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NATA

Client:
LumCAT: 2-2646-L
Luminaire: 92.70.429.00
Report No: 20231010-B005
Ballast type: AC

Test No: 20231010-C005	Voltage(V): 36.020
LampCAT: CREE CXA1830 LES14	Current(A): 0.530
Lamp flux(lm): 1997.0	Power (W): 19.090
Number of Lamps: 1	PF: 0.000
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1861.46, Efficiency(%): 93.21% , Luminous Efficacy(lm/W): 97.51
Central intensity(cd): 3324.067, Maximum intensity(cd): 3324.067
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=46.0
[C90/270]Total=46.0
Field angle(10%Imax): [C0/180]Total=67.6
[C90/270]Total=67.6
Maximum s/h(1/2): C0_180=0.73 C90_270=0.73
Maximum s/h(1/4): C0_180=0.71 C90_270=0.71
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 93.21%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.225%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3324.067	0.000	0	0.00%	0.00%
1.0	3310.298	3.174	3.174	0.16%	0.17%
2.0	3281.929	9.462	12.636	0.47%	0.68%
3.0	3244.081	15.608	28.244	0.78%	1.52%
4.0	3196.062	21.557	49.801	1.08%	2.68%
5.0	3137.594	27.247	77.049	1.36%	4.14%
6.0	3085.354	32.703	109.752	1.64%	5.90%
7.0	3029.862	37.957	147.709	1.90%	7.94%
8.0	2976.308	42.985	190.694	2.15%	10.24%
9.0	2921.438	47.798	238.492	2.39%	12.81%
10.0	2857.297	52.295	290.787	2.62%	15.62%
11.0	2796.063	56.489	347.276	2.83%	18.66%
12.0	2727.770	60.383	407.659	3.02%	21.90%
13.0	2659.339	63.931	471.591	3.20%	25.33%
14.0	2589.109	67.180	538.77	3.36%	28.94%
15.0	2510.507	70.010	608.78	3.51%	32.70%
16.0	2422.149	72.277	681.058	3.62%	36.59%
17.0	2326.733	73.953	755.01	3.70%	40.56%
18.0	2226.751	75.077	830.087	3.76%	44.59%
19.0	2127.045	75.747	905.835	3.79%	48.66%
20.0	2019.313	75.890	981.724	3.80%	52.74%
21.0	1902.586	75.308	1057.033	3.77%	56.79%
22.0	1781.846	74.040	1131.073	3.71%	60.76%
23.0	1665.880	72.343	1203.416	3.62%	64.65%
24.0	1529.987	69.873	1273.289	3.50%	68.40%
25.0	1358.647	65.681	1338.97	3.29%	71.93%
26.0	1210.154	60.637	1399.607	3.04%	75.19%
27.0	1118.101	56.961	1456.568	2.85%	78.25%
28.0	990.311	53.381	1509.949	2.67%	81.12%
29.0	850.467	48.160	1558.109	2.41%	83.70%
30.0	716.781	42.315	1600.424	2.12%	85.98%
31.0	597.009	36.561	1636.985	1.83%	87.94%
32.0	491.464	31.183	1668.168	1.56%	89.62%
33.0	397.349	26.185	1694.353	1.31%	91.02%
34.0	314.374	21.539	1715.892	1.08%	92.18%
35.0	256.896	17.742	1733.633	0.89%	93.13%
36.0	228.991	15.471	1749.104	0.77%	93.96%
37.0	176.128	13.213	1762.317	0.66%	94.67%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	115.274	9.727	1772.044	0.49%	95.20%
39.0	90.330	7.018	1779.061	0.35%	95.57%
40.0	71.662	5.650	1784.711	0.28%	95.88%
41.0	57.990	4.617	1789.328	0.23%	96.13%
42.0	48.206	3.858	1793.186	0.19%	96.33%
43.0	41.197	3.312	1796.498	0.17%	96.51%
44.0	36.464	2.931	1799.429	0.15%	96.67%
45.0	32.596	2.654	1802.083	0.13%	96.81%
46.0	29.566	2.431	1804.514	0.12%	96.94%
47.0	27.033	2.251	1806.765	0.11%	97.06%
48.0	25.082	2.107	1808.872	0.11%	97.18%
49.0	23.415	1.992	1810.864	0.10%	97.28%
50.0	21.962	1.892	1812.755	0.09%	97.38%
51.0	20.654	1.803	1814.558	0.09%	97.48%
52.0	19.595	1.727	1816.286	0.09%	97.57%
53.0	18.710	1.666	1817.952	0.08%	97.66%
54.0	17.886	1.613	1819.565	0.08%	97.75%
55.0	17.153	1.564	1821.129	0.08%	97.83%
56.0	16.551	1.523	1822.652	0.08%	97.92%
57.0	15.976	1.487	1824.139	0.07%	98.00%
58.0	15.499	1.456	1825.595	0.07%	98.07%
59.0	14.994	1.426	1827.02	0.07%	98.15%
60.0	14.600	1.398	1828.418	0.07%	98.23%
61.0	14.233	1.376	1829.794	0.07%	98.30%
62.0	13.887	1.355	1831.149	0.07%	98.37%
63.0	13.541	1.334	1832.483	0.07%	98.44%
64.0	13.209	1.313	1833.796	0.07%	98.51%
65.0	12.960	1.295	1835.091	0.06%	98.58%
66.0	12.683	1.279	1836.37	0.06%	98.65%
67.0	12.399	1.261	1837.631	0.06%	98.72%
68.0	12.129	1.243	1838.874	0.06%	98.79%
69.0	11.894	1.226	1840.099	0.06%	98.85%
70.0	11.645	1.209	1841.308	0.06%	98.92%
71.0	11.354	1.189	1842.497	0.06%	98.98%
72.0	11.119	1.169	1843.666	0.06%	99.04%
73.0	10.891	1.151	1844.817	0.06%	99.11%
74.0	10.656	1.133	1845.949	0.06%	99.17%
75.0	10.413	1.113	1847.063	0.06%	99.23%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	10.171	1.093	1848.155	0.05%	99.29%
77.0	9.950	1.073	1849.228	0.05%	99.34%
78.0	9.735	1.054	1850.282	0.05%	99.40%
79.0	9.514	1.034	1851.316	0.05%	99.46%
80.0	9.286	1.014	1852.33	0.05%	99.51%
81.0	9.078	0.993	1853.323	0.05%	99.56%
82.0	8.863	0.973	1854.296	0.05%	99.62%
83.0	8.663	0.953	1855.248	0.05%	99.67%
84.0	8.483	0.934	1856.182	0.05%	99.72%
85.0	8.296	0.916	1857.098	0.05%	99.77%
86.0	8.158	0.899	1857.998	0.05%	99.81%
87.0	8.006	0.885	1858.882	0.04%	99.86%
88.0	7.888	0.871	1859.753	0.04%	99.91%
89.0	7.750	0.857	1860.61	0.04%	99.95%
90.0	7.722	0.848	1861.458	0.04%	100.00%

