CoC SMEEST TU-Gabrovo Tech Park
www.tugab.bg
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Spectroradiometer measurements
Lightsource Test Report (1/2)

Product Infomation

Product Category: Indoor
Product Type: LED Fixture
Product Spec: Model: Hydra mini 200W HP
Product Number: SN: 4722/0001
Manufacturer: Industrial Lighting
Submitted Unit: 3

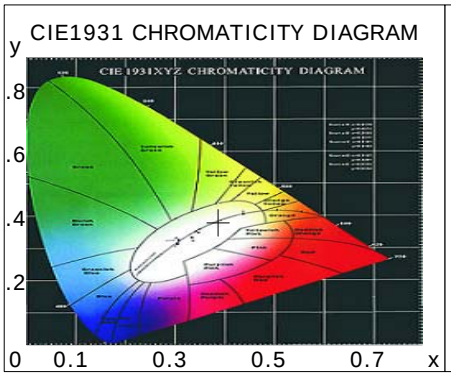
CIE Colorimetric Parameters

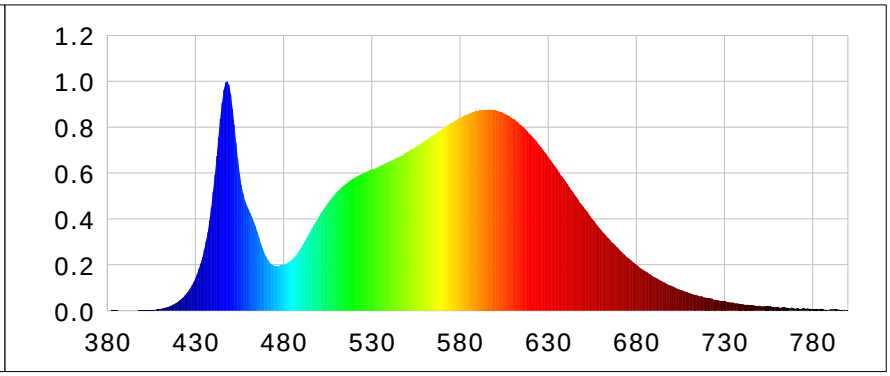
Chromaticity coordinates: x=0.3872 y=0.3825 u(u')=0.2272 v=0.3367 v'=0.5051
CCT: Tc=3865K (duv=0.00075)
Color Ratio: R=0.187 G=0.782 B=0.032
Peak Wavelength: 447.8nm
Half Bandwidth: 17.7nm
Dominant Wavelength: 579.2nm
Color Purity: 0.310
CRI: Ra= 82.2, avgR(1~14)= 75.5, avgR(1~15)= 75.4 TM30: Rf= 83, Rg= 97

R1 =80	R2 =87	R3 =94	R4 =82	R5 =81	R6 =84	R7 =85	R8 =64
R9 =6	R10=71	R11=82	R12=63	R13=82	R14=96	R15=74	

Color Quality Scale: Qa= 82.5, Qf= 82.6, Qp= 83.0, Qg= 93.6

Q1 =81	Q2 =98	Q3 =79	Q4 =78	Q5 =83	Q6 =84	Q7 =85	Q8 =89
Q9 =97	Q10=88	Q11=85	Q12=84	Q13=83	Q14=72	Q15=75	





Photometric Parameters

Luminous Flux: 32166.85 lm
Efficiency: 160.99 lm/W
Radiant Power: 96.356 W
EEI: 0.08
Energy Efficiency Class: A++ (EU 874-2012)
Pupil Flux: 46870.92 Plm
Pupil Lumens Per Watt: 234.58 Plm/W
Pupil Factor (Kp): 1.457
PAR: 94.432 W
PPF: 443.140 umol/s
R/B: 1.6
Photons1: 74.197 umol/s(400~500nm) Photons2: 160.788 umol/s(600~700nm)
Cirtopic Flux: 92146.29 lm
Mesopic Flux (CIE R.): 36241.15 lm (Lp= 0.300 cd/m2, S/P= 1.62)
Mesopic Flux (USP): 36757.51 lm (Lp= 0.300 cd/m2, S/P= 1.62)
Mesopic Flux (MOVE): 37195.32 lm (Lp= 0.300 cd/m2, S/P= 1.62)

Electric Parameters

Voltage: 230.10V
Current: 0.8860A
Power: 199.81W
Power Factor: 0.9790
Frequency: 49.99Hz

Condition: Tx:22.3'C, Ti:22.3'C, R.H.:60%
Test Device: Lisun LMS-9000B
Test Lab: TU-Gabrovo CoC SMEEST lab. Lighting
Test Time: 2022-12-20 10:14:29
Operator: Plamen Tsankov
Inspector:

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Spectroradiometer measurements
Lightsource Test Report (2/2)

Product Infomation

Product Category: Indoor
Product Type: LED Fixture
Product Spec: Model: Hydra mini 200W HP
Product Number: SN: 4722/0001
Manufacturer: Industrial Lighting
Submitted Unit: 3

WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)	WL(nm)	PL	PE(mW/nm)
380	0.0003	0.1894	525	0.5980	384.4613	670	0.2697	173.3652
385	0.0009	0.6069	530	0.6162	396.1913	675	0.2307	148.3247
390	0.0002	0.1259	535	0.6313	405.8757	680	0.2003	128.8091
395	0.0005	0.3291	540	0.6500	417.9002	685	0.1721	110.6537
400	0.0015	0.9382	545	0.6681	429.5456	690	0.1465	94.1987
405	0.0029	1.8329	550	0.6915	444.5730	695	0.1261	81.1007
410	0.0080	5.1519	555	0.7151	459.7793	700	0.1080	69.4399
415	0.0179	11.5364	560	0.7394	475.3531	705	0.0902	57.9903
420	0.0385	24.7346	565	0.7660	492.5017	710	0.0773	49.6839
425	0.0749	48.1383	570	0.7933	510.0103	715	0.0650	41.7580
430	0.1415	90.9877	575	0.8183	526.1061	720	0.0566	36.4165
435	0.2657	170.7959	580	0.8414	540.9433	725	0.0475	30.5200
440	0.5187	333.4771	585	0.8585	551.9753	730	0.0400	25.6869
445	0.9050	581.8207	590	0.8721	560.6878	735	0.0357	22.9369
450	0.9436	606.6934	595	0.8760	563.2244	740	0.0289	18.5488
455	0.5990	385.1265	600	0.8746	562.2923	745	0.0241	15.4645
460	0.4427	284.6372	605	0.8592	552.3991	750	0.0222	14.2831
465	0.3453	222.0159	610	0.8364	537.7291	755	0.0182	11.6887
470	0.2361	151.8030	615	0.8076	519.2547	760	0.0140	8.9944
475	0.1958	125.9144	620	0.7670	493.1009	765	0.0131	8.4288
480	0.1999	128.5333	625	0.7203	463.1138	770	0.0081	5.2018
485	0.2242	144.1438	630	0.6695	430.4687	775	0.0119	7.6707
490	0.2740	176.1507	635	0.6175	397.0185	780	0.0068	4.3761
495	0.3425	220.2081	640	0.5614	360.9378	785	0.0079	5.1066
500	0.4090	262.9596	645	0.5057	325.1213	790	0.0065	4.2088
505	0.4688	301.4151	650	0.4521	290.6527	795	0.0046	2.9573
510	0.5152	331.2388	655	0.3998	257.0249	800	0.0027	1.7439
515	0.5519	354.8406	660	0.3521	226.3783			
520	0.5787	372.0573	665	0.3095	198.9714			

Condition: Tx:22.3'C, Ti:22.3'C, R.H.:60%
Test Device: Lisun LMS-9000B
Test Lab: TU-Gabrovo CoC SMEEST lab. Lighting
Test Time: 2022-12-20 10:14:29
Operator: Plamen Tsankov
Inspector:

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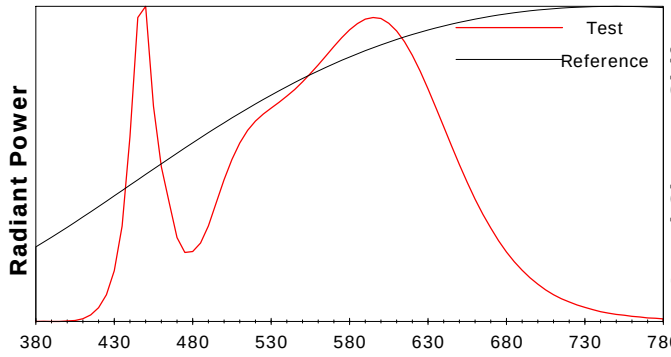
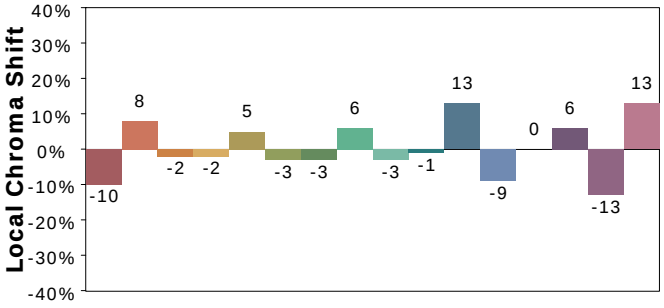
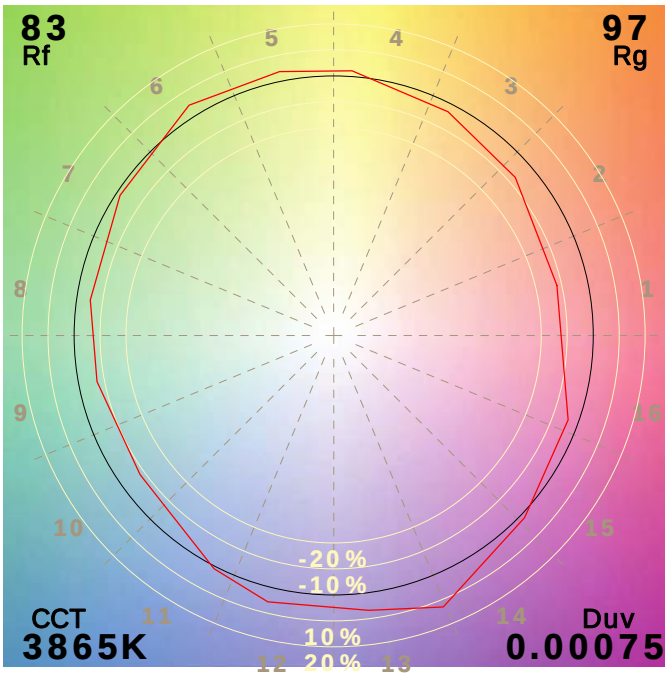
Spectroradiometer measurements
IES TM-30-18 Color Rendition Report

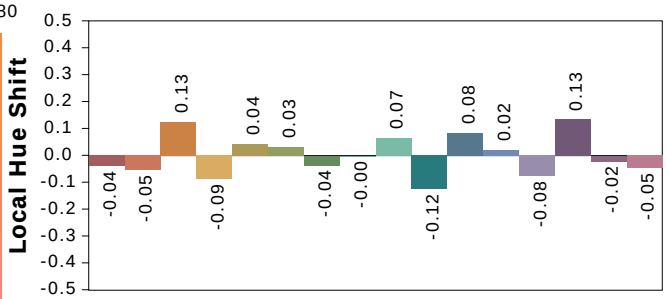
Product Infomation

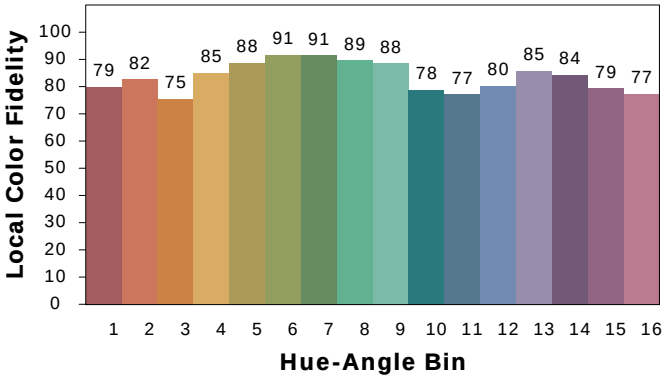
Product Category: Indoor
Product Type: LED Fixture
Product Spec: Model: Hydra mini 200W HP
Product Number: SN: 4722/0001
Manufacturer: Industrial Lighting
Submitted Unit: 3

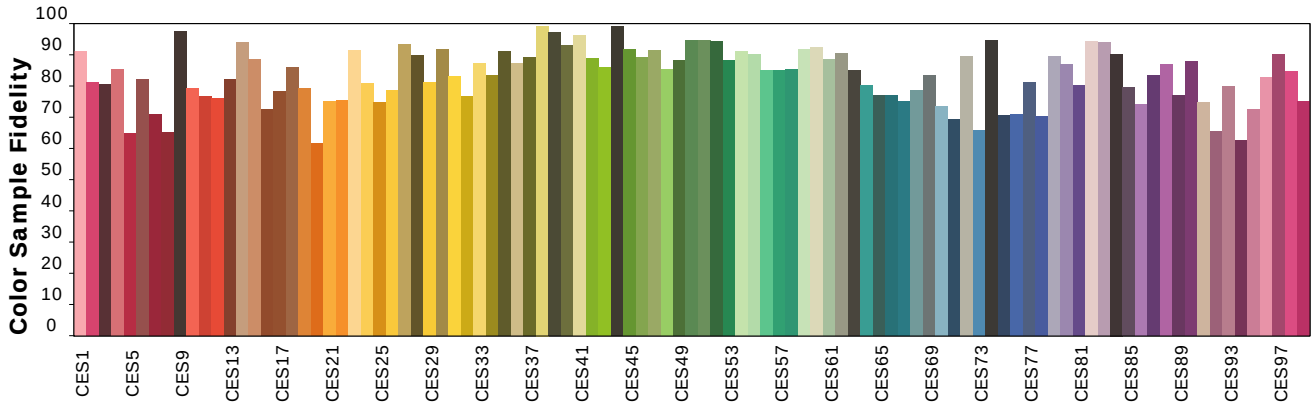












Condition: Tx:22.3'C, Ti:22.3'C, R.H.:60%
Test Device: Lisun LMS-9000B
Test Lab: TU-Gabrovo CoC SMEEST lab. Lighting
Test Time: 2022-12-20 10:14:29
Operator: Plamen Tsankov
Inspector:

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Report No.: 5

Test Time: 2022-12-19 09:58

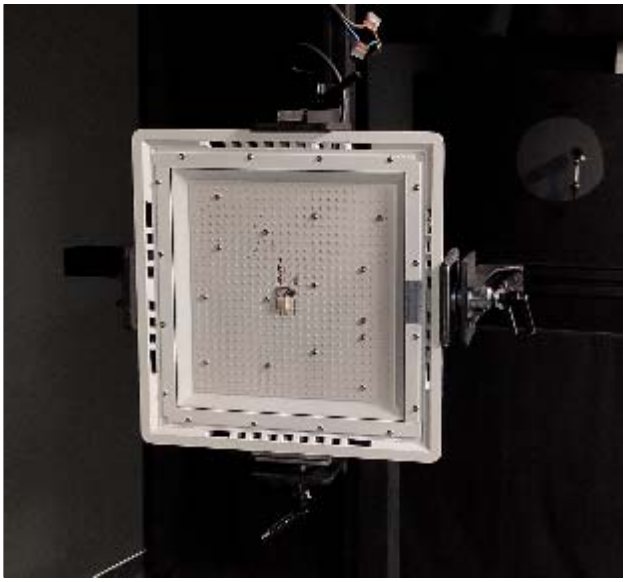
Luminaire Property

Luminaire Manufacturer: Industrial Lighting Ltd.
Luminaire Category: Flood
Luminaire Description: Hydra 200W small HP SN:4722/0001
Lamp Description: LED
Number of Lamps: 1
Luminous Length (mm): 380
Luminous Width (mm): 380
Luminous Height (mm): 70
Voltage: 229.8 V
Current: 0.886 A
Power: 199.30 W
Power Factor: 0.980

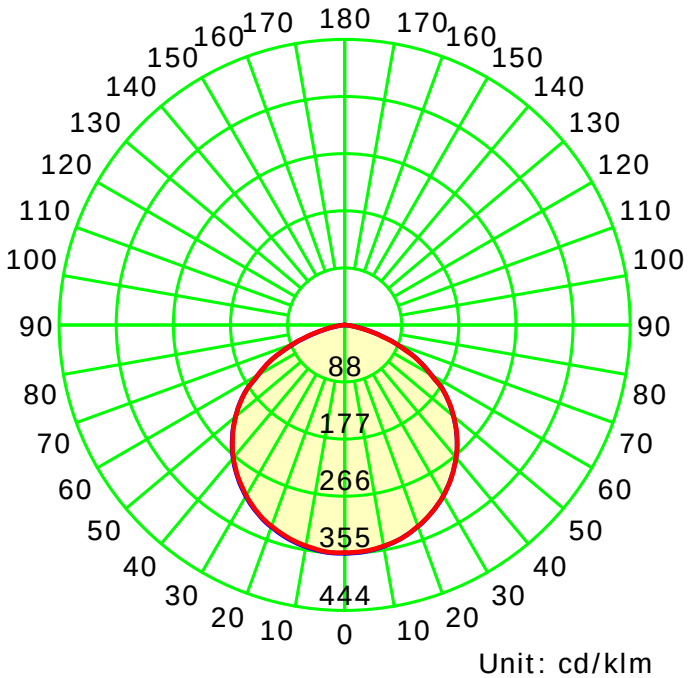
Photometric Results

IES Classification: Type II
Longitudinal Classification: Very Short
Total Rated Lamp Lumens: 32202.4 lm
Measurement Flux: 32202.4 lm
Efficiency: 100%
Downward Ratio: 100%
Upward Ratio: 0%
Luminaire Efficacy Rating (LER): 161.63
Central Intensity: 355.35 cd/klm
Max. Intensity: 355.48 cd/klm
Pos of Max. Intensity: H180 V2

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd/klm

C Plane (°):0.0-360.0: 5.0
Gamma Plane (°):0.0-90.0:1.0 C90-C270
Test Lab: TU-Gabrovo
Test Device: LSG-1700B
Test Type: TYPE C
Distance: 7.992 m
Temperature: 25
Humidity: 60%
Operator: Plamen Tsankov
Inspector:

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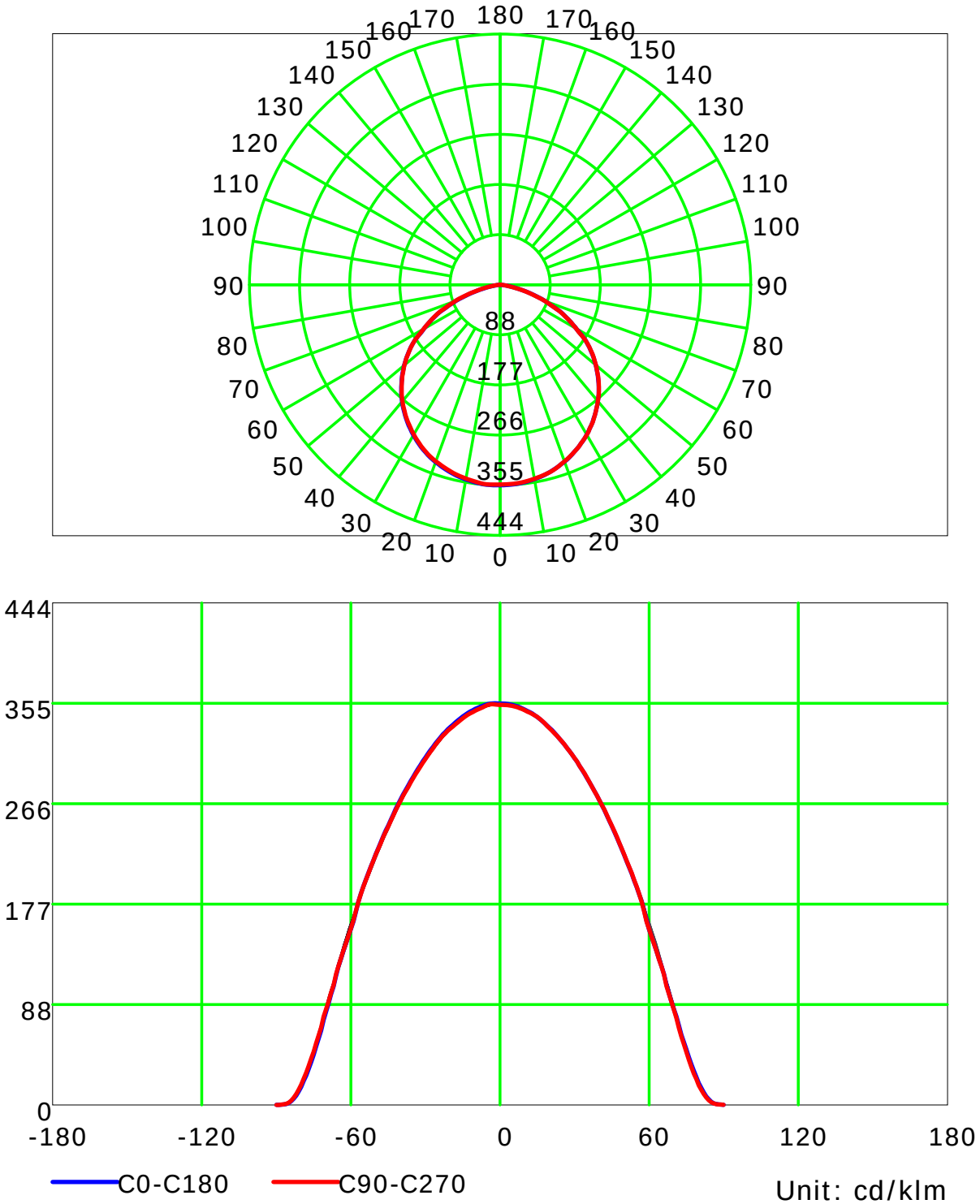
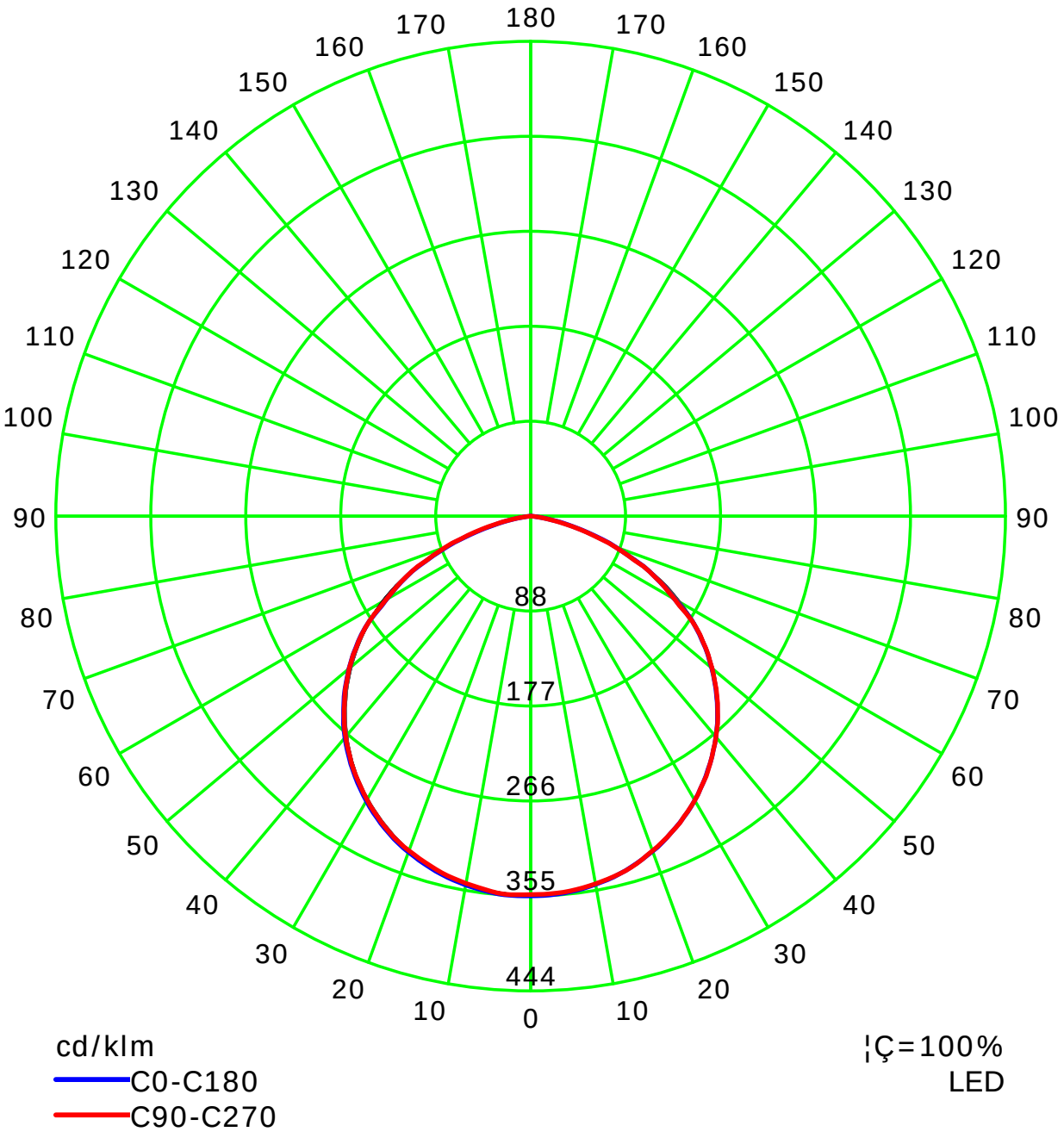
Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Luminous Intensity Distribution Curve(cd/klm)



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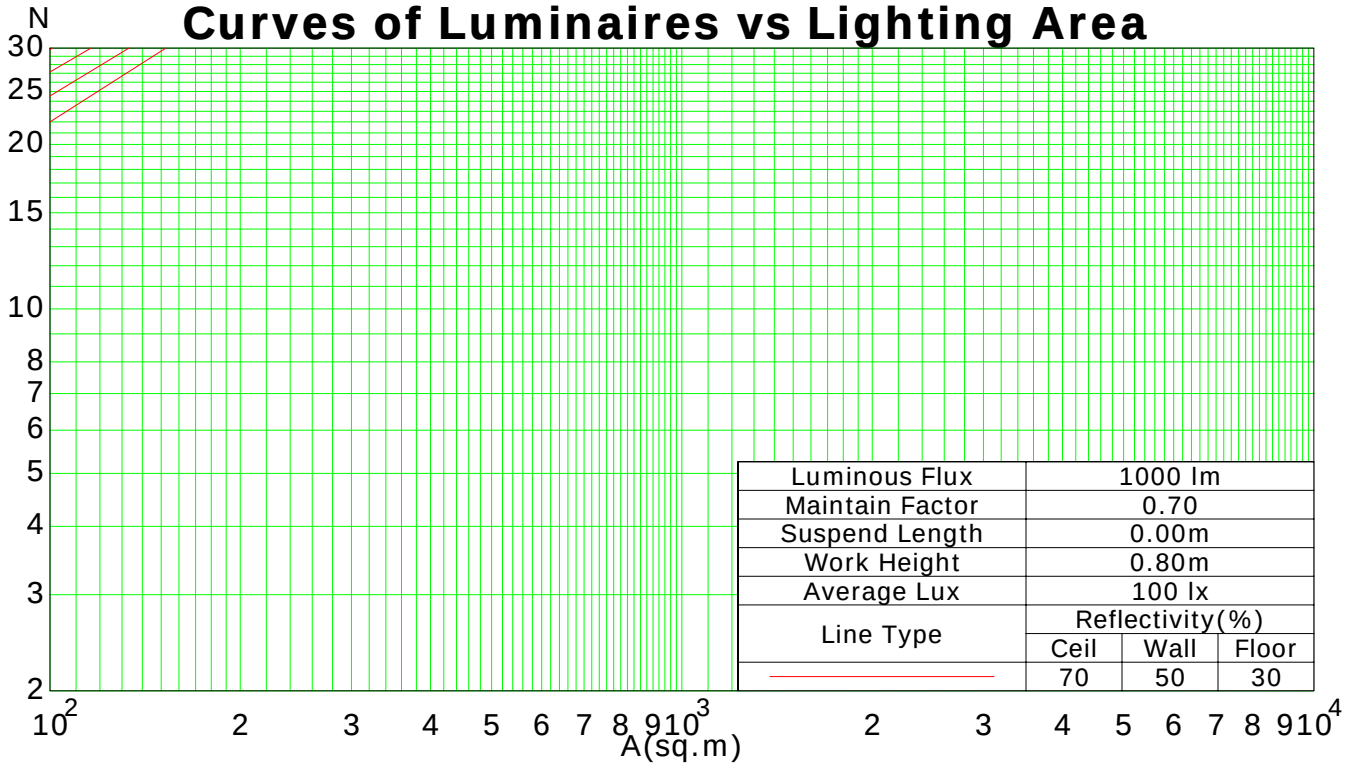
Coefficients Of Utilization - Zonal Cavity Method

RC	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.5	0.5	0.5	0.3	0.3	0.3	0.1	0.1	0.1	0
RW	0.7	0.5	0.3	0.1	0.7	0.5	0.3	0.1	0.5	0.3	0.1	0.5	0.3	0.1	0.5	0.3	0.1	0
RCR	RF = 0.2																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	74	71
3	91	81	73	66	89	79	72	66	76	70	65	73	68	64	71	66	63	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	57	49	42	69	57	48	42	55	47	42	53	46	41	51	46	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	38	33	43	37	32	31
9	57	44	35	30	55	43	35	30	42	35	30	41	34	29	40	34	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

Spacing Criteria (0-180): 1.28
Spacing Criteria (90-270): 1.29
Spacing Criteria (Diagonal): 1.40

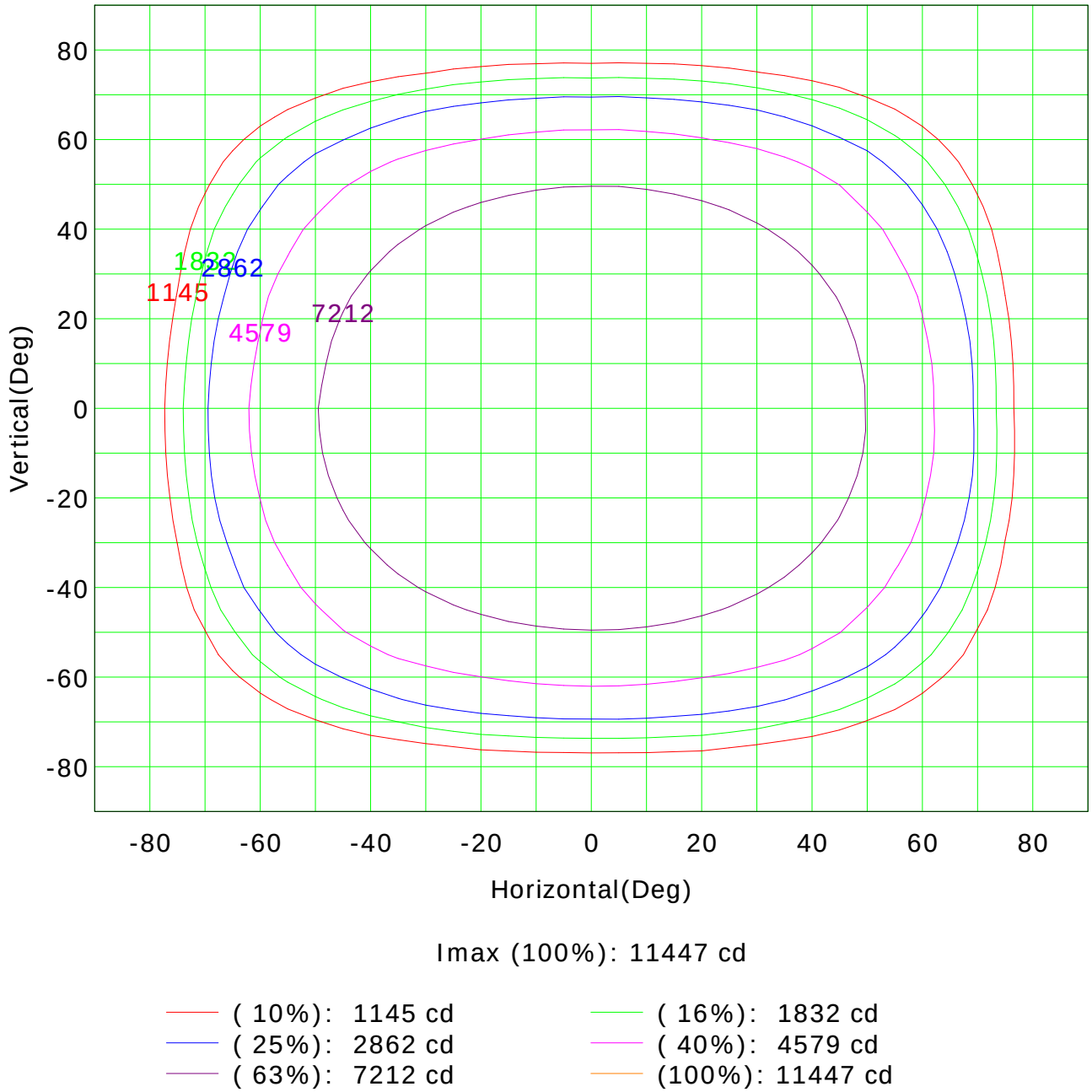
Curves of Luminaires vs Lighting Area



C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Isocandela (rectangle)



Imax (100%): 11447 cd

(10%): 1145 cd
(16%): 1832 cd
(25%): 2862 cd
(40%): 4579 cd
(63%): 7212 cd
(100%): 11447 cd

C Plane (°):0.0-360.0: 5.0
Gamma Plane (°):0.0-90.0:1.0
Test Lab: TU-Gabrovo
Test Device: LSG-1700B
Test Type: TYPE C
Distance: 7.992 m
Temperature: 25
Humidity: 60%
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Inspector:

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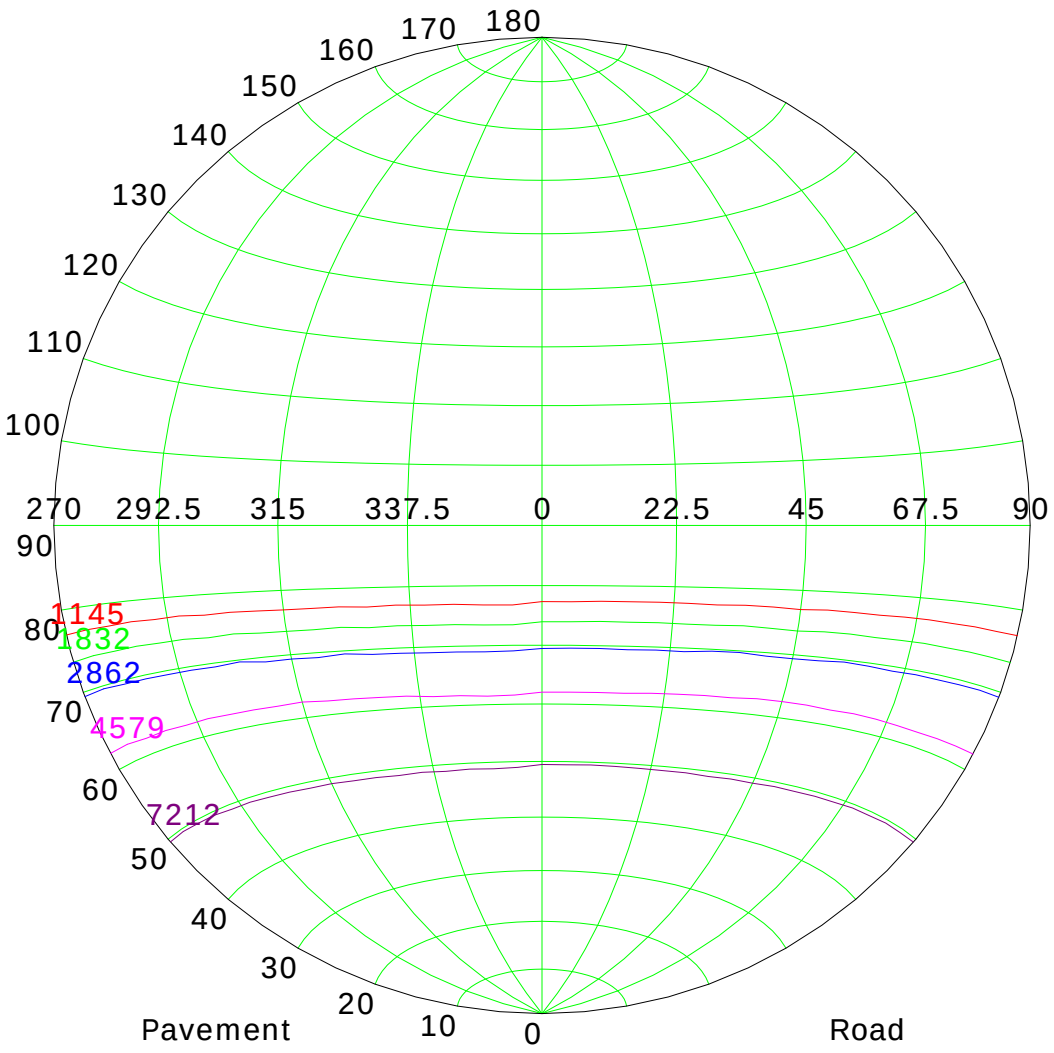
Isocandela (sphere)



