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NATA

LumCAT: 4-2273-M
Luminaire: 92.70.135.00
Report No: NATA0100
Test No: GC2018101608
LampCAT: LUMILEDS LUXEON 1208
Lamp flux(lm): 3628.0
Number of Lamps: 1
Length(mm): 100
Phm Type: C

Voltage(V): 35.0000
Current(A): 0.7000
Power (W): 24.5000
PF: 0.0000
Ballast type: DC
Width(mm): 100
Height(mm): 0

Photometric Results

Lumens(lm): 3199.99
Efficiency(%): 88.20%
Lumens(lm)/Power(W): 130.97
Central intensity(cd): 37470.940
Maximum intensity(cd): 37470.940
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=11.4
[C90/270]Total=11.4
Field angle(10%Imax): [C0/180]Total=23.2
[C90/270]Total=23.2
Maximum s/h(1/2): C0_180=0.20 C90_270=0.20
Maximum s/h(1/4): C0_180=0.20 C90_270=0.20
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 88.45%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.493%

Equipment:
Temperature(°C): 25.0

Date: 2018/10/16
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.50

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	37470.938	8.965	8.965	.247%	.280%
1.0	36892.969	70.607	79.572	1.946%	2.487%
2.0	35019.141	134.022	213.594	3.694%	6.675%
3.0	31505.625	180.817	394.412	4.984%	12.325%
4.0	27194.063	208.023	602.434	5.734%	18.826%
5.0	22459.219	214.656	817.09	5.917%	25.534%
6.0	16980.820	194.646	1011.736	5.365%	31.617%
7.0	13062.586	174.572	1186.308	4.812%	37.072%
8.0	10115.578	154.382	1340.69	4.255%	41.897%
9.0	7665.117	131.493	1472.183	3.624%	46.006%
10.0	5661.633	107.811	1579.994	2.972%	49.375%
11.0	4367.813	91.393	1671.388	2.519%	52.231%
12.0	3373.383	76.912	1748.3	2.120%	54.635%
13.0	2638.969	65.099	1813.399	1.794%	56.669%
14.0	2265.188	60.094	1873.493	1.656%	58.547%
15.0	1871.227	53.110	1926.603	1.464%	60.207%
16.0	1649.250	49.851	1976.454	1.374%	61.764%
17.0	1517.063	48.640	2025.094	1.341%	63.284%
18.0	1428.398	48.404	2073.498	1.334%	64.797%
19.0	1364.836	48.727	2122.226	1.343%	66.320%
20.0	1324.266	49.668	2171.894	1.369%	67.872%
21.0	1291.078	50.738	2222.632	1.399%	69.457%
22.0	1260.281	51.772	2274.404	1.427%	71.075%
23.0	1236.656	52.988	2327.392	1.461%	72.731%
24.0	1215.000	54.193	2381.585	1.494%	74.425%
25.0	1193.977	55.334	2436.919	1.525%	76.154%
26.0	1177.594	56.609	2493.529	1.560%	77.923%
27.0	1162.266	57.863	2551.392	1.595%	79.731%
28.0	1138.950	58.636	2610.028	1.616%	81.564%
29.0	1124.754	59.797	2669.825	1.648%	83.432%
30.0	1109.791	60.850	2730.676	1.677%	85.334%
31.0	1092.509	61.704	2792.38	1.701%	87.262%
32.0	1071.035	62.239	2854.619	1.716%	89.207%
33.0	1021.809	61.028	2915.648	1.682%	91.114%
34.0	916.523	56.203	2971.85	1.549%	92.871%
35.0	778.535	48.969	3020.819	1.350%	94.401%
36.0	628.608	40.518	3061.337	1.117%	95.667%
37.0	462.797	30.543	3091.88	.842%	96.622%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	314.044	21.202	3113.082	.584%	97.284%
39.0	186.574	12.876	3125.958	.355%	97.687%
40.0	81.485	5.744	3131.702	.158%	97.866%
41.0	42.602	3.065	3134.767	.084%	97.962%
42.0	32.351	2.374	3137.141	.065%	98.036%
43.0	24.968	1.867	3139.008	.051%	98.094%
44.0	19.216	1.464	3140.472	.040%	98.140%
45.0	16.341	1.267	3141.739	.035%	98.180%
46.0	15.884	1.253	3142.992	.035%	98.219%
47.0	15.553	1.247	3144.239	.034%	98.258%
48.0	15.307	1.247	3145.487	.034%	98.297%
49.0	15.040	1.245	3146.731	.034%	98.336%
50.0	14.794	1.243	3147.974	.034%	98.375%
51.0	14.576	1.242	3149.216	.034%	98.413%
52.0	14.365	1.241	3150.458	.034%	98.452%
53.0	14.175	1.241	3151.699	.034%	98.491%
54.0	14.027	1.244	3152.944	.034%	98.530%
55.0	13.880	1.247	3154.19	.034%	98.569%
56.0	13.732	1.248	3155.439	.034%	98.608%
57.0	13.634	1.254	3156.693	.035%	98.647%
58.0	13.514	1.257	3157.95	.035%	98.686%
59.0	13.416	1.261	3159.211	.035%	98.726%
60.0	13.331	1.266	3160.477	.035%	98.765%
61.0	13.254	1.271	3161.748	.035%	98.805%
62.0	13.170	1.275	3163.023	.035%	98.845%
63.0	13.113	1.281	3164.304	.035%	98.885%
64.0	13.029	1.284	3165.588	.035%	98.925%
65.0	12.973	1.289	3166.878	.036%	98.965%
66.0	12.930	1.295	3168.173	.036%	99.006%
67.0	12.881	1.300	3169.473	.036%	99.046%
68.0	12.846	1.306	3170.779	.036%	99.087%
69.0	12.797	1.310	3172.09	.036%	99.128%
70.0	12.790	1.318	3173.408	.036%	99.169%
71.0	12.748	1.322	3174.729	.036%	99.211%
72.0	12.713	1.326	3176.055	.037%	99.252%
73.0	12.698	1.332	3177.387	.037%	99.294%
74.0	12.691	1.338	3178.725	.037%	99.335%
75.0	12.663	1.341	3180.066	.037%	99.377%