Zonal flux distribution table

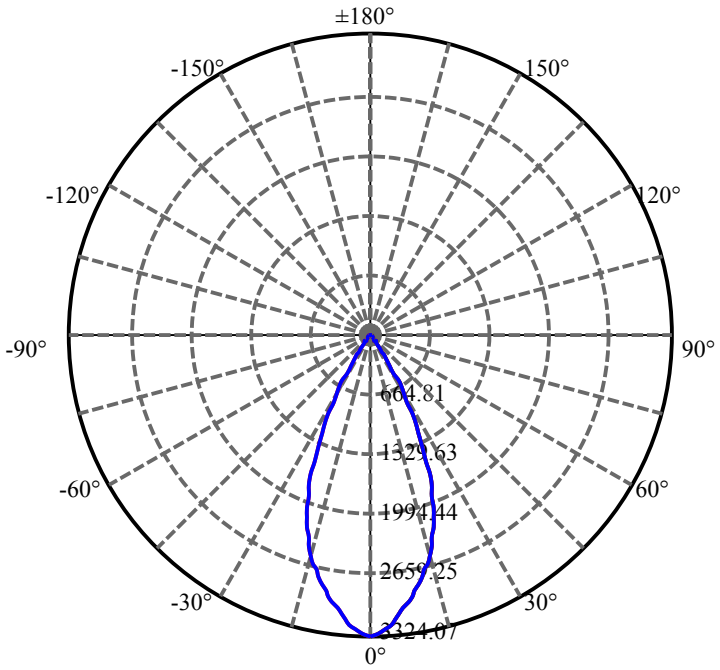
ZONAL LUMEN SUMMARY

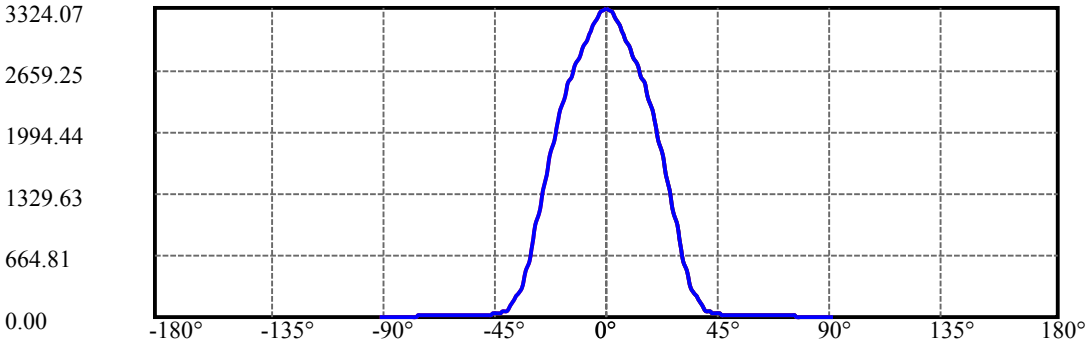
Zone	Lumens	%Lamp	%Fixt
0-30	1600.42	80.14%	85.98%
0-40	1784.71	89.37%	95.88%
0-60	1828.42	91.56%	98.23%
0-90	1860.61	93.17%	99.95%
0-120	1860.61	93.17%	99.95%
0-180	1861.46	93.21%	100.00%
60-90	32.19	1.61%	1.73%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-27.61	1489.17	74.57%	80.00%

ZONAL LUMEN SUMMARY

0-10	290.79
10-20	690.94
20-30	618.70
30-40	184.29
40-50	28.04
50-60	15.66
60-70	12.89
70-80	11.02
80-90	8.28
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):

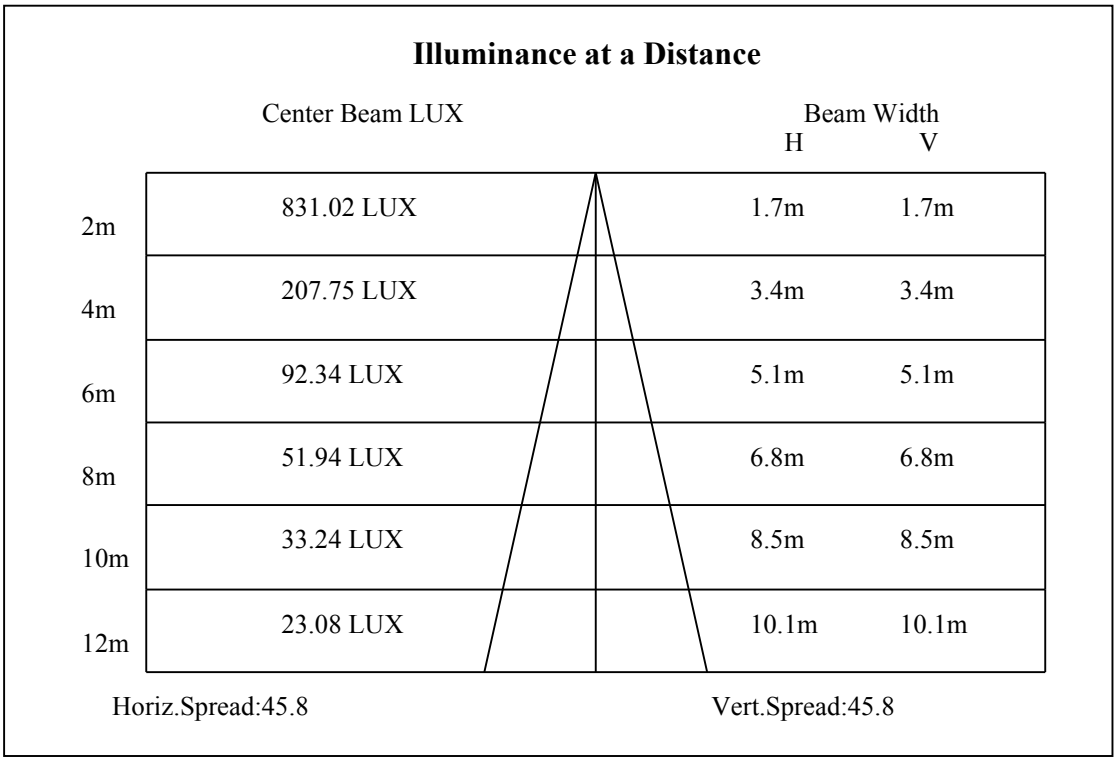
C0/C180:

C90/C270:

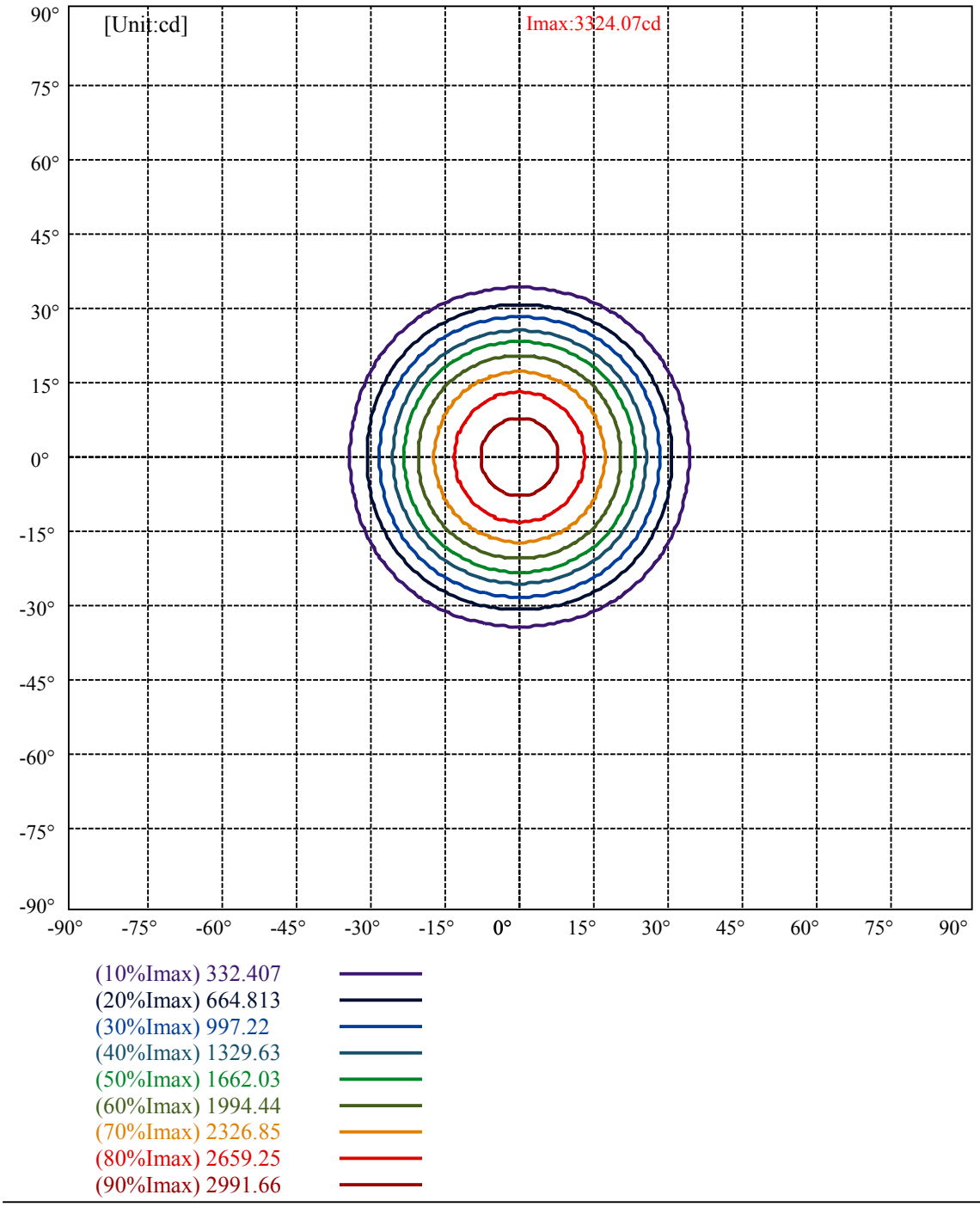
Field angle(10%Imax):C0/180Left:33.8 Right:33.8
:C90/270Left:33.8 Right:33.8

Beam Angle(50%Imax):C0/180Left:23.0 Right:23.0
:C90/270Left:23.0 Right:23.0

Lux distance Curve



ISO-Intensity(V-H)

