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NATA

LumCAT: 2-1299-N
Luminaire: 92.70.045.00+92.70.059.00
Report No: NATA0100
Test No: GC2019011207
LampCAT: LUMILEDS LUXEON 1208
Lamp flux(lm): 3211.0
Number of Lamps: 1
Length(mm): 70
Phm Type: C

Voltage(V): 35.8000
Current(A): 0.7000
Power (W): 25.0600
PF: 0.0000
Ballast type: DC
Width(mm): 70
Height(mm): 0

Photometric Results

Lumens(lm): 2414.87
Efficiency(%): 75.21%
Lumens(lm)/Power(W): 96.45
Central intensity(cd): 9538.734
Maximum intensity(cd): 9538.734
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=22.8
 [C90/270]Total=22.8
Field angle(10%Imax): [C0/180]Total=47.2
 [C90/270]Total=47.2
Maximum s/h(1/2): C0_180=0.39 C90_270=0.39
Maximum s/h(1/4): C0_180=0.40 C90_270=0.40
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 75.27%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.219%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	9538.734	2.282	2.282	.071%	.095%
1.0	9484.383	18.152	20.434	.565%	.846%
2.0	9293.203	35.566	56	1.108%	2.319%
3.0	9000.844	51.658	107.658	1.609%	4.458%
4.0	8656.805	66.221	173.878	2.062%	7.200%
5.0	8196.469	78.338	252.217	2.440%	10.444%
6.0	7737.328	88.691	340.907	2.762%	14.117%
7.0	7225.594	96.565	437.472	3.007%	18.116%
8.0	6677.508	101.911	539.383	3.174%	22.336%
9.0	6104.320	104.718	644.101	3.261%	26.672%
10.0	5550.398	105.693	749.794	3.292%	31.049%
11.0	4990.711	104.427	854.221	3.252%	35.373%
12.0	4457.320	101.626	955.847	3.165%	39.582%
13.0	3938.766	97.163	1053.01	3.026%	43.605%
14.0	3417.117	90.654	1143.664	2.823%	47.359%
15.0	2978.859	84.547	1228.211	2.633%	50.860%
16.0	2572.102	77.746	1305.957	2.421%	54.080%
17.0	2213.859	70.980	1376.937	2.211%	57.019%
18.0	1891.336	64.092	1441.029	1.996%	59.673%
19.0	1650.445	58.924	1499.953	1.835%	62.113%
20.0	1420.523	53.278	1553.232	1.659%	64.320%
21.0	1234.146	48.501	1601.732	1.510%	66.328%
22.0	1099.146	45.153	1646.885	1.406%	68.198%
23.0	1005.574	43.087	1689.972	1.342%	69.982%
24.0	916.348	40.872	1730.844	1.273%	71.674%
25.0	840.277	38.942	1769.786	1.213%	73.287%
26.0	773.163	37.168	1806.954	1.158%	74.826%
27.0	709.643	35.330	1842.283	1.100%	76.289%
28.0	653.829	33.661	1875.944	1.048%	77.683%
29.0	601.073	31.956	1907.9	.995%	79.006%
30.0	555.546	30.461	1938.361	.949%	80.268%
31.0	513.851	29.022	1967.383	.904%	81.470%
32.0	473.259	27.502	1994.885	.856%	82.608%
33.0	438.567	26.194	2021.078	.816%	83.693%
34.0	406.638	24.936	2046.014	.777%	84.726%
35.0	376.615	23.689	2069.703	.738%	85.707%
36.0	346.908	22.361	2092.063	.696%	86.633%
37.0	322.390	21.276	2113.34	.663%	87.514%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	298.364	20.144	2133.483	.627%	88.348%
39.0	274.268	18.928	2152.411	.589%	89.132%
40.0	252.598	17.805	2170.216	.555%	89.869%
41.0	228.333	16.427	2186.644	.512%	90.549%
42.0	206.698	15.167	2201.81	.472%	91.177%
43.0	189.211	14.151	2215.961	.441%	91.763%
44.0	173.749	13.236	2229.197	.412%	92.311%
45.0	158.639	12.301	2241.498	.383%	92.821%
46.0	146.384	11.547	2253.045	.360%	93.299%
47.0	133.495	10.706	2263.752	.333%	93.742%
48.0	122.351	9.971	2273.723	.311%	94.155%
49.0	112.057	9.274	2282.997	.289%	94.539%
50.0	101.946	8.564	2291.561	.267%	94.894%
51.0	93.368	7.957	2299.518	.248%	95.223%
52.0	85.922	7.425	2306.943	.231%	95.531%
53.0	78.448	6.870	2313.813	.214%	95.815%
54.0	71.466	6.340	2320.153	.197%	96.078%
55.0	65.932	5.923	2326.076	.184%	96.323%
56.0	60.370	5.488	2331.564	.171%	96.550%
57.0	55.294	5.085	2336.65	.158%	96.761%
58.0	50.843	4.728	2341.378	.147%	96.957%
59.0	46.793	4.398	2345.776	.137%	97.139%
60.0	42.785	4.063	2349.84	.127%	97.307%
61.0	39.410	3.780	2353.619	.118%	97.464%
62.0	36.457	3.530	2357.149	.110%	97.610%
63.0	33.806	3.303	2360.453	.103%	97.747%
64.0	31.774	3.132	2363.584	.098%	97.876%
65.0	30.220	3.003	2366.588	.094%	98.001%
66.0	28.983	2.904	2369.491	.090%	98.121%
67.0	27.942	2.821	2372.312	.088%	98.238%
68.0	26.958	2.741	2375.053	.085%	98.351%
69.0	25.973	2.659	2377.712	.083%	98.461%
70.0	25.123	2.589	2380.301	.081%	98.569%
71.0	24.230	2.512	2382.813	.078%	98.673%
72.0	23.351	2.435	2385.248	.076%	98.773%
73.0	22.521	2.362	2387.61	.074%	98.871%
74.0	21.705	2.288	2389.898	.071%	98.966%
75.0	20.862	2.210	2392.108	.069%	99.058%

