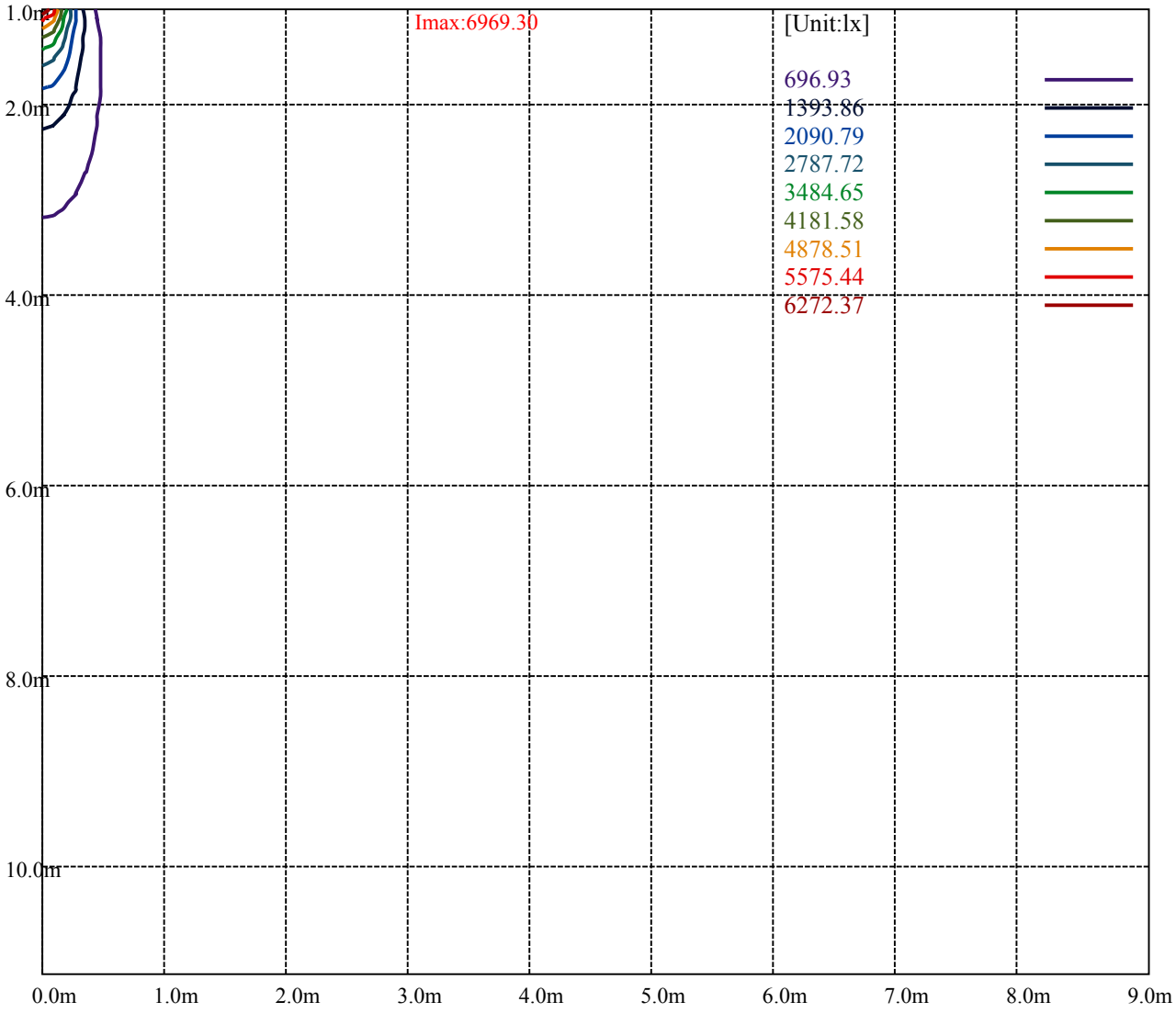
ISO illuminance diagram



(10%Emax) 174.2323
(20%Emax) 348.465
(30%Emax) 522.6975
(40%Emax) 696.93
(50%Emax) 871.16
(60%Emax) 1045.392
(70%Emax) 1219.625
(80%Emax) 1393.858
(90%Emax) 1568.09

Equipment: GMS1980
Temperature(°C): 0.0
Date: 2023/10/13
Humidity(%): 0.0%
Operator: NT07
Distance(m): 7.44