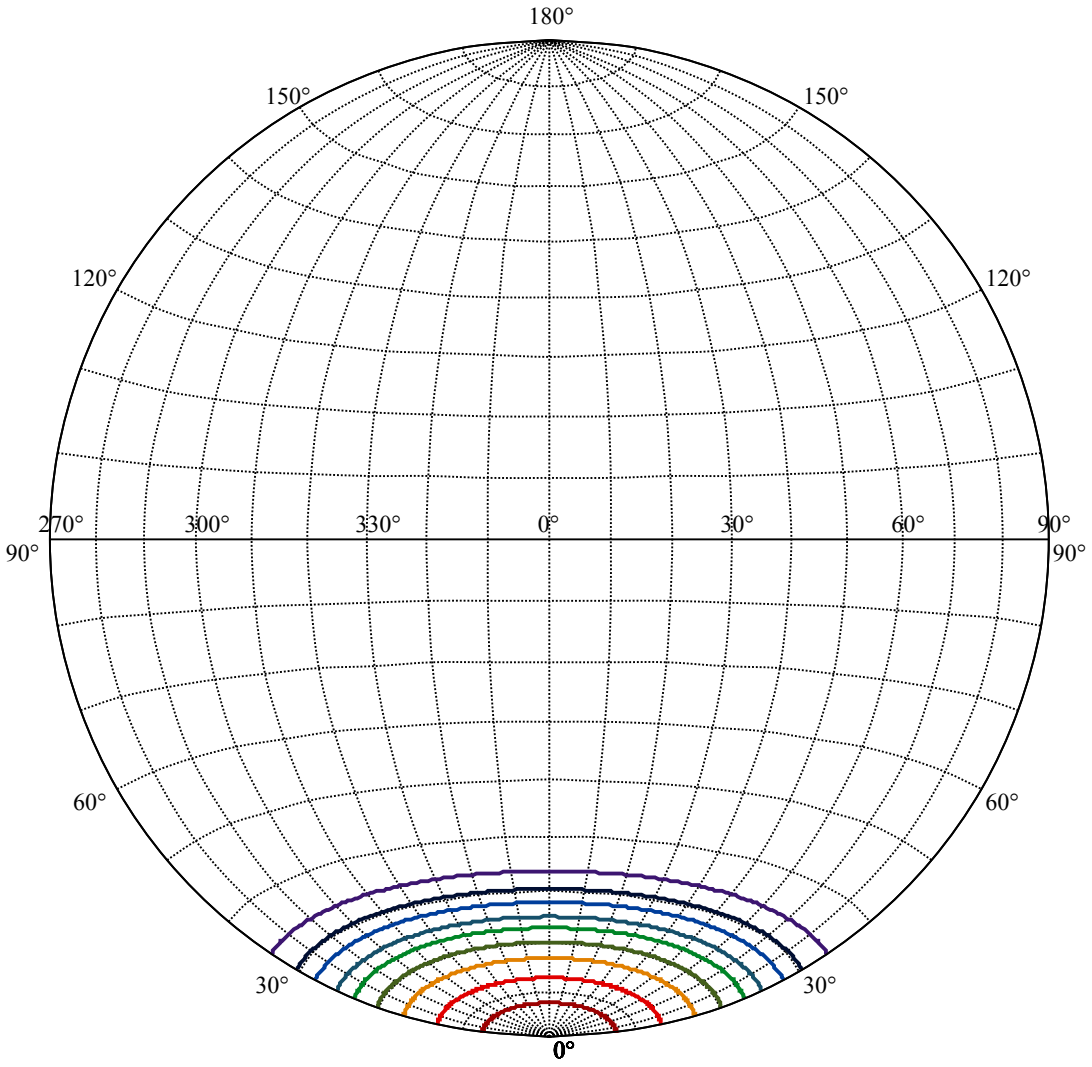


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2023/10/10
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.44

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:3324.07

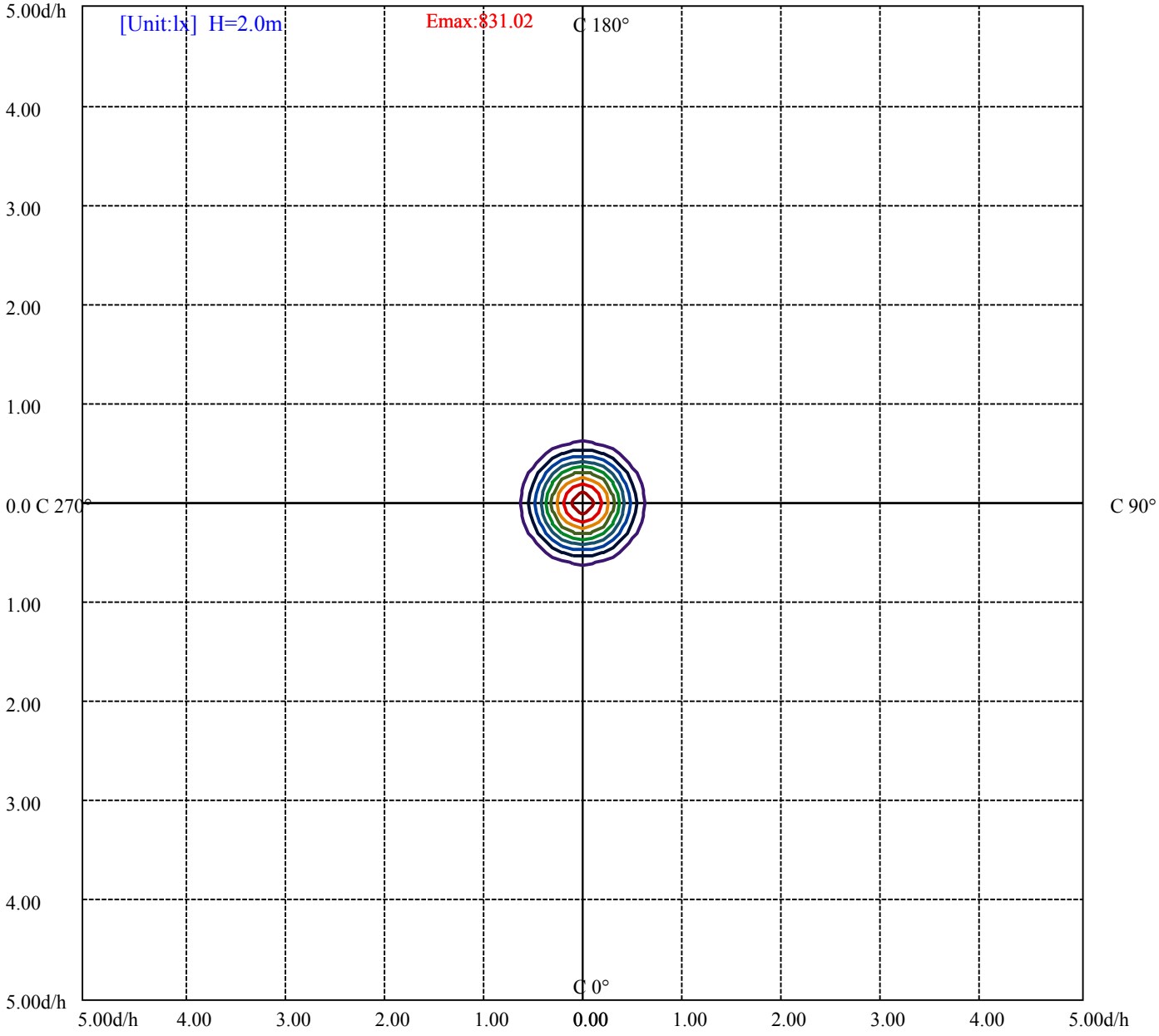
(10%Imax) 332.407
(20%Imax) 664.813
(30%Imax) 997.22
(40%Imax) 1329.63
(50%Imax) 1662.03
(60%Imax) 1994.44
(70%Imax) 2326.85
(80%Imax) 2659.25
(90%Imax) 2991.66

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2023/10/10
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.44