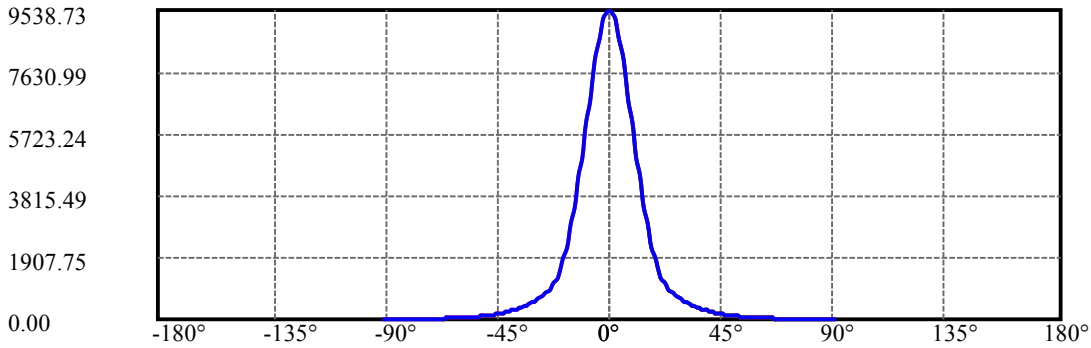
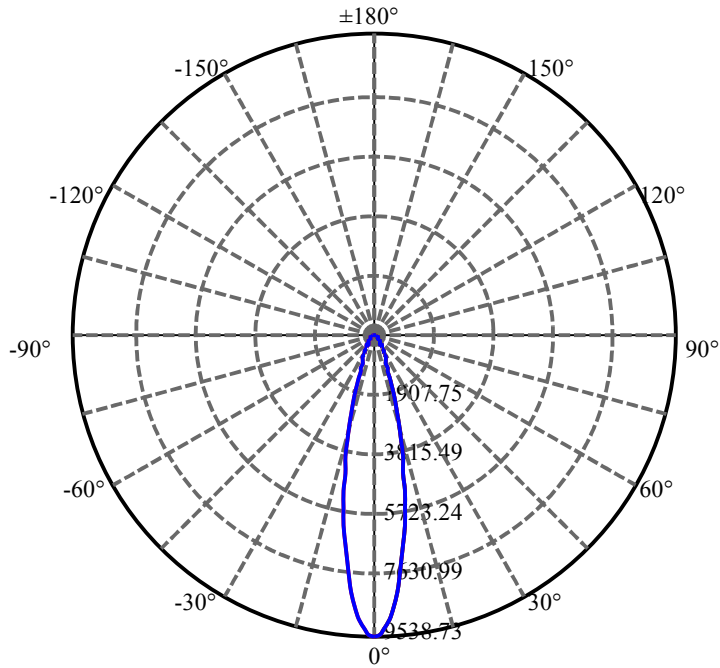
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	19.990	2.127	2394.235	.066%	99.146%
77.0	19.188	2.050	2396.285	.064%	99.231%
78.0	18.302	1.963	2398.248	.061%	99.312%
79.0	17.508	1.885	2400.133	.059%	99.390%
80.0	16.650	1.798	2401.931	.056%	99.464%
81.0	15.827	1.714	2403.645	.053%	99.535%
82.0	15.026	1.632	2405.277	.051%	99.603%
83.0	14.217	1.547	2406.825	.048%	99.667%
84.0	13.409	1.462	2408.287	.046%	99.728%
85.0	12.628	1.380	2409.667	.043%	99.785%
86.0	11.658	1.275	2410.942	.040%	99.837%
87.0	10.821	1.185	2412.127	.037%	99.887%
88.0	10.252	1.124	2413.25	.035%	99.933%
89.0	9.886	1.084	2414.334	.034%	99.978%
90.0	9.717	0.533	2414.867	.017%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1938.36	60.37%	80.27%
0-40	2170.22	67.59%	89.87%
0-60	2349.84	73.18%	97.31%
0-90	2414.33	75.19%	99.98%
0-120	2414.33	75.19%	99.98%
0-180	2414.87	75.21%	100.00%
60-90	68.56	2.14%	2.84%
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%
0-29.79	1931.89	60.16%	80.00%

ZONAL LUMEN SUMMARY

0-10	749.79
10-20	803.44
20-30	385.13
30-40	231.86
40-50	121.34
50-60	58.28
60-70	30.46
70-80	21.63
80-90	12.40
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