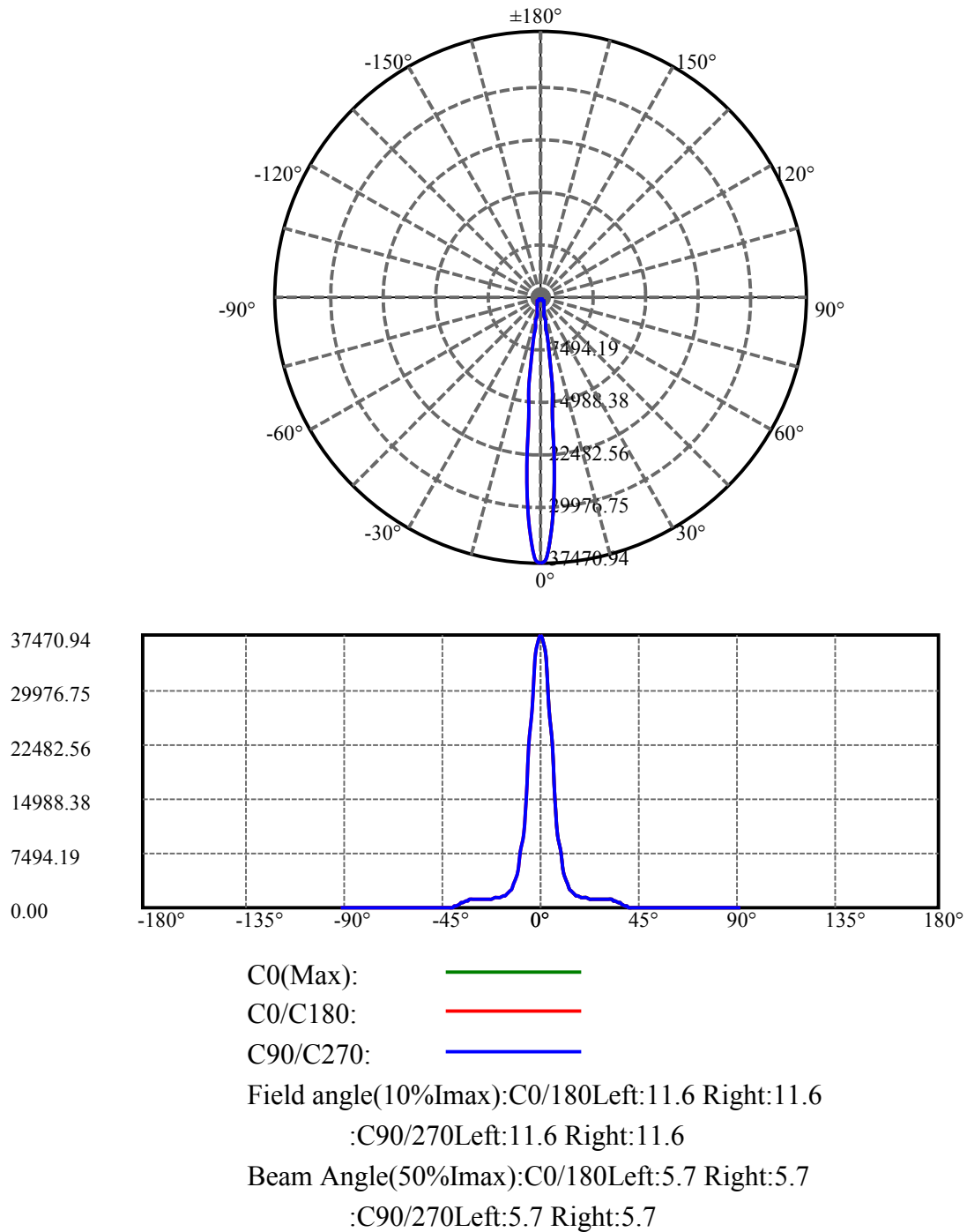
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	12.677	1.349	3181.415	.037%	99.420%
77.0	12.698	1.357	3182.772	.037%	99.462%
78.0	12.755	1.368	3184.14	.038%	99.505%
79.0	12.853	1.384	3185.523	.038%	99.548%
80.0	12.867	1.390	3186.913	.038%	99.591%
81.0	12.811	1.388	3188.301	.038%	99.635%
82.0	12.776	1.387	3189.688	.038%	99.678%
83.0	12.713	1.384	3191.072	.038%	99.721%
84.0	12.663	1.381	3192.453	.038%	99.764%
85.0	12.635	1.380	3193.833	.038%	99.808%
86.0	12.614	1.380	3195.213	.038%	99.851%
87.0	12.473	1.366	3196.579	.038%	99.893%
88.0	12.445	1.364	3197.943	.038%	99.936%
89.0	12.438	1.364	3199.307	.038%	99.979%
90.0	12.445	0.682	3199.989	.019%	100.000%

