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Nata

Client: NT

LumCAT: 2-3124-LM

Luminaire: 92.70.412.00 LED HOLDER

Report No: 20260102-B009

Ballast type: DC

Test No: 20260102-C009

Voltage(V): 34.660

LampCAT: PHILIPS SLM1208 L15 1919 G8N

Current(A): 0.578

Lamp flux(lm): 3415.0

Power (W): 20.030

Number of Lamps: 1

PF: 0.000

Length(mm): 69

Width(mm): 69

Phm Type: C

Height(mm): 35

Photometric Results

Lumens(lm): 3338.29, Efficiency(%): 97.75% , Luminous Efficacy(lm/W): 166.66

Central intensity(cd): 6704.618, Maximum intensity(cd): 6704.618

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=38.0

[C90/270]Total=38.0

Field angle(10%Imax): [C0/180]Total=76.0

[C90/270]Total=76.0

Maximum s/h(1/2): C0_180=0.61 C90_270=0.61

Maximum s/h(1/4): C0_180=0.61 C90_270=0.61

Up flux rate of lamp(%): 0.00%

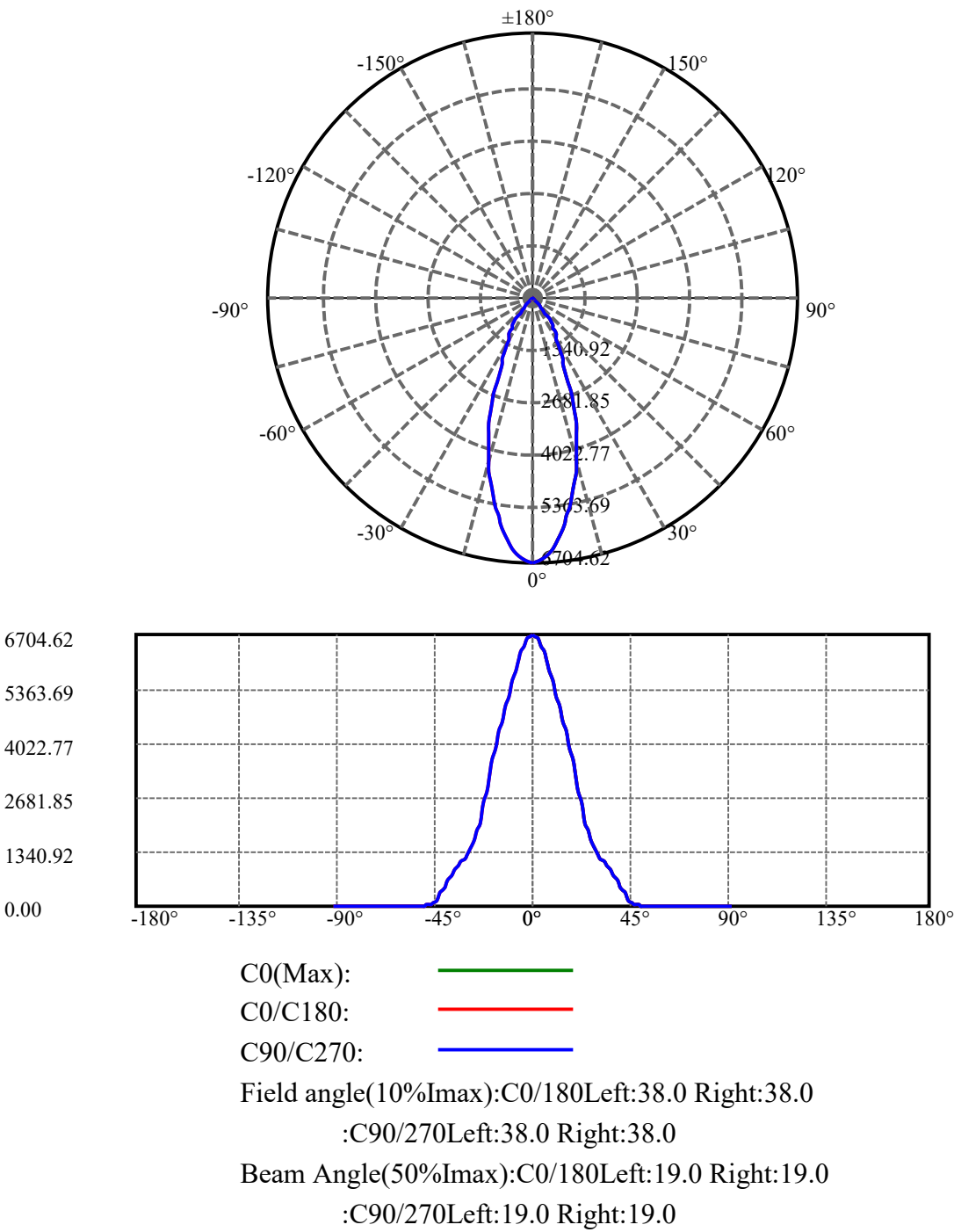
Down flux rate of lamp(%): 97.75%

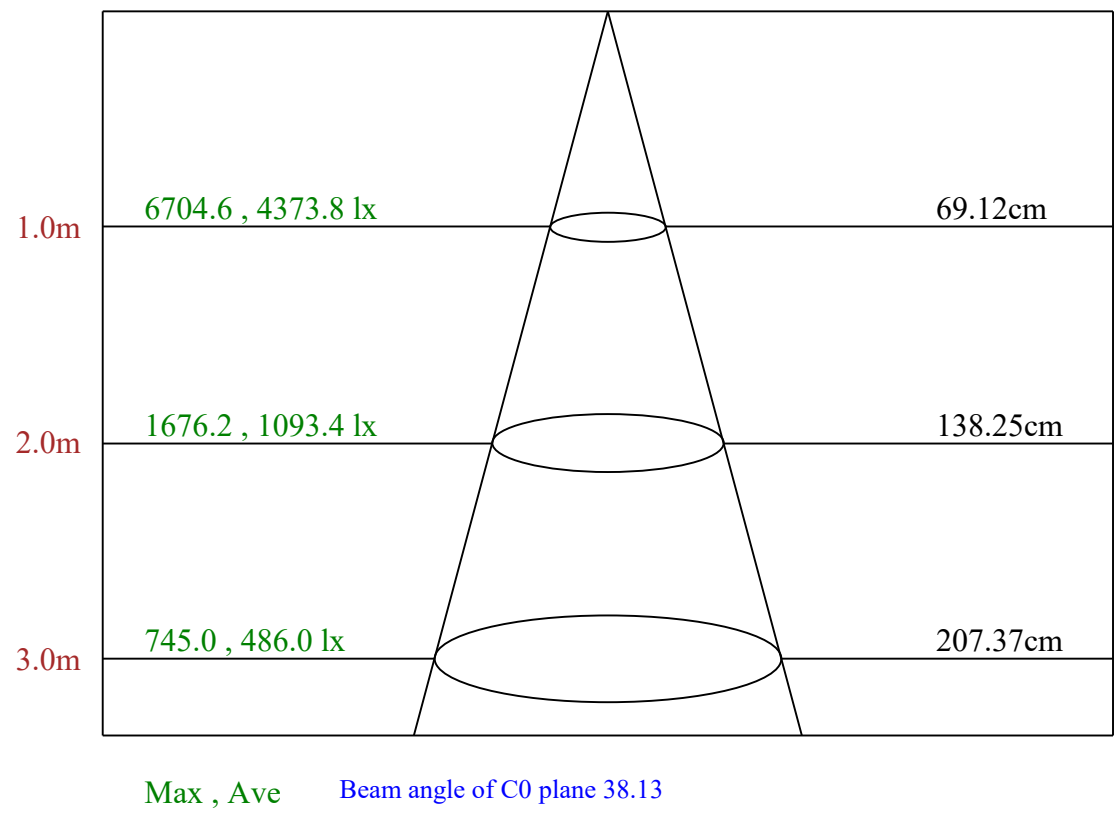
Up flux rate of LUM(%): - -

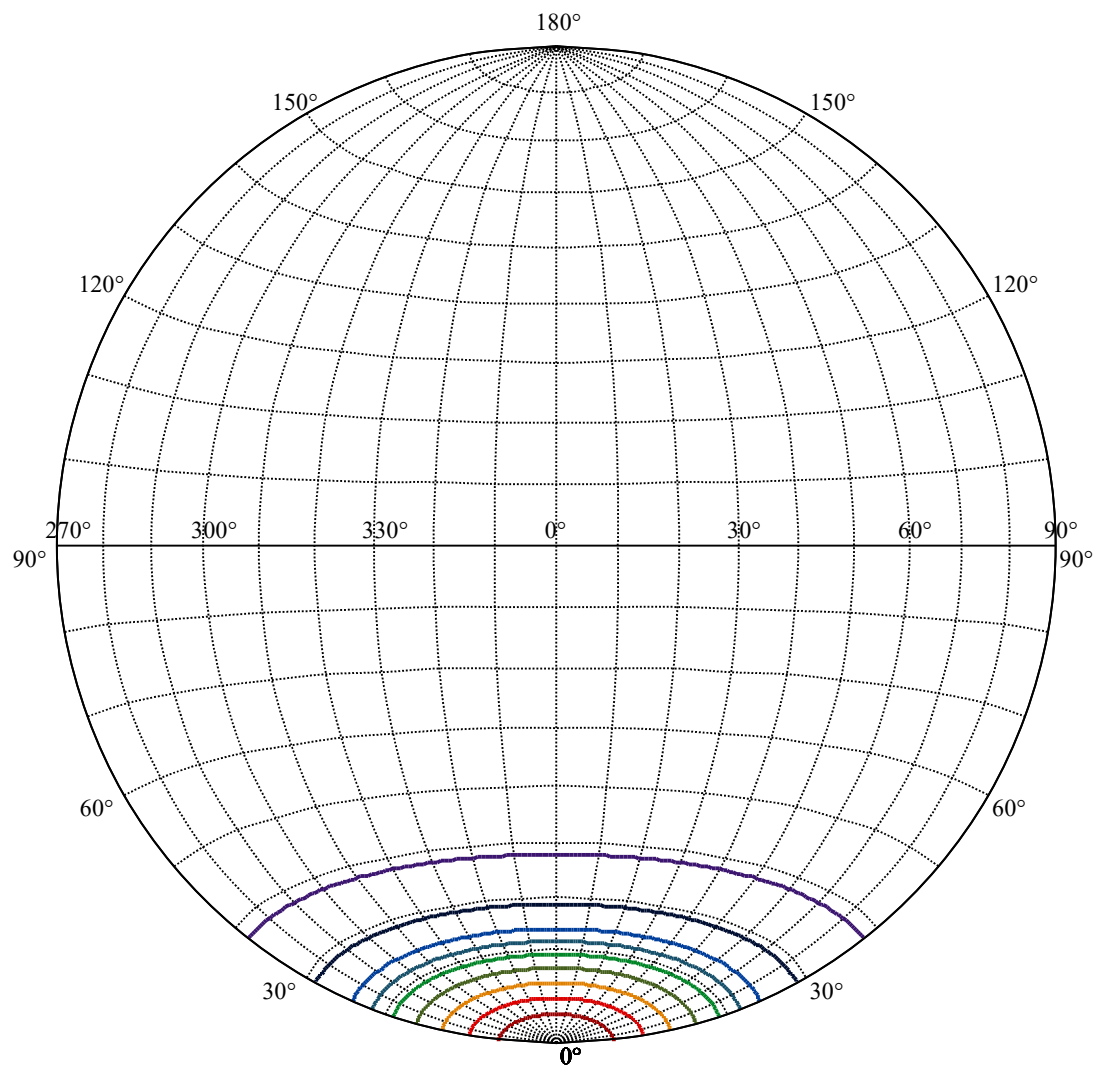
Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.314%