C0(Max): —————

C0/C180: —————

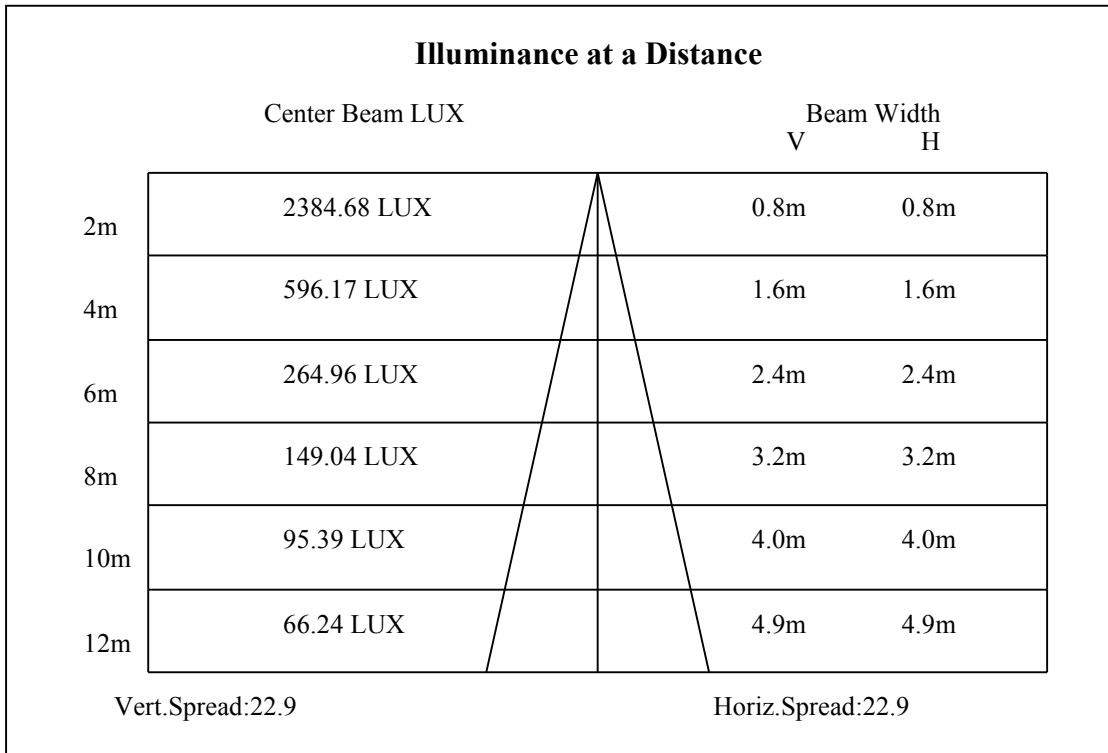
C90/C270: —————

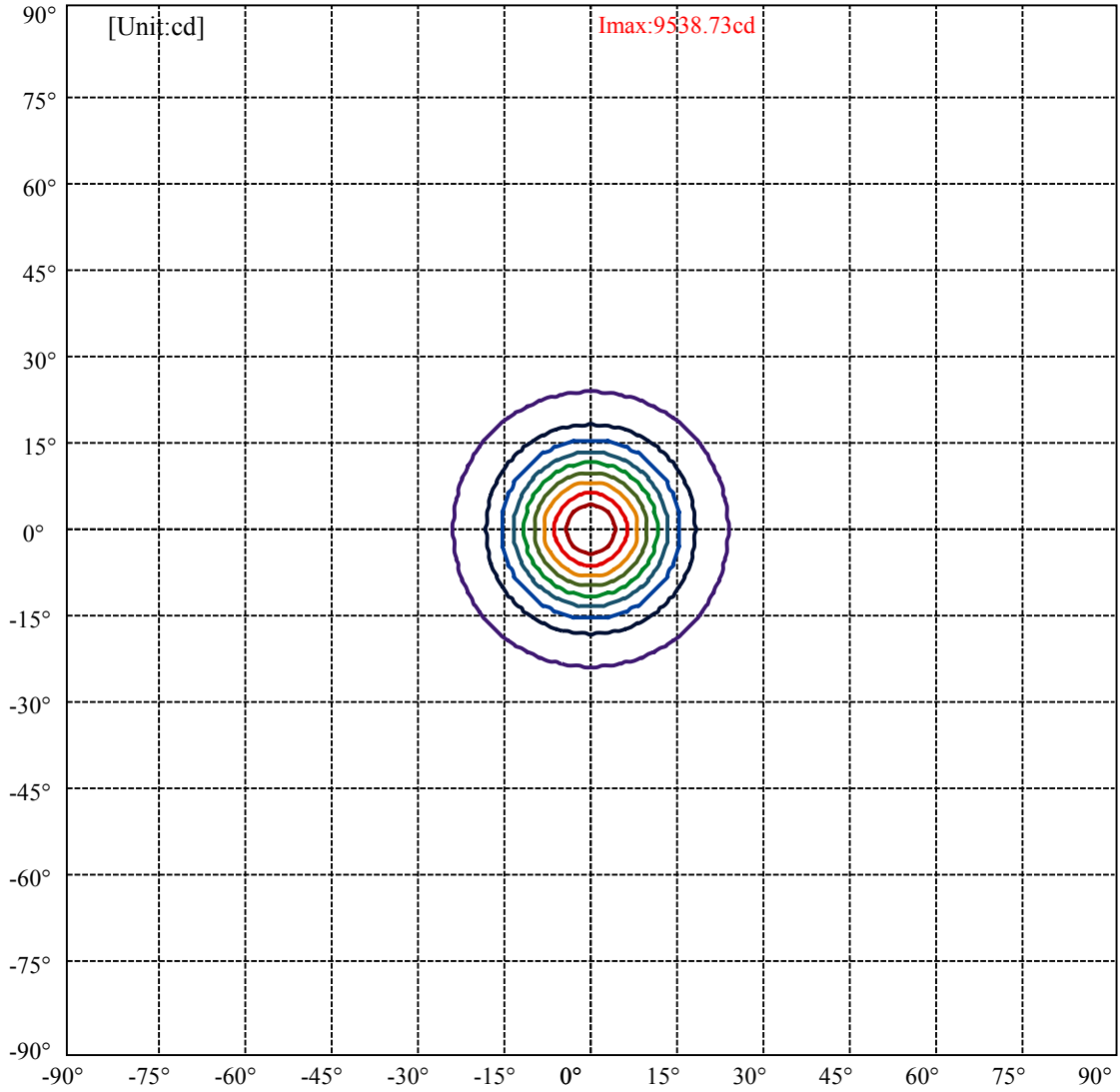
Field angle(10%Imax):C0/180Left:23.6 Right:23.6

:C90/270Left:23.6 Right:23.6

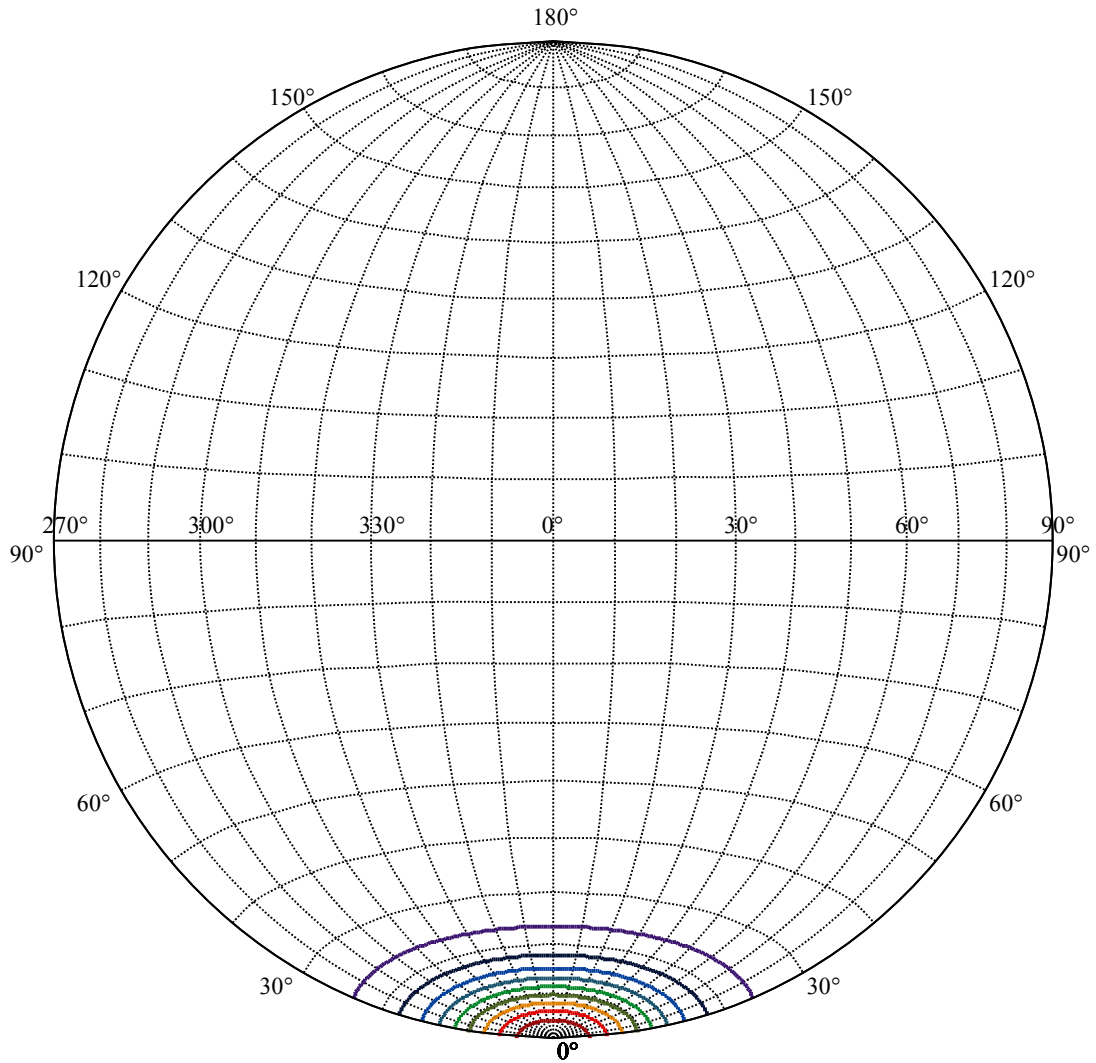
Beam Angle(50%Imax):C0/180Left:11.4 Right:11.4