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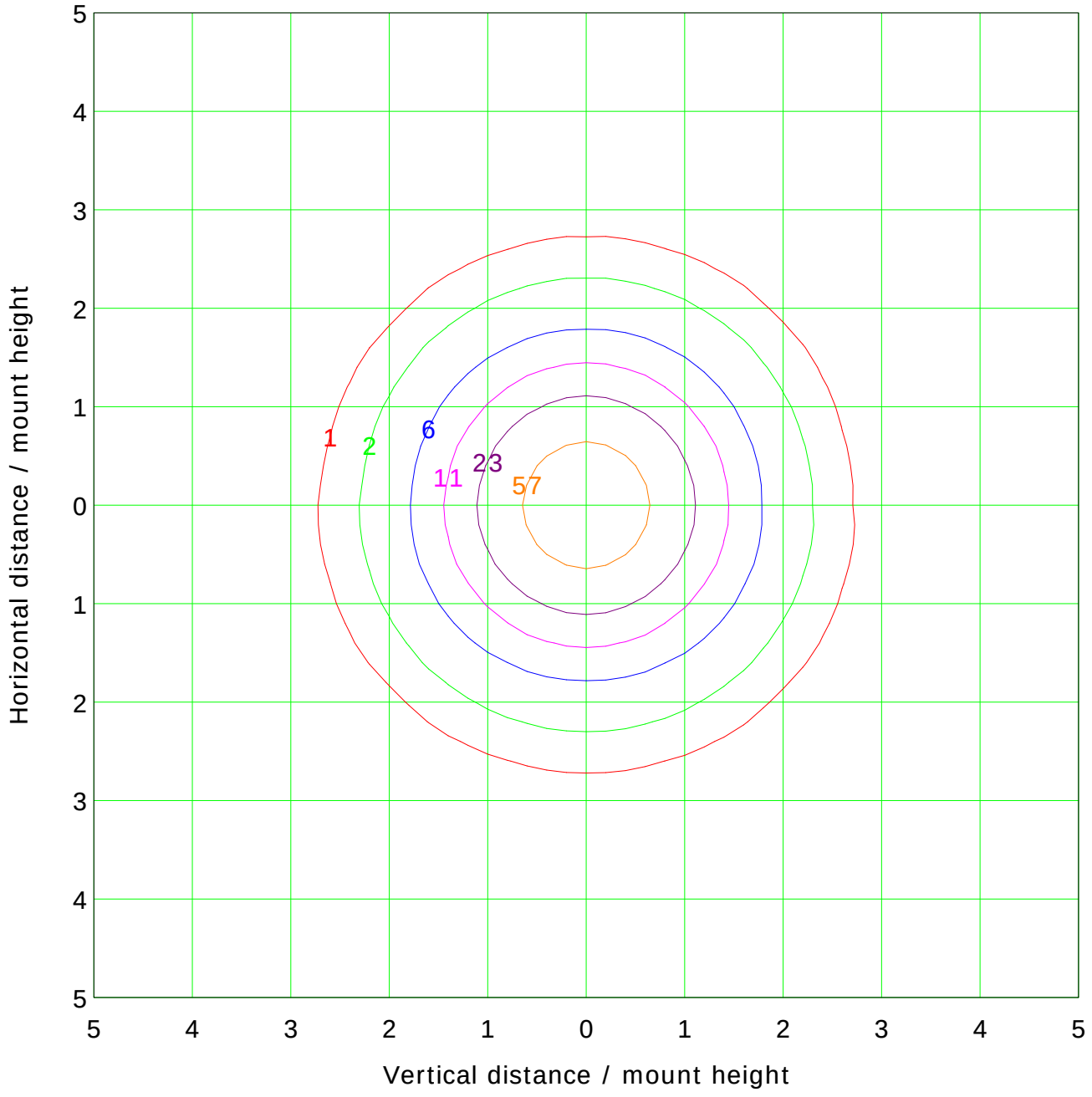
C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 114.4 lx

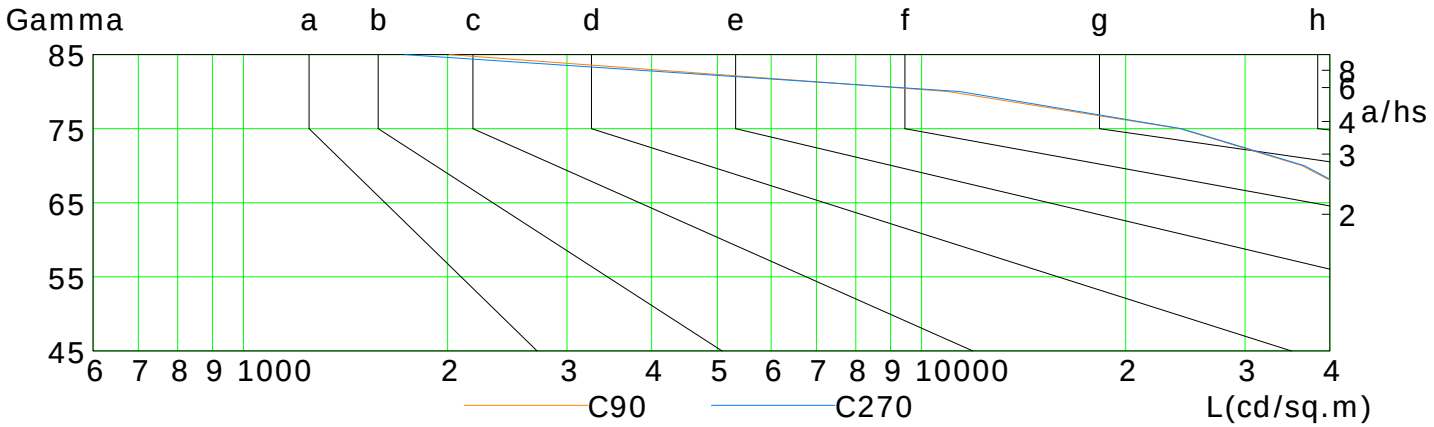
(1%): 1.1 lx
(2%): 2.3 lx
(5%): 5.7 lx
(10%): 11.4 lx
(20%): 22.9 lx
(50%): 57.2 lx
(100%): 114.4 lx

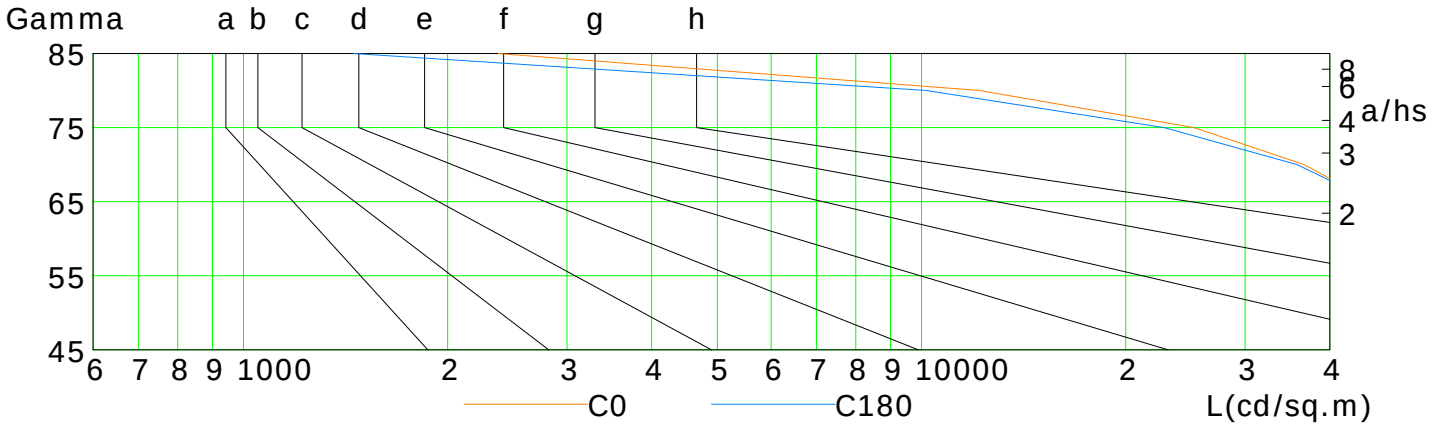
C Plane (°):0.0-360.0:5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Lum Limit Curve

Dazzle	Quality	Illuminance (lx)							
1.15	A	2000	1000	500	<=300				
1.50	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.20	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h



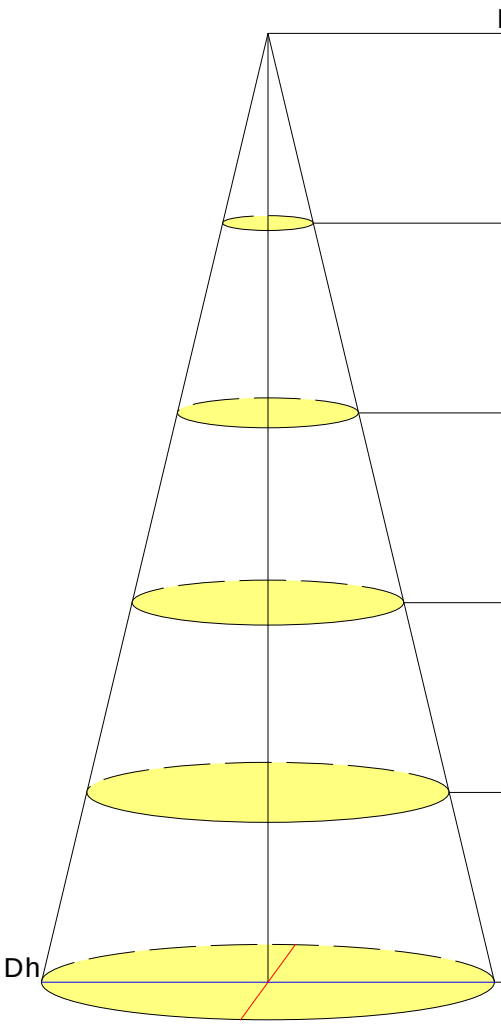


L(cd/sq.m)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	65774	62931	59365	52595	46461	36637	25221	12166	2376
C90	65878	63047	59524	52693	46392	36409	24051	10950	2013
C180	65889	63210	59577	52755	46506	35775	22787	10159	1454
C270	65674	63093	59464	52918	46604	36688	24161	11396	1729

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Illuminance at a Distance



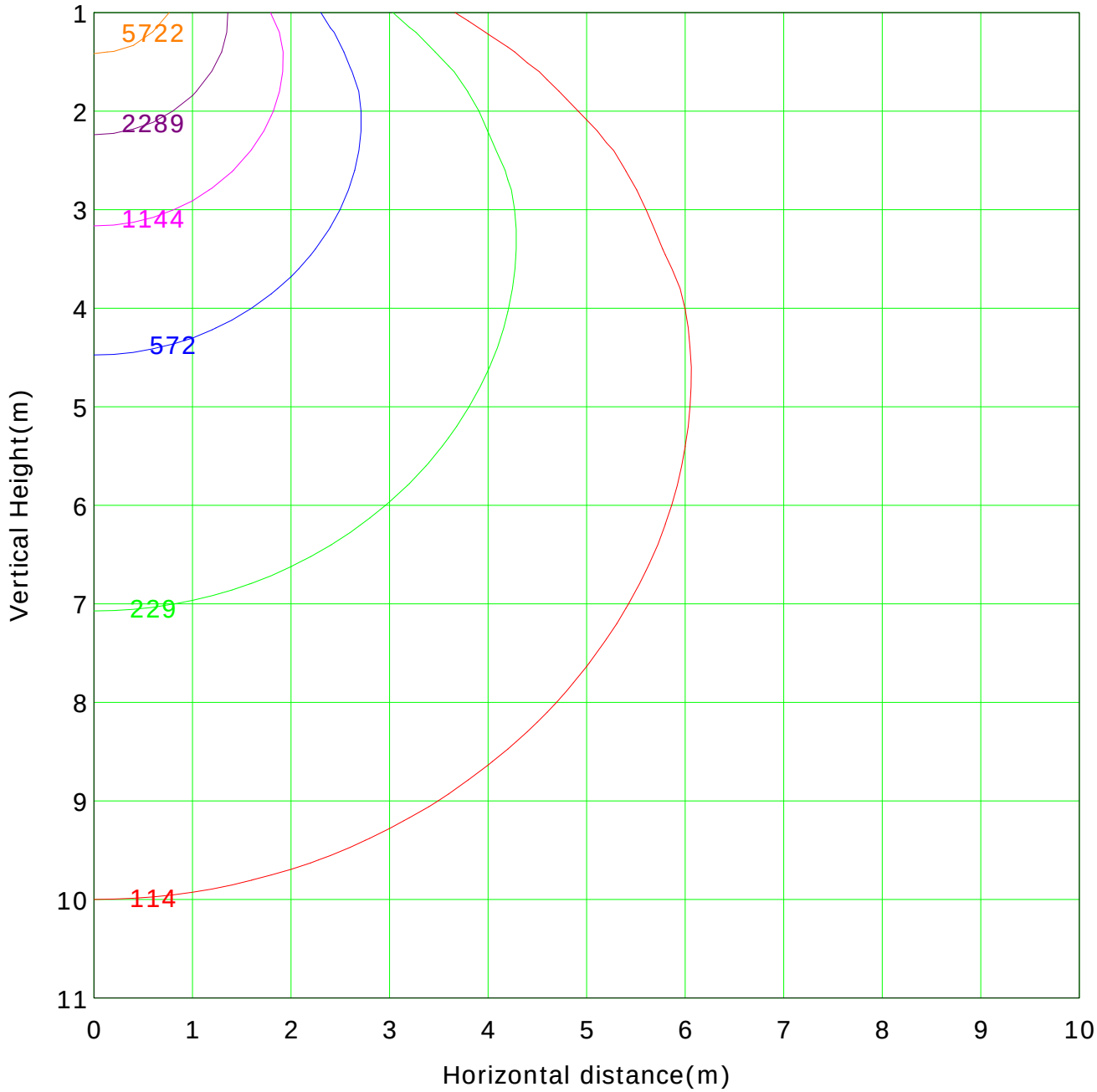
Dist(m)	Enadir(lx)	Dh/Dv_B(m)	S_B(sq.m)	Eav_B(lx)
10.0	114.43	31.15/31.17	773.2	32.19
20.0	28.61	62.31/62.34	3093.0	8.05
30.0	12.71	93.46/93.50	6959.2	3.58
40.0	7.15	124.61/124.67	12371.9	2.01
50.0	4.58	155.77/155.84	19331.1	1.29

Beam Angle(B): H114.6 V114.6 Field Angle(F): H153.5 V153.6

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Vertical IsoLux Plot



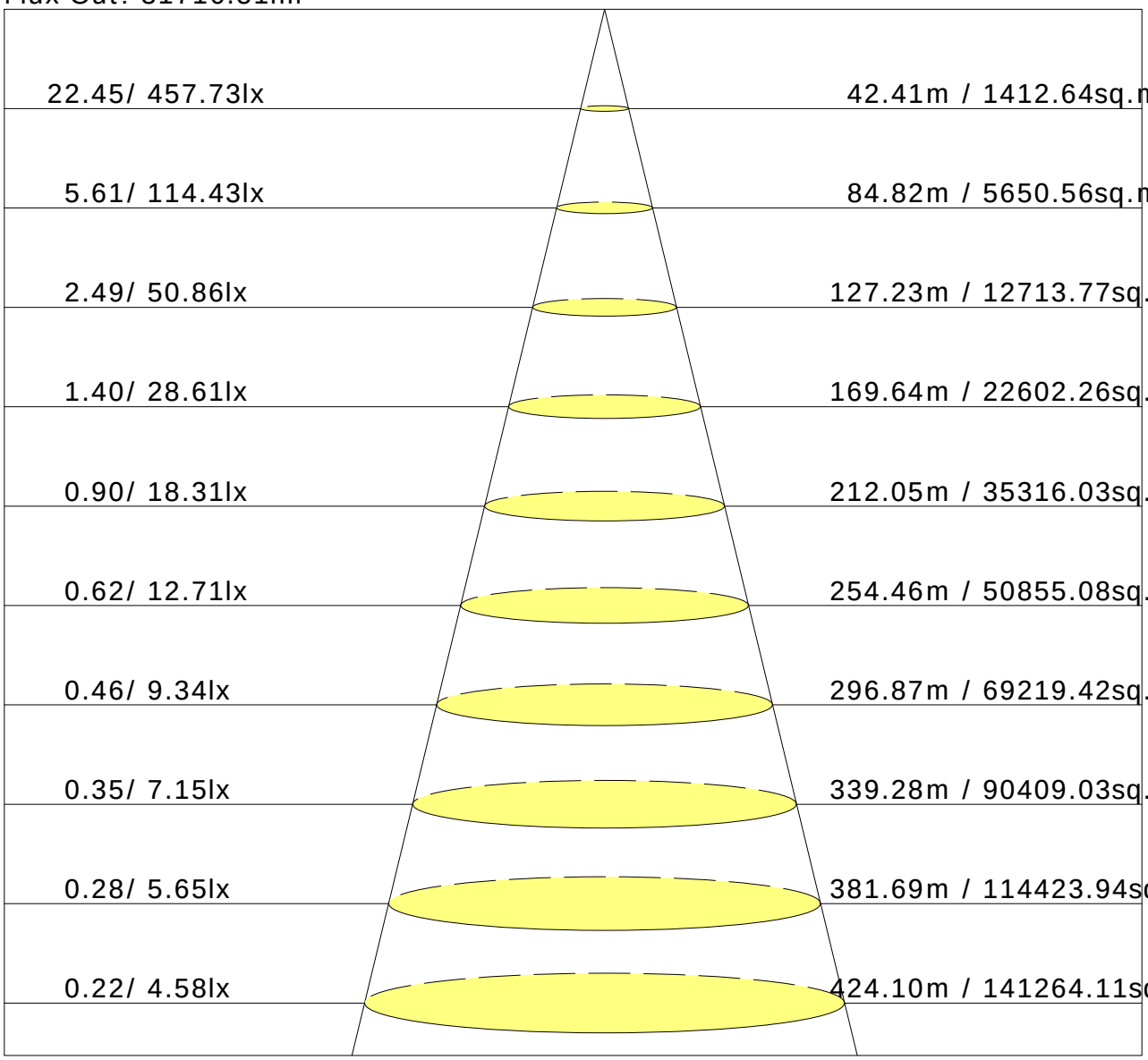
Lowest(m): 1.0m Highest(m): 11.0m Max Lux: 11443.1 lx

(1%): 114.4 lx
(2%): 228.9 lx
(5%): 572.2 lx
(10%):1144.3 lx
(20%):2288.6 lx
(50%):5721.6 lx
(100%):11443.1 lx

C Plane (°):0.0-360.0:5.0
Gamma Plane (°):0.0-90.0:1.0
Test Lab: TU-Gabrovo
Test Device: LSG-1700B
Test Type: TYPE C
Distance: 7.992 m
Temperature: 25
Humidity: 60%
Operator: Plamen Tsankov
Inspector:

The Average Illuminance Effective Figure

Flux Out: 31716.51lm



Height	Avg./Nadir. E	Beam Angle:153.5°	Diameter / Area
5.0m	22.45/ 457.73lx		42.41m / 1412.64sq.m
10.0m	5.61/ 114.43lx		84.82m / 5650.56sq.m
15.0m	2.49/ 50.86lx		127.23m / 12713.77sq.m
20.0m	1.40/ 28.61lx		169.64m / 22602.26sq.m
25.0m	0.90/ 18.31lx		212.05m / 35316.03sq.m
30.0m	0.62/ 12.71lx		254.46m / 50855.08sq.m
35.0m	0.46/ 9.34lx		296.87m / 69219.42sq.m
40.0m	0.35/ 7.15lx		339.28m / 90409.03sq.m
45.0m	0.28/ 5.65lx		381.69m / 114423.94sq.m
50.0m	0.22/ 4.58lx		424.10m / 141264.11sq.m