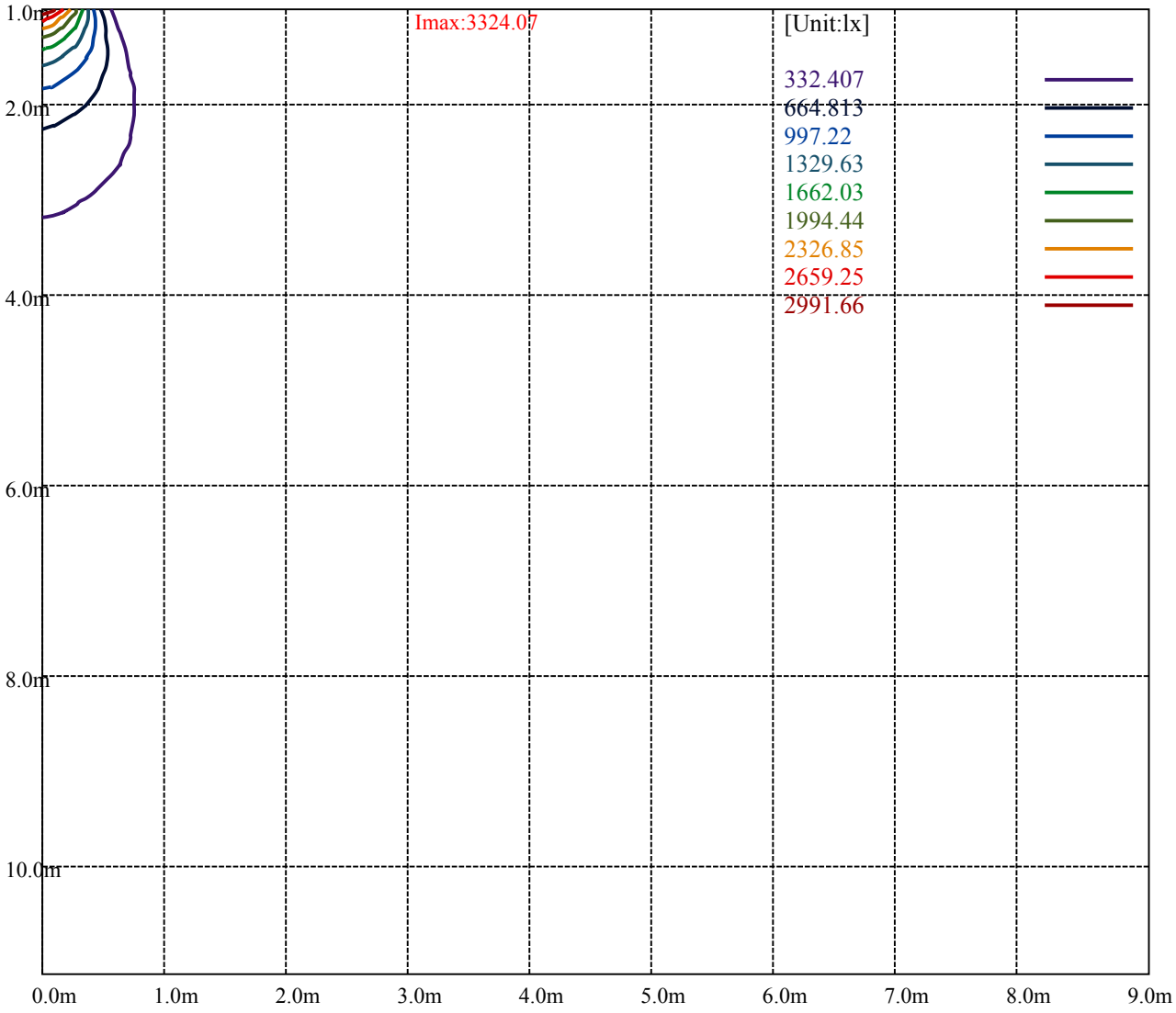
ISO illuminance diagram



(10%Emax) 83.1015
(20%Emax) 166.2032
(30%Emax) 249.3047
(40%Emax) 332.4075
(50%Emax) 415.5075
(60%Emax) 498.61
(70%Emax) 581.7125
(80%Emax) 664.8125
(90%Emax) 747.915

Equipment: GMS1980
Temperature(°C): 25.0
Date: 2023/10/10
Humidity(%): 60.0%
Operator: NT07
Distance(m): 7.44

Space ISO Lux diagram



Equipment: GMS1980 Date: 2023/10/10 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.44

Luminance Limitting Curve(no luminous side)

Luminance Table

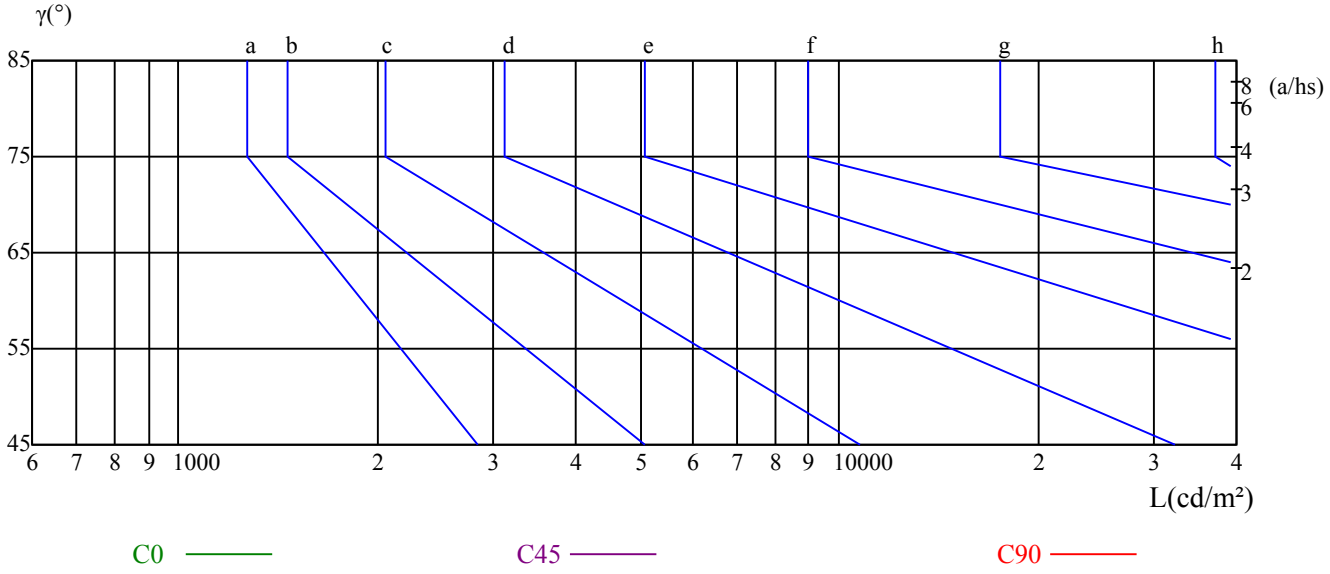
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