:C90/270Left:11.4 Right:11.4





(10%Imax) 953.873	—
(20%Imax) 1907.75	—
(30%Imax) 2861.62	—
(40%Imax) 3815.49	—
(50%Imax) 4769.37	—
(60%Imax) 5723.24	—
(70%Imax) 6677.11	—
(80%Imax) 7630.99	—
(90%Imax) 8584.86	—



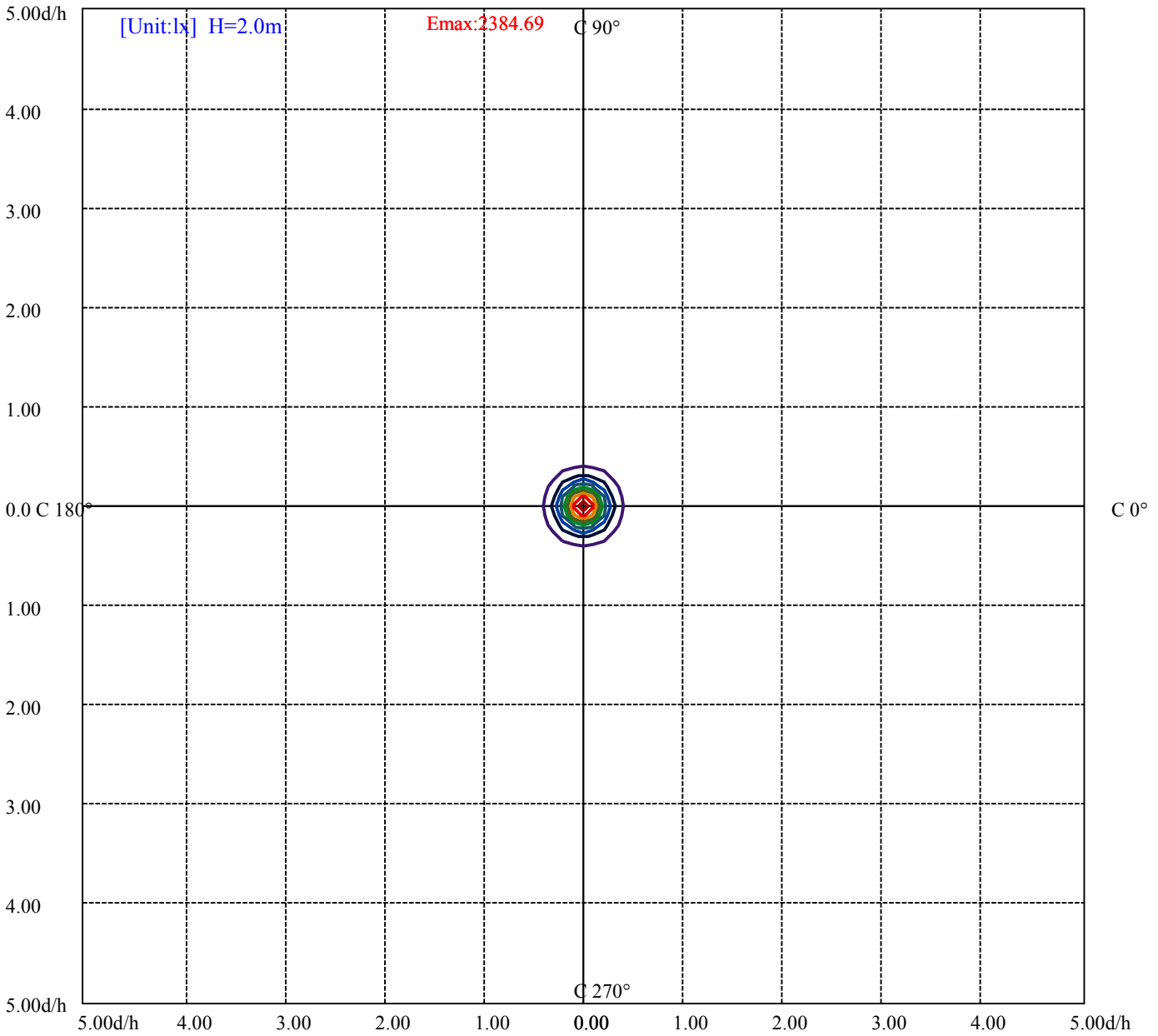
House

[Unit:cd]