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

UGR Table

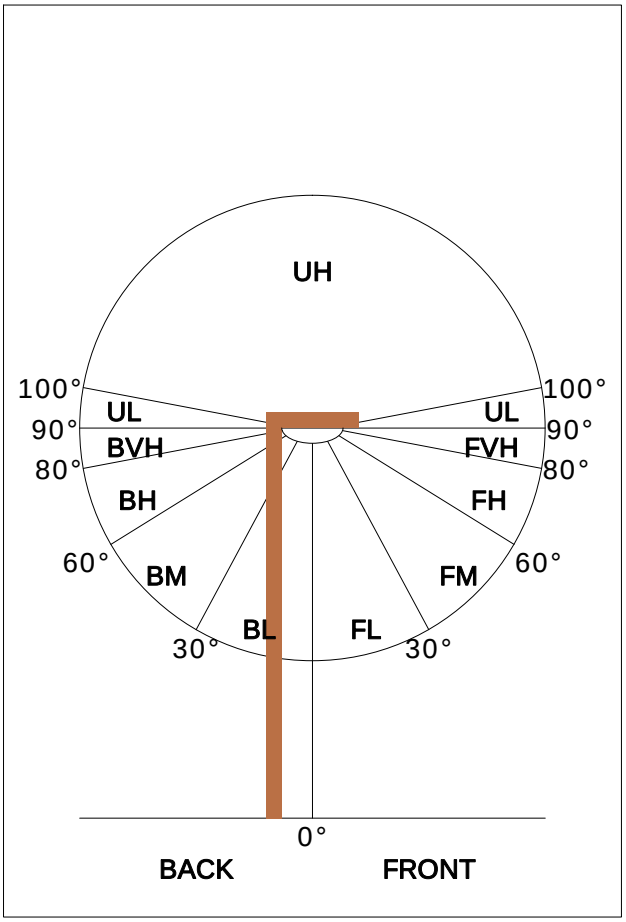
Reflectance:										
Ceiling (cavity)	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
X=2H Y=2H	14.2	15.8	14.5	16.1	16.4	14.2	15.8	14.6	16.2	16.5
3H	15.4	16.8	15.8	17.2	17.5	15.5	16.9	15.9	17.3	17.6
4H	15.7	17.1	16.1	17.4	17.8	15.8	17.1	16.2	17.5	17.9
6H	15.8	17.0	16.2	17.4	17.8	15.9	17.1	16.3	17.5	17.9
8H	15.8	17.0	16.2	17.4	17.8	15.8	17.0	16.3	17.4	17.8
12H	15.7	16.9	16.2	17.3	17.7	15.8	17.0	16.2	17.3	17.8
X=4H Y=2H	14.7	16.0	15.1	16.4	16.7	14.7	16.1	15.1	16.5	16.8
3H	16.0	17.2	16.5	17.6	18.0	16.1	17.3	16.6	17.7	18.1
4H	16.4	17.4	16.8	17.8	18.3	16.5	17.5	16.9	17.9	18.4
6H	16.6	17.4	17.0	17.9	18.3	16.6	17.5	17.1	17.9	18.4
8H	16.5	17.4	17.0	17.8	18.3	16.6	17.4	17.1	17.9	18.3
12H	16.5	17.3	17.0	17.7	18.2	16.6	17.3	17.1	17.8	18.3
X=8H Y=4H	16.5	17.3	17.0	17.8	18.2	16.6	17.4	17.1	17.9	18.3
6H	16.6	17.3	17.2	17.8	18.3	16.7	17.4	17.2	17.9	18.4
8H	16.7	17.3	17.2	17.8	18.3	16.7	17.3	17.2	17.8	18.3
12H	16.6	17.2	17.1	17.7	18.2	16.7	17.2	17.2	17.7	18.3
X=12H Y=4H	16.5	17.2	17.0	17.7	18.2	16.6	17.3	17.1	17.8	18.3
6H	16.6	17.3	17.2	17.7	18.3	16.7	17.3	17.2	17.8	18.3
8H	16.6	17.2	17.2	17.7	18.2	16.7	17.3	17.2	17.7	18.3

Calculate in accordance with CIE 190:2010

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

FLUX DISTRIBUTION TABLE BASED ON THE IESNA LUMINAIRE CLASSIFICATION SYSTEM



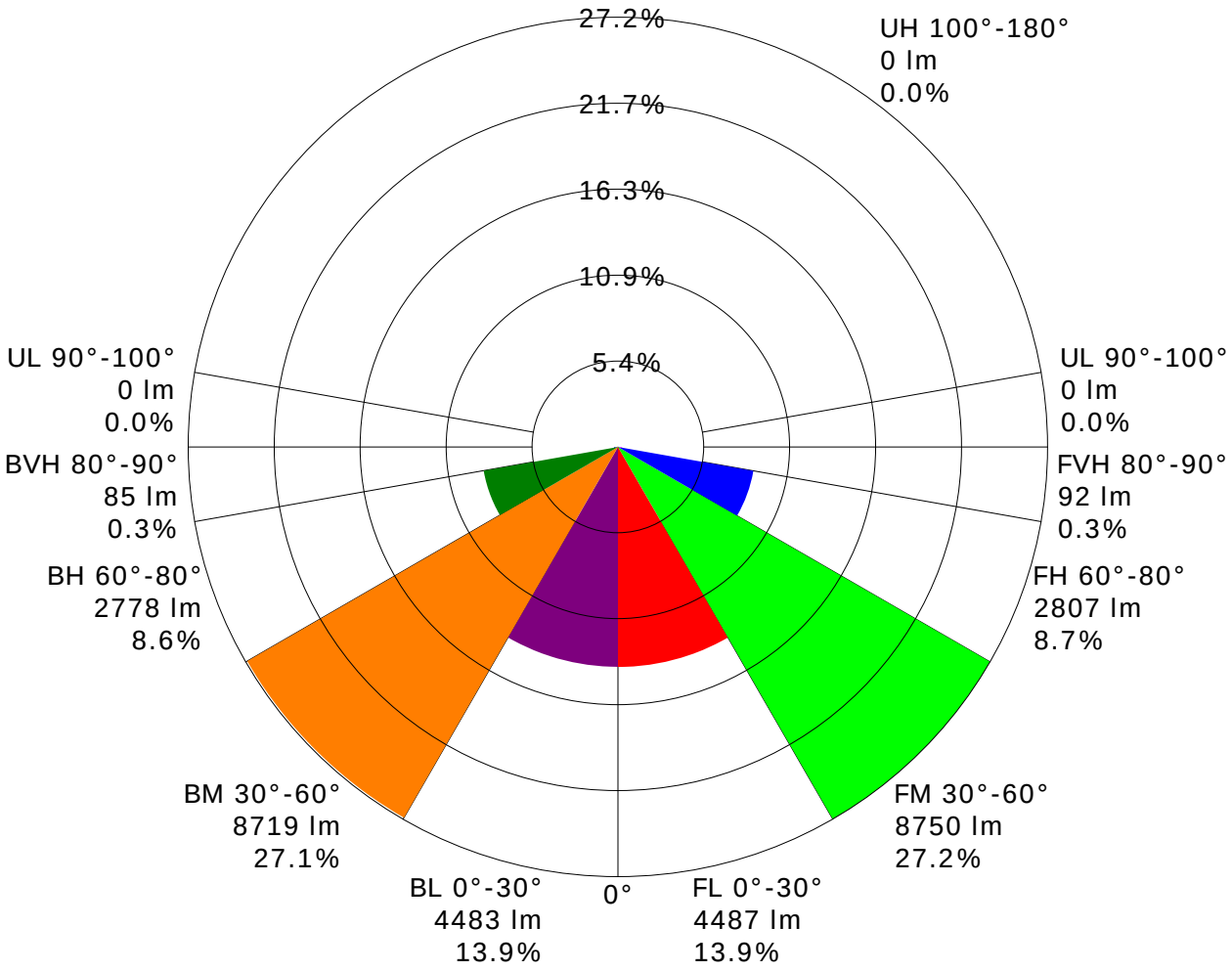
ZONE	LUMENS	% LAMP LUMENS
FORWARD LIGHT	16137	50.1
FL (0°-30°)	4487	13.9
FM (30°-60°)	8750	27.2
FH (60°-80°)	2807	8.7
FVH (80°-90°)	92	0.3
BACK LIGHT	16066	49.9
BL (0°-30°)	4483	13.9
BM (30°-60°)	8719	27.1
BH (60°-80°)	2778	8.6
BVH (80°-90°)	85	0.3
UP LIGHT	0	0.0
UL (90°-100°)	0	0.0
UH (100°-180°)	0	0.0
TRAPPED LIGHT	NA	NA

BUG(**B**acklight,**U**plight,**G**lare) Rating Base On TM-15-07	
Asymmetrical Luminaire Types (Type I,II,III,IV)	B5 U2 G4
Quadrilateral Symmetrical Luminaire Types (Type V,Area Light)	B5 U2 G2

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

LCS Graph



Scale= MAX LCS%

Trapped Light:NA,NA

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Utilisation Factor Table(Floor cavity)

Utilisation Factors UF(F)			SHR NOM = 1.25								
Room Reflectance			Room Index(RI)								
Ceiling	Wall	Floor	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00
0.70	0.50	0.20	0.57	0.68	0.76	0.81	0.89	0.94	0.97	1.02	1.04
	0.30		0.50	0.61	0.69	0.74	0.83	0.88	0.92	0.98	1.01
	0.20		0.44	0.55	0.63	0.69	0.78	0.84	0.88	0.94	0.98
0.50	0.50	0.20	0.56	0.66	0.73	0.79	0.86	0.90	0.93	0.98	1.00
	0.30		0.49	0.59	0.67	0.73	0.81	0.86	0.90	0.95	0.98
	0.20		0.44	0.54	0.62	0.68	0.76	0.82	0.86	0.92	0.95
0.30	0.50	0.20	0.54	0.64	0.71	0.76	0.83	0.87	0.90	0.94	0.96
	0.30		0.48	0.58	0.66	0.71	0.78	0.83	0.87	0.91	0.94
	0.20		0.43	0.54	0.61	0.67	0.75	0.80	0.84	0.89	0.92
0.00	0.00	0.00	0.41	0.51	0.59	0.64	0.71	0.76	0.80	0.85	0.88

Rating:199W Photometrically tested without ceiling board.

Multiply UF values by service correction factors

Calculate in accordance with CIBSE Technical Memorandum NO.5 1980

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Utilisation Factor Table(Wall)

Utilisation Factors UF(W)						SHR NOM = 1.25				
Room Reflectance			Room Index(RI)							
Ceiling	Wall	Floor	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00
0.70	0.50	0.20	0.99	0.81	0.68	0.59	0.46	0.38	0.32	0.25	0.20
	0.30		0.82	0.69	0.59	0.52	0.42	0.35	0.30	0.23	0.19
	0.20		0.71	0.60	0.53	0.47	0.38	0.32	0.28	0.22	0.18
0.50	0.50	0.20	0.95	0.78	0.65	0.56	0.44	0.40	0.31	0.24	0.19
	0.30		0.81	0.67	0.58	0.51	0.41	0.34	0.29	0.22	0.18
	0.20		0.70	0.59	0.52	0.46	0.37	0.31	0.27	0.21	0.18
0.30	0.50	0.20	0.93	0.75	0.63	0.54	0.42	0.35	0.29	0.22	0.18
	0.30		0.79	0.66	0.56	0.49	0.39	0.32	0.28	0.21	0.17
	0.20		0.69	0.59	0.51	0.45	0.36	0.30	0.26	0.20	0.17
0.00	0.00	0.00	0.59	0.49	0.42	0.36	0.29	0.24	0.20	0.15	0.13

Rating:199W Photometrically tested without ceiling board.

Multiply UF values by service correction factors

Calculate in accordance with CIBSE Technical Memorandum NO.5 1980

Utilisation Factor Table(Ceiling cavity)

Utilisation Factors UF(C)						SHR NOM = 1.25				
Room Reflectance			Room Index(RI)							
Ceiling	Wall	Floor	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00
0.70	0.50	0.20	0.16	0.17	0.18	0.19	0.20	0.20	0.21	0.21	0.22
	0.30		0.09	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.19
	0.20		0.05	0.06	0.08	0.09	0.11	0.13	0.14	0.16	0.17
0.50	0.50	0.20	0.16	0.17	0.18	0.18	0.19	0.19	0.20	0.20	0.21
	0.30		0.09	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.19
	0.20		0.05	0.06	0.08	0.09	0.11	0.13	0.14	0.15	0.16
0.30	0.50	0.20	0.15	0.16	0.17	0.17	0.18	0.19	0.19	0.20	0.20
	0.30		0.09	0.11	0.12	0.13	0.14	0.15	0.16	0.17	0.18
	0.20		0.05	0.06	0.08	0.09	0.11	0.12	0.13	0.15	0.16
0.00	0.00	0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA

Rating:199W Photometrically tested without ceiling board.

Multiply UF values by service correction factors

Calculate in accordance with CIBSE Technical Memorandum NO.5 1980

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Zonal Lumen

Gamma [°]	Imean [cd/klm]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
0.0-1.0	354.3	10.9	10.9	0.03	0.03
1.0-2.0	354.4	32.8	43.7	0.10	0.14
2.0-3.0	354.3	54.6	98.3	0.17	0.31
3.0-4.0	354.1	76.3	174.6	0.24	0.54
4.0-5.0	353.8	98.0	272.6	0.30	0.85
5.0-6.0	353.2	119.5	392.2	0.37	1.22
6.0-7.0	352.5	140.9	533.1	0.44	1.66
7.0-8.0	351.7	162.1	695.2	0.50	2.16
8.0-9.0	350.7	183.1	878.2	0.57	2.73
9.0-10.0	349.8	203.9	1082.1	0.63	3.36
10.0-11.0	348.7	224.4	1306.5	0.70	4.06
11.0-12.0	347.5	244.6	1551.1	0.76	4.82
12.0-13.0	346.3	264.7	1815.8	0.82	5.64
13.0-14.0	344.9	284.3	2100.1	0.88	6.52
14.0-15.0	343.4	303.6	2403.8	0.94	7.46
15.0-16.0	341.8	322.6	2726.3	1.00	8.47
16.0-17.0	340.1	341.1	3067.5	1.06	9.53
17.0-18.0	338.4	359.3	3426.8	1.12	10.64
18.0-19.0	336.4	377.0	3803.7	1.17	11.81
19.0-20.0	334.4	394.2	4197.9	1.22	13.04
20.0-21.0	332.4	411.1	4609.0	1.28	14.31
21.0-22.0	330.2	427.3	5036.3	1.33	15.64
22.0-23.0	327.8	443.0	5479.3	1.38	17.02
23.0-24.0	325.4	458.1	5937.5	1.42	18.44
24.0-25.0	322.7	472.6	6410.1	1.47	19.91
25.0-26.0	320.1	486.7	6896.8	1.51	21.42
26.0-27.0	317.3	500.0	7396.7	1.55	22.97
27.0-28.0	314.3	512.6	7909.3	1.59	24.56
28.0-29.0	311.4	524.7	8434.0	1.63	26.19
29.0-30.0	308.2	536.0	8969.9	1.66	27.85
30.0-31.0	305.0	546.7	9516.6	1.70	29.55
31.0-32.0	301.7	556.6	10073.2	1.73	31.28
32.0-33.0	298.2	565.9	10639.1	1.76	33.04
33.0-34.0	294.8	574.6	11213.7	1.78	34.82
34.0-35.0	291.1	582.3	11796.1	1.81	36.63
35.0-36.0	287.4	589.3	12385.3	1.83	38.46

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Zonal Lumen (Continue 1)

Gamma [°]	Imean [cd/klm]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
36.0-37.0	283.5	595.6	12980.9	1.85	40.31
37.0-38.0	279.6	601.0	13581.9	1.87	42.18
38.0-39.0	275.6	605.8	14187.7	1.88	44.06
39.0-40.0	271.3	609.5	14797.2	1.89	45.95
40.0-41.0	267.0	612.4	15409.6	1.90	47.85
41.0-42.0	262.8	614.9	16024.5	1.91	49.76
42.0-43.0	258.3	616.1	16640.6	1.91	51.68
43.0-44.0	253.6	616.5	17257.1	1.91	53.59
44.0-45.0	248.9	616.2	17873.3	1.91	55.50
45.0-46.0	244.1	614.8	18488.0	1.91	57.41
46.0-47.0	239.2	612.7	19100.8	1.90	59.31
47.0-48.0	234.1	609.5	19710.3	1.89	61.21
48.0-49.0	228.9	605.4	20315.7	1.88	63.09
49.0-50.0	223.8	600.9	20916.6	1.87	64.95
50.0-51.0	218.3	595.0	21511.6	1.85	66.80
51.0-52.0	212.8	588.1	22099.7	1.83	68.63
52.0-53.0	207.3	580.6	22680.3	1.80	70.43
53.0-54.0	201.4	571.8	23252.2	1.78	72.21
54.0-55.0	195.7	562.5	23814.7	1.75	73.95
55.0-56.0	189.6	551.9	24366.6	1.71	75.67
56.0-57.0	183.4	540.2	24906.8	1.68	77.34
57.0-58.0	177.1	527.4	25434.2	1.64	78.98
58.0-59.0	169.8	511.4	25945.6	1.59	80.57
59.0-60.0	162.3	493.9	26439.5	1.53	82.10
60.0-61.0	155.1	476.7	26916.2	1.48	83.58
61.0-62.0	148.0	459.2	27375.4	1.43	85.01
62.0-63.0	141.0	441.8	27817.2	1.37	86.38
63.0-64.0	133.9	423.1	28240.2	1.31	87.70
64.0-65.0	126.7	403.9	28644.1	1.25	88.95
65.0-66.0	119.7	384.7	29028.8	1.19	90.14
66.0-67.0	112.1	363.0	29391.8	1.13	91.27
67.0-68.0	104.3	340.2	29732.0	1.06	92.33
68.0-69.0	96.5	317.1	30049.1	0.98	93.31
69.0-70.0	88.9	294.1	30343.2	0.91	94.23
70.0-71.0	81.7	271.8	30615.0	0.84	95.07
71.0-72.0	74.1	248.0	30863.0	0.77	95.84

Zonal Lumen (Continue 2)

Gamma [°]	Imean [cd/klm]	Zonal Flux [lm]	Sum Zonal Flux [lm]	Rel Zonal Flux [%]	Sum Rel Zonal Flux [%]
72.0-73.0	66.3	223.5	31086.5	0.69	96.53
73.0-74.0	59.1	200.1	31286.6	0.62	97.16
74.0-75.0	52.0	176.9	31463.5	0.55	97.71
75.0-76.0	45.1	154.3	31617.8	0.48	98.18
76.0-77.0	38.4	131.7	31749.5	0.41	98.59
77.0-78.0	32.0	110.5	31860.0	0.34	98.94
78.0-79.0	26.5	91.6	31951.6	0.28	99.22
79.0-80.0	21.1	73.2	32024.8	0.23	99.45
80.0-81.0	16.2	56.6	32081.4	0.18	99.62
81.0-82.0	12.2	42.5	32123.9	0.13	99.76
82.0-83.0	8.6	30.2	32154.1	0.09	99.85
83.0-84.0	5.8	20.3	32174.4	0.06	99.91
84.0-85.0	3.6	12.6	32187.0	0.04	99.95
85.0-86.0	2.0	7.1	32194.1	0.02	99.97
86.0-87.0	1.1	3.9	32198.0	0.01	99.99
87.0-88.0	0.7	2.3	32200.3	0.01	99.99
88.0-89.0	0.4	1.4	32201.7	0.00	100.00
89.0-90.0	0.2	0.7	32202.4	0.00	100.00