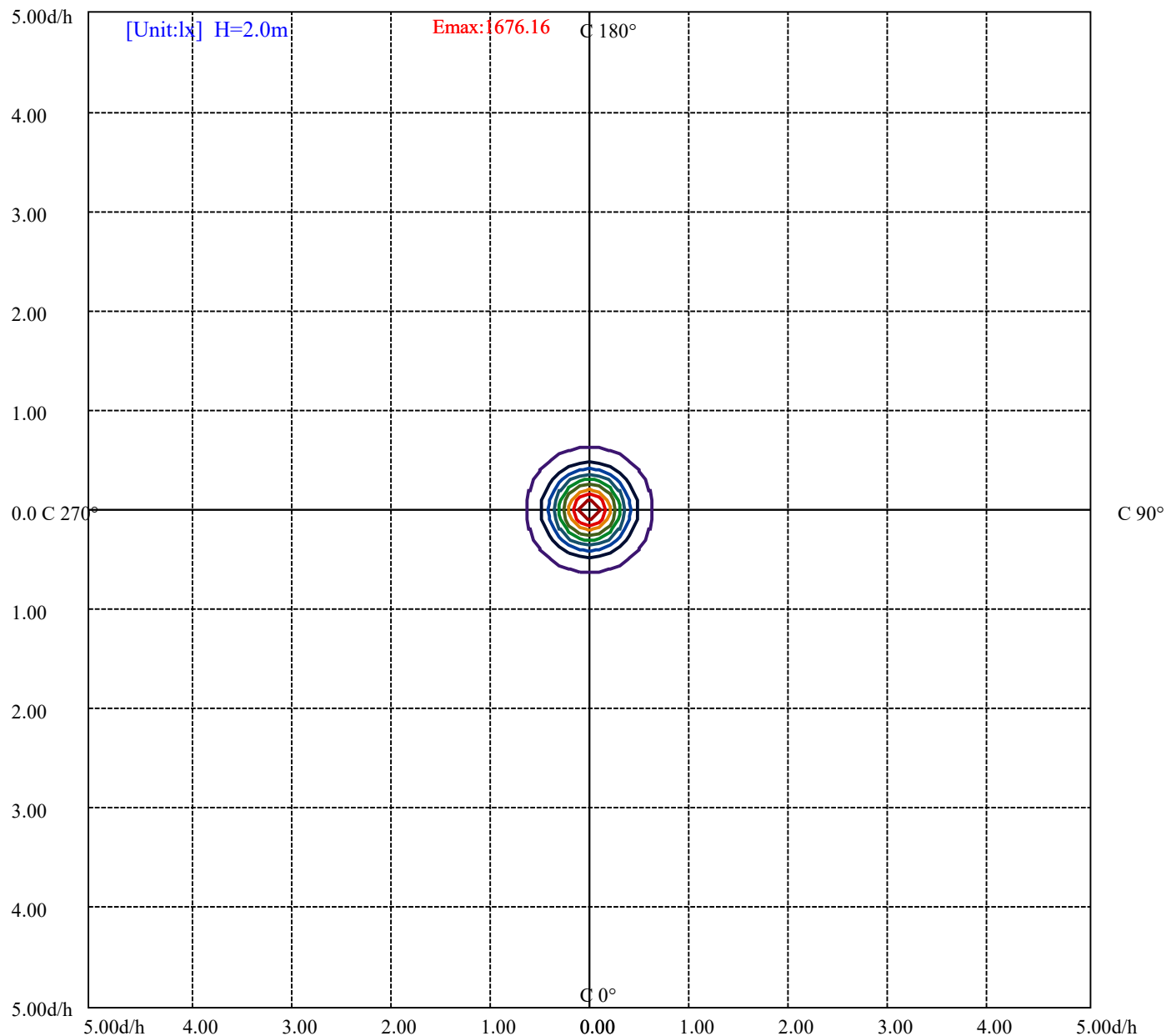
House

[Unit:cd]