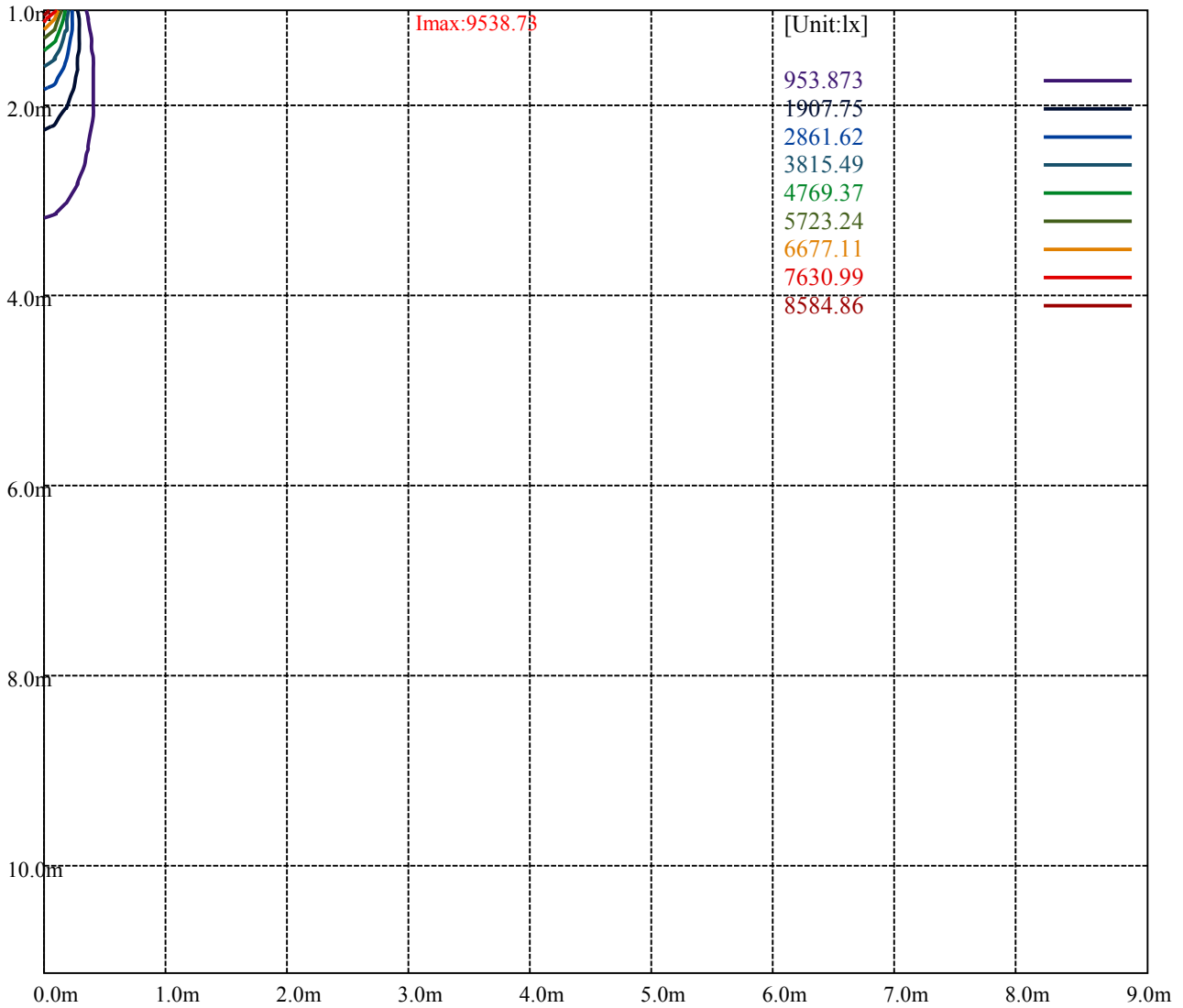
Road

Imax:9538.73

(10%Imax) 953.873	—
(20%Imax) 1907.75	—
(30%Imax) 2861.62	—
(40%Imax) 3815.49	—
(50%Imax) 4769.37	—
(60%Imax) 5723.24	—
(70%Imax) 6677.11	—
(80%Imax) 7630.99	—
(90%Imax) 8584.86	—



- (10%Emax) 238.4682
- (20%Emax) 476.9375
- (30%Emax) 715.405
- (40%Emax) 953.8725
- (50%Emax) 1192.34
- (60%Emax) 1430.81
- (70%Emax) 1669.277
- (80%Emax) 1907.745
- (90%Emax) 2146.212



Luminance Table

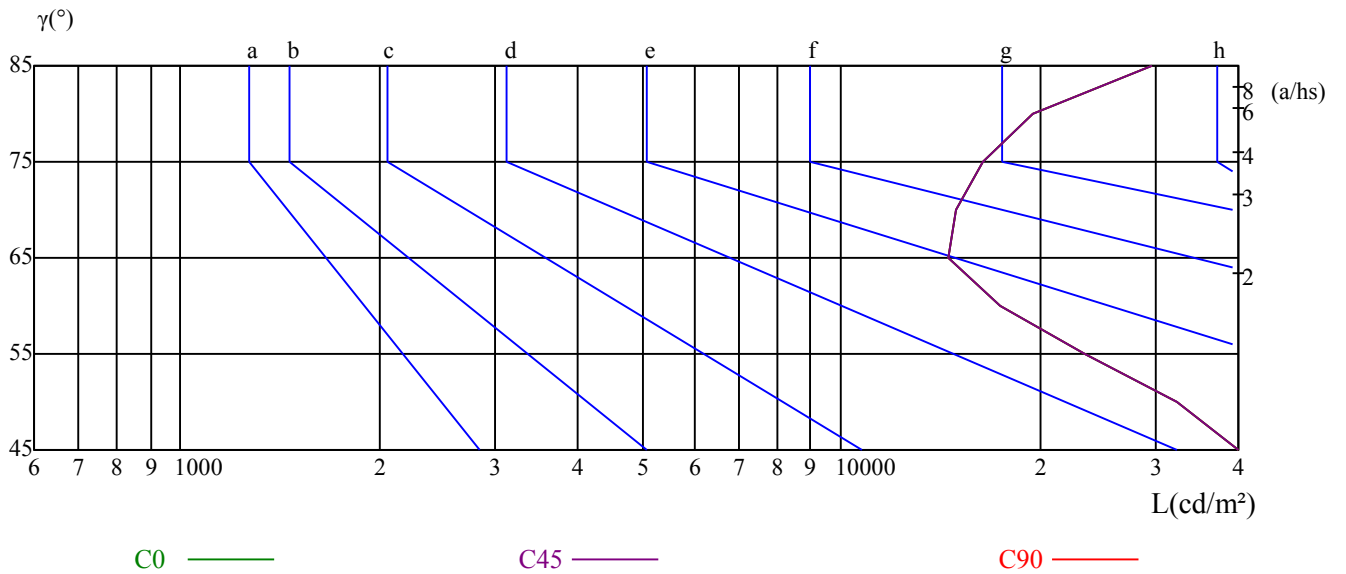
γ	45	50	55	60	65	70	75	80	85
C0	45786	32367	23459	17463	14593	14991	16450	19568	29570
C45	45786	32367	23459	17463	14593	14991	16450	19568	29570
C90	45786	32367	23459	17463	14593	14991	16450	19568	29570

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
14593	14593	14593	16450	16450	16450	29570	29570	29570