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 0.0

Date: 2023/10/13
Humidity(%): 0.0%

Operator: NT07
Distance(m): 7.44

Luminance Limitting Curve(no luminous side)

Luminance Table

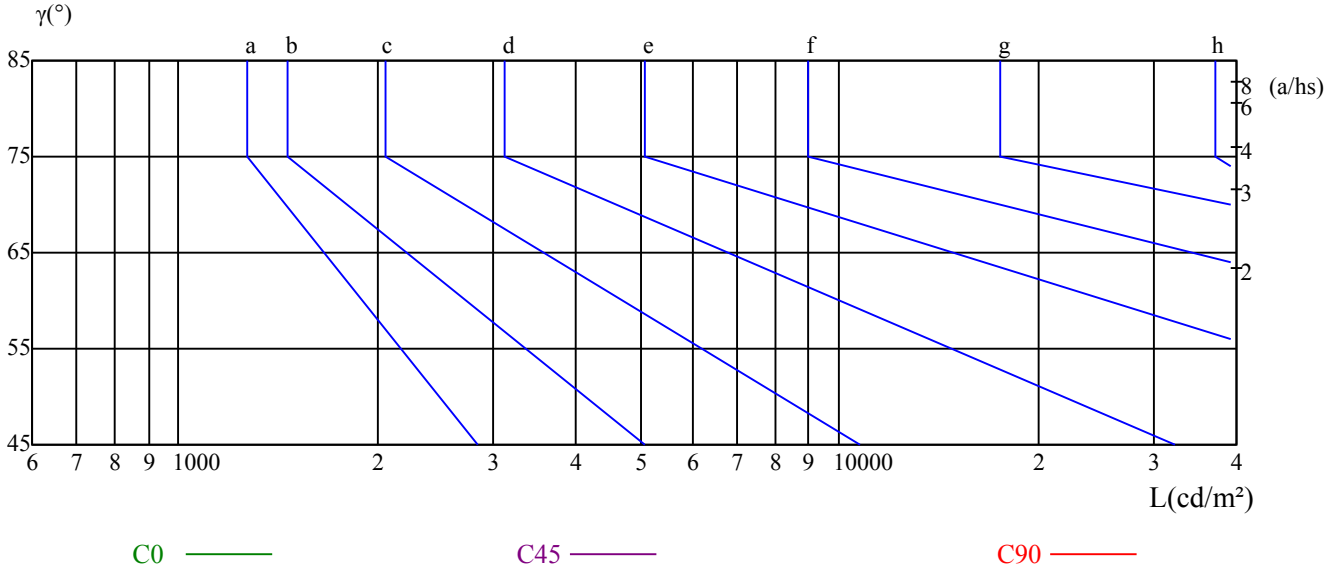
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