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Candlepower Table

Unit: cd/klm

G\C	C0.0	C5.0	C10.0	C15.0	C20.0	C25.0	C30.0	C35.0	C40.0	C45.0
G0.0	355.4	355.2	355.1	355.0	354.9	354.8	354.7	354.6	354.6	354.5
G1.0	355.3	355.1	355.1	354.9	354.8	354.7	354.7	354.6	354.5	354.4
G2.0	355.2	355.0	354.9	354.8	354.7	354.6	354.5	354.5	354.4	354.3
G3.0	355.0	354.8	354.7	354.6	354.5	354.4	354.3	354.3	354.2	354.2
G4.0	354.6	354.4	354.3	354.2	354.2	354.1	354.0	353.9	353.9	353.8
G5.0	354.2	354.0	353.9	353.8	353.7	353.6	353.6	353.5	353.4	353.3
G6.0	353.5	353.3	353.2	353.1	353.1	353.0	352.9	352.8	352.7	352.7
G7.0	352.8	352.7	352.5	352.5	352.4	352.2	352.2	352.1	352.0	351.9
G8.0	352.0	351.8	351.8	351.6	351.6	351.4	351.4	351.2	351.2	351.0
G9.0	351.0	350.8	350.7	350.6	350.6	350.5	350.4	350.3	350.2	350.1
G10.0	349.9	349.7	349.7	349.5	349.5	349.3	349.3	349.2	349.2	349.2
G11.0	348.8	348.7	348.5	348.4	348.3	348.1	348.1	347.9	348.0	348.0
G12.0	347.8	347.5	347.4	347.3	347.2	347.0	346.9	346.7	346.7	346.7
G13.0	346.5	346.3	346.2	346.0	345.9	345.8	345.7	345.5	345.5	345.4
G14.0	344.9	344.7	344.6	344.4	344.5	344.2	344.2	344.0	344.0	343.7
G15.0	343.4	343.1	343.0	342.8	342.9	342.7	342.6	342.5	342.5	342.4
G16.0	341.6	341.3	341.3	341.0	341.0	340.8	340.8	340.7	340.8	340.7
G17.0	339.7	339.5	339.5	339.3	339.3	339.2	339.1	338.9	339.1	339.1
G18.0	337.8	337.5	337.6	337.4	337.5	337.3	337.3	337.1	337.2	337.2
G19.0	335.7	335.4	335.5	335.4	335.4	335.1	335.2	335.1	335.2	335.0
G20.0	333.7	333.6	333.7	333.6	333.4	333.2	333.2	333.1	333.2	333.1
G21.0	331.8	331.3	331.6	331.4	331.5	331.0	331.1	331.0	331.3	330.8
G22.0	329.3	329.0	329.2	329.2	329.1	328.9	329.0	328.9	329.0	328.7
G23.0	326.7	326.5	326.6	326.5	326.7	326.6	326.8	326.7	326.7	326.3
G24.0	324.0	323.7	323.8	323.7	323.8	323.8	324.1	324.2	324.2	323.5
G25.0	321.5	321.3	321.3	321.1	321.2	321.1	321.4	321.6	321.8	321.0
G26.0	318.9	318.6	318.6	318.4	318.5	318.3	318.5	319.0	319.3	318.3
G27.0	315.9	315.7	315.7	315.4	315.5	315.3	315.4	315.8	316.1	315.4
G28.0	313.2	312.9	313.0	312.7	312.7	312.5	312.5	312.8	312.8	312.6
G29.0	310.3	309.7	310.0	309.4	309.7	309.2	309.6	309.2	309.6	309.4
G30.0	307.0	306.7	306.6	306.4	306.5	306.2	306.3	306.1	306.1	306.1
G31.0	303.9	303.6	303.5	303.3	303.5	303.2	303.2	302.9	303.0	302.8
G32.0	300.1	299.9	300.1	299.7	299.8	299.5	299.8	299.3	299.3	299.1
G33.0	296.8	296.6	296.8	296.5	296.6	296.3	296.4	296.1	296.0	295.9
G34.0	293.3	293.1	293.3	292.9	293.4	292.8	292.8	292.5	292.6	292.5
G35.0	289.4	289.2	289.5	289.1	289.4	288.9	288.8	288.6	288.6	288.4
G36.0	285.8	285.6	285.8	285.5	285.8	285.2	285.0	284.8	285.0	284.6

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Candlepower Table (Continue 1)

Unit: cd/klm

G\C	C0.0	C5.0	C10.0	C15.0	C20.0	C25.0	C30.0	C35.0	C40.0	C45.0
G37.0	281.9	281.6	282.1	281.3	281.9	281.1	281.4	280.7	281.2	280.5
G38.0	277.8	277.6	277.9	277.5	277.8	277.0	277.2	276.8	276.9	276.4
G39.0	273.9	273.7	273.8	273.6	274.0	273.1	273.0	272.9	272.8	272.5
G40.0	269.6	269.3	269.4	269.2	269.4	268.6	268.5	268.5	268.4	268.1
G41.0	265.4	265.1	265.3	264.8	265.1	264.2	264.3	264.1	264.1	263.7
G42.0	261.2	260.9	260.9	260.6	260.7	259.9	259.8	259.7	259.8	259.4
G43.0	256.3	256.2	256.0	255.9	256.0	255.2	255.1	254.7	254.9	254.5
G44.0	251.6	251.5	251.5	251.2	251.2	250.7	250.7	250.2	250.2	249.8
G45.0	247.0	246.4	246.8	246.3	246.5	245.6	246.2	245.1	245.8	244.8
G46.0	241.9	241.8	241.7	241.6	241.1	240.9	240.7	240.2	240.7	240.1
G47.0	236.9	236.8	237.0	236.5	236.3	235.9	235.8	235.4	235.7	235.0
G48.0	231.7	231.5	231.5	231.2	231.0	230.6	230.3	230.0	230.2	229.7
G49.0	226.5	226.5	226.6	226.4	225.7	225.7	225.4	224.6	225.2	224.8
G50.0	221.2	221.1	221.6	221.2	220.6	220.3	220.3	219.4	219.9	219.6
G51.0	215.6	215.6	215.9	215.4	214.9	214.6	214.5	213.7	214.2	214.1
G52.0	210.4	210.3	210.4	209.9	209.6	209.2	209.1	208.2	208.9	208.5
G53.0	204.7	204.1	205.0	203.7	204.1	203.0	203.8	202.3	203.5	202.5
G54.0	198.5	198.5	199.0	197.9	198.3	197.5	197.7	196.7	197.2	196.9
G55.0	192.9	192.9	193.0	192.2	192.7	191.9	191.7	190.8	191.6	191.1
G56.0	186.5	186.7	186.8	185.9	186.4	185.5	185.5	185.0	185.5	184.8
G57.0	180.5	180.4	181.0	179.7	180.2	179.2	179.6	179.2	179.4	179.0
G58.0	172.5	172.8	174.1	173.5	174.2	173.3	173.7	173.3	173.5	172.7
G59.0	163.1	163.4	164.4	165.0	167.1	166.7	166.8	166.6	166.9	166.1
G60.0	155.5	155.7	156.3	156.2	158.5	159.7	160.7	160.2	160.5	159.8
G61.0	148.8	149.0	149.1	148.6	149.2	150.5	153.7	153.4	153.6	153.3
G62.0	142.6	142.9	142.6	142.5	142.3	142.4	145.2	146.7	147.2	146.8
G63.0	135.9	136.4	136.3	136.1	135.9	135.5	136.5	139.0	140.7	139.7
G64.0	129.1	129.5	129.2	129.0	129.0	128.6	128.3	129.6	133.3	132.5
G65.0	122.8	123.1	122.5	122.5	122.4	122.2	122.0	122.0	125.2	125.7
G66.0	116.0	116.0	116.1	115.1	115.7	114.8	115.4	114.7	116.0	117.7
G67.0	106.9	107.5	107.6	108.6	108.6	108.3	108.0	108.3	108.1	107.5
G68.0	98.5	99.0	98.7	99.7	101.4	101.8	101.7	101.3	101.2	97.8
G69.0	91.3	91.7	91.7	91.0	91.6	92.7	94.6	93.9	92.5	90.1
G70.0	84.6	85.3	85.3	84.5	85.0	84.3	86.8	87.1	84.4	83.6
G71.0	78.3	78.6	78.7	78.0	78.7	77.7	77.9	78.4	77.8	77.4
G72.0	70.4	70.9	71.7	70.9	71.3	70.9	70.8	68.3	70.1	70.2
G73.0	62.2	62.6	63.3	62.9	64.7	64.7	64.1	61.6	62.2	63.6

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Candlepower Table (Continue 2)

Unit: cd/klm

G\C	C0.0	C5.0	C10.0	C15.0	C20.0	C25.0	C30.0	C35.0	C40.0	C45.0
G74.0	55.8	55.4	56.7	55.7	56.2	56.0	57.2	55.2	56.2	53.6
G75.0	49.4	49.4	50.2	50.0	50.1	49.5	48.5	49.6	48.8	47.5
G76.0	42.2	41.9	42.9	43.8	44.3	43.6	42.4	42.0	42.6	41.7
G77.0	36.0	35.8	36.3	36.4	37.0	35.9	36.7	35.3	35.1	35.4
G78.0	30.3	29.9	30.7	30.7	31.4	30.0	30.3	29.9	29.9	28.5
G79.0	24.9	24.8	25.3	25.3	25.5	25.3	24.9	24.5	24.7	23.6
G80.0	19.4	19.3	19.9	19.8	19.8	19.5	19.2	19.2	19.0	18.1
G81.0	15.2	15.1	15.4	15.4	15.4	14.7	15.2	14.7	14.6	14.3
G82.0	11.2	10.9	11.5	11.1	11.5	10.8	11.1	10.5	11.0	10.3
G83.0	7.6	7.6	7.8	7.6	7.7	7.6	7.7	7.5	7.6	7.3
G84.0	5.1	5.0	5.2	5.1	5.2	5.0	5.1	5.0	5.2	5.0
G85.0	2.9	2.9	2.9	2.9	3.1	3.1	3.1	3.0	3.1	3.0
G86.0	1.4	1.5	1.5	1.5	1.7	1.8	1.7	1.8	1.7	1.6
G87.0	0.9	0.9	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.9
G88.0	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5
G89.0	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3
G90.0	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Candlepower Table (Continue 3)

Unit: cd/klm

G\C	C50.0	C55.0	C60.0	C65.0	C70.0	C75.0	C80.0	C85.0	C90.0	C95.0
G0.0	354.5	354.4	354.4	354.4	354.3	354.2	354.2	354.2	354.2	354.1
G1.0	354.4	354.3	354.3	354.3	354.2	354.2	354.1	354.1	354.1	354.1
G2.0	354.3	354.3	354.2	354.2	354.2	354.1	354.1	354.1	354.0	354.0
G3.0	354.1	354.1	354.0	354.0	354.0	353.9	353.9	353.9	353.9	353.9
G4.0	353.8	353.8	353.7	353.7	353.6	353.6	353.6	353.6	353.6	353.6
G5.0	353.4	353.3	353.3	353.3	353.3	353.3	353.3	353.3	353.3	353.3
G6.0	352.7	352.7	352.7	352.6	352.7	352.7	352.7	352.7	352.7	352.7
G7.0	352.0	351.9	352.0	351.9	352.0	351.9	352.0	352.0	352.0	352.0
G8.0	351.2	351.0	351.2	351.1	351.2	351.1	351.2	351.1	351.2	351.1
G9.0	350.2	350.1	350.2	350.1	350.2	350.2	350.2	350.2	350.3	350.2
G10.0	349.2	349.1	349.1	349.2	349.3	349.1	349.3	349.2	349.3	349.2
G11.0	348.0	347.9	348.0	347.9	348.1	348.0	348.2	348.2	348.2	348.2
G12.0	346.8	346.7	346.7	346.7	346.8	346.9	347.0	347.0	347.2	347.2
G13.0	345.5	345.4	345.5	345.5	345.6	345.6	345.8	345.9	346.1	346.0
G14.0	343.9	343.9	343.9	343.9	344.1	344.1	344.3	344.5	344.9	344.8
G15.0	342.4	342.4	342.5	342.4	342.5	342.6	342.9	343.1	343.6	343.4
G16.0	340.7	340.5	340.8	340.7	340.8	340.9	341.2	341.4	341.8	341.7
G17.0	339.1	338.9	339.0	339.0	339.2	339.2	339.5	339.6	340.0	339.9
G18.0	337.3	337.1	337.3	337.3	337.5	337.4	337.5	337.5	337.8	337.7
G19.0	335.3	335.1	335.2	335.2	335.3	335.2	335.3	335.2	335.4	335.4
G20.0	333.3	333.3	333.3	333.0	333.3	333.2	333.2	333.1	333.3	333.2
G21.0	331.3	331.1	331.1	330.7	331.1	330.8	331.2	330.8	331.2	331.0
G22.0	328.8	328.7	328.8	328.4	328.7	328.6	328.8	328.6	328.8	328.7
G23.0	326.4	326.3	326.6	326.1	326.3	326.2	326.3	326.2	326.5	326.5
G24.0	323.7	323.5	323.9	323.5	323.7	323.6	323.7	323.7	324.0	324.0
G25.0	321.1	321.0	321.3	320.9	321.0	321.0	321.2	321.3	321.6	321.5
G26.0	318.5	318.4	318.5	318.4	318.5	318.5	318.7	318.6	319.0	318.9
G27.0	315.4	315.4	315.5	315.5	315.6	315.5	315.7	315.5	315.9	315.9
G28.0	312.6	312.4	312.6	312.7	312.6	312.6	312.7	312.7	313.1	312.9
G29.0	309.7	309.3	309.8	309.2	309.6	309.2	309.8	309.6	310.2	309.7
G30.0	306.5	306.2	306.3	306.1	306.4	306.3	306.4	306.5	307.1	306.9
G31.0	303.4	303.2	303.1	302.8	303.2	303.0	303.4	303.4	304.0	303.6
G32.0	299.8	299.7	299.6	299.3	299.8	299.6	299.9	299.7	300.2	300.2
G33.0	296.2	296.2	296.3	296.1	296.5	296.3	296.5	296.5	296.9	296.9
G34.0	292.4	292.8	293.0	292.5	292.9	292.7	293.1	293.1	293.6	293.4
G35.0	288.4	288.7	289.1	288.5	289.1	288.9	289.1	289.2	289.8	289.5
G36.0	284.7	284.9	285.4	284.7	285.3	285.1	285.6	285.6	285.9	285.8

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Candlepower Table (Continue 4)

Unit: cd/klm

G\C	C50.0	C55.0	C60.0	C65.0	C70.0	C75.0	C80.0	C85.0	C90.0	C95.0
G37.0	280.9	280.7	281.8	280.7	281.5	281.1	282.0	281.5	281.9	281.7
G38.0	276.7	276.7	277.5	276.9	277.4	277.4	277.6	277.5	277.7	277.8
G39.0	272.8	272.6	273.4	273.0	273.3	273.5	273.8	273.6	273.9	274.0
G40.0	268.2	268.1	268.7	268.6	268.9	269.0	269.4	269.3	269.7	269.4
G41.0	264.1	264.0	264.3	264.4	264.7	264.9	265.1	265.1	265.6	265.5
G42.0	259.8	259.6	259.8	260.2	260.5	260.7	260.9	260.9	261.5	261.1
G43.0	255.0	254.9	255.1	255.4	255.7	255.8	256.1	256.2	256.8	256.4
G44.0	250.4	250.4	250.7	250.9	251.4	251.3	251.5	251.6	251.9	252.1
G45.0	245.9	245.2	246.0	245.9	246.9	246.3	247.0	246.6	247.4	246.9
G46.0	240.5	240.5	241.0	240.9	241.5	241.7	242.0	242.0	242.4	242.2
G47.0	235.7	235.7	236.3	236.1	236.9	236.6	237.4	237.3	237.5	237.5
G48.0	230.4	230.4	230.8	230.8	231.7	231.3	231.9	231.7	232.0	232.2
G49.0	225.2	225.4	225.8	225.6	226.5	226.2	226.9	226.7	226.9	227.1
G50.0	220.2	220.1	220.4	220.6	221.2	221.0	221.6	221.4	221.6	222.0
G51.0	214.5	214.2	214.7	215.0	215.3	215.2	215.9	215.8	216.1	216.1
G52.0	209.2	209.0	209.5	209.4	209.8	209.8	210.6	210.5	210.8	210.9
G53.0	203.6	202.9	204.0	203.5	204.2	203.9	205.3	204.6	205.3	204.9
G54.0	197.5	197.0	197.9	197.9	198.3	198.2	198.9	198.7	199.0	199.3
G55.0	191.9	191.3	192.0	192.2	192.7	192.7	193.2	193.1	193.4	193.6
G56.0	185.7	185.1	185.8	185.7	186.1	186.1	187.0	186.8	186.9	187.1
G57.0	179.5	179.5	179.9	179.4	180.2	180.0	180.9	180.4	180.0	180.6
G58.0	173.5	173.3	173.6	173.4	174.2	173.2	172.7	171.5	171.4	172.1
G59.0	167.0	166.5	167.0	166.7	166.0	163.3	162.9	162.3	162.3	162.5
G60.0	160.5	159.9	160.8	159.0	157.1	155.3	155.5	155.4	155.8	155.9
G61.0	153.7	153.1	153.2	149.4	148.4	148.2	148.3	148.7	148.8	149.0
G62.0	147.2	146.4	144.1	141.5	142.0	141.8	142.2	142.6	142.4	142.9
G63.0	140.5	138.2	135.7	135.2	135.5	135.5	135.7	136.2	136.1	136.5
G64.0	132.8	128.6	127.9	128.2	128.4	128.5	128.3	129.0	128.8	129.6
G65.0	124.3	121.6	121.5	121.7	121.5	122.1	122.2	122.6	122.6	123.1
G66.0	115.5	114.6	115.0	114.3	115.2	114.7	115.8	115.2	115.5	115.6
G67.0	108.0	107.7	107.6	107.7	108.1	107.4	106.1	105.7	105.3	106.2
G68.0	101.2	101.1	101.4	100.7	99.4	97.8	97.8	98.3	98.1	98.6
G69.0	92.6	93.8	94.1	91.1	90.7	90.4	91.1	91.4	91.2	91.6
G70.0	84.4	86.6	85.4	83.9	84.5	83.9	84.2	84.6	84.1	85.1
G71.0	77.7	77.9	77.5	77.3	77.7	76.6	77.3	77.2	76.8	77.3
G72.0	69.3	68.1	70.4	70.1	69.8	69.1	69.6	68.4	68.1	69.0
G73.0	62.2	61.6	63.5	63.2	62.7	60.8	61.3	60.7	60.6	61.1

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Candlepower Table (Continue 5)

Unit: cd/klm

G\C	C50.0	C55.0	C60.0	C65.0	C70.0	C75.0	C80.0	C85.0	C90.0	C95.0
G74.0	55.8	54.7	56.3	54.6	54.7	54.1	55.1	53.7	54.0	53.8
G75.0	49.0	48.4	47.4	48.3	48.3	47.5	47.5	47.0	47.1	47.4
G76.0	41.9	41.5	41.3	41.6	41.9	40.5	40.3	39.7	39.9	39.9
G77.0	34.7	34.4	35.1	33.9	34.7	34.1	34.0	33.3	33.6	33.7
G78.0	29.7	28.5	29.0	28.1	29.0	28.3	28.0	27.5	27.7	27.6
G79.0	24.0	23.3	23.5	23.2	23.3	22.6	23.0	22.6	23.0	22.8
G80.0	18.4	18.1	18.0	17.9	17.8	17.6	17.6	17.2	17.4	17.5
G81.0	14.0	13.8	14.1	13.4	13.6	13.5	13.6	13.3	13.5	13.4
G82.0	10.6	10.0	10.2	9.6	10.1	9.8	10.1	9.5	9.8	9.5
G83.0	7.3	7.2	7.0	6.7	6.6	6.5	6.8	6.4	6.6	6.6
G84.0	5.0	4.8	4.6	4.4	4.4	4.2	4.3	4.2	4.2	4.2
G85.0	3.0	2.9	2.8	2.7	2.5	2.4	2.5	2.4	2.4	2.5
G86.0	1.7	1.6	1.6	1.6	1.5	1.4	1.4	1.3	1.4	1.4
G87.0	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.8
G88.0	0.6	0.5	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.5
G89.0	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4
G90.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Candlepower Table (Continue 6)