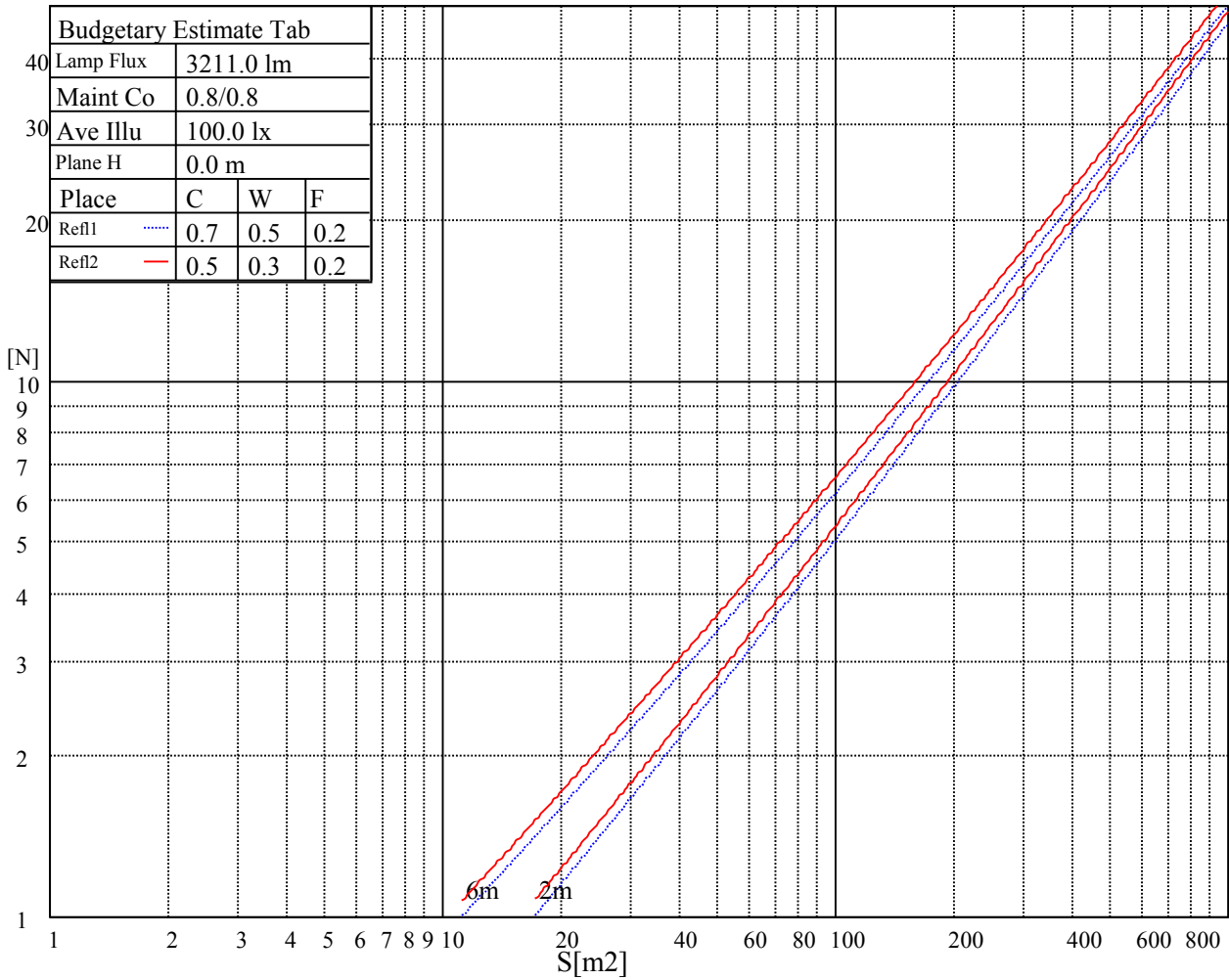
Glare Table

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

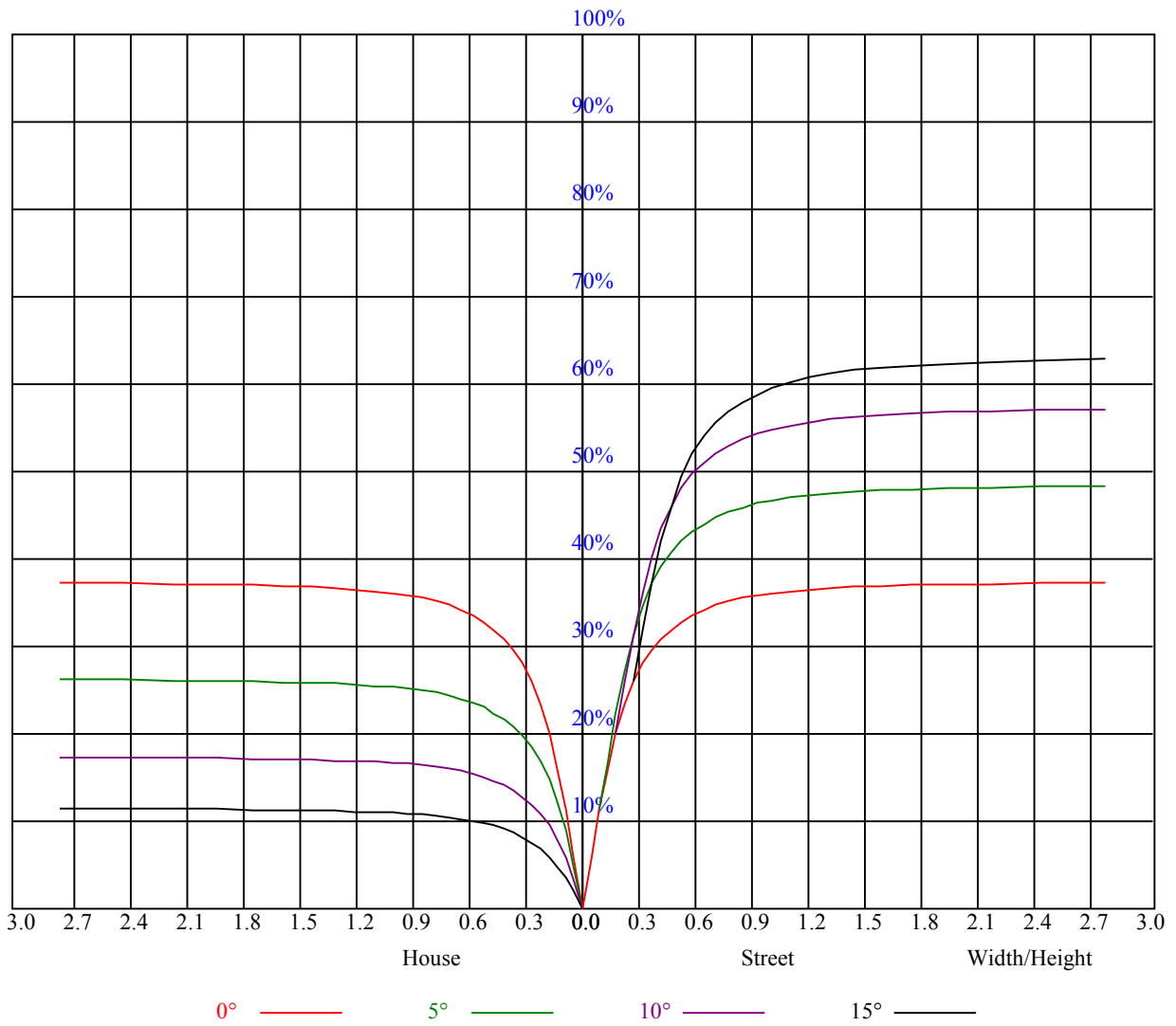
Luminance Limiting Curve



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	13.42	14.45	13.79	14.76	15.07	13.39	14.41	13.75	14.73	15.04
	3H	14.58	15.48	14.96	15.81	16.18	14.54	15.44	14.92	15.78	16.14
	4H	15.25	16.09	15.65	16.44	16.83	15.20	16.04	15.61	16.39	16.78
	6H	15.99	16.76	16.41	17.13	17.53	15.93	16.70	16.35	17.08	17.47
	8H	16.38	17.11	16.82	17.50	17.91	16.32	17.04	16.76	17.44	17.85
	12H	17.06	17.75	17.50	18.14	18.57	17.00	17.69	17.43	18.07	18.51
4H	2H	13.63	14.47	14.04	14.82	15.21	13.60	14.44	14.01	14.79	15.18
	3H	15.10	15.78	15.51	16.19	16.60	15.06	15.75	15.48	16.16	16.56
	4H	15.97	16.58	16.40	17.00	17.45	15.92	16.54	16.36	16.96	17.41
	6H	16.81	17.34	17.28	17.79	18.26	16.76	17.28	17.23	17.73	18.21
	8H	17.34	17.83	17.81	18.28	18.75	17.28	17.77	17.75	18.22	18.69
	12H	18.08	18.51	18.57	19.00	19.47	18.02	18.45	18.51	18.94	19.41
8H	4H	16.27	16.77	16.75	17.22	17.69	16.24	16.73	16.71	17.18	17.66
	6H	17.38	17.77	17.89	18.27	18.76	17.33	17.72	17.84	18.22	18.71
	8H	18.07	18.42	18.60	18.94	19.44	18.01	18.36	18.54	18.88	19.38
	12H	19.16	19.46	19.68	19.96	20.54	19.10	19.41	19.62	19.90	20.48
12H	4H	16.32	16.75	16.82	17.24	17.72	16.29	16.72	16.78	17.21	17.68
	6H	17.82	17.87	18.05	18.34	18.89	17.78	17.82	18.01	18.29	18.84
	8H	18.31	18.61	18.83	19.11	19.69	18.26	18.56	18.78	19.06	19.64
Variation with the observer position at spacings:											
S = 1.0H	1.5/-1.8					1.5/-1.8					
S = 1.5H	2.6/-2.1					2.6/-2.1					
S = 2.0H	4.0/-1.9					4.0/-1.9					
Standard tables:	BK4					BK4					
Uncorrected UGR	4.4					4.4					



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	0.90	0.90	0.90	0.88	0.88	0.88	0.84	0.84	0.84	0.80	0.80	0.80	0.77	0.77	0.77	0.75
1	0.84	0.82	0.80	0.82	0.81	0.79	0.79	0.78	0.77	0.76	0.75	0.74	0.74	0.73	0.72	0.71
2	0.79	0.76	0.74	0.77	0.75	0.73	0.75	0.73	0.71	0.73	0.71	0.70	0.71	0.69	0.68	0.67
3	0.74	0.71	0.68	0.73	0.70	0.68	0.71	0.69	0.67	0.70	0.68	0.66	0.68	0.66	0.65	0.64
4	0.71	0.67	0.64	0.70	0.66	0.64	0.68	0.65	0.63	0.67	0.64	0.62	0.65	0.63	0.62	0.61
5	0.67	0.64	0.61	0.67	0.63	0.61	0.65	0.62	0.60	0.64	0.62	0.60	0.63	0.61	0.59	0.58
6	0.64	0.61	0.58	0.64	0.60	0.58	0.63	0.60	0.57	0.62	0.59	0.57	0.61	0.58	0.57	0.56
7	0.62	0.58	0.55	0.61	0.58	0.55	0.60	0.57	0.55	0.60	0.57	0.55	0.59	0.56	0.54	0.54
8	0.59	0.56	0.53	0.59	0.56	0.53	0.58	0.55	0.53	0.58	0.55	0.53	0.57	0.54	0.52	0.52
9	0.57	0.54	0.51	0.57	0.53	0.51	0.56	0.53	0.51	0.56	0.53	0.51	0.55	0.53	0.51	0.50
10	0.55	0.52	0.49	0.55	0.52	0.49	0.55	0.51	0.49	0.54	0.51	0.49	0.53	0.51	0.49	0.48



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	9576.00	9476.44	9214.31	8901.00	8532.56	7988.63	7525.69	7031.81	6447.38
45.0	9546.75	9394.31	9094.50	8713.69	8323.31	7890.75	7288.88	6765.75	6238.69
90.0	9500.63	9349.31	9081.00	8707.50	8315.44	7835.06	7362.56	6786.00	6192.56
135.0	9531.56	9522.56	9360.00	9114.19	8802.56	8325.00	7895.25	7430.63	6869.25
180.0	9576.00	9562.50	9413.44	9136.69	8807.63	8367.75	7939.13	7404.19	6827.06