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): 25.0

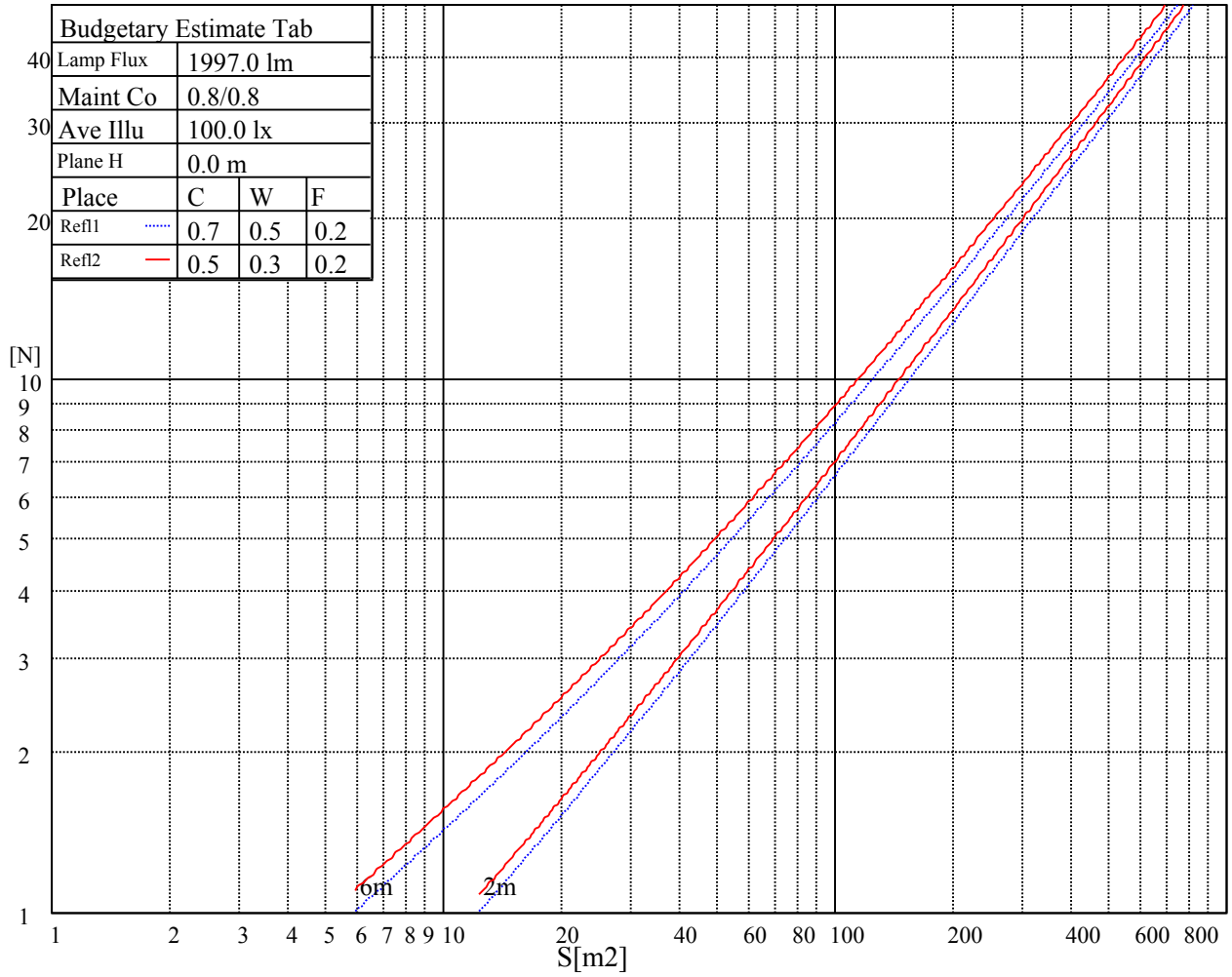
Date: 2023/10/10
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.44