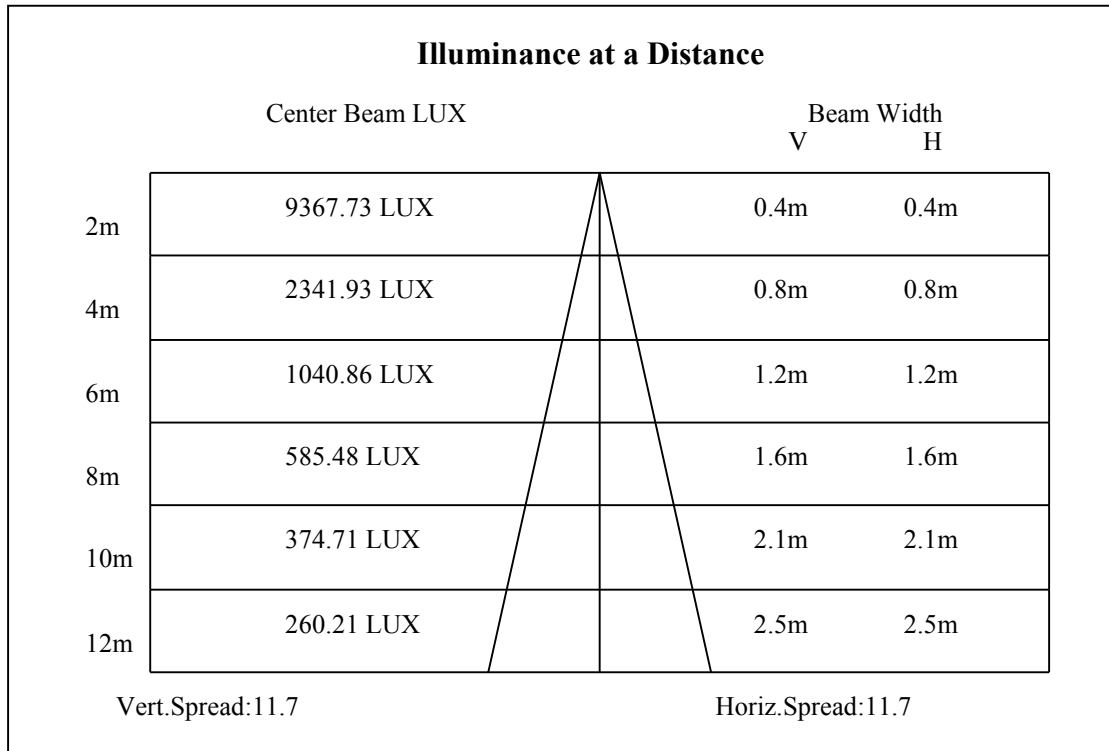
ZONAL LUMEN SUMMARY

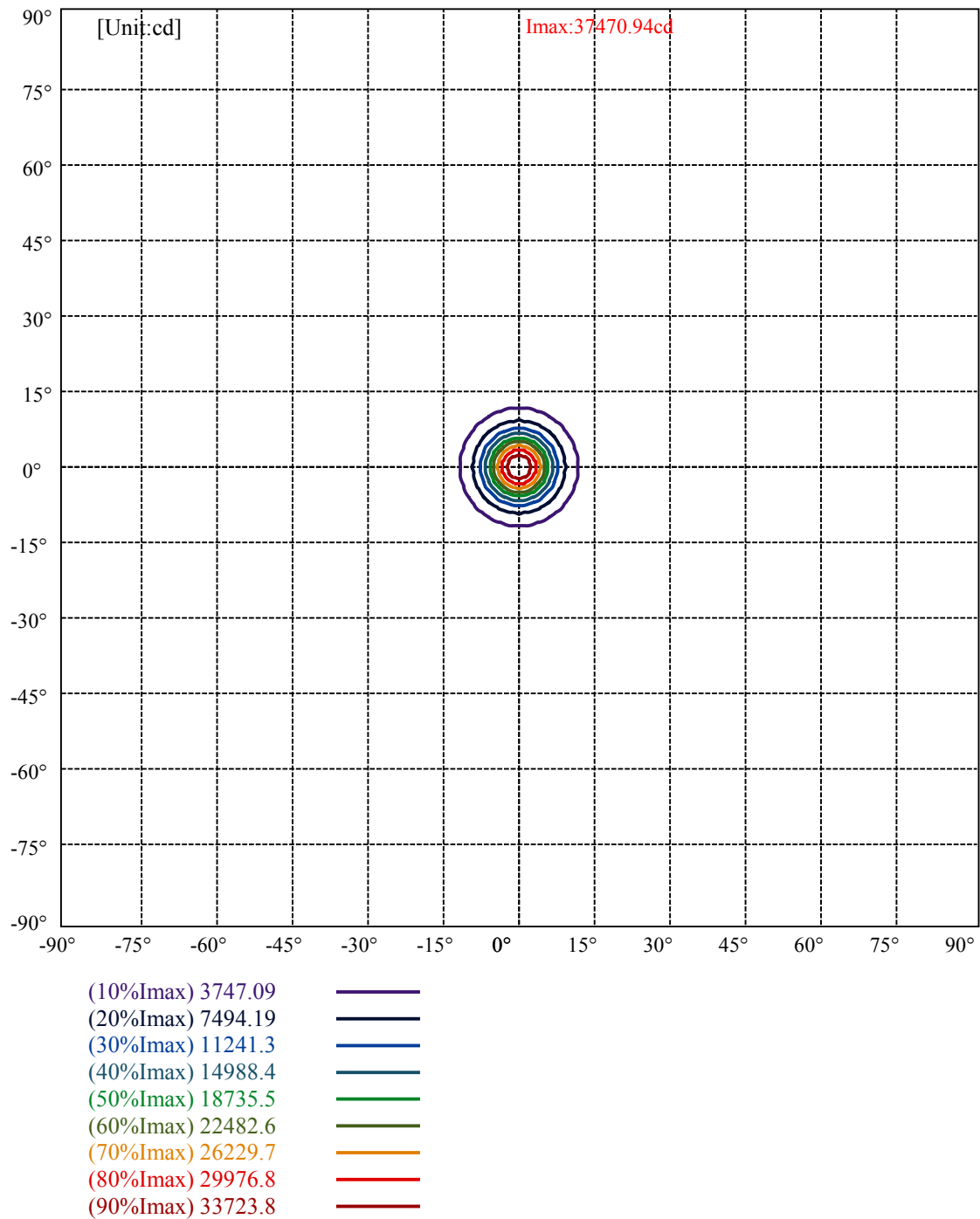
Zone	Lumens	%Lamp	%Fixt
0-30	2730.68	75.27%	85.33%
0-40	3131.70	86.32%	97.87%
0-60	3160.48	87.11%	98.77%
0-90	3199.31	88.18%	99.98%
0-120	3199.31	88.18%	99.98%
0-180	3199.99	88.20%	100.00%
60-90	40.10	1.11%	1.25%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-27.15	2559.99	70.56%	80.00%

ZONAL LUMEN SUMMARY

0-10	1579.99
10-20	591.90
20-30	558.78
30-40	401.03
40-50	16.27
50-60	12.50
60-70	12.93
70-80	13.51
80-90	12.39
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