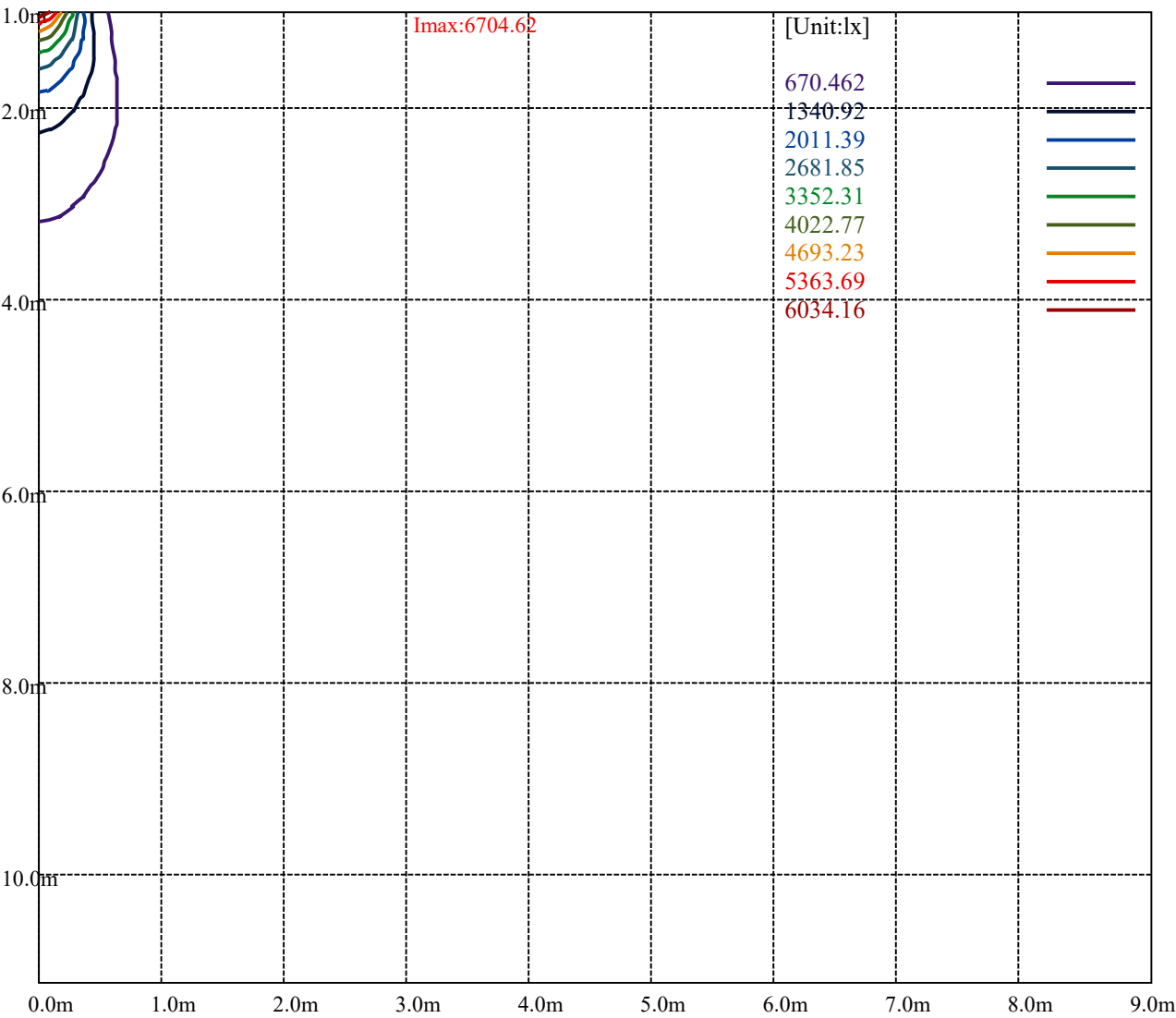
Road

Imax:6704.62

(10%Imax)	670.462	—
(20%Imax)	1340.92	—
(30%Imax)	2011.39	—
(40%Imax)	2681.85	—
(50%Imax)	3352.31	—
(60%Imax)	4022.77	—
(70%Imax)	4693.23	—
(80%Imax)	5363.69	—
(90%Imax)	6034.16	—



(10%Emax)	167.6152	
(20%Emax)	335.23	
(30%Emax)	502.845	
(40%Emax)	670.4625	
(50%Emax)	838.0775	
(60%Emax)	1005.693	
(70%Emax)	1173.307	
(80%Emax)	1340.922	
(90%Emax)	1508.537	



Luminance Table

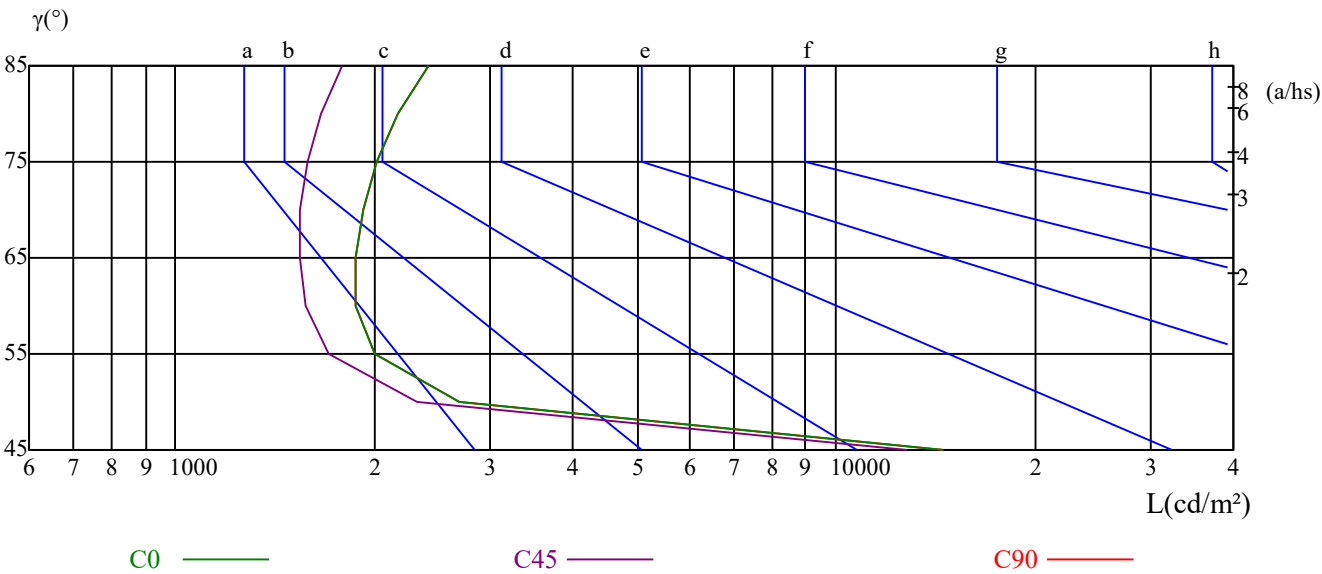
γ	45	50	55	60	65	70	75	80	85
C0	14596	2681	2003	1875	1873	1919	2020	2173	2416
C45	12810	2319	1706	1571	1541	1547	1589	1662	1785
C90	14596	2681	2003	1875	1873	1919	2020	2173	2416