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

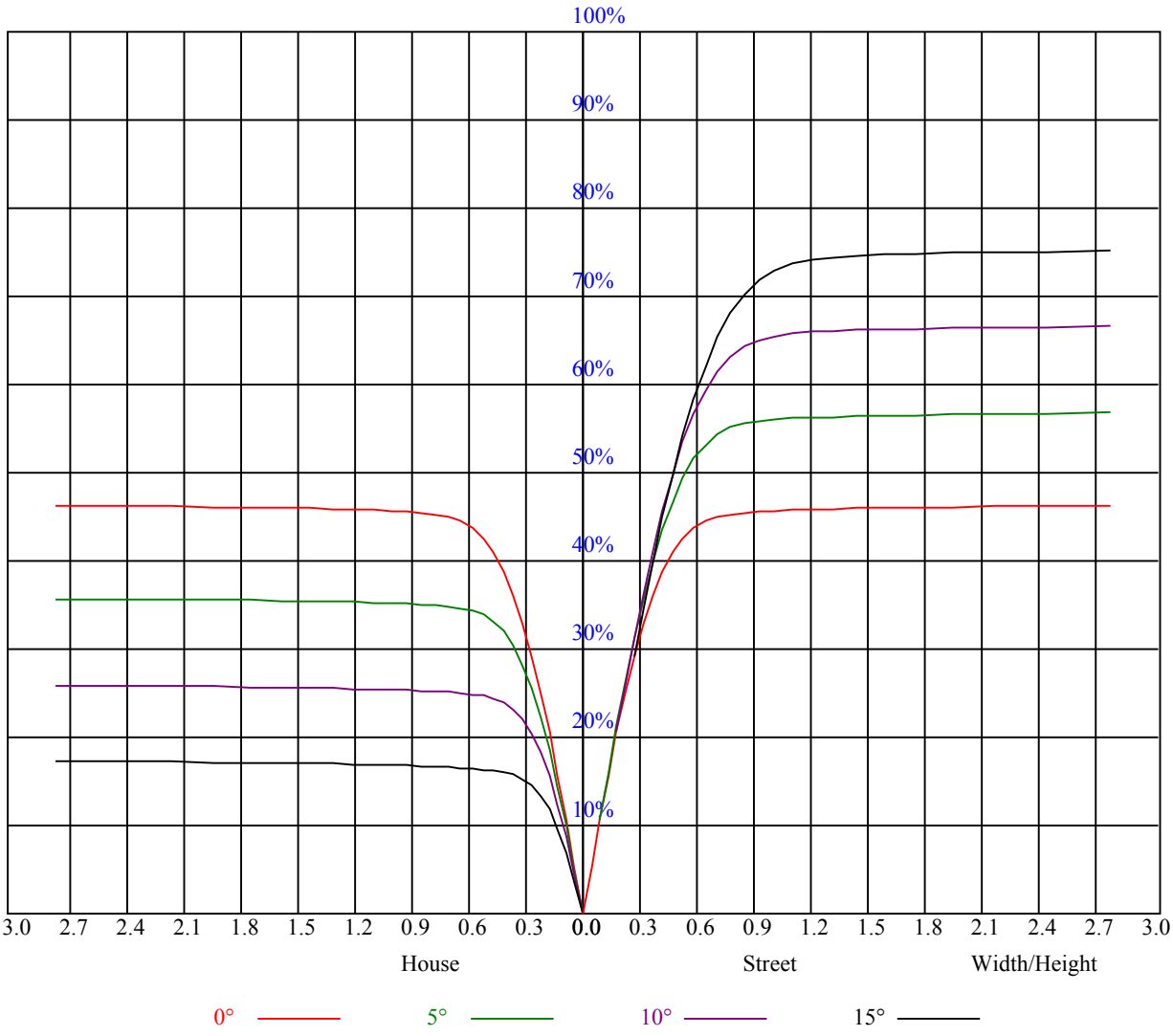


Equipment: GMS1980 Date: 2023/10/10 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.44

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	1.11	1.11	1.11	1.08	1.08	1.08	1.04	1.04	1.04	0.99	0.99	0.99	0.95	0.95	0.95	0.93
1	1.04	1.01	0.99	1.02	1.00	0.98	0.98	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88
2	0.97	0.94	0.91	0.96	0.92	0.90	0.93	0.90	0.88	0.90	0.88	0.86	0.87	0.86	0.84	0.83
3	0.92	0.87	0.84	0.90	0.86	0.83	0.88	0.85	0.82	0.86	0.83	0.81	0.84	0.81	0.79	0.78
4	0.86	0.82	0.78	0.85	0.81	0.78	0.84	0.80	0.77	0.82	0.79	0.76	0.80	0.77	0.75	0.74
5	0.82	0.77	0.73	0.81	0.77	0.73	0.79	0.76	0.72	0.78	0.75	0.72	0.77	0.74	0.71	0.70
6	0.78	0.73	0.69	0.77	0.72	0.69	0.76	0.72	0.69	0.74	0.71	0.68	0.73	0.70	0.68	0.66
7	0.74	0.69	0.66	0.73	0.69	0.65	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.64	0.63
8	0.71	0.66	0.62	0.70	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.61	0.60
9	0.67	0.62	0.59	0.67	0.62	0.59	0.66	0.62	0.59	0.65	0.61	0.59	0.65	0.61	0.58	0.57
10	0.64	0.60	0.56	0.64	0.59	0.56	0.63	0.59	0.56	0.63	0.59	0.56	0.62	0.58	0.56	0.55

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2023/10/10	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	3302.34	3265.81	3230.38	3172.26	3113.03	3052.70	2997.34	2942.54	2892.72
45.0	3334.45	3326.14	3280.75	3235.92	3180.56	3110.26	3062.66	3006.20	2947.52
90.0	3316.18	3273.00	3248.09	3178.90	3126.32	3079.82	3007.31	2965.79	2910.99
135.0	3343.30	3326.14	3290.72	3260.27	3207.13	3150.12	3103.62	3037.75	2992.36
180.0	3302.34	3336.11	3325.04	3307.32	3275.22	3220.42	3178.90	3119.67	3061.55
225.0	3334.45	3306.77	3290.16	3258.06	3206.03	3156.21	3099.19	3041.07	2995.68
270.0	3316.18	3339.98	3305.66	3295.14	3268.02	3196.62	3153.99	3101.96	3048.27
315.0	3343.30	3308.43	3284.63	3244.77	3192.19	3134.62	3079.82	3023.91	2961.36
360.0	3302.34	3265.81	3230.38	3172.26	3113.03	3052.70	2997.34	2942.54	2892.72

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	2834.60	2763.20	2704.52	2642.53	2559.50	2491.96	2417.24	2334.21	2226.27
45.0	2901.58	2847.33	2793.09	2721.13	2659.69	2596.03	2521.30	2419.45	2329.22
90.0	2847.89	2783.12	2723.90	2662.45	2579.42	2507.46	2422.77	2327.56	2200.80
135.0	2942.54	2867.26	2805.27	2729.98	2669.10	2603.78	2523.52	2415.58	2329.78
180.0	3017.82	2953.61	2891.06	2831.28	2758.77	2697.33	2623.71	2546.76	2446.57
225.0	2933.69	2863.39	2805.82	2731.64	2666.88	2598.24	2503.59	2420.56	2339.74
270.0	2980.18	2927.04	2868.92	2790.32	2726.66	2649.17	2578.87	2500.82	2415.02
315.0	2913.20	2853.42	2775.93	2712.82	2654.70	2568.91	2493.07	2412.25	2326.46
360.0	2834.60	2763.20	2704.52	2642.53	2559.50	2491.96	2417.24	2334.21	2226.27

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2131.06	2034.19	1932.89	1798.38	1689.89	1571.43	1418.66	1098.88	1098.88
45.0	2235.12	2115.56	2012.05	1907.98	1773.47	1662.21	1541.54	1389.87	1262.56
90.0	2097.85	1990.46	1853.74	1739.15	1604.09	1486.19	1367.18	1089.52	1089.52
135.0	2240.66	2151.54	2025.33	1919.61	1809.45	1698.19	1546.52	1418.66	1257.58
180.0	2368.53	2276.08	2186.41	2060.76	1966.66	1848.20	1693.76	1577.52	1417.00
225.0	2226.27	2131.06	2028.65	1920.16	1777.90	1655.57	1535.45	1414.23	1093.46
270.0	2304.32	2205.23	2106.70	1973.30	1871.45	1759.64	1638.96	1499.47	1368.84
315.0	2210.21	2112.24	2008.73	1901.34	1761.85	1645.61	1497.81	1381.02	1093.40
360.0	2131.06	2034.19	1932.89	1798.38	1689.89	1571.43	1418.66	1098.88	1098.88