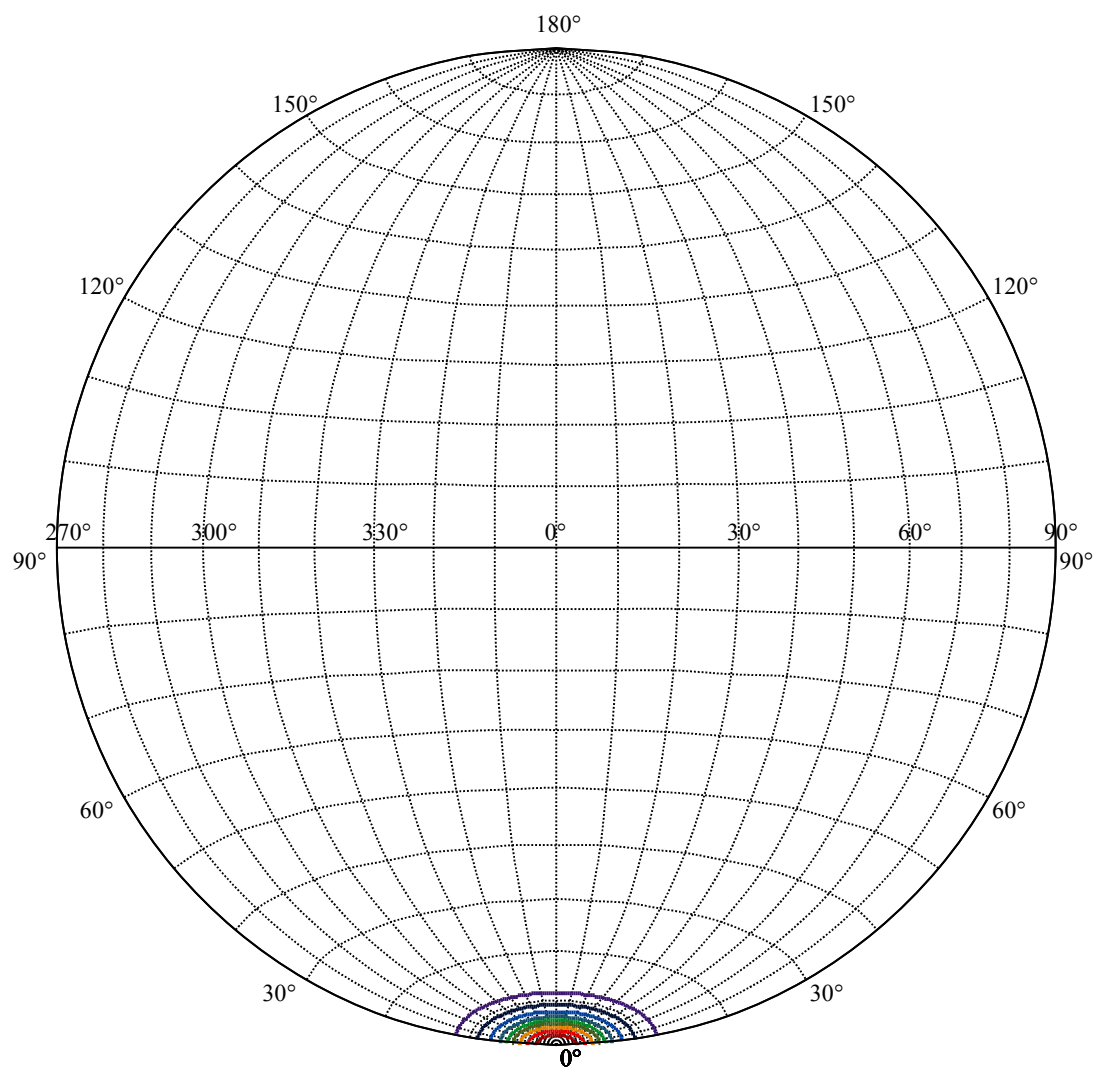




Equipment:
Temperature(°C): 25.0

Date: 2018/10/16
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.50



House

[Unit:cd]