Unit: cd/klm

G\C	C100.0	C105.0	C110.0	C115.0	C120.0	C125.0	C130.0	C135.0	C140.0	C145.0
G0.0	354.1	354.1	354.0	354.0	354.0	354.0	354.0	354.0	354.0	354.0
G1.0	354.1	354.1	354.0	354.0	354.0	354.0	354.0	354.0	354.0	354.0
G2.0	354.0	354.0	354.0	354.0	354.0	354.0	354.0	354.0	354.0	354.0
G3.0	353.9	353.8	353.9	353.9	353.9	353.9	353.9	353.9	353.9	353.9
G4.0	353.6	353.6	353.6	353.6	353.6	353.7	353.7	353.7	353.7	353.7
G5.0	353.3	353.2	353.3	353.3	353.3	353.3	353.3	353.3	353.3	353.3
G6.0	352.7	352.7	352.7	352.7	352.7	352.6	352.7	352.6	352.7	352.7
G7.0	352.1	352.0	352.1	352.0	351.9	351.9	352.0	352.0	352.0	352.0
G8.0	351.3	351.1	351.3	351.2	351.2	351.1	351.2	351.2	351.3	351.2
G9.0	350.3	350.2	350.3	350.2	350.3	350.3	350.4	350.3	350.4	350.3
G10.0	349.4	349.3	349.3	349.3	349.4	349.3	349.3	349.3	349.4	349.4
G11.0	348.2	348.1	348.2	348.1	348.2	348.1	348.2	348.2	348.2	348.2
G12.0	347.3	347.1	347.0	347.0	347.0	347.0	347.0	347.0	347.1	347.1
G13.0	346.0	345.8	345.8	345.8	345.8	345.8	345.8	345.8	345.9	345.9
G14.0	344.6	344.3	344.3	344.2	344.3	344.2	344.4	344.3	344.5	344.4
G15.0	343.2	342.8	342.8	342.7	342.8	342.7	342.9	342.9	343.0	342.8
G16.0	341.6	341.2	341.2	341.0	341.0	341.0	341.2	341.2	341.3	341.2
G17.0	339.9	339.6	339.6	339.5	339.5	339.4	339.5	339.6	339.7	339.6
G18.0	337.9	337.8	337.8	337.8	337.7	337.6	337.8	337.7	338.0	337.9
G19.0	335.6	335.7	335.7	335.7	335.8	335.7	335.7	335.7	336.0	335.9
G20.0	333.6	333.7	333.7	333.7	333.8	333.8	333.9	333.8	334.1	334.1
G21.0	331.6	331.4	331.6	331.3	331.7	331.5	331.8	331.6	332.1	331.9
G22.0	329.1	329.1	329.2	329.1	329.2	329.3	329.5	329.5	329.9	329.8
G23.0	326.8	326.8	326.8	326.8	327.0	326.9	327.2	327.2	327.7	327.6
G24.0	324.1	324.1	324.3	324.2	324.4	324.3	324.5	324.4	325.1	325.1
G25.0	321.7	321.5	321.8	321.7	321.9	321.8	322.0	321.9	322.7	322.6
G26.0	319.2	319.0	319.2	319.1	319.3	319.2	319.3	319.2	320.2	320.1
G27.0	316.0	316.0	316.3	316.2	316.4	316.3	316.4	316.2	317.1	317.2
G28.0	313.2	313.1	313.3	313.4	313.6	313.5	313.5	313.5	314.1	314.3
G29.0	310.1	309.7	310.3	310.1	310.8	310.2	310.6	310.4	311.1	310.8
G30.0	306.9	306.7	306.9	306.9	307.3	307.2	307.5	307.3	307.8	307.6
G31.0	303.7	303.5	303.9	303.8	304.1	304.1	304.4	304.1	304.5	304.3
G32.0	300.2	300.0	300.4	300.3	300.5	300.4	301.0	300.7	300.9	300.8
G33.0	297.0	296.8	297.2	297.0	297.4	297.1	297.6	297.4	297.5	297.5
G34.0	293.6	293.3	293.6	293.6	294.1	293.6	294.0	293.8	293.9	293.9
G35.0	289.7	289.5	289.8	289.5	290.1	289.8	290.1	289.8	290.1	290.0
G36.0	286.2	285.8	286.0	285.9	286.4	286.3	286.2	286.1	286.5	286.4

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Candlepower Table (Continue 7)

Unit: cd/klm

G\C	C100.0	C105.0	C110.0	C115.0	C120.0	C125.0	C130.0	C135.0	C140.0	C145.0
G37.0	282.3	281.7	282.4	281.8	282.9	282.1	282.5	282.0	282.7	282.1
G38.0	278.1	278.0	278.3	277.8	278.6	278.3	278.3	278.1	278.5	278.4
G39.0	274.1	274.1	274.3	273.9	274.7	274.3	274.2	274.0	274.5	274.6
G40.0	269.7	269.5	269.9	269.5	270.1	269.8	269.8	269.7	269.9	270.2
G41.0	265.7	265.5	265.8	265.5	265.7	265.4	265.6	265.3	265.9	265.8
G42.0	261.5	261.4	261.4	261.1	261.5	261.2	261.4	261.1	261.8	261.6
G43.0	256.8	256.5	256.8	256.6	256.7	256.3	256.5	256.3	257.0	256.6
G44.0	252.3	252.1	252.5	252.1	252.1	251.9	252.1	251.6	252.4	252.2
G45.0	247.8	247.1	247.8	247.2	247.6	246.9	247.7	246.7	248.0	247.3
G46.0	242.5	242.2	242.6	242.6	242.6	242.3	242.4	242.1	243.0	242.7
G47.0	237.9	237.5	237.9	237.9	237.6	237.4	237.7	237.3	238.1	237.7
G48.0	232.6	232.3	232.5	232.4	232.3	232.1	232.2	231.8	232.6	232.4
G49.0	227.5	227.1	227.6	227.4	227.4	227.2	227.3	226.9	227.7	227.1
G50.0	222.4	222.0	222.4	222.1	222.1	221.8	222.3	221.8	222.4	222.0
G51.0	216.7	216.3	216.3	216.4	216.4	216.1	216.4	216.4	216.8	216.4
G52.0	211.4	210.8	211.1	210.9	211.2	210.6	211.2	211.1	211.5	210.9
G53.0	205.7	204.8	205.8	204.7	205.5	204.7	205.9	205.2	205.9	205.1
G54.0	199.6	199.1	199.9	199.2	199.4	199.0	199.8	199.4	200.0	199.5
G55.0	194.0	193.5	193.9	193.5	193.8	193.4	194.3	193.6	194.5	194.0
G56.0	187.8	187.2	187.6	187.0	187.6	187.2	187.9	187.4	188.4	187.9
G57.0	181.4	180.9	181.7	181.0	181.4	181.6	182.0	181.7	182.4	182.1
G58.0	173.7	174.1	175.3	174.8	175.5	175.5	176.1	175.4	176.5	176.3
G59.0	163.8	164.3	167.6	168.1	169.0	168.6	169.2	168.7	169.9	169.3
G60.0	156.1	156.3	158.5	160.4	162.4	162.2	163.0	162.4	163.4	163.2
G61.0	149.3	149.4	149.7	150.6	155.0	155.3	156.2	155.9	156.5	156.4
G62.0	143.1	143.0	143.0	143.1	146.1	148.7	149.8	149.4	150.1	149.7
G63.0	136.4	136.6	136.9	136.9	137.2	140.2	143.0	142.7	143.7	141.9
G64.0	129.2	129.5	129.4	129.6	129.9	130.7	135.6	135.2	136.1	132.4
G65.0	123.0	123.1	122.9	123.2	123.5	123.7	126.7	128.3	127.9	124.9
G66.0	116.3	115.7	116.5	116.1	116.7	116.4	118.0	120.4	118.5	117.5
G67.0	107.0	108.6	109.6	109.2	109.5	109.9	110.5	109.8	110.7	111.0
G68.0	98.6	99.2	101.1	102.7	103.4	103.3	103.4	100.1	104.0	104.4
G69.0	91.7	91.4	92.1	93.0	95.9	95.6	94.8	92.8	95.3	96.6
G70.0	85.2	84.5	85.8	85.4	87.1	88.9	86.8	86.0	86.9	89.8
G71.0	78.3	77.8	79.1	79.1	79.5	80.2	79.8	79.8	80.3	80.8
G72.0	70.1	70.2	71.4	71.7	72.1	70.1	72.0	72.5	71.9	71.0
G73.0	61.9	62.0	63.7	64.6	65.6	63.6	64.2	65.6	64.7	63.7

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Candlepower Table (Continue 8)

Unit: cd/klm

G\C	C100.0	C105.0	C110.0	C115.0	C120.0	C125.0	C130.0	C135.0	C140.0	C145.0
G74.0	55.3	54.8	55.9	56.3	58.1	56.4	58.0	55.7	57.6	56.6
G75.0	48.1	48.4	49.6	49.6	48.8	50.4	50.8	49.1	50.7	50.6
G76.0	40.6	41.5	43.2	43.0	42.9	42.7	43.6	43.3	43.4	43.0
G77.0	34.3	34.9	36.0	34.9	36.4	35.9	35.9	36.4	36.2	35.8
G78.0	28.6	29.2	30.1	29.5	30.2	29.7	30.3	29.4	30.7	30.0
G79.0	23.3	23.7	24.5	24.1	24.9	24.3	24.8	24.2	25.0	24.5
G80.0	18.0	18.4	18.9	19.0	18.9	19.2	19.1	18.9	19.3	19.4
G81.0	14.0	14.2	14.4	14.3	15.2	14.7	14.8	14.7	15.0	14.8
G82.0	10.4	10.1	10.4	10.3	11.0	10.7	11.3	10.7	11.4	10.7
G83.0	6.9	6.7	7.0	7.2	7.7	7.7	7.8	7.8	8.0	7.9
G84.0	4.4	4.3	4.5	4.8	5.1	5.2	5.4	5.4	5.5	5.4
G85.0	2.5	2.5	2.7	2.9	3.0	3.1	3.2	3.2	3.2	3.2
G86.0	1.5	1.5	1.6	1.7	1.8	1.8	1.7	1.8	1.8	1.8
G87.0	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
G88.0	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
G89.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4
G90.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Candlepower Table (Continue 9)

Unit: cd/klm

G\C	C150.0	C155.0	C160.0	C165.0	C170.0	C175.0	C180.0	C185.0	C190.0	C195.0
G0.0	354.0	354.0	354.0	354.0	354.0	354.1	355.4	355.2	355.1	355.0
G1.0	354.0	354.0	354.0	354.0	354.0	354.1	355.4	355.3	355.2	355.1
G2.0	354.1	354.0	354.1	354.1	354.1	354.2	355.5	355.3	355.3	355.1
G3.0	354.0	354.0	354.0	354.0	354.1	354.1	355.4	355.2	355.2	355.1
G4.0	353.7	353.7	353.8	353.8	353.9	353.9	355.2	355.1	355.0	354.8
G5.0	353.4	353.4	353.5	353.5	353.6	353.6	354.8	354.7	354.5	354.4
G6.0	352.7	352.7	352.9	352.9	353.0	353.0	354.1	354.0	353.9	353.8
G7.0	352.1	352.1	352.3	352.2	352.3	352.3	353.3	353.3	353.1	353.0
G8.0	351.3	351.2	351.5	351.3	351.5	351.3	352.4	352.4	352.1	352.2
G9.0	350.4	350.4	350.5	350.4	350.5	350.5	351.5	351.5	351.3	351.2
G10.0	349.5	349.4	349.6	349.4	349.6	349.5	350.6	350.5	350.3	350.2
G11.0	348.3	348.3	348.5	348.4	348.5	348.4	349.4	349.3	349.2	349.1
G12.0	347.2	347.2	347.3	347.2	347.4	347.3	348.2	348.1	347.9	347.9
G13.0	346.0	345.9	346.1	346.0	346.1	346.0	346.9	346.9	346.7	346.7
G14.0	344.5	344.5	344.6	344.5	344.7	344.6	345.4	345.4	345.2	345.2
G15.0	343.0	343.0	343.2	343.1	343.2	343.2	343.9	344.0	343.8	343.8
G16.0	341.4	341.3	341.7	341.5	341.6	341.4	342.1	342.3	342.1	342.3
G17.0	339.8	339.7	339.9	339.8	339.9	339.7	340.3	340.6	340.6	340.7
G18.0	338.1	338.0	338.2	338.0	338.1	337.8	338.5	338.8	339.0	338.9
G19.0	336.0	335.8	336.1	335.9	336.0	335.8	336.4	336.8	337.1	337.0
G20.0	334.0	333.9	334.2	334.0	334.1	333.9	334.6	334.9	335.1	335.1
G21.0	332.0	331.7	332.1	331.8	332.0	331.7	332.7	332.9	333.1	333.0
G22.0	329.8	329.5	329.8	329.6	329.8	329.6	330.3	330.5	330.6	330.6
G23.0	327.6	327.3	327.5	327.4	327.6	327.4	328.0	328.2	328.0	328.1
G24.0	325.0	324.7	325.0	324.8	324.9	324.8	325.3	325.6	325.3	325.5
G25.0	322.5	322.3	322.6	322.3	322.4	322.3	322.7	322.7	322.4	322.5
G26.0	319.9	319.7	319.8	319.6	319.7	319.6	320.0	320.0	319.7	319.8
G27.0	317.0	316.7	316.8	316.6	316.8	316.6	317.0	317.0	316.6	316.8
G28.0	314.0	313.7	313.9	313.7	314.0	313.9	314.1	314.0	313.7	313.8
G29.0	311.1	310.5	311.0	310.6	311.0	310.7	311.0	311.1	310.8	310.9
G30.0	307.9	307.4	307.8	307.5	307.9	307.7	307.7	307.8	307.4	307.5
G31.0	304.6	304.3	304.6	304.4	304.7	304.6	304.4	304.7	304.3	304.5
G32.0	301.1	300.9	301.3	301.0	301.3	301.0	300.9	301.3	300.7	300.9
G33.0	297.7	297.5	297.9	297.6	298.0	297.8	297.6	298.2	297.5	297.6
G34.0	294.1	294.2	294.7	294.3	294.6	294.3	294.0	294.8	294.1	294.1
G35.0	290.3	290.2	291.0	290.4	290.8	290.6	290.3	290.9	290.2	290.3
G36.0	286.5	286.6	287.3	286.9	287.3	287.0	286.6	287.1	286.6	286.6

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Candlepower Table (Continue 10)

Unit: cd/klm

G\C	C150.0	C155.0	C160.0	C165.0	C170.0	C175.0	C180.0	C185.0	C190.0	C195.0
G37.0	282.9	282.5	283.6	282.9	283.6	282.9	282.6	283.6	282.4	282.9
G38.0	278.8	278.7	279.3	279.2	279.5	279.1	278.7	279.3	278.7	278.8
G39.0	274.7	274.6	275.7	275.2	275.4	275.3	274.8	275.2	274.5	274.7
G40.0	270.3	270.3	271.5	270.9	271.1	271.0	270.6	270.7	270.1	270.4
G41.0	266.2	266.0	267.2	266.8	267.1	266.9	266.3	266.4	265.7	266.1
G42.0	262.1	261.9	262.7	262.5	262.9	262.8	262.1	262.0	261.6	261.8
G43.0	257.3	257.3	257.9	257.8	258.1	258.1	257.0	257.4	256.9	257.1
G44.0	253.0	253.0	253.5	253.4	253.7	253.5	252.3	253.1	252.3	252.4
G45.0	248.2	247.8	248.7	248.4	249.2	248.7	247.4	248.4	247.2	247.9
G46.0	243.1	243.2	243.6	243.9	244.1	243.9	242.8	243.3	242.6	242.8
G47.0	238.3	238.6	238.9	239.3	239.5	239.2	237.9	238.4	237.7	237.8
G48.0	233.1	233.4	233.5	233.7	234.3	233.9	232.5	233.1	232.4	232.5
G49.0	228.0	228.2	228.6	229.0	229.3	229.1	227.2	228.1	227.4	227.3
G50.0	223.1	223.2	223.5	224.1	224.4	223.9	222.2	223.0	222.1	222.3
G51.0	217.2	217.2	217.6	218.2	218.7	218.4	216.4	217.0	216.5	216.4
G52.0	211.9	211.9	212.4	212.8	213.3	213.2	211.2	211.6	210.9	211.1
G53.0	206.7	206.1	207.2	206.7	207.9	207.0	205.2	206.0	205.0	205.5
G54.0	200.7	200.4	201.4	200.8	201.9	201.5	199.5	200.0	199.3	199.4
G55.0	195.0	194.8	195.6	195.2	196.5	196.0	193.5	194.4	193.8	193.9
G56.0	188.5	188.4	189.4	188.9	190.0	189.8	187.1	187.8	187.3	187.3
G57.0	182.7	182.5	183.6	183.0	184.2	183.8	180.0	181.1	181.0	181.5
G58.0	176.8	176.3	177.6	176.4	177.1	175.5	171.1	172.4	172.7	174.3
G59.0	170.3	169.8	170.0	167.6	167.2	166.3	162.5	163.5	162.9	165.2
G60.0	163.8	162.5	161.6	159.0	159.2	158.9	156.0	156.7	156.0	156.9
G61.0	156.7	153.2	152.4	151.8	152.3	152.3	149.4	150.8	149.0	150.6
G62.0	148.0	145.2	145.4	145.7	145.9	146.2	142.8	143.8	142.8	143.6
G63.0	139.4	138.7	139.2	139.4	139.7	139.7	136.5	137.5	136.2	137.4
G64.0	131.6	131.5	132.4	132.1	132.5	132.8	129.4	130.3	129.0	130.1
G65.0	125.0	125.2	125.5	125.7	125.8	126.3	122.9	123.8	122.7	123.6
G66.0	118.5	118.1	119.0	118.5	119.3	118.9	114.5	116.0	115.1	116.7
G67.0	111.3	111.1	111.6	111.3	110.4	110.2	105.0	106.9	105.8	107.8
G68.0	104.6	104.4	103.5	102.6	101.9	102.4	97.8	99.3	98.7	99.3
G69.0	97.2	95.4	94.9	94.2	94.1	93.6	89.7	91.2	90.2	91.4
G70.0	89.1	87.3	87.6	86.3	87.0	87.0	82.6	83.9	83.7	83.6
G71.0	80.8	79.9	80.4	79.6	80.0	79.8	75.2	76.0	75.7	76.4
G72.0	72.7	72.4	72.7	71.6	72.5	71.9	65.9	67.5	67.9	68.8
G73.0	66.1	65.4	65.5	63.9	64.0	63.3	58.9	59.8	59.8	60.3

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Candlepower Table (Continue 11)

Unit: cd/klm

G\C	C150.0	C155.0	C160.0	C165.0	C170.0	C175.0	C180.0	C185.0	C190.0	C195.0
G74.0	58.2	57.7	57.2	56.4	57.2	56.0	52.0	52.6	52.6	54.3
G75.0	49.7	50.1	50.5	49.6	50.0	49.2	44.6	45.3	45.7	47.1
G76.0	43.1	43.6	44.2	43.2	42.8	41.7	37.9	38.5	38.4	40.1
G77.0	36.8	36.2	36.8	35.6	35.6	35.1	31.9	32.1	32.0	33.2
G78.0	30.4	29.8	30.7	30.1	30.0	29.8	26.0	26.5	26.3	27.6
G79.0	24.7	24.8	25.1	24.4	24.4	23.8	21.4	21.6	21.5	22.3
G80.0	19.4	19.1	19.4	19.4	19.4	18.6	16.2	16.4	16.4	17.1
G81.0	15.2	14.5	14.6	14.7	15.0	14.7	12.2	12.5	12.5	13.2
G82.0	11.3	10.7	10.9	10.5	11.1	10.6	8.4	8.9	8.6	9.2
G83.0	7.9	7.5	7.4	7.1	7.4	7.1	5.5	5.7	5.7	5.9
G84.0	5.4	5.0	4.9	4.6	4.8	4.5	3.4	3.5	3.5	3.6
G85.0	3.2	3.0	2.9	2.7	2.7	2.6	1.8	1.9	1.9	2.0
G86.0	1.8	1.7	1.7	1.5	1.4	1.3	0.8	0.8	0.9	1.0
G87.0	0.9	0.9	0.9	0.8	0.8	0.7	0.5	0.5	0.6	0.6
G88.0	0.6	0.6	0.6	0.6	0.5	0.5	0.3	0.3	0.4	0.4
G89.0	0.4	0.4	0.4	0.4	0.4	0.4	0.1	0.1	0.1	0.1
G90.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Candlepower Table (Continue 12)