225.0	9546.75	9595.13	9521.44	9311.63	8986.50	8623.13	8202.94	7693.88	7152.19
270.0	9500.63	9541.69	9459.56	9264.38	8982.56	8514.56	8104.50	7654.50	7239.94
315.0	9531.56	9433.13	9201.38	8857.69	8503.88	8026.88	7579.69	7038.00	6453.00
360.0	9576.00	9476.44	9214.31	8901.00	8532.56	7988.63	7525.69	7031.81	6447.38
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	5864.06	5344.31	4770.56	4272.19	3728.81	3222.56	2813.06	2395.13	2037.94
45.0	5573.25	5051.25	4528.69	3961.69	3429.00	3001.50	2567.25	2183.63	1890.56
90.0	5655.94	5072.06	4502.25	4010.63	3548.81	3008.81	2623.50	2277.56	1936.69
135.0	6300.56	5773.50	5180.06	4668.75	4107.94	3584.25	3156.19	2714.06	2364.19
180.0	6310.69	5710.50	5126.06	4618.69	4124.25	3538.13	3111.75	2715.75	2317.50
225.0	6635.25	6052.50	5451.75	4915.13	4407.19	3800.25	3348.56	2926.69	2493.56
270.0	6563.25	6044.06	5583.38	4938.19	4375.69	3947.63	3373.31	2898.00	2567.25
315.0	5931.56	5355.00	4782.94	4273.31	3788.44	3233.81	2837.25	2466.00	2103.19
360.0	5864.06	5344.31	4770.56	4272.19	3728.81	3222.56	2813.06	2395.13	2037.94
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1776.94	1554.75	1345.50	1181.25	1065.38	952.31	876.94	810.56	749.81
45.0	1611.56	1408.50	1227.38	1083.94	977.63	904.50	817.31	757.13	703.13
90.0	1651.50	1440.00	1206.00	1104.24	1005.75	913.84	843.08	774.45	712.80
135.0	2014.88	1757.25	1493.44	1317.94	1170.56	1058.06	956.81	876.94	811.13
180.0	1974.94	1717.88	1476.56	1285.31	1120.67	1020.60	945.11	862.14	784.29
225.0	2134.69	1857.94	1596.38	1383.19	1118.31	1091.14	992.93	901.24	825.08
270.0	2161.69	1885.50	1647.00	1401.75	1245.94	1123.31	999.00	917.44	846.56
315.0	1804.50	1581.75	1371.94	1115.55	1088.94	980.83	899.61	822.32	752.51
360.0	1776.94	1554.75	1345.50	1181.25	1065.38	952.31	876.94	810.56	749.81
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	680.06	629.44	578.25	538.31	496.69	461.81	426.38	393.19	362.25
45.0	639.00	592.31	549.56	507.38	467.44	434.81	401.06	370.69	344.81
90.0	662.68	614.19	560.25	519.86	484.09	441.68	412.03	383.85	353.87
135.0	735.19	679.50	630.56	571.50	525.38	492.19	450.00	415.13	390.38
180.0	734.23	673.20	612.00	572.74	530.78	478.97	449.55	418.39	389.48
225.0	764.21	700.54	642.99	596.31	554.06	505.74	470.53	438.02	403.99
270.0	767.25	709.31	657.00	603.00	554.63	515.81	475.31	439.88	408.94
315.0	694.52	632.14	577.97	535.28	497.76	455.06	423.68	393.98	359.21
360.0	680.06	629.44	578.25	538.31	496.69	461.81	426.38	393.19	362.25
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	336.38	312.75	287.44	270.79	238.89	217.52	195.08	179.72	165.99
45.0	318.38	295.88	285.19	248.79	227.42	207.73	186.75	172.07	158.63
90.0	325.46	301.78	278.27	254.81	232.31	210.15	193.56	176.51	161.66
135.0	355.50	330.75	307.13	285.75	258.53	234.96	210.21	193.95	179.21
180.0	355.89	330.81	304.65	281.08	260.89	237.83	214.93	195.41	180.17
225.0	373.16	347.29	320.46	295.20	276.98	253.18	230.18	208.52	190.07
270.0	377.44	351.00	322.88	297.00	286.31	250.71	224.10	206.10	190.13
315.0	333.06	308.87	280.91	260.72	239.46	214.59	198.79	181.41	164.14
360.0	336.38	312.75	287.44	270.79	238.89	217.52	195.08	179.72	165.99