Road

Imax:37470.94

(10%Imax) 3747.09

(20%Imax) 7494.19

(30%Imax) 11241.3

(40%Imax) 14988.4

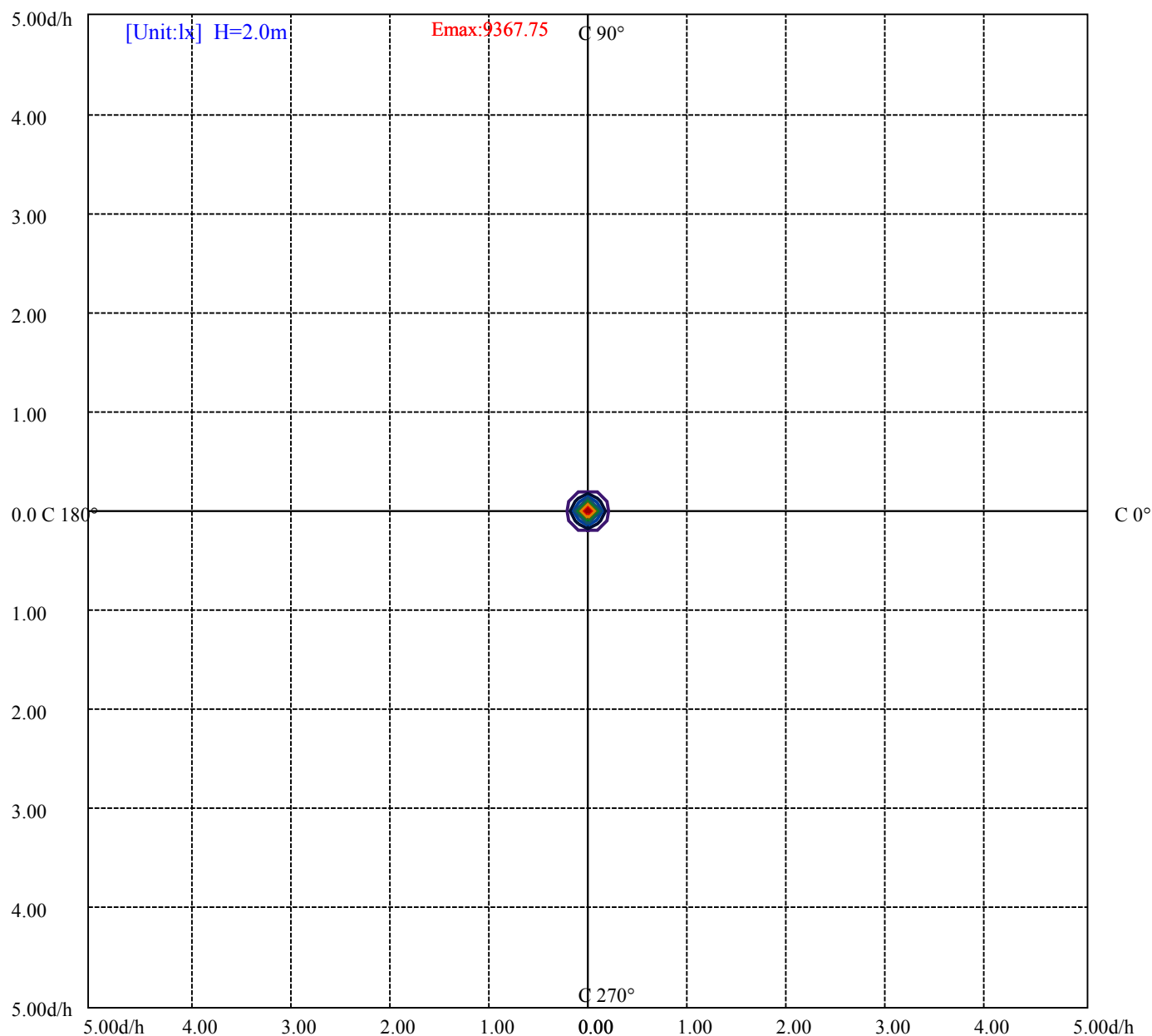
(50%Imax) 18735.5

(60%Imax) 22482.6

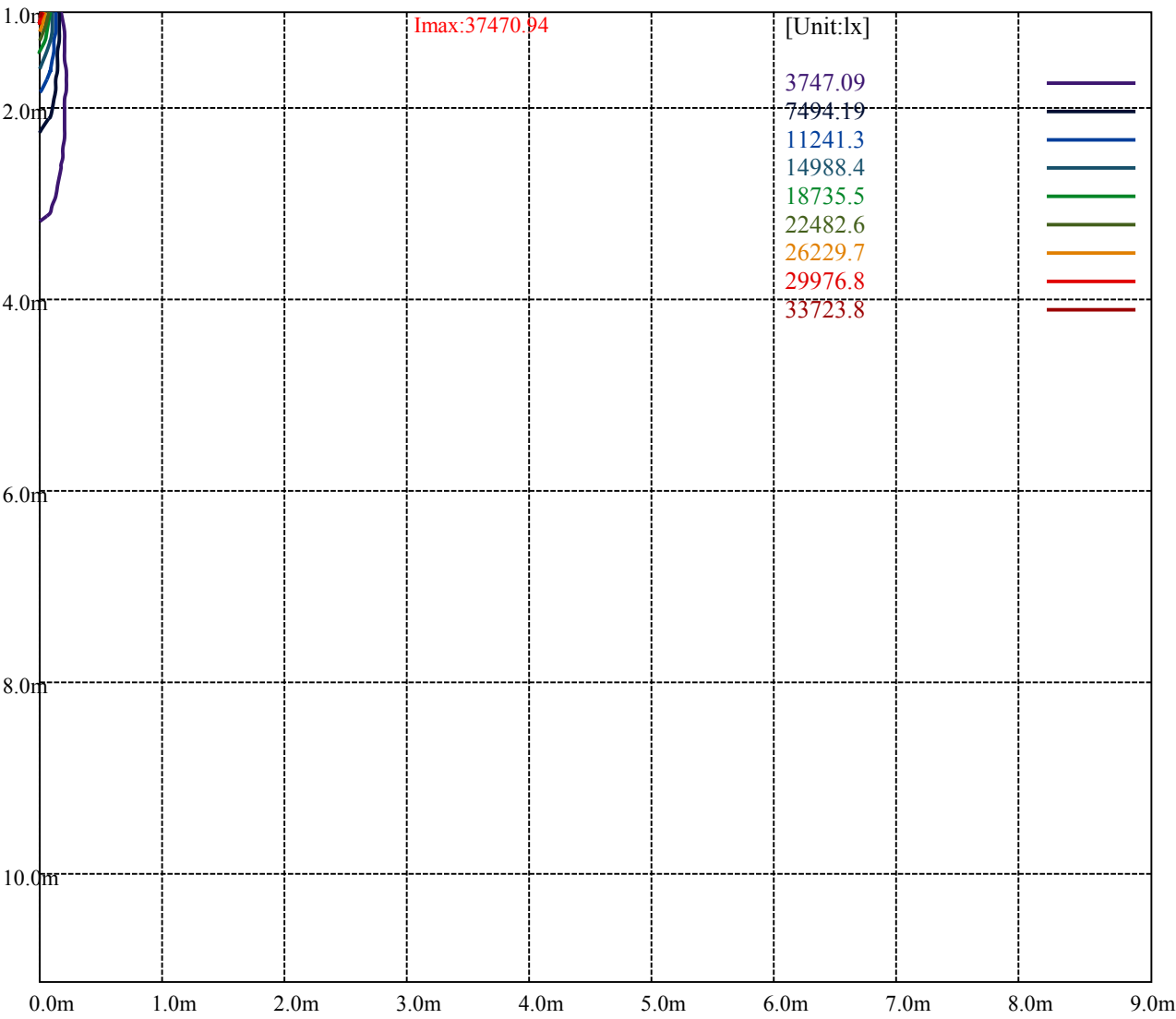
(70%Imax) 26229.7

(80%Imax) 29976.8

(90%Imax) 33723.8



(10%Emax)	936.7725	
(20%Emax)	1873.542	
(30%Emax)	2810.325	
(40%Emax)	3747.075	
(50%Emax)	4683.85	
(60%Emax)	5620.625	
(70%Emax)	6557.4	
(80%Emax)	7494.175	
(90%Emax)	8430.95	



Luminance Table

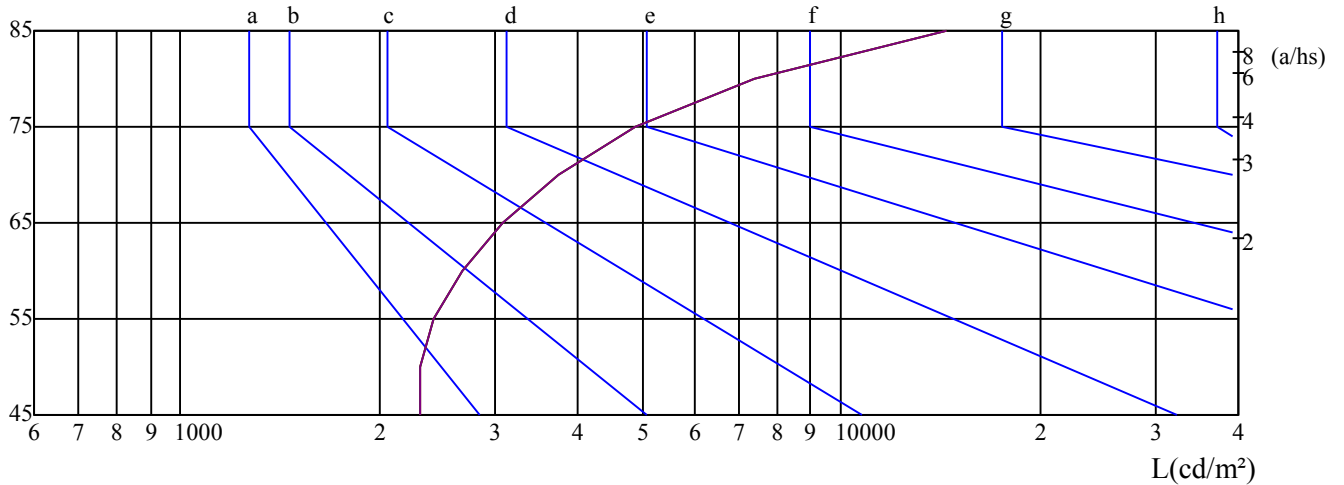
γ	45	50	55	60	65	70	75	80	85
C0	2311	2301	2420	2666	3070	3740	4893	7410	14497
C45	2311	2301	2420	2666	3070	3740	4893	7410	14497
C90	2311	2301	2420	2666	3070	3740	4893	7410	14497

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3070	3070	3070	4893	4893	4893	14497	14497	14497