Unit: cd/klm

G\C	C200.0	C205.0	C210.0	C215.0	C220.0	C225.0	C230.0	C235.0	C240.0	C245.0
G0.0	354.9	354.8	354.7	354.6	354.6	354.5	354.5	354.4	354.4	354.4
G1.0	355.0	354.9	354.8	354.7	354.6	354.6	354.6	354.6	354.5	354.5
G2.0	355.1	355.0	354.9	354.9	354.8	354.8	354.8	354.7	354.7	354.7
G3.0	355.0	354.9	354.8	354.9	354.8	354.8	354.8	354.8	354.8	354.9
G4.0	354.7	354.7	354.6	354.5	354.4	354.5	354.5	354.6	354.6	354.7
G5.0	354.3	354.2	354.0	354.0	353.9	353.9	353.9	354.0	354.0	354.2
G6.0	353.6	353.5	353.3	353.3	353.0	353.1	353.1	353.2	353.2	353.3
G7.0	352.8	352.8	352.6	352.5	352.3	352.3	352.3	352.3	352.3	352.4
G8.0	351.9	352.0	351.7	351.8	351.5	351.6	351.4	351.5	351.3	351.4
G9.0	351.0	350.9	350.8	350.8	350.6	350.6	350.5	350.5	350.4	350.5
G10.0	350.0	349.9	349.8	349.8	349.6	349.6	349.6	349.5	349.4	349.5
G11.0	348.8	348.8	348.6	348.6	348.4	348.5	348.3	348.4	348.2	348.3
G12.0	347.7	347.7	347.4	347.5	347.2	347.3	347.2	347.1	347.0	347.2
G13.0	346.5	346.4	346.2	346.2	346.0	346.1	345.9	345.9	345.8	345.9
G14.0	344.9	344.9	344.7	344.7	344.5	344.6	344.4	344.4	344.3	344.5
G15.0	343.4	343.4	343.2	343.3	343.0	343.2	343.0	343.0	342.8	343.0
G16.0	341.8	341.9	341.4	341.7	341.3	341.6	341.3	341.5	341.1	341.3
G17.0	340.1	340.2	340.0	340.0	339.6	339.8	339.6	339.6	339.5	339.6
G18.0	338.4	338.3	338.1	338.2	337.9	338.1	337.8	337.9	337.6	337.8
G19.0	336.3	336.2	336.1	336.2	335.9	336.1	335.7	335.8	335.6	335.7
G20.0	334.3	334.2	334.0	334.2	334.0	334.1	333.8	333.8	333.5	333.7
G21.0	332.3	332.2	332.0	332.1	331.8	332.0	331.7	331.7	331.5	331.7
G22.0	329.8	329.8	329.7	329.8	329.4	329.5	329.2	329.4	329.2	329.4
G23.0	327.5	327.6	327.3	327.5	326.9	327.1	327.0	327.2	326.9	327.1
G24.0	324.8	325.2	324.8	325.1	324.3	324.7	324.3	324.9	324.4	324.8
G25.0	322.2	322.4	322.3	322.5	321.8	321.8	322.0	322.2	322.0	322.2
G26.0	319.5	319.8	319.6	319.8	319.5	319.4	319.5	319.7	319.4	319.4
G27.0	316.5	316.7	316.7	316.9	316.6	316.5	316.9	316.8	316.3	316.3
G28.0	313.5	313.8	313.7	313.9	313.9	313.9	314.0	313.9	313.3	313.4
G29.0	310.5	310.9	310.7	311.0	310.9	310.9	311.0	310.9	310.4	310.5
G30.0	307.2	307.4	307.2	307.6	307.5	307.8	307.8	307.5	306.9	307.1
G31.0	304.1	304.2	304.0	304.4	304.5	304.7	304.6	304.2	303.8	304.1
G32.0	300.5	300.7	300.3	300.8	301.0	301.1	300.9	300.7	300.3	300.4
G33.0	297.2	297.2	297.0	297.5	297.4	297.5	297.5	297.3	296.8	297.2
G34.0	293.7	293.7	293.6	293.9	293.7	293.9	293.7	294.0	293.4	293.6
G35.0	289.9	289.9	289.6	290.2	289.8	290.0	289.8	290.2	289.4	289.7
G36.0	286.2	286.1	286.2	286.7	286.0	286.2	285.9	286.4	285.9	286.0

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Candlepower Table (Continue 13)

Unit: cd/klm

G\C	C200.0	C205.0	C210.0	C215.0	C220.0	C225.0	C230.0	C235.0	C240.0	C245.0
G37.0	282.0	282.5	282.2	282.8	281.6	282.4	281.8	282.7	281.8	282.3
G38.0	278.2	278.3	278.5	278.6	277.8	278.1	277.8	278.4	278.1	278.4
G39.0	274.3	274.2	274.4	274.4	273.9	274.1	273.8	274.4	274.1	274.4
G40.0	269.9	269.7	270.0	270.1	269.3	269.6	269.4	269.8	269.5	270.0
G41.0	265.5	265.7	266.0	265.7	265.2	265.4	265.1	265.7	265.5	265.7
G42.0	261.1	261.7	261.6	261.5	261.0	260.9	260.9	261.3	261.0	261.7
G43.0	256.4	256.9	256.8	256.6	256.0	256.2	256.0	256.6	256.4	257.1
G44.0	251.9	252.4	251.9	252.2	251.5	251.7	251.7	251.9	251.7	252.8
G45.0	246.8	247.9	246.6	247.4	246.7	247.2	246.6	247.4	246.8	248.0
G46.0	242.2	242.8	242.0	242.3	242.0	242.1	242.0	242.1	242.0	242.8
G47.0	237.4	237.8	237.2	237.3	237.0	237.1	237.0	237.4	237.3	238.1
G48.0	232.1	232.4	231.6	231.9	231.7	231.9	231.9	232.2	231.8	232.6
G49.0	226.9	227.2	226.6	226.9	226.5	226.8	226.8	226.9	226.8	227.5
G50.0	221.8	222.1	221.3	221.6	221.5	221.9	221.7	221.9	221.6	222.4
G51.0	216.3	216.3	215.7	216.1	215.6	216.2	216.0	216.0	216.0	216.6
G52.0	210.8	211.0	210.4	210.7	210.4	210.9	210.5	210.8	210.8	211.3
G53.0	204.9	205.4	204.3	204.9	204.3	205.3	204.4	205.1	204.6	205.7
G54.0	199.1	199.3	198.7	199.0	199.0	199.1	199.0	199.2	199.2	199.7
G55.0	193.2	193.6	193.0	193.5	193.2	193.5	193.5	193.5	193.4	194.0
G56.0	186.9	186.9	186.7	187.1	186.9	187.0	187.0	187.5	186.9	187.3
G57.0	181.1	181.1	180.9	181.4	180.9	181.0	181.3	181.6	181.1	181.5
G58.0	174.8	174.9	175.0	175.2	175.0	175.1	175.1	175.6	175.2	175.3
G59.0	166.2	168.2	168.1	168.5	168.4	168.6	168.5	168.6	168.2	168.5
G60.0	157.2	160.2	162.1	162.2	162.0	162.5	162.0	162.5	162.1	161.2
G61.0	148.9	151.8	153.7	156.0	155.3	156.2	155.2	156.0	154.7	153.4
G62.0	142.4	143.4	144.9	148.7	148.6	149.0	148.5	148.8	146.2	144.7
G63.0	136.2	137.2	136.5	140.2	142.4	142.4	142.2	141.4	137.8	138.1
G64.0	128.9	130.1	129.2	130.8	134.1	134.9	134.3	132.2	130.3	130.9
G65.0	122.6	123.7	122.8	124.0	125.3	128.1	126.1	124.6	123.6	124.6
G66.0	116.0	116.8	116.0	117.4	116.7	120.2	117.5	118.0	117.0	117.7
G67.0	108.2	109.6	109.1	110.2	109.5	109.6	109.8	110.6	109.9	110.4
G68.0	99.6	101.8	102.8	103.2	102.2	100.1	102.3	103.8	103.3	103.2
G69.0	91.7	93.2	94.2	96.5	93.5	93.1	93.4	96.8	95.4	94.9
G70.0	83.8	85.4	86.0	88.1	85.8	86.1	85.6	89.1	86.9	86.4
G71.0	77.3	77.9	77.9	79.2	78.9	79.7	79.0	79.7	79.1	79.5
G72.0	68.8	70.8	70.4	69.7	70.3	72.5	70.8	70.4	71.8	72.5
G73.0	61.0	63.2	63.1	62.5	62.8	65.0	63.4	63.8	65.1	65.8

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Candlepower Table (Continue 14)

Unit: cd/klm

G\C	C200.0	C205.0	C210.0	C215.0	C220.0	C225.0	C230.0	C235.0	C240.0	C245.0
G74.0	54.1	55.1	55.4	55.9	56.1	56.4	57.1	57.9	56.7	57.7
G75.0	47.3	48.0	46.9	49.0	48.1	48.6	49.6	50.5	49.0	50.4
G76.0	40.4	41.8	40.5	41.9	41.5	42.9	42.4	43.4	42.6	43.9
G77.0	33.4	33.7	34.2	34.4	34.9	35.9	35.8	36.3	36.3	35.9
G78.0	28.1	28.1	28.3	28.7	29.3	29.3	30.0	29.9	30.3	30.3
G79.0	22.3	22.7	22.8	23.8	23.3	24.1	23.9	25.1	24.5	25.1
G80.0	16.7	17.6	17.5	17.9	18.3	18.4	18.8	19.1	19.1	19.6
G81.0	12.8	13.1	13.3	14.1	13.8	14.6	14.2	14.9	14.6	14.8
G82.0	8.9	9.6	9.5	10.2	10.0	10.8	10.4	11.1	10.5	11.0
G83.0	5.8	6.3	6.6	7.1	7.1	7.5	7.5	7.7	7.3	7.4
G84.0	3.7	4.1	4.3	4.7	4.8	5.1	5.0	5.1	4.8	4.7
G85.0	2.1	2.3	2.4	2.7	2.7	2.8	2.8	2.9	2.7	2.7
G86.0	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.5	1.5	1.4
G87.0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.7
G88.0	0.4	0.5	0.4	0.5	0.4	0.5	0.5	0.5	0.5	0.5
G89.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
G90.0	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Candlepower Table (Continue 15)

Unit: cd/klm

G\C	C250.0	C255.0	C260.0	C265.0	C270.0	C275.0	C280.0	C285.0	C290.0	C295.0
G0.0	354.3	354.2	354.2	354.2	354.2	354.1	354.1	354.1	354.0	354.0
G1.0	354.4	354.4	354.4	354.3	354.3	354.3	354.3	354.2	354.2	354.1
G2.0	354.7	354.6	354.6	354.6	354.5	354.5	354.4	354.4	354.3	354.2
G3.0	354.9	354.8	354.8	354.8	354.7	354.7	354.6	354.5	354.3	354.2
G4.0	354.7	354.8	354.7	354.7	354.6	354.6	354.4	354.3	354.0	353.9
G5.0	354.2	354.3	354.2	354.3	354.1	354.0	353.9	353.8	353.5	353.3
G6.0	353.2	353.3	353.3	353.3	353.1	353.1	352.9	352.9	352.6	352.6
G7.0	352.3	352.3	352.2	352.2	352.0	352.1	351.9	352.0	351.7	351.7
G8.0	351.2	351.3	351.1	351.2	350.9	351.1	350.9	351.0	350.7	350.8
G9.0	350.3	350.3	350.2	350.2	350.0	350.1	349.9	349.9	349.7	349.7
G10.0	349.3	349.3	349.1	349.2	349.0	349.1	348.9	348.9	348.7	348.7
G11.0	348.1	348.1	348.0	348.0	347.8	347.8	347.6	347.6	347.4	347.4
G12.0	346.9	347.0	346.8	346.8	346.7	346.7	346.5	346.5	346.2	346.2
G13.0	345.7	345.7	345.6	345.6	345.4	345.4	345.2	345.2	344.9	344.9
G14.0	344.2	344.3	344.1	344.1	343.9	344.0	343.7	343.7	343.4	343.4
G15.0	342.7	342.8	342.6	342.6	342.3	342.4	342.2	342.2	342.0	342.0
G16.0	341.0	341.1	340.8	340.9	340.5	340.7	340.3	340.5	340.2	340.4
G17.0	339.3	339.4	339.1	339.0	338.7	338.8	338.6	338.7	338.5	338.5
G18.0	337.5	337.7	337.3	337.2	336.9	336.9	336.8	336.9	336.6	336.7
G19.0	335.6	335.7	335.3	335.2	334.9	335.0	334.7	334.9	334.6	334.6
G20.0	333.5	333.8	333.4	333.5	333.2	333.1	332.8	332.9	332.6	332.5
G21.0	331.5	331.8	331.4	331.6	331.3	331.2	330.9	330.8	330.5	330.5
G22.0	329.1	329.5	329.1	329.4	329.1	329.0	328.5	328.6	328.3	328.1
G23.0	326.9	327.1	326.8	327.3	326.9	326.7	326.3	326.3	325.9	325.9
G24.0	324.3	324.7	324.1	324.7	324.3	324.3	323.6	323.9	323.3	323.6
G25.0	321.7	321.8	321.4	321.9	321.6	321.5	321.0	321.1	320.6	320.8
G26.0	318.9	319.0	318.7	319.1	318.9	318.7	318.2	318.3	318.0	318.2
G27.0	315.9	316.0	315.7	315.9	315.7	315.6	315.2	315.3	314.8	315.1
G28.0	313.0	313.0	312.7	313.1	312.8	312.7	312.3	312.5	312.0	312.2
G29.0	310.0	310.2	309.9	310.1	309.7	309.8	309.4	309.5	309.0	309.1
G30.0	306.7	306.8	306.6	306.8	306.4	306.4	306.1	306.1	305.7	305.8
G31.0	303.7	303.7	303.5	303.6	303.1	303.4	303.0	303.0	302.6	302.4
G32.0	300.0	300.2	300.0	300.2	299.6	299.9	299.3	299.4	299.1	299.0
G33.0	296.7	297.0	296.6	296.9	296.2	296.5	296.1	296.1	295.7	295.4
G34.0	293.4	293.6	293.3	293.6	292.9	293.1	292.6	292.6	292.4	292.1
G35.0	289.5	289.7	289.3	289.7	289.2	289.2	288.8	288.9	288.4	288.2
G36.0	285.8	286.2	285.8	286.0	285.6	285.7	285.1	285.3	284.8	284.4

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Candlepower Table (Continue 16)

Unit: cd/klm

G\C	C250.0	C255.0	C260.0	C265.0	C270.0	C275.0	C280.0	C285.0	C290.0	C295.0
G37.0	281.9	282.4	281.6	282.4	281.3	281.8	281.1	281.5	280.5	280.7
G38.0	277.9	278.3	277.9	278.1	277.6	277.7	277.2	277.4	276.8	276.5
G39.0	274.0	274.2	274.0	274.3	273.8	273.7	273.3	273.4	272.7	272.8
G40.0	269.7	269.9	269.4	269.8	269.5	269.4	268.9	269.1	268.3	268.3
G41.0	265.4	265.7	265.4	265.8	265.5	265.4	264.6	264.8	264.2	264.3
G42.0	261.3	261.6	261.1	261.5	261.0	261.1	260.4	260.7	259.8	260.1
G43.0	256.4	256.8	256.5	256.8	256.1	256.3	255.6	255.8	255.2	255.5
G44.0	252.0	252.5	251.9	252.2	251.5	251.9	251.2	251.4	250.5	250.8
G45.0	246.8	247.7	247.1	247.9	246.6	247.5	246.2	246.6	245.6	246.1
G46.0	242.3	242.7	242.3	242.9	241.9	242.3	241.7	241.7	240.9	240.9
G47.0	237.4	238.1	237.7	238.0	237.3	237.7	236.8	237.0	236.2	235.9
G48.0	232.2	232.6	232.5	232.8	231.7	232.2	231.6	231.5	230.8	230.6
G49.0	226.9	227.5	227.4	227.8	226.7	227.3	226.5	226.6	225.7	225.5
G50.0	221.9	222.5	222.4	222.7	221.8	222.1	221.5	221.3	220.3	220.5
G51.0	216.4	216.9	216.5	216.9	216.2	216.6	215.9	215.7	214.6	214.7
G52.0	211.0	211.5	211.3	211.7	210.8	211.1	210.5	210.3	209.4	209.6
G53.0	205.3	205.7	205.1	206.1	204.5	205.7	204.6	204.9	203.3	203.9
G54.0	199.5	199.6	199.6	200.1	199.0	199.7	198.8	198.5	197.9	197.9
G55.0	193.8	194.0	193.8	194.2	193.2	193.9	192.9	193.0	192.0	192.2
G56.0	187.3	187.4	187.5	187.9	186.7	187.6	186.6	186.7	185.8	185.5
G57.0	181.4	181.5	181.0	181.2	179.8	181.0	180.4	180.5	179.7	179.7
G58.0	175.4	174.7	173.8	173.7	172.1	173.4	172.7	173.9	173.7	173.5
G59.0	167.3	166.4	164.7	164.9	163.5	164.3	163.7	165.0	166.0	166.7
G60.0	159.2	158.7	157.0	157.7	156.5	157.1	156.0	157.3	157.4	159.3
G61.0	150.4	151.6	149.9	151.7	149.8	151.1	149.2	150.2	148.6	151.4
G62.0	143.9	144.5	143.6	144.7	143.2	144.3	142.6	143.2	142.2	142.8
G63.0	137.4	138.2	137.0	138.4	136.9	137.8	136.3	136.9	135.8	136.4
G64.0	130.0	131.0	130.1	131.2	130.0	130.6	129.2	130.1	128.7	129.1
G65.0	123.6	124.6	123.4	124.7	123.2	124.2	122.9	123.4	122.0	122.8
G66.0	117.0	117.7	116.6	117.7	116.0	117.5	115.9	116.9	115.7	115.9
G67.0	109.5	109.7	107.1	108.0	106.1	107.8	106.9	108.7	108.1	108.6
G68.0	101.0	100.6	99.6	100.6	99.2	100.4	99.0	99.5	99.9	101.6
G69.0	92.7	93.2	92.2	93.7	91.4	93.6	91.7	92.5	91.3	92.8
G70.0	86.1	85.8	85.7	86.5	84.7	86.0	84.8	84.9	84.8	85.0
G71.0	79.2	79.2	79.0	79.5	78.3	79.3	78.5	78.4	77.8	78.1
G72.0	71.5	71.3	70.3	70.4	68.5	69.7	69.4	70.5	70.4	71.2
G73.0	63.6	63.6	62.9	63.0	61.7	62.8	62.2	62.9	62.0	64.1

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Candlepower Table (Continue 17)