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	995.15	861.58	732.00	585.09	482.19	393.18	317.95	241.40	191.19
45.0	1130.82	1001.84	841.32	719.54	604.96	502.56	391.85	317.67	284.46
90.0	960.55	836.34	719.10	585.97	488.27	403.36	329.80	251.97	200.05
135.0	1126.94	995.20	833.57	709.58	596.10	495.36	384.65	313.25	281.14
180.0	1293.56	1168.46	1038.38	866.23	736.15	611.05	500.89	385.76	312.14
225.0	1093.46	999.46	837.67	713.95	600.81	472.61	387.53	316.84	244.00
270.0	1250.94	1094.84	964.20	842.43	697.40	583.93	480.41	374.13	302.18
315.0	1093.40	964.76	837.50	711.46	570.20	469.68	385.70	313.97	240.01
360.0	995.15	861.58	732.00	585.09	482.19	393.18	317.95	241.40	191.19

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	151.50	113.75	90.50	73.29	57.51	48.71	42.57	36.92	33.49
45.0	284.46	146.52	108.99	86.63	70.13	57.51	46.55	40.52	36.09
90.0	147.90	115.52	90.34	67.97	55.46	46.22	38.53	34.32	31.05
135.0	281.14	145.86	115.69	91.83	69.69	57.40	48.71	41.02	36.42
180.0	295.53	295.53	145.03	115.86	92.72	72.29	60.22	49.93	43.51
225.0	194.46	154.44	121.45	90.50	72.24	58.84	49.54	41.63	37.09
270.0	285.57	285.57	137.28	107.44	84.30	67.59	53.03	45.06	39.47
315.0	191.36	151.83	112.92	89.12	71.24	55.35	46.50	40.19	34.60
360.0	151.50	113.75	90.50	73.29	57.51	48.71	42.57	36.92	33.49

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	30.61	27.62	25.74	24.08	22.69	21.26	20.26	19.32	18.54
45.0	32.60	29.23	26.96	25.02	23.36	21.70	20.48	19.32	18.54
90.0	28.51	25.85	24.13	22.69	21.37	20.04	19.10	18.27	17.44
135.0	32.05	29.34	27.07	25.08	23.03	21.70	20.54	19.48	18.49
180.0	38.64	34.65	30.94	28.62	26.63	24.96	23.14	21.75	20.65
225.0	32.71	30.00	27.57	25.19	23.58	22.14	20.70	19.71	18.82
270.0	34.32	31.16	27.90	25.79	23.97	22.47	20.92	19.82	18.88
315.0	31.33	28.67	25.96	24.19	22.69	21.42	20.09	19.10	18.32
360.0	30.61	27.62	25.74	24.08	22.69	21.26	20.26	19.32	18.54

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	17.66	16.99	16.44	15.78	15.33	14.78	14.45	14.06	13.78
45.0	17.82	17.10	16.55	16.05	15.50	15.06	14.67	14.34	13.89
90.0	16.77	16.11	15.61	15.17	14.78	14.34	14.06	13.73	13.51
135.0	17.71	17.10	16.38	15.89	15.50	14.95	14.56	14.23	13.78
180.0	19.43	18.60	17.93	17.10	16.50	15.89	15.44	15.00	14.61
225.0	18.05	17.21	16.66	16.11	15.61	15.06	14.67	14.34	13.89
270.0	18.05	17.27	16.61	16.11	15.61	15.11	14.67	14.23	13.95
315.0	17.60	16.83	16.22	15.61	15.17	14.78	14.28	13.95	13.67
360.0	17.66	16.99	16.44	15.78	15.33	14.78	14.45	14.06	13.78

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	13.40	13.06	12.84	12.51	12.29	12.01	11.73	11.51	11.18
45.0	13.62	13.34	13.06	12.73	12.51	12.29	12.01	11.73	11.46
90.0	13.12	12.84	12.62	12.40	12.12	11.85	11.57	11.35	11.13
135.0	13.56	13.23	12.95	12.68	12.40	12.12	11.96	11.62	11.35
180.0	14.12	13.78	13.45	13.23	12.79	12.51	12.29	12.01	11.68
225.0	13.56	13.17	12.95	12.68	12.40	12.07	11.85	11.62	11.35
270.0	13.62	13.23	13.01	12.73	12.40	12.18	11.96	11.73	11.46
315.0	13.34	13.01	12.79	12.51	12.29	12.01	11.79	11.57	11.24
360.0	13.40	13.06	12.84	12.51	12.29	12.01	11.73	11.51	11.18

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	10.96	10.74	10.46	10.24	10.02	9.80	9.58	9.30	9.13
45.0	11.18	11.02	10.74	10.46	10.24	10.02	9.85	9.58	9.35
90.0	10.85	10.63	10.41	10.19	9.96	9.74	9.52	9.35	9.08
135.0	11.13	10.85	10.63	10.41	10.19	9.96	9.74	9.52	9.30
180.0	11.46	11.18	10.96	10.74	10.41	10.19	9.96	9.74	9.47
225.0	11.07	10.85	10.68	10.41	10.13	9.91	9.69	9.47	9.24
270.0	11.24	11.02	10.79	10.52	10.30	10.07	9.85	9.63	9.41
315.0	11.07	10.85	10.57	10.35	10.13	9.91	9.69	9.52	9.30
360.0	10.96	10.74	10.46	10.24	10.02	9.80	9.58	9.30	9.13

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	8.91	8.69	8.52	8.36	8.19	8.03	7.92	7.75	7.69
45.0	9.19	8.91	8.75	8.52	8.30	8.19	7.97	7.86	7.69
90.0	8.91	8.69	8.47	8.30	8.19	8.08	7.97	7.86	7.69
135.0	9.08	8.86	8.64	8.47	8.25	8.14	8.03	7.92	7.75
180.0	9.24	9.02	8.86	8.64	8.41	8.25	8.08	7.97	7.80
225.0	9.02	8.86	8.64	8.47	8.25	8.14	7.97	7.86	7.69
270.0	9.19	9.02	8.75	8.58	8.41	8.25	8.08	7.97	7.86
315.0	9.08	8.86	8.69	8.52	8.36	8.19	8.03	7.92	7.80
360.0	8.91	8.69	8.52	8.36	8.19	8.03	7.92	7.75	7.69

Intensity data(cd)

C/γ(°)	90.0
0.0	7.69
45.0	7.69
90.0	7.69
135.0	7.75
180.0	7.75
225.0	7.69
270.0	7.75
315.0	7.75
360.0	7.69