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 Limiting Curve

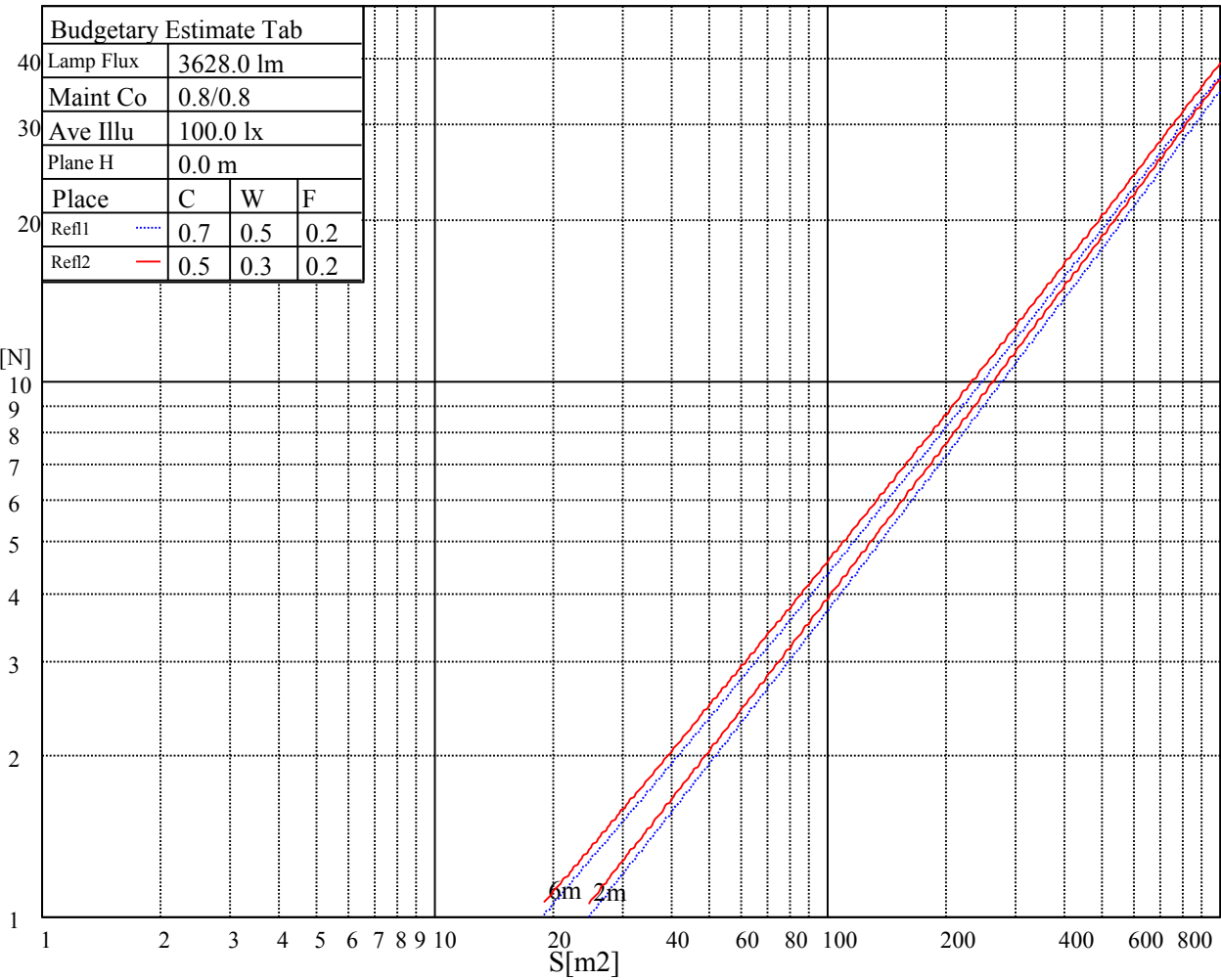
 $\gamma(^{\circ})$ 

C0 ———

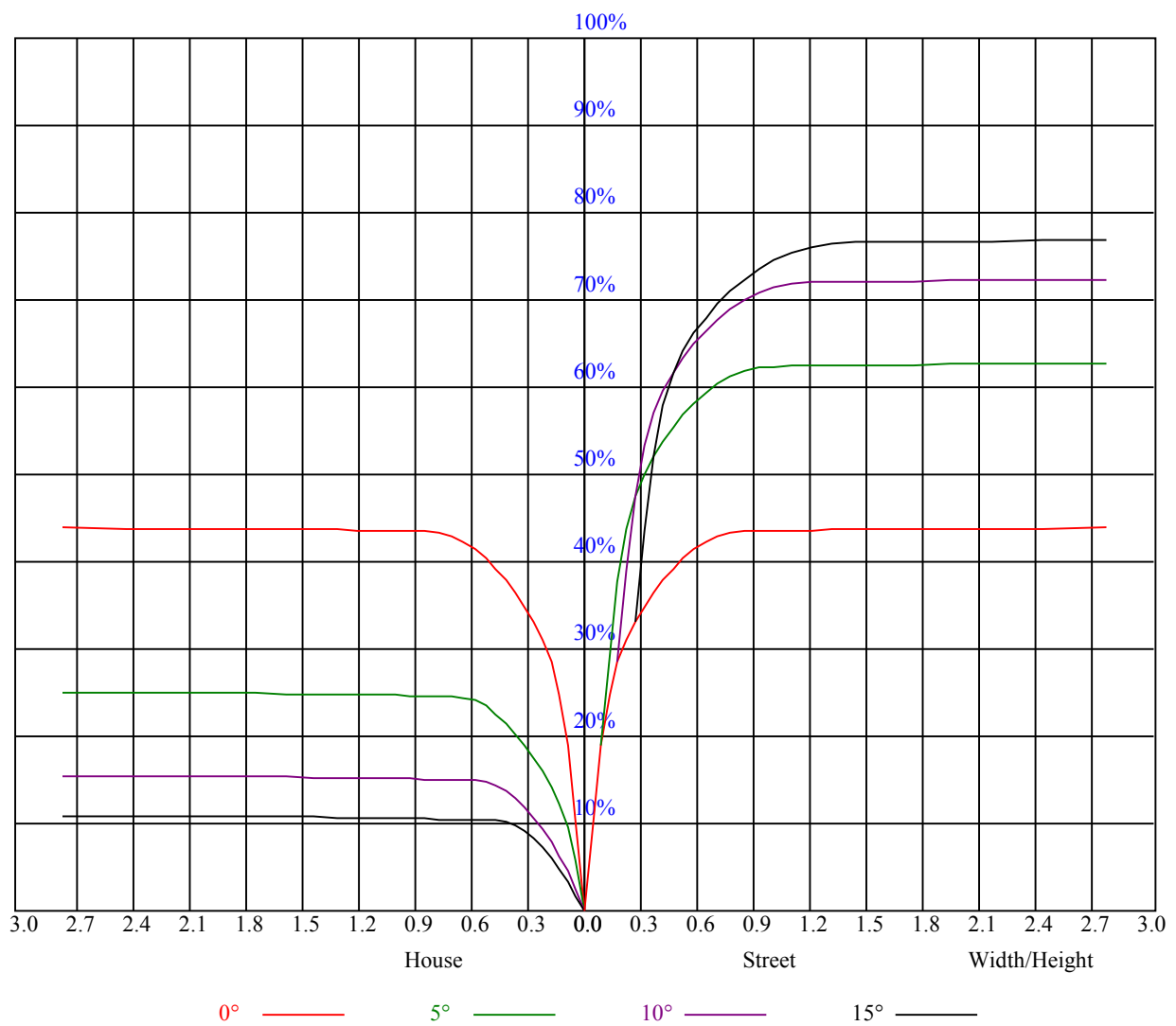
C45 ———

C90 ———

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	-0.39	0.51	-0.03	0.82	1.14	-0.42	0.49	-0.05	0.80	1.11
	3H	2.86	3.65	3.24	3.99	4.36	2.84	3.64	3.23	3.97	4.34
	4H	4.64	5.38	5.05	5.73	6.12	4.62	5.36	5.03	5.71	6.10
	6H	6.65	7.33	7.07	7.71	8.10	6.71	7.38	7.13	7.76	8.16
	8H	7.77	8.40	8.21	8.79	9.20	7.85	8.48	8.28	8.87	9.28
	12H	9.56	10.17	10.00	10.55	10.98	9.63	10.24	10.07	10.62	11.05
4H	2H	0.53	1.26	0.93	1.62	2.01	0.51	1.25	0.92	1.60	1.99
	3H	4.02	4.62	4.44	5.03	5.44	4.01	4.61	4.42	5.02	5.43
	4H	5.97	6.51	6.41	6.93	7.38	5.95	6.49	6.39	6.91	7.36
	6H	8.14	8.60	8.61	9.05	9.53	8.18	8.64	8.65	9.09	9.56
	8H	9.35	9.78	9.83	10.23	10.71	9.41	9.84	9.89	10.29	10.77
	12H	11.04	11.40	11.53	11.89	12.37	11.10	11.46	11.59	11.95	12.43
8H	4H	6.71	7.14	7.19	7.59	8.07	6.70	7.13	7.18	7.58	8.06
	6H	9.16	9.50	9.68	10.00	10.49	9.20	9.54	9.71	10.04	10.53
	8H	10.56	10.85	11.09	11.38	11.88	10.62	10.91	11.15	11.44	11.94
	12H	12.37	12.62	12.89	13.12	13.70	12.42	12.68	12.95	13.18	13.76
12H	4H	6.93	7.30	7.43	7.79	8.27	6.92	7.29	7.41	7.78	8.26
	6H	9.68	9.79	10.03	10.27	10.82	9.71	9.82	10.06	10.30	10.85
	8H	11.02	11.27	11.54	11.77	12.35	11.07	11.32	11.59	11.82	12.41
Variation with the observer position at spacings:											
S = 1.0H		5.7/-8.3					5.7/-8.3				
S = 1.5H		8.0/-6.1					8.0/-6.1				
S = 2.0H		9.4/-4.5					9.4/-4.5				
Standard tables:		BK2					BK2				
Uncorrected UGR		0.1					0.1				



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	COEFFICIENTS OF UTILIZATION RHOFC=20 CU															
0	1.05	1.05	1.05	1.03	1.03	1.03	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.88
1	0.99	0.97	0.96	0.97	0.96	0.94	0.94	0.92	0.91	0.91	0.90	0.89	0.88	0.87	0.86	0.85
2	0.94	0.92	0.89	0.93	0.90	0.88	0.90	0.88	0.86	0.88	0.86	0.84	0.85	0.84	0.83	0.81
3	0.90	0.87	0.84	0.89	0.86	0.83	0.87	0.84	0.82	0.85	0.83	0.81	0.83	0.81	0.80	0.79
4	0.87	0.83	0.80	0.86	0.82	0.80	0.84	0.81	0.79	0.82	0.80	0.78	0.81	0.79	0.77	0.76
5	0.83	0.80	0.77	0.83	0.79	0.76	0.81	0.78	0.76	0.80	0.77	0.75	0.79	0.76	0.75	0.74
6	0.81	0.77	0.74	0.80	0.76	0.74	0.79	0.76	0.73	0.78	0.75	0.73	0.77	0.74	0.72	0.71
7	0.78	0.74	0.72	0.77	0.74	0.71	0.76	0.73	0.71	0.76	0.73	0.71	0.75	0.72	0.70	0.69
8	0.76	0.72	0.69	0.75	0.72	0.69	0.74	0.71	0.69	0.74	0.71	0.69	0.73	0.70	0.68	0.68
9	0.74	0.70	0.67	0.73	0.70	0.67	0.72	0.69	0.67	0.72	0.69	0.67	0.71	0.69	0.67	0.66
10	0.72	0.68	0.66	0.71	0.68	0.66	0.71	0.68	0.65	0.70	0.67	0.65	0.70	0.67	0.65	0.64



NATA 4-2273-M

Intensity data(cd)									Appendix Page: 17 Total:19
C/ γ (°)	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
0.0	37445.63	37456.88	36016.88	33153.75	28625.63	23259.38	18444.38	13736.25	10563.75
45.0	37423.13	37704.38	37192.50	34903.13	31410.00	26527.50	21150.00	16486.88	12605.63
90.0	37659.38	37580.63	36562.50	33755.63	29491.88	25076.25	19760.63	14878.13	11044.13
135.0	37355.63	37490.63	36382.50	34357.50	30082.50	25914.38	21330.00	15856.88	12341.25
180.0	37445.63	36450.00	34166.25	29913.75	25723.13	21133.13	16233.75	11017.13	9347.63