Unit: cd/klm

G\C	C250.0	C255.0	C260.0	C265.0	C270.0	C275.0	C280.0	C285.0	C290.0	C295.0
G74.0	56.9	57.2	56.4	56.2	54.9	55.6	55.5	56.2	55.6	56.3
G75.0	49.7	50.2	48.8	48.5	47.3	48.3	48.3	49.3	48.7	49.1
G76.0	43.3	42.9	41.7	41.7	40.9	41.4	41.1	42.1	41.9	42.9
G77.0	36.2	36.2	34.9	35.2	34.5	35.1	34.7	35.5	35.3	34.9
G78.0	30.7	30.0	28.9	28.9	28.5	29.1	28.6	29.5	29.7	29.6
G79.0	24.4	24.6	23.9	24.1	23.4	24.1	23.8	24.4	23.8	24.0
G80.0	18.5	19.1	18.6	18.6	18.1	18.4	18.1	18.6	17.9	18.9
G81.0	14.5	14.7	14.1	14.5	13.7	14.0	13.7	14.2	14.0	14.1
G82.0	10.2	10.5	10.1	10.5	9.8	10.4	9.8	10.1	9.7	10.4
G83.0	7.0	7.0	6.8	6.8	6.5	6.8	6.8	6.8	6.6	6.9
G84.0	4.4	4.3	4.1	4.2	3.9	4.1	4.2	4.2	4.1	4.4
G85.0	2.5	2.4	2.2	2.3	2.1	2.2	2.1	2.2	2.2	2.5
G86.0	1.4	1.3	1.2	1.2	1.1	1.2	1.2	1.2	1.3	1.4
G87.0	0.8	0.8	0.7	0.7	0.6	0.7	0.7	0.7	0.8	0.8
G88.0	0.5	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.5
G89.0	0.2	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.2
G90.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Candlepower Table (Continue 18)

Unit: cd/klm

G\C	C300.0	C305.0	C310.0	C315.0	C320.0	C325.0	C330.0	C335.0	C340.0	C345.0
G0.0	354.0	354.0	354.0	354.0	354.0	354.0	354.0	354.0	354.0	354.0
G1.0	354.1	354.1	354.1	354.1	354.0	354.0	354.0	354.0	354.0	353.9
G2.0	354.2	354.1	354.1	354.0	354.0	353.9	353.9	353.9	353.9	353.8
G3.0	354.0	354.0	353.9	353.8	353.7	353.7	353.7	353.6	353.6	353.5
G4.0	353.7	353.7	353.5	353.4	353.3	353.3	353.3	353.2	353.2	353.2
G5.0	353.1	353.1	352.9	352.9	352.8	352.8	352.7	352.8	352.7	352.7
G6.0	352.3	352.3	352.2	352.2	352.0	352.1	352.0	352.0	352.0	352.0
G7.0	351.5	351.5	351.3	351.4	351.3	351.3	351.3	351.3	351.3	351.3
G8.0	350.5	350.6	350.4	350.5	350.3	350.5	350.3	350.5	350.4	350.5
G9.0	349.6	349.6	349.4	349.5	349.4	349.5	349.4	349.4	349.4	349.4
G10.0	348.5	348.5	348.4	348.5	348.4	348.4	348.3	348.3	348.2	348.4
G11.0	347.2	347.3	347.2	347.3	347.0	347.1	347.0	347.1	347.1	347.2
G12.0	346.0	346.1	346.0	346.0	345.8	345.9	345.8	346.0	345.9	346.0
G13.0	344.7	344.8	344.6	344.7	344.4	344.6	344.6	344.7	344.6	344.8
G14.0	343.2	343.2	343.0	343.1	343.0	343.1	343.0	343.1	343.0	343.1
G15.0	341.7	341.7	341.5	341.7	341.5	341.6	341.4	341.4	341.4	341.6
G16.0	340.0	340.1	339.8	340.2	339.7	339.9	339.5	339.8	339.7	340.1
G17.0	338.2	338.4	338.2	338.3	337.9	338.0	337.8	337.9	338.0	338.4
G18.0	336.4	336.6	336.5	336.5	336.2	336.1	336.0	336.2	336.2	336.7
G19.0	334.3	334.6	334.4	334.4	334.0	334.1	333.8	334.0	334.2	334.7
G20.0	332.4	332.6	332.3	332.3	332.1	332.1	331.9	332.1	332.3	332.9
G21.0	330.3	330.6	330.1	330.2	330.0	330.1	329.9	330.1	330.2	330.8
G22.0	328.0	328.1	327.7	327.6	327.4	327.8	327.5	327.8	327.8	328.1
G23.0	325.8	325.8	325.3	325.3	325.0	325.5	325.3	325.4	325.1	325.3
G24.0	323.1	323.4	322.7	322.8	322.5	323.2	322.6	322.8	322.2	322.5
G25.0	320.6	320.8	320.2	319.9	319.9	320.4	319.9	319.8	319.5	319.5
G26.0	318.0	318.3	317.8	317.4	317.4	317.4	317.0	317.1	316.8	316.9
G27.0	314.8	315.4	314.9	314.6	314.1	314.3	314.0	314.0	313.7	313.8
G28.0	311.9	312.3	312.1	311.9	311.2	311.2	310.9	311.2	310.8	311.0
G29.0	308.8	309.2	309.3	308.9	308.0	308.2	307.8	308.2	307.9	308.0
G30.0	305.3	305.8	306.0	305.5	304.7	304.8	304.5	304.9	304.5	304.7
G31.0	302.1	302.7	302.7	302.2	301.5	301.7	301.4	301.6	301.4	301.5
G32.0	298.6	299.1	298.8	298.6	298.1	298.1	297.8	298.1	297.9	298.0
G33.0	295.3	295.8	295.0	295.0	294.9	294.9	294.5	294.6	294.4	294.6
G34.0	291.8	292.1	291.4	291.5	291.3	291.5	291.1	291.2	291.0	291.1
G35.0	288.0	288.1	287.2	287.6	287.2	287.7	287.1	287.1	287.0	287.3
G36.0	284.3	284.1	283.6	283.7	283.5	283.9	283.4	283.4	283.4	283.5

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Candlepower Table (Continue 19)

Unit: cd/klm

G\C	C300.0	C305.0	C310.0	C315.0	C320.0	C325.0	C330.0	C335.0	C340.0	C345.0
G37.0	280.3	280.3	279.4	280.0	279.3	280.3	279.5	279.6	279.1	279.6
G38.0	276.2	276.1	275.4	275.6	275.2	276.0	275.7	275.2	275.3	275.4
G39.0	272.2	272.0	271.5	271.7	271.3	271.7	271.6	271.3	271.1	271.4
G40.0	267.4	267.5	267.2	267.1	266.6	267.2	267.1	266.7	266.6	266.8
G41.0	263.2	263.4	263.1	262.9	262.5	262.9	262.7	262.6	262.4	262.7
G42.0	259.0	259.2	258.7	258.4	258.1	258.6	258.4	258.3	257.9	258.4
G43.0	254.2	254.3	253.8	253.7	253.3	253.6	253.3	253.7	253.2	253.7
G44.0	249.6	249.9	249.4	249.0	248.9	249.1	248.7	249.2	248.5	249.0
G45.0	244.8	245.2	244.2	244.5	243.7	244.3	243.4	244.7	243.2	244.4
G46.0	240.0	240.2	239.5	239.4	238.8	239.2	238.7	239.3	238.5	239.2
G47.0	235.3	235.2	234.8	234.3	234.0	234.4	233.7	234.4	233.7	234.2
G48.0	229.8	229.9	229.3	229.1	228.7	228.7	228.2	229.0	228.2	228.9
G49.0	224.9	224.6	224.4	224.1	223.5	223.4	223.0	223.7	223.2	223.7
G50.0	219.8	219.5	219.0	219.1	218.4	218.3	217.8	218.6	218.0	218.5
G51.0	214.0	213.6	213.2	213.3	212.5	212.5	212.2	212.8	212.3	212.5
G52.0	208.7	208.4	208.0	208.0	207.2	207.1	206.7	207.2	206.9	207.0
G53.0	202.6	202.9	201.9	202.6	201.1	201.5	200.8	201.8	201.0	201.6
G54.0	197.1	196.7	196.2	196.1	195.7	195.7	195.0	195.8	195.5	195.5
G55.0	191.3	191.2	190.7	190.5	189.9	189.9	189.6	189.8	189.6	189.6
G56.0	185.1	184.9	184.4	184.0	183.6	183.6	183.1	183.3	183.2	183.4
G57.0	179.2	179.3	178.3	178.1	177.6	178.0	177.3	177.2	177.1	177.2
G58.0	172.9	173.0	172.4	171.9	171.6	171.8	171.3	171.4	171.2	170.6
G59.0	166.2	166.1	165.5	165.5	165.1	165.1	164.5	164.3	163.1	161.3
G60.0	159.8	159.7	159.3	159.3	158.7	158.7	158.4	157.1	154.1	153.4
G61.0	152.3	153.5	152.2	153.1	152.0	152.5	150.3	148.4	145.6	146.6
G62.0	143.6	146.0	145.9	145.9	145.3	145.0	141.7	140.1	139.1	139.8
G63.0	135.5	138.4	139.2	139.3	139.0	137.0	133.2	133.8	132.6	133.3
G64.0	128.0	129.3	131.6	131.7	130.9	127.6	125.8	126.8	125.6	126.3
G65.0	121.2	122.2	122.9	125.0	121.7	120.6	119.5	120.1	118.9	120.0
G66.0	114.7	115.5	114.5	117.2	113.5	114.0	112.6	113.5	112.4	113.2
G67.0	107.6	108.3	107.1	106.1	105.9	106.8	105.9	105.9	105.1	104.8
G68.0	101.2	101.4	99.7	97.3	99.0	99.9	99.2	99.3	96.6	95.8
G69.0	93.3	94.3	90.9	90.4	90.6	93.2	91.8	90.1	88.1	88.7
G70.0	84.7	86.8	83.0	83.4	82.6	85.4	82.7	82.4	81.8	81.6
G71.0	77.5	77.8	76.4	77.0	76.2	76.4	75.3	75.8	75.1	74.9
G72.0	70.0	68.3	68.5	69.9	67.7	67.2	68.3	69.0	68.0	67.8
G73.0	63.4	61.9	61.3	62.7	60.4	60.7	61.9	62.4	59.6	59.5

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Candlepower Table (Continue 20)

Unit: cd/klm

G\C	C300.0	C305.0	C310.0	C315.0	C320.0	C325.0	C330.0	C335.0	C340.0	C345.0
G74.0	55.4	55.9	55.0	54.0	54.5	55.0	54.1	54.3	53.2	53.8
G75.0	47.4	48.7	47.7	47.2	47.2	47.8	46.1	47.6	47.1	47.3
G76.0	41.3	42.2	40.5	41.8	40.6	41.2	40.4	41.5	40.9	40.4
G77.0	34.7	34.9	34.4	34.7	34.0	34.4	34.3	34.0	33.9	33.9
G78.0	29.3	28.8	29.2	28.6	29.0	28.8	28.8	28.6	28.7	28.5
G79.0	23.6	23.8	23.0	23.7	23.1	23.7	23.1	23.2	22.7	23.1
G80.0	18.3	18.1	18.1	18.1	18.0	18.0	17.9	18.3	17.4	17.8
G81.0	13.8	14.5	13.7	14.0	13.6	14.1	13.4	13.6	13.4	13.4
G82.0	9.9	10.4	9.9	10.4	9.7	10.2	9.6	10.1	9.2	9.6
G83.0	6.8	7.2	7.0	7.1	6.8	7.0	6.7	6.6	6.3	6.4
G84.0	4.4	4.7	4.6	4.9	4.5	4.5	4.3	4.3	4.0	4.1
G85.0	2.6	2.7	2.6	2.7	2.6	2.6	2.5	2.5	2.3	2.2
G86.0	1.4	1.4	1.4	1.4	1.3	1.3	1.3	1.2	1.2	1.2
G87.0	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.9	0.8
G88.0	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.5
G89.0	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2
G90.0	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Candlepower Table (Continue 21)

Unit: cd/klm

G\C	C350.0	C355.0	C360.0							
G0.0	354.0	354.1	355.4							
G1.0	353.9	354.0	355.3							
G2.0	353.8	353.8	355.2							
G3.0	353.5	353.6	355.0							
G4.0	353.2	353.2	354.6							
G5.0	352.7	352.7	354.2							
G6.0	352.0	352.0	353.5							
G7.0	351.3	351.4	352.8							
G8.0	350.3	350.5	352.0							
G9.0	349.4	349.5	351.0							
G10.0	348.3	348.4	349.9							
G11.0	347.1	347.3	348.8							
G12.0	346.0	346.2	347.8							
G13.0	344.7	344.9	346.5							
G14.0	343.0	343.3	344.9							
G15.0	341.6	341.8	343.4							
G16.0	339.9	340.1	341.6							
G17.0	338.2	338.2	339.7							
G18.0	336.5	336.3	337.8							
G19.0	334.4	334.2	335.7							
G20.0	332.5	332.2	333.7							
G21.0	330.4	330.1	331.8							
G22.0	327.6	327.5	329.3							
G23.0	324.9	325.0	326.7							
G24.0	322.0	322.4	324.0							
G25.0	319.3	319.5	321.5							
G26.0	316.6	316.9	318.9							
G27.0	313.6	314.0	315.9							
G28.0	310.7	311.1	313.2							
G29.0	307.6	308.2	310.3							
G30.0	304.4	304.8	307.0							
G31.0	301.3	301.8	303.9							
G32.0	297.7	298.3	300.1							
G33.0	294.5	294.9	296.8							
G34.0	290.8	291.5	293.3							
G35.0	287.0	287.6	289.4							
G36.0	283.2	283.8	285.8							

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

Candlepower Table (Continue 22)

Unit: cd/klm

G\C	C350.0	C355.0	C360.0							
G37.0	279.2	280.2	281.9							
G38.0	275.1	275.7	277.8							
G39.0	271.1	271.7	273.9							
G40.0	266.6	267.0	269.6							
G41.0	262.2	262.9	265.4							
G42.0	257.9	258.4	261.2							
G43.0	252.9	253.7	256.3							
G44.0	248.5	249.1	251.6							
G45.0	243.3	244.6	247.0							
G46.0	238.7	239.5	241.9							
G47.0	233.8	234.5	236.9							
G48.0	228.5	229.3	231.7							
G49.0	223.4	224.1	226.5							
G50.0	218.2	218.8	221.2							
G51.0	212.5	212.8	215.6							
G52.0	206.9	207.5	210.4							
G53.0	201.0	201.9	204.7							
G54.0	195.2	195.8	198.5							
G55.0	189.6	189.8	192.9							
G56.0	183.1	183.5	186.5							
G57.0	176.9	177.1	180.5							
G58.0	169.0	168.6	172.5							
G59.0	159.1	159.4	163.1							
G60.0	152.0	152.5	155.5							
G61.0	144.9	146.6	148.8							
G62.0	138.4	139.6	142.6							
G63.0	132.1	133.3	135.9							
G64.0	124.9	126.1	129.1							
G65.0	118.7	119.6	122.8							
G66.0	111.7	112.6	116.0							
G67.0	102.3	102.5	106.9							
G68.0	94.8	95.4	98.5							
G69.0	87.7	88.8	91.3							
G70.0	81.1	81.8	84.6							
G71.0	74.8	75.0	78.3							
G72.0	66.0	66.1	70.4							
G73.0	59.0	59.0	62.2							

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

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Candlepower Table (Continue 23)

Unit: cd/klm

G\C	C350.0	C355.0	C360.0							
G74.0	52.7	52.8	55.8							
G75.0	46.1	45.7	49.4							
G76.0	39.0	39.2	42.2							
G77.0	32.9	33.0	36.0							
G78.0	27.1	27.1	30.3							
G79.0	22.4	22.4	24.9							
G80.0	17.0	17.1	19.4							
G81.0	12.9	12.8	15.2							
G82.0	9.2	9.3	11.2							
G83.0	6.3	6.3	7.6							
G84.0	4.0	3.9	5.1							
G85.0	2.0	2.0	2.9							
G86.0	1.1	1.1	1.4							
G87.0	0.8	0.7	0.9							
G88.0	0.4	0.4	0.6							
G89.0	0.2	0.1	0.4							
G90.0	0.2	0.2	0.2							

C Plane (°):0.0-360.0: 5.0
Test Lab: TU-Gabrovo
Test Type: TYPE C
Temperature: 25
Operator: Plamen Tsankov

Gamma Plane (°):0.0-90.0:1.0
Test Device: LSG-1700B
Distance: 7.992 m
Humidity: 60%
Inspector:

LS2010 DIGITAL POWER METER TEST REPORT

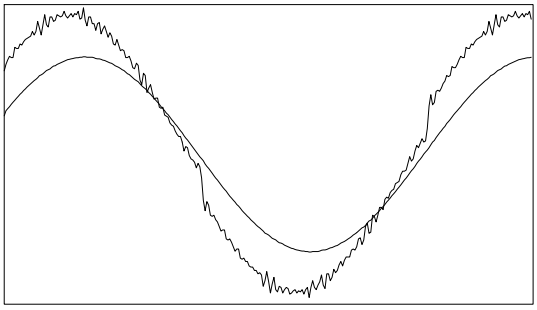
Product Mark
  Manufacturer : Industrial Lighting
  Type : Hydra mini 200W HP
  Temperature : 25'C
  Operator : Plamen Tsankov

Number : 15
Humidity : 65%
Testday : 22-12-20

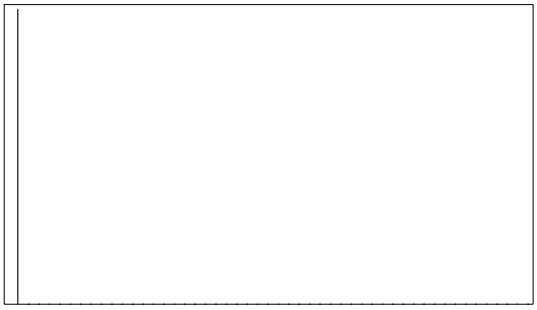
Power Parameter
  Urms = 230.2 V
  Upeak = 326.2 V
  Ucf   = 1.42
  Power = 201.33 W
  PF = 0.979
  Start Angle: 0.0 Deg

Irms = 0.893 A
Ipeak =   1.3 A
Icf   = 1.48
Freq = 50.00 Hz
Peak Angle: 63.3 Deg
End Angle: 170.2 Deg

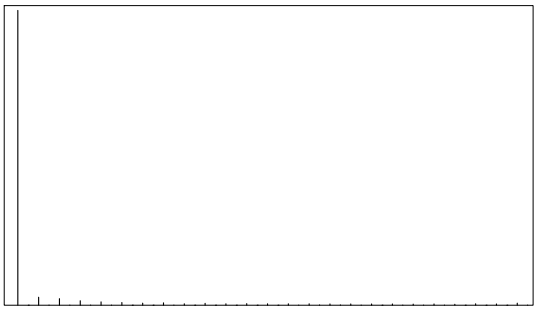
VOLTAGE & CURRENT WAVEFORM



VOLTAGE SPECTRUM



CURRENT SPECTRUM



ORD.	U_SPEC(%)	I_SPEC(%)
THD	0.2	4.8
2	0.0	0.0
3	0.0	2.7
4	0.0	0.1
5	0.0	2.3
6	0.0	0.1
7	0.0	1.5
8	0.0	0.1
9	0.0	1.1
10	0.0	0.1
11	0.0	1.0
12	0.0	0.0
13	0.0	0.7
14	0.0	0.0
15	0.0	0.9
16	0.0	0.1
17	0.0	0.5
18	0.0	0.0
19	0.0	0.7
20	0.0	0.1
21	0.0	0.5
22	0.0	0.0
23	0.0	0.6
24	0.0	0.0
25	0.0	0.5
26	0.0	0.0
27	0.0	0.5
28	0.0	0.1
29	0.0	0.5
30	0.0	0.2
31	0.0	0.4
32	0.0	0.1
33	0.0	0.5
34	0.0	0.1
35	0.0	0.5
36	0.0	0.0
37	0.0	0.4
38	0.0	0.1
39	0.0	0.4
40	0.0	0.1
41	0.0	0.5
42	0.0	0.1
43	0.0	0.4
44	0.0	0.0
45	0.0	0.5
46	0.0	0.0
47	0.0	0.4
48	0.0	0.0
49	0.1	0.7
50	0.0	0.1