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



Equipment: GMS1980
Temperature(°C): 0.0

Date: 2023/10/13
Humidity(%): 0.0%

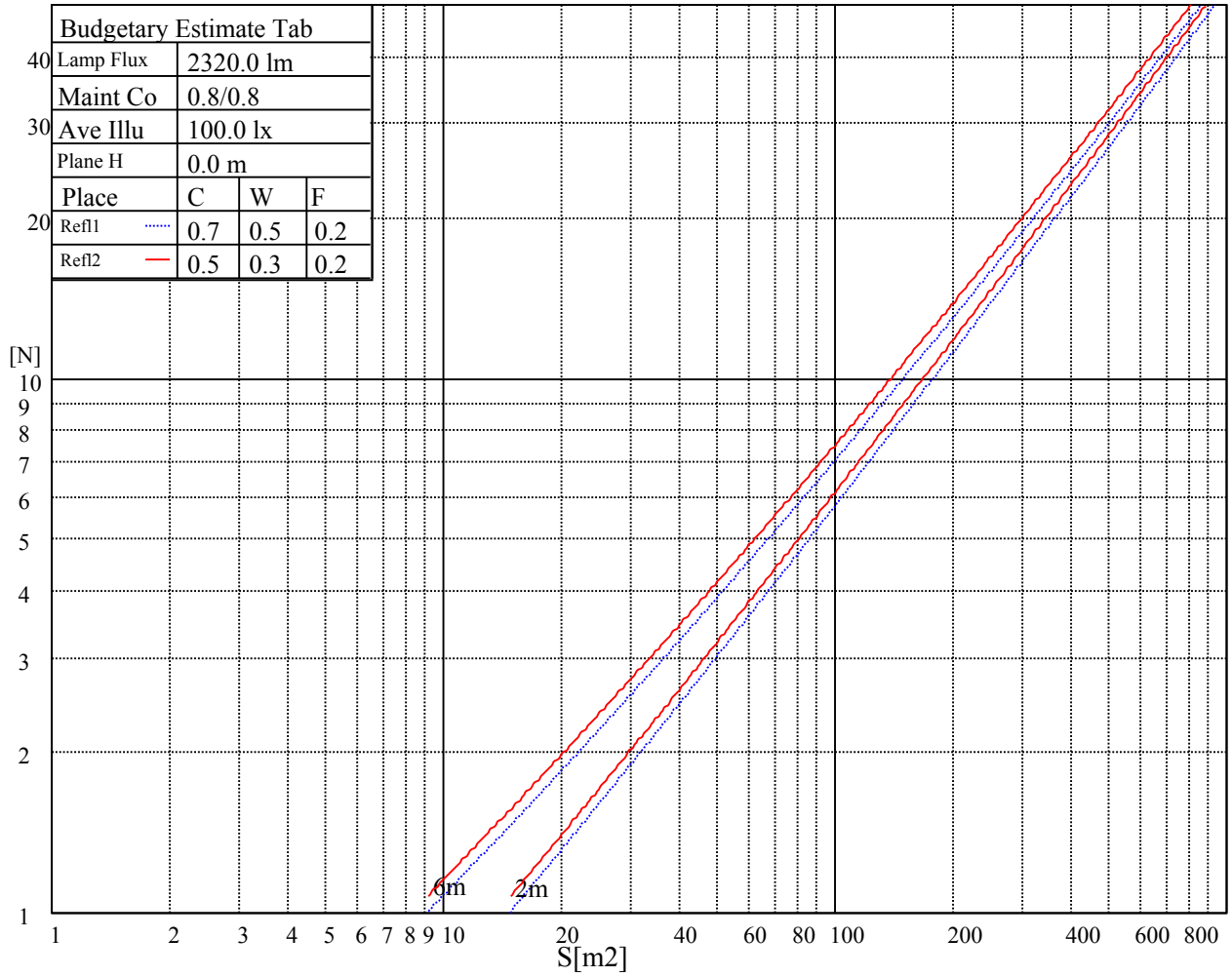
Operator: NT07
Distance(m): 7.44

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

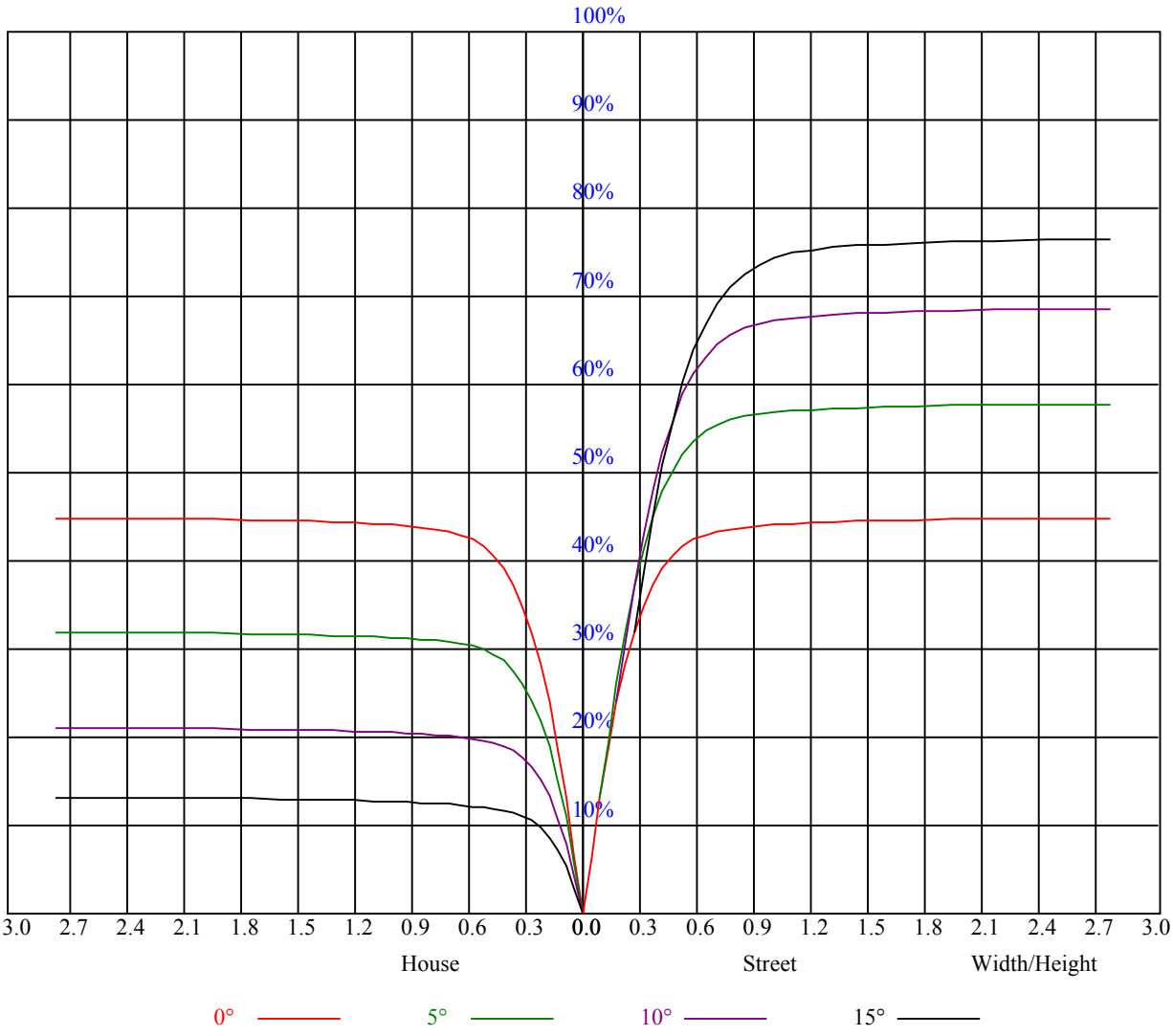


Equipment: GMS1980 Date: 2023/10/13 Operator: NT07
Temperature(°C): 0.0 Humidity(%): 0.0% Distance(m): 7.44

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	1.08	1.08	1.08	1.05	1.05	1.05	1.01	1.01	1.01	0.96	0.96	0.96	0.92	0.92	0.92	0.91
1	1.01	0.99	0.97	0.99	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87	0.86
2	0.95	0.92	0.89	0.94	0.91	0.88	0.91	0.89	0.86	0.88	0.86	0.85	0.86	0.84	0.83	0.82
3	0.90	0.86	0.83	0.89	0.86	0.83	0.87	0.84	0.81	0.85	0.82	0.80	0.83	0.81	0.79	0.78
4	0.86	0.82	0.78	0.85	0.81	0.78	0.83	0.80	0.77	0.81	0.79	0.76	0.80	0.77	0.75	0.74
5	0.82	0.78	0.74	0.81	0.77	0.74	0.80	0.76	0.73	0.78	0.75	0.73	0.77	0.74	0.72	0.71
6	0.78	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	0.68	0.74	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.67	0.65