225.0	37423.13	35589.38	32580.00	28260.00	23135.63	18455.63	13134.38	10405.69	8032.50
270.0	37659.38	36720.00	33885.00	29683.13	25149.38	20255.63	14821.88	11491.88	8820.00
315.0	37355.63	36151.88	33367.50	28018.13	23934.38	19051.88	10971.56	10627.88	8169.75
360.0	37445.63	37456.88	36016.88	33153.75	28625.63	23259.38	18444.38	13736.25	10563.75
C/ γ (°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	7869.38	5883.75	4522.50	3498.75	2891.25	2128.50	1828.69	1598.63	1486.13
45.0	9095.63	6997.50	5366.25	3993.75	2992.50	2902.50	2062.13	1726.31	1577.25
90.0	8769.94	6344.44	4913.44	3811.50	2919.38	2338.88	1992.38	1733.63	1571.06
135.0	9534.38	6879.38	5298.75	4083.75	3026.25	2874.38	2126.81	1832.06	1637.44
180.0	6977.25	5227.31	4065.75	3134.81	2570.63	2131.88	1839.38	1660.50	1532.25
225.0	6195.38	4501.13	3497.06	2796.19	2272.50	1931.06	1726.88	1564.88	1463.63
270.0	6592.50	4938.75	3813.75	2981.25	2338.31	1995.75	1756.69	1576.13	1456.88
315.0	6286.50	4520.81	3465.00	2687.06	2100.94	1818.56	1636.88	1501.88	1411.88
360.0	7869.38	5883.75	4522.50	3498.75	2891.25	2128.50	1828.69	1598.63	1486.13
C/ γ (°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1409.06	1355.06	1319.63	1293.75	1266.19	1239.75	1217.25	1195.31	1177.31
45.0	1479.38	1386.56	1339.31	1310.63	1272.38	1245.94	1225.13	1202.63	1186.31
90.0	1467.00	1390.50	1344.38	1302.19	1268.44	1243.69	1220.06	1200.38	1184.63
135.0	1505.25	1408.50	1350.56	1312.31	1278.00	1254.38	1230.19	1208.81	1191.38
180.0	1419.19	1362.38	1319.63	1274.63	1246.50	1224.56	1206.00	1185.75	1170.56
225.0	1391.63	1342.13	1305.56	1271.81	1246.50	1226.81	1208.25	1186.88	1171.13
270.0	1389.94	1342.69	1308.38	1282.50	1255.50	1234.69	1213.31	1192.50	1175.63
315.0	1365.75	1330.88	1306.69	1280.81	1248.75	1223.44	1199.81	1179.56	1163.81
360.0	1409.06	1355.06	1319.63	1293.75	1266.19	1239.75	1217.25	1195.31	1177.31
C/ γ (°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	1160.44	1145.25	1130.06	1114.31	1097.44	1081.13	1045.13	921.94	790.31
45.0	1171.69	1153.13	1141.31	1123.31	1105.31	1089.56	1072.13	1000.69	875.25
90.0	1169.44	1152.00	1120.78	1114.76	1098.39	1080.73	1060.76	978.19	845.10
135.0	1175.63	1155.94	1143.00	1123.31	1105.31	1091.25	1077.19	1023.19	907.88
180.0	1155.38	1121.57	1115.55	1100.25	1083.60	1065.94	1018.24	906.75	775.46
225.0	1155.94	1121.79	1113.86	1099.07	1082.03	1050.24	961.03	837.11	675.84
270.0	1159.88	1140.19	1121.63	1107.00	1089.56	1068.75	995.63	864.56	705.38
315.0	1149.75	1121.74	1111.84	1096.31	1078.43	1040.68	944.38	799.76	653.06
360.0	1160.44	1145.25	1130.06	1114.31	1097.44	1081.13	1045.13	921.94	790.31
C/ γ (°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	641.81	484.31	299.81	218.76	85.95	40.78	33.75	27.17	18.11
45.0	765.00	571.50	401.63	295.31	128.36	55.58	38.08	30.49	26.38
90.0	705.15	539.94	392.06	234.79	107.04	47.25	36.51	27.73	22.16
135.0	763.31	598.50	438.75	298.13	140.40	55.46	35.49	27.73	20.93
180.0	609.08	437.46	295.54	158.23	61.54	37.97	31.73	24.86	16.71
225.0	507.77	360.96	209.87	90.23	41.23	32.68	26.04	21.09	16.76
270.0	556.31	390.94	284.06	115.31	46.01	35.55	27.90	22.33	16.48
315.0	480.43	318.77	190.63	81.84	41.34	35.55	29.31	18.34	16.20
360.0	641.81	484.31	299.81	218.76	85.95	40.78	33.75	27.17	18.11