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	150.36	138.83	127.91	116.44	106.14	97.48	88.76	81.84	74.87
45.0	143.04	131.79	121.67	110.59	100.69	92.87	84.83	77.91	70.88
90.0	149.12	137.53	124.26	114.47	105.47	94.05	87.47	80.33	72.45
135.0	162.68	150.69	139.95	127.52	116.21	107.55	97.93	90.34	82.35
180.0	164.87	152.61	138.21	127.18	117.17	106.65	96.86	88.93	81.79
225.0	174.60	160.54	144.68	133.09	122.40	109.97	100.80	92.70	84.38
270.0	171.28	157.95	145.41	132.36	120.21	110.42	100.18	92.08	83.98
315.0	153.17	141.13	125.89	117.17	108.17	96.58	90.11	83.25	76.89
360.0	150.36	138.83	127.91	116.44	106.14	97.48	88.76	81.84	74.87
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	68.51	63.23	57.77	52.93	48.77	45.06	40.84	37.74	35.04
45.0	64.86	59.85	54.79	50.12	46.35	42.92	38.93	36.17	33.69
90.0	66.77	61.48	56.19	51.86	47.42	43.03	40.16	36.90	33.75
135.0	74.87	69.30	63.34	57.54	53.49	49.33	44.61	41.23	38.14
180.0	73.69	67.84	62.49	57.15	52.26	48.32	44.27	40.56	37.69
225.0	76.78	70.71	64.46	59.40	54.39	49.61	45.96	42.24	38.81
270.0	76.61	70.65	64.58	59.01	54.51	50.29	45.56	42.08	38.93
315.0	69.64	64.41	59.34	54.34	49.56	45.79	41.96	38.36	35.61
360.0	68.51	63.23	57.77	52.93	48.77	45.06	40.84	37.74	35.04
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	32.40	30.49	29.25	28.13	27.06	26.21	25.26	24.41	23.51
45.0	31.44	29.93	28.97	27.84	26.83	25.93	25.09	24.19	23.34
90.0	31.95	30.54	28.97	28.07	27.17	26.21	25.26	24.47	23.63
135.0	34.99	32.51	31.05	29.53	28.46	27.45	26.44	25.59	24.64
180.0	34.71	32.51	30.77	29.42	28.41	27.39	26.33	25.48	24.69
225.0	36.11	33.75	31.44	30.15	29.08	27.79	26.83	25.93	24.92
270.0	35.83	33.24	31.50	30.15	28.91	27.96	26.89	26.04	25.09
315.0	33.02	31.22	29.81	28.58	27.62	26.72	25.71	24.86	24.02
360.0	32.40	30.49	29.25	28.13	27.06	26.21	25.26	24.41	23.51
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	22.61	21.83	20.98	20.14	19.35	18.62	17.66	16.93	16.09
45.0	22.56	21.60	20.87	20.08	19.18	18.39	17.55	16.65	15.81
90.0	22.73	21.94	21.04	20.25	19.29	18.45	17.66	16.82	15.86
135.0	23.79	22.95	22.16	21.15	20.36	19.58	18.56	17.78	16.93
180.0	23.68	22.89	22.05	21.21	20.25	19.46	18.56	17.72	16.88
225.0	24.13	23.29	22.33	21.71	20.76	19.80	19.07	18.28	17.21
270.0	24.24	23.40	22.67	21.66	20.93	20.14	19.18	18.45	17.66
315.0	23.06	22.28	21.54	20.70	19.80	19.07	18.17	17.44	16.76
360.0	22.61	21.83	20.98	20.14	19.35	18.62	17.66	16.93	16.09
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	15.19	14.40	13.61	12.77	12.09	11.36	10.46	9.96	9.68
45.0	14.91	14.06	13.33	12.49	11.76	10.97	10.24	9.90	9.73
90.0	15.13	14.29	13.50	12.77	11.98	11.31	10.29	9.90	9.73
135.0	15.98	15.13	14.34	13.50	12.71	11.81	11.14	10.35	9.96
180.0	16.03	15.24	14.40	13.56	12.83	11.93	11.03	10.41	9.90
225.0	16.54	15.81	14.79	14.01	13.33	12.49	11.59	10.86	10.29
270.0	16.65	15.86	15.08	14.18	13.16	12.21	11.31	10.58	10.13
315.0	16.20	15.41	14.68	14.01	13.16	11.19	10.52	10.07	9.68
360.0	15.19	14.40	13.61	12.77	12.09	11.36	10.46	9.96	9.68

Intensity data(cd)

C/ γ (°)	90.0
0.0	9.62
45.0	9.73
90.0	9.73
135.0	9.73
180.0	9.62
225.0	9.90
270.0	9.73
315.0	9.68
360.0	9.62