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3911	3911	3911	5844	5844	5844	16422	16422	16422

Glare Table

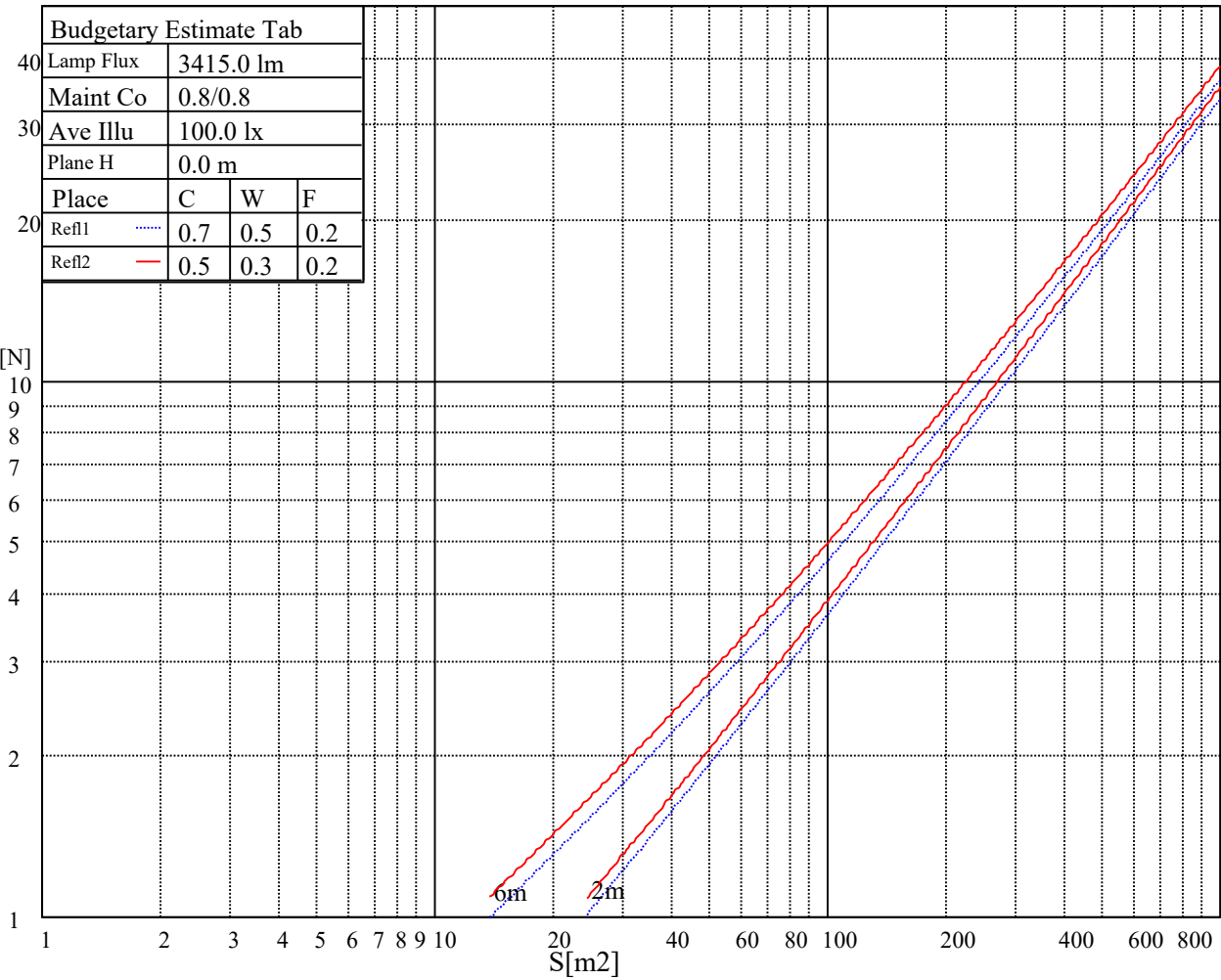
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve

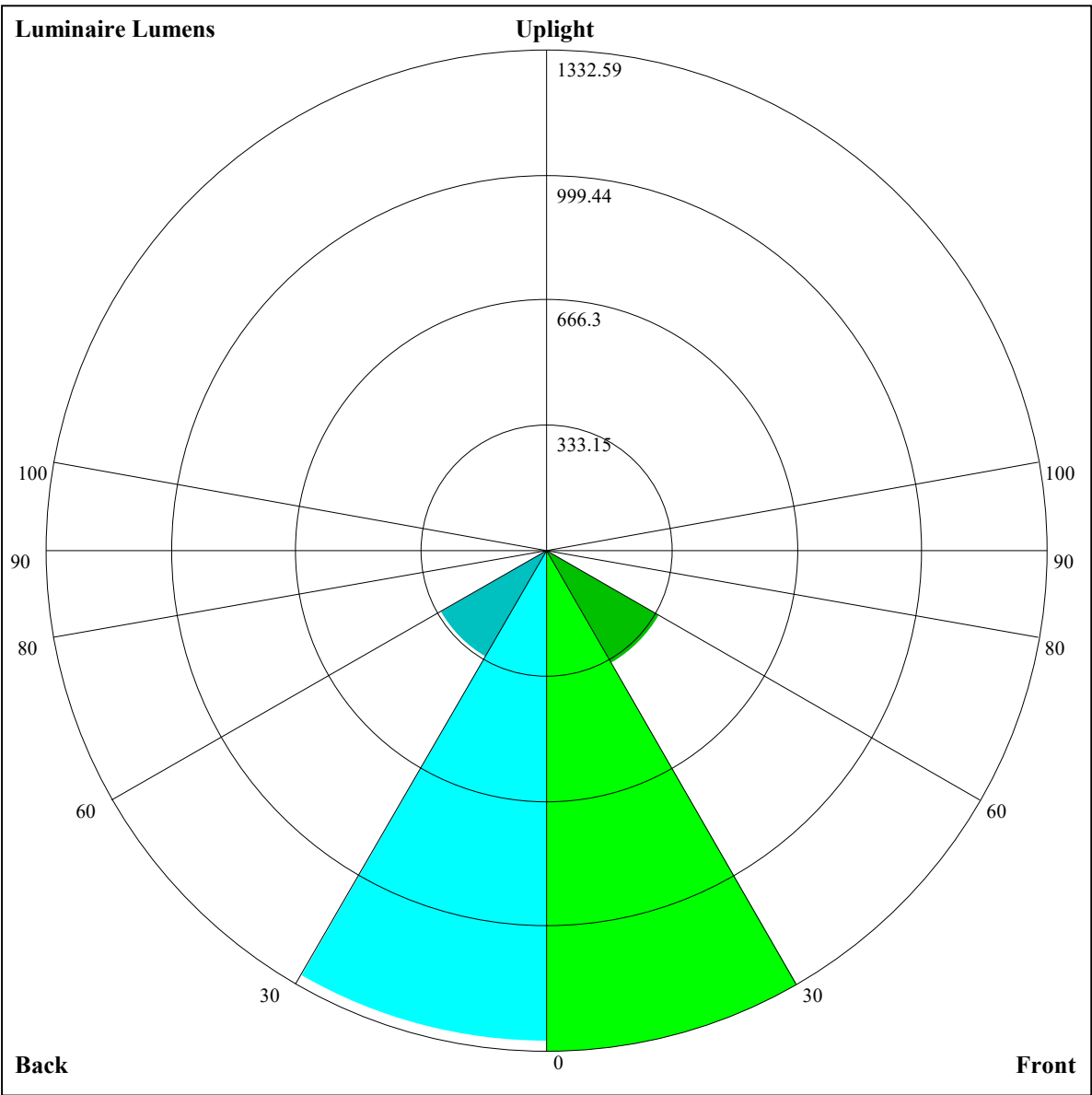


Illumination assessment according UGR											
Rf of Ceiling	70	70	50	50	30	70	70	50	50	30	
Rf of Wall	50	30	50	30	30	50	30	50	30	30	
Rf of Floor	20	20	20	20	20	20	20	20	20	20	
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	20.16	21.09	20.52	21.40	21.72	19.81	20.75	20.17	21.06	21.37
	3H	19.96	20.79	20.34	21.12	21.47	19.61	20.44	19.99	20.78	21.12
	4H	19.86	20.63	20.26	20.98	21.35	19.51	20.28	19.91	20.63	21.00
	6H	19.79	20.49	20.21	20.87	21.26	19.44	20.14	19.86	20.52	20.92
	8H	19.72	20.39	20.15	20.78	21.19	19.38	20.05	19.80	20.43	20.84
	12H	19.67	20.30	20.10	20.70	21.12	19.33	19.96	19.75	20.35	20.77
4H	2H	19.84	20.60	20.24	20.96	21.33	19.49	20.26	19.89	20.61	20.98
	3H	19.60	20.24	20.03	20.64	21.06	19.25	19.90	19.68	20.29	20.71
	4H	19.54	20.09	19.98	20.52	20.97	19.19	19.75	19.63	20.17	20.62
	6H	19.43	19.92	19.90	20.37	20.82	19.08	19.57	19.56	20.03	20.48
	8H	19.39	19.84	19.88	20.30	20.78	19.05	19.50	19.54	19.96	20.44
	12H	19.37	19.79	19.86	20.24	20.76	19.03	19.45	19.52	19.90	20.42
8H	4H	19.34	19.79	19.83	20.25	20.73	19.00	19.45	19.48	19.91	20.38
	6H	19.23	19.60	19.74	20.08	20.59	18.89	19.26	19.40	19.74	20.25
	8H	19.25	19.56	19.79	20.08	20.58	18.92	19.22	19.45	19.75	20.24
	12H	19.25	19.49	19.80	20.01	20.53	18.92	19.16	19.47	19.67	20.20
12H	4H	19.29	19.70	19.78	20.16	20.68	18.95	19.36	19.44	19.81	20.34
	6H	19.22	19.53	19.75	20.05	20.55	18.88	19.19	19.42	19.71	20.21
	8H	19.21	19.45	19.76	19.96	20.49	18.88	19.11	19.42	19.63	20.15
Variation with the observer position at spacings:											
S = 1.0H		4.6/-13.9					4.6/-13.9				
S = 1.5H		7.4/-12.1					7.4/-12.1				
S = 2.0H		9.3/-10.8					9.3/-10.8				
Standard tables:		BK0					BK0				
Uncorrected UGR		0.5					0.5				