Equipment:
Temperature(°C): 25.0

Date: 2018/10/16
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.50

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	16.48	16.14	15.75	15.47	15.19	14.91	14.68	14.46	14.23
45.0	16.65	16.26	15.92	15.64	15.36	15.13	14.91	14.68	14.46
90.0	16.20	15.81	15.53	15.24	15.02	14.79	14.63	14.40	14.23
135.0	16.88	15.98	15.58	15.36	15.08	14.85	14.63	14.40	14.18
180.0	16.31	15.92	15.58	15.36	15.08	14.85	14.63	14.34	14.18
225.0	16.37	15.98	15.64	15.41	15.13	14.79	14.57	14.40	14.23
270.0	16.03	15.58	15.30	15.08	14.79	14.57	14.34	14.18	14.01
315.0	15.81	15.41	15.13	14.91	14.68	14.46	14.23	14.06	13.89
360.0	16.48	16.14	15.75	15.47	15.19	14.91	14.68	14.46	14.23
C/ γ (°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	14.06	13.95	13.78	13.61	13.56	13.44	13.33	13.28	13.16
45.0	14.29	14.12	13.95	13.89	13.73	13.61	13.50	13.44	13.33
90.0	14.06	13.89	13.78	13.67	13.56	13.44	13.39	13.22	13.22
135.0	14.06	13.89	13.78	13.61	13.50	13.39	13.33	13.28	13.16
180.0	14.01	13.84	13.73	13.61	13.50	13.39	13.33	13.22	13.11
225.0	14.06	13.95	13.73	13.67	13.50	13.44	13.33	13.28	13.16
270.0	13.89	13.78	13.61	13.56	13.44	13.33	13.28	13.22	13.16
315.0	13.78	13.61	13.50	13.44	13.33	13.28	13.16	13.11	13.05
360.0	14.06	13.95	13.78	13.61	13.56	13.44	13.33	13.28	13.16
C/ γ (°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	13.11	12.99	12.94	12.94	12.88	12.83	12.77	12.77	12.71
45.0	13.28	13.16	13.11	13.05	13.05	12.99	12.94	12.88	12.83
90.0	13.11	13.05	12.99	12.94	12.88	12.83	12.77	12.77	12.77
135.0	13.11	13.05	12.99	12.94	12.88	12.83	12.77	12.77	12.71
180.0	13.11	12.99	12.94	12.88	12.83	12.83	12.77	12.77	12.77
225.0	13.11	13.05	12.99	12.94	12.88	12.83	12.83	12.83	12.77
270.0	13.11	12.99	12.94	12.94	12.88	12.88	12.83	12.83	12.77
315.0	12.99	12.94	12.88	12.83	12.77	12.77	12.71	12.71	12.66
360.0	13.11	12.99	12.94	12.94	12.88	12.83	12.77	12.77	12.71
C/ γ (°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	12.66	12.66	12.60	12.60	12.60	12.54	12.54	12.54	12.54
45.0	12.83	12.77	12.77	12.71	12.71	12.66	12.66	12.66	12.66
90.0	12.71	12.66	12.71	12.66	12.66	12.66	12.66	12.66	12.66
135.0	12.71	12.71	12.66	12.60	12.66	12.60	12.60	12.60	12.60
180.0	12.71	12.71	12.71	12.71	12.77	12.94	13.11	13.44	13.61
225.0	12.77	12.71	12.71	12.71	12.71	12.83	13.05	13.39	13.28
270.0	12.71	12.71	12.71	12.66	12.66	12.66	12.66	12.71	12.71
315.0	12.60	12.66	12.66	12.66	12.66	12.71	12.77	12.83	12.88
360.0	12.66	12.66	12.60	12.60	12.60	12.54	12.54	12.54	12.54
C/ γ (°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	12.60	12.66	12.60	12.54	12.49	12.49	12.43	12.43	12.43
45.0	12.60	12.60	12.60	12.60	12.60	12.60	12.60	12.49	12.49
90.0	12.60	12.66	12.66	12.66	12.66	12.60	12.43	12.49	12.43
135.0	12.66	12.71	12.66	12.60	12.60	12.60	12.60	12.43	12.43
180.0	13.61	13.33	13.11	12.94	12.83	12.83	12.38	12.38	12.38
225.0	12.99	12.88	12.77	12.77	12.71	12.71	12.49	12.49	12.49
270.0	12.66	12.66	12.66	12.66	12.60	12.60	12.43	12.43	12.43
315.0	12.77	12.71	12.66	12.54	12.54	12.49	12.43	12.43	12.43
360.0	12.60	12.66	12.60	12.54	12.49	12.49	12.43	12.43	12.43

Intensity data(cd)

Appendix Page: 19 Total:19

C/ γ (°)	90.0
0.0	12.43
45.0	12.49
90.0	12.43
135.0	12.43
180.0	12.38
225.0	12.49
270.0	12.49
315.0	12.43
360.0	12.43