8	0.72	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.64	0.69	0.66	0.64	0.63
9	0.70	0.65	0.62	0.69	0.65	0.62	0.68	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.62	0.61
10	0.67	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.66	0.62	0.60	0.65	0.62	0.60	0.59

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2023/10/13	Operator: NT07
Temperature(°C): 0.0	Humidity(%): 0.0%	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	6928.06	6794.65	6640.22	6455.34	6231.15	5894.05	5585.73	5246.97	4798.05
45.0	6988.95	6952.97	6847.24	6704.98	6465.30	6231.71	5962.14	5664.33	5258.59
90.0	6962.93	6850.56	6716.61	6551.10	6268.24	6020.26	5733.53	5321.70	4967.99
135.0	6997.25	6980.64	6904.81	6777.49	6586.52	6368.99	6054.02	5772.83	5455.10
180.0	6928.06	6983.41	6991.16	6928.61	6786.35	6636.90	6448.69	6144.25	5876.34
225.0	6988.95	6966.80	6855.54	6727.68	6568.81	6369.54	6055.68	5781.13	5465.61
270.0	6962.93	6986.18	6959.61	6838.94	6708.86	6532.83	6331.34	6017.49	5736.85
315.0	6997.25	6922.52	6819.01	6685.05	6508.48	6225.62	5974.31	5672.08	5348.26
360.0	6928.06	6794.65	6640.22	6455.34	6231.15	5894.05	5585.73	5246.97	4798.05