UGR calculation is based on CIE Publ. 117 ,S/H = 0.25



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	1.16	1.16	1.16	1.14	1.14	1.14	1.09	1.09	1.09	1.04	1.04	1.04	1.00	1.00	1.00	0.98
1	1.09	1.07	1.05	1.07	1.05	1.03	1.03	1.01	1.00	0.99	0.98	0.97	0.96	0.95	0.94	0.92
2	1.02	0.98	0.95	1.00	0.97	0.94	0.97	0.95	0.92	0.94	0.92	0.90	0.92	0.90	0.88	0.87
3	0.96	0.92	0.88	0.95	0.91	0.87	0.92	0.89	0.86	0.90	0.87	0.85	0.88	0.85	0.83	0.82
4	0.91	0.86	0.82	0.90	0.85	0.82	0.88	0.84	0.81	0.86	0.82	0.80	0.84	0.81	0.79	0.77
5	0.86	0.81	0.77	0.85	0.80	0.76	0.83	0.79	0.76	0.82	0.78	0.75	0.80	0.77	0.75	0.73
6	0.81	0.76	0.72	0.81	0.76	0.72	0.79	0.75	0.72	0.78	0.74	0.71	0.77	0.73	0.71	0.69
7	0.77	0.72	0.68	0.77	0.72	0.68	0.75	0.71	0.68	0.74	0.70	0.67	0.73	0.70	0.67	0.66
8	0.73	0.68	0.65	0.73	0.68	0.65	0.72	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.64	0.63
9	0.70	0.65	0.61	0.70	0.65	0.61	0.69	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.61	0.60
10	0.67	0.62	0.58	0.67	0.62	0.58	0.66	0.61	0.58	0.65	0.61	0.58	0.64	0.61	0.58	0.57



Luminaire Lumens:

FL=1332.59,FM=346.34,FH=7.73,FVH=3.73

BL=1308.17,BM=328.33,BH=7.7,BVH=3.72

UL=0,UH=0

BUG Rating:B3-U0-G0

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	6702.68	6684.60	6633.79	6564.03	6463.27	6310.84	6172.19	6021.48	5816.52
45.0	6684.60	6713.02	6692.35	6639.81	6560.59	6414.18	6279.84	6125.69	5913.84
90.0	6722.49	6685.46	6625.17	6508.05	6384.04	6245.39	6045.60	5866.47	5686.48
135.0	6708.71	6729.38	6709.57	6640.68	6552.84	6438.30	6309.98	6124.83	5960.34
180.0	6702.68	6675.12	6617.42	6529.58	6391.79	6255.73	6111.91	5902.64	5721.79
225.0	6684.60	6625.17	6511.50	6398.68	6265.20	6108.46	5899.20	5715.76	5525.44
270.0	6722.49	6704.40	6658.76	6568.34	6470.16	6348.73	6210.08	6022.35	5860.44
315.0	6708.71	6648.43	6579.53	6486.52	6374.57	6246.25	6067.99	5910.39	5696.82
360.0	6702.68	6684.60	6633.79	6564.03	6463.27	6310.84	6172.19	6021.48	5816.52
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	5646.01	5464.30	5228.33	5036.29	4843.38	4597.09	4401.60	4200.94	3993.40
45.0	5733.85	5547.83	5356.65	5112.07	4910.56	4713.35	4517.00	4277.59	4075.21
90.0	5490.13	5242.11	5037.15	4833.91	4635.84	4385.24	4182.00	3967.56	3683.37
135.0	5736.43	5546.11	5348.90	5094.85	4889.89	4691.82	4492.02	4231.08	4006.31
180.0	5490.13	5294.65	5089.68	4839.94	4642.73	4448.10	4246.58	3981.34	3764.32
225.0	5333.40	5093.99	4900.22	4709.04	4465.33	4268.11	4014.06	3797.91	3570.55
270.0	5688.21	5512.52	5281.73	5086.24	4889.89	4646.17	4448.10	4248.31	3978.76
315.0	5521.14	5338.57	5100.02	4901.95	4705.60	4461.02	4252.61	4029.57	3789.30
360.0	5646.01	5464.30	5228.33	5036.29	4843.38	4597.09	4401.60	4200.94	3993.40
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	3716.96	3481.85	3240.72	2991.84	2686.12	2451.88	2183.19	1687.23	1687.23
45.0	3867.66	3596.39	3372.48	3084.85	2855.77	2628.42	2358.01	2153.05	1958.42
90.0	3454.30	3216.61	2919.50	2690.42	2467.38	2207.30	1699.80	1699.80	1660.79
135.0	3774.66	3538.69	3238.14	2994.42	2755.87	2474.27	2265.00	2067.79	1836.99
180.0	3530.08	3298.42	3005.62	2766.21	2539.72	2269.31	2075.54	1886.08	1674.23
225.0	3332.87	3031.45	2790.32	2561.25	2336.48	1936.03	1714.96	1714.96	1561.58
270.0	3746.24	3507.69	3196.80	2939.31	2687.84	2447.57	2170.27	1970.48	1792.21
315.0	3468.94	3205.41	2940.17	2681.81	2385.57	2170.27	1706.01	1706.01	1593.02
360.0	3716.96	3481.85	3240.72	2991.84	2686.12	2451.88	2183.19	1687.23	1687.23
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	1611.36	1474.35	1363.94	1256.12	1189.90	1139.17	1096.80	1047.46	964.87
45.0	1780.15	1585.53	1450.32	1340.95	1258.28	1177.32	1129.10	1087.76	1018.87
90.0	1482.01	1363.77	1271.80	1199.72	1134.61	1093.70	1048.41	970.90	896.75
135.0	1673.37	1491.66	1376.26	1284.11	1212.63	1144.60	1102.40	1051.59	986.14
180.0	1529.55	1408.12	1284.11	1206.60	1150.63	1105.85	1037.81	962.89	887.97
225.0	1404.94	1303.40	1224.09	1147.27	1101.97	1047.54	991.91	925.69	828.46
270.0	1638.06	1468.40	1354.73	1242.77	1179.91	1130.82	1080.01	1029.20	966.33
315.0	1461.34	1323.47	1239.16	1173.71	1112.74	1073.81	1024.21	959.96	867.90
360.0	1611.36	1474.35	1363.94	1256.12	1189.90	1139.17	1096.80	1047.46	964.87
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	888.57	806.50	720.38	606.27	516.54	408.20	323.29	242.94	153.89
45.0	947.39	872.47	771.71	671.81	579.66	459.96	434.98	434.98	197.64
90.0	815.02	705.40	614.37	499.49	411.39	325.36	242.85	169.05	93.61
135.0	909.50	805.29	720.04	630.47	518.52	434.98	434.98	241.91	168.96
180.0	812.18	704.53	612.39	509.05	444.46	444.46	248.45	157.42	96.62
225.0	744.84	656.48	567.09	454.19	365.49	280.23	203.67	119.79	68.98
270.0	896.58	800.13	714.01	622.72	535.74	447.04	447.04	245.35	170.26
315.0	788.41	706.34	621.69	516.28	432.74	327.34	247.16	172.32	94.04
360.0	888.57	806.50	720.38	606.27	516.54	408.20	323.29	242.94	153.89