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	4434.38	4083.44	3656.66	3340.59	2997.95	2744.99	2511.95	2291.64	2092.92
45.0	4899.35	4537.89	4182.52	3760.72	3448.53	3164.57	2897.76	2592.21	2378.54
90.0	4595.46	4240.09	3806.11	3486.72	3194.46	2866.76	2627.08	2400.13	2146.06
135.0	5023.89	4669.08	4303.19	3867.00	3540.97	3246.49	2976.92	2656.42	2428.92
180.0	5489.97	5153.97	4805.80	4436.04	3979.92	3645.03	3332.29	3041.13	2726.72
225.0	5119.10	4672.40	4318.13	3970.51	3569.20	3265.86	2930.97	2684.65	2458.81
270.0	5426.31	5094.19	4652.47	4270.53	3835.45	3512.19	3211.06	2863.44	2634.28
315.0	4904.33	4535.67	4090.63	3740.80	3418.08	3068.25	2811.41	2571.73	2356.96
360.0	4434.38	4083.44	3656.66	3340.59	2997.95	2744.99	2511.95	2291.64	2092.92

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1872.06	1703.23	1546.58	1399.34	1098.33	1098.33	1018.45	889.37	792.55
45.0	2131.67	1946.23	1776.30	1576.47	1425.91	1293.61	1155.78	1052.27	945.44
90.0	1960.07	1785.15	1586.43	1436.43	1098.27	1098.27	1046.24	940.01	836.84
135.0	2218.57	2029.26	1811.17	1650.09	1496.76	1318.52	1199.51	1069.99	964.81
180.0	2501.98	2273.93	2029.82	1859.33	1689.95	1489.57	1355.61	1199.51	1100.98
225.0	2198.09	2005.46	1829.44	1665.59	1513.92	1336.79	1084.76	1084.76	1006.94
270.0	2404.01	2192.00	1958.41	1791.80	1624.07	1468.53	1300.81	1184.57	1082.16
315.0	2102.33	1916.34	1743.08	1584.22	1401.00	1101.09	1101.09	1023.54	920.48
360.0	1872.06	1703.23	1546.58	1399.34	1098.33	1098.33	1018.45	889.37	792.55

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	694.85	582.65	497.41	417.42	324.48	257.62	200.27	152.72	134.34
45.0	839.16	714.06	622.73	535.27	454.45	358.14	288.39	288.39	216.16
90.0	712.46	621.73	535.88	455.62	360.41	290.00	228.11	181.39	147.35
135.0	853.00	755.02	637.12	551.88	466.63	385.81	292.82	292.82	215.99
180.0	1003.01	896.73	768.86	677.53	584.53	499.29	398.55	324.37	289.50
225.0	876.36	774.29	680.13	569.26	484.18	384.49	312.03	246.16	181.56
270.0	979.21	846.91	748.93	635.46	546.89	441.17	362.57	290.61	290.61
315.0	821.00	702.99	610.49	503.33	421.74	344.74	273.94	212.95	160.80
360.0	694.85	582.65	497.41	417.42	324.48	257.62	200.27	152.72	134.34

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	120.78	108.44	95.32	86.52	78.49	71.46	63.77	58.45	52.53
45.0	145.14	130.47	114.36	103.84	94.10	83.69	76.28	69.75	63.82
90.0	131.85	115.91	104.78	95.04	84.14	76.50	69.69	63.55	56.85
135.0	143.64	122.83	110.65	100.02	88.40	80.37	73.29	65.32	59.67
180.0	289.50	143.86	126.37	114.36	100.74	91.00	80.65	73.34	66.81
225.0	146.47	128.64	116.52	102.90	93.27	84.64	77.11	68.64	62.83
270.0	163.79	137.83	123.66	111.81	98.20	88.79	80.54	73.23	66.87
315.0	137.61	123.77	111.32	97.31	87.79	79.54	70.52	64.32	57.35
360.0	120.78	108.44	95.32	86.52	78.49	71.46	63.77	58.45	52.53

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	48.55	44.95	41.13	38.47	36.20	34.21	32.11	30.61	29.39
45.0	57.46	53.08	49.10	45.50	41.63	38.80	36.59	34.26	32.55
90.0	52.36	48.27	43.78	40.80	38.08	35.87	33.43	31.77	30.33
135.0	53.69	49.49	45.72	42.23	39.36	36.15	34.04	32.33	30.72
180.0	61.06	55.08	50.70	46.88	43.40	39.69	37.09	34.76	32.82
225.0	57.62	52.20	48.21	44.62	40.68	38.14	35.70	33.27	31.50
270.0	59.67	55.02	49.82	46.11	42.73	39.19	36.81	34.60	32.27
315.0	52.70	48.71	44.17	41.02	38.30	35.87	33.27	31.50	30.00
360.0	48.55	44.95	41.13	38.47	36.20	34.21	32.11	30.61	29.39

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	28.40	27.01	26.13	25.30	24.02	23.14	22.25	21.09	20.26
45.0	30.83	29.61	28.51	27.18	26.18	25.13	24.02	23.03	21.75
90.0	28.84	27.62	26.46	25.52	24.41	23.41	22.31	21.26	20.43
135.0	29.06	28.01	26.79	25.91	25.19	23.97	22.97	22.14	20.92
180.0	30.78	29.28	27.84	26.85	25.85	24.91	24.02	23.03	22.09
225.0	29.95	28.78	27.46	26.35	25.46	24.52	23.25	22.14	21.26
270.0	30.72	29.34	28.23	26.85	25.85	25.02	24.02	22.69	21.81
315.0	28.67	27.46	26.46	25.63	24.63	23.64	22.69	21.59	20.65
360.0	28.40	27.01	26.13	25.30	24.02	23.14	22.25	21.09	20.26

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	19.37	18.60	17.93	17.33	16.77	16.11	15.50	15.00	14.56
45.0	20.76	19.98	19.26	18.32	17.71	16.94	16.33	15.78	15.06
90.0	19.60	18.71	17.99	17.33	16.77	16.05	15.44	14.78	14.28
135.0	19.98	19.21	18.60	17.93	17.10	16.61	16.11	15.39	14.89
180.0	20.98	20.04	19.26	18.60	17.77	17.10	16.55	15.94	15.44
225.0	20.04	19.21	18.32	17.66	16.99	16.50	15.83	15.28	14.78
270.0	20.87	19.76	19.04	18.16	17.44	16.83	16.33	15.67	15.17
315.0	19.76	18.88	18.21	17.49	16.99	16.33	15.83	15.28	14.78
360.0	19.37	18.60	17.93	17.33	16.77	16.11	15.50	15.00	14.56

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	14.00	13.62	13.12	12.84	12.51	12.07	11.79	11.46	11.02
45.0	14.50	14.06	13.51	13.12	12.73	12.40	11.96	11.62	11.35
90.0	13.84	13.34	12.95	12.57	12.23	11.79	11.46	11.18	10.85
135.0	14.28	13.84	13.45	13.01	12.68	12.34	12.07	11.73	11.40
180.0	14.89	14.34	13.89	13.40	13.01	12.62	12.29	11.90	11.62
225.0	14.28	13.73	13.28	12.90	12.51	12.07	11.73	11.35	11.07
270.0	14.67	14.17	13.62	13.23	12.84	12.40	12.07	11.73	11.29
315.0	14.23	13.78	13.34	12.84	12.51	12.12	11.85	11.51	11.18
360.0	14.00	13.62	13.12	12.84	12.51	12.07	11.79	11.46	11.02

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	10.74	10.41	10.13	9.85	9.58	9.13	9.02	8.75	8.91
45.0	11.07	10.63	10.30	9.96	9.74	9.24	9.08	8.97	8.75
90.0	10.46	10.19	9.91	9.69	9.35	9.13	8.97	8.80	8.80
135.0	11.13	10.85	10.52	10.19	9.69	9.41	9.24	9.02	8.86
180.0	11.29	10.96	10.63	10.30	10.07	9.74	9.35	9.13	8.97
225.0	10.79	10.46	10.19	9.96	9.69	9.41	9.13	8.97	8.86
270.0	11.02	10.68	10.41	10.13	9.91	9.63	9.30	9.13	8.91
315.0	11.02	10.68	10.46	10.19	9.91	9.41	9.08	8.91	8.75
360.0	10.74	10.41	10.13	9.85	9.58	9.13	9.02	8.75	8.91

Intensity data(cd)

C/γ(°)	90.0
0.0	8.86
45.0	8.86
90.0	8.80
135.0	8.86
180.0	8.86
225.0	8.69
270.0	8.75
315.0	8.75
360.0	8.86