NT Nata 2-3124-LM

Intensity data(cd)

Appendix Page: 13 Total:14

C/ γ (°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	94.99	49.35	28.42	23.77	18.95	14.81	11.63	10.94	10.59
45.0	117.12	67.95	37.98	27.21	21.19	16.62	13.00	10.68	10.33
90.0	52.19	31.35	25.58	19.29	14.98	11.88	10.42	10.16	9.73
135.0	92.66	49.86	30.14	24.97	18.60	14.38	11.54	10.68	10.16
180.0	53.39	30.23	25.32	20.07	15.59	11.80	10.94	10.51	10.16
225.0	39.27	26.96	21.87	17.05	12.40	10.59	10.16	9.73	9.47
270.0	92.84	50.72	28.59	23.94	18.86	13.78	11.02	10.25	9.90
315.0	50.03	29.62	24.72	18.60	14.38	11.45	10.42	10.08	9.73
360.0	94.99	49.35	28.42	23.77	18.95	14.81	11.63	10.94	10.59
C/ γ (°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	10.25	9.90	9.65	9.39	9.13	8.87	8.70	8.53	8.44
45.0	9.90	9.65	9.30	9.04	8.87	8.61	8.44	8.35	8.27
90.0	9.39	9.21	8.87	8.70	8.44	8.35	8.18	8.10	8.01
135.0	9.82	9.56	9.21	9.04	8.87	8.61	8.44	8.35	8.18
180.0	9.82	9.56	9.30	9.04	8.87	8.70	8.53	8.35	8.27
225.0	9.21	8.96	8.78	8.61	8.44	8.27	8.18	8.10	8.01
270.0	9.65	9.39	9.13	8.87	8.70	8.61	8.35	8.18	8.10
315.0	9.47	9.21	8.96	8.70	8.53	8.35	8.27	8.18	8.10
360.0	10.25	9.90	9.65	9.39	9.13	8.87	8.70	8.53	8.44
C/ γ (°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	8.27	8.18	8.01	7.92	7.92	7.84	7.66	7.66	7.58
45.0	8.10	8.01	7.92	7.84	7.75	7.66	7.58	7.49	7.41
90.0	7.92	7.84	7.75	7.66	7.58	7.58	7.41	7.32	7.32
135.0	8.10	8.01	7.92	7.75	7.75	7.66	7.58	7.58	7.41
180.0	8.18	8.10	8.01	7.92	7.84	7.75	7.66	7.58	7.58
225.0	7.84	7.84	7.66	7.58	7.58	7.49	7.49	7.41	7.32
270.0	8.01	7.92	7.84	7.75	7.58	7.58	7.49	7.41	7.41
315.0	8.01	7.84	7.84	7.66	7.66	7.58	7.49	7.41	7.41
360.0	8.27	8.18	8.01	7.92	7.92	7.84	7.66	7.66	7.58
C/ γ (°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	7.49	7.49	7.41	7.32	7.32	7.23	7.15	7.06	7.06
45.0	7.41	7.32	7.23	7.23	7.15	7.15	7.06	7.06	6.98
90.0	7.32	7.23	7.15	7.15	7.06	6.98	6.98	6.89	6.89
135.0	7.41	7.32	7.32	7.23	7.15	7.15	7.06	6.98	6.98
180.0	7.49	7.41	7.32	7.23	7.23	7.15	7.06	7.06	6.89
225.0	7.32	7.23	7.15	7.15	7.06	7.06	6.98	6.98	6.98
270.0	7.32	7.23	7.23	7.15	7.15	7.06	6.98	6.98	6.98
315.0	7.32	7.23	7.23	7.15	7.06	7.06	7.06	6.98	6.98
360.0	7.49	7.49	7.41	7.32	7.32	7.23	7.15	7.06	7.06
C/ γ (°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	7.06	6.98	6.98	6.98	6.89	6.89	6.89	6.89	6.80
45.0	6.98	6.89	6.89	6.89	6.80	6.80	6.80	6.72	6.72
90.0	6.89	6.89	6.89	6.89	6.80	6.72	6.72	6.72	6.72
135.0	6.98	6.89	6.89	6.89	6.80	6.80	6.80	6.80	6.72
180.0	6.98	6.98	6.89	6.89	6.89	6.72	6.80	6.72	6.72
225.0	6.89	6.89	6.80	6.80	6.72	6.80	6.72	6.72	6.63
270.0	6.89	6.89	6.89	6.80	6.80	6.80	6.72	6.72	6.63
315.0	6.98	6.89	6.89	6.80	6.80	6.80	6.72	6.72	6.72
360.0	7.06	6.98	6.98	6.98	6.89	6.89	6.89	6.89	6.80

Intensity data(cd)

C/ $\gamma(^{\circ})$	90.0
0.0	6.80
45.0	6.63
90.0	6.72
135.0	6.72
180.0	6.72
225.0	6.72
270.0	6.63
315.0	6.72
360.0	6.80