

Report No.: 2

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Goniophotometer Test Report

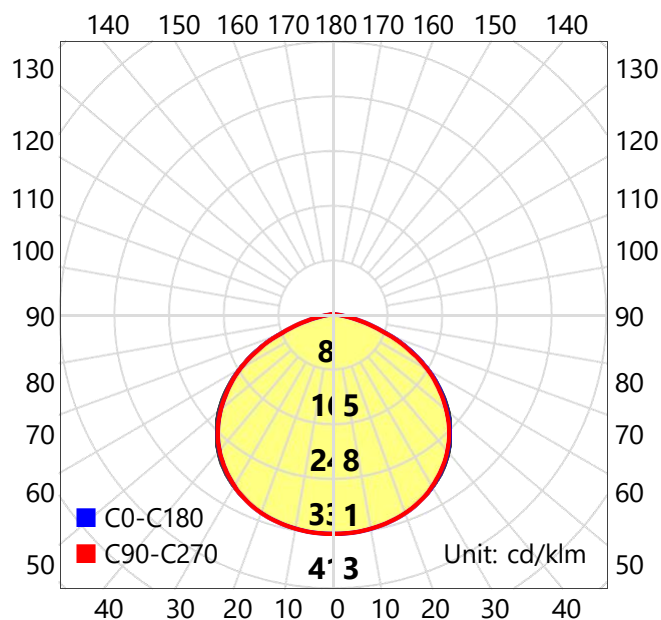
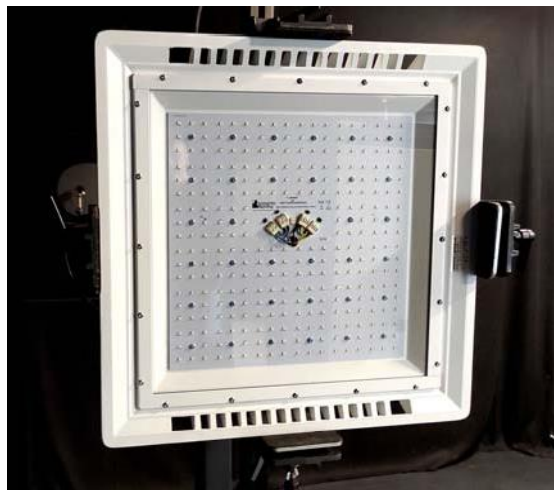
Product Info

Luminaire Category: **Industrial**Luminaire: **Hydra Alphard 400W272 - 230**Lamp Category: **LED**Manufacturer: **Industrial Lighting Ltd.**Number of Lamps: **1**Lumens per Lamp: **70 037 lm**Luminous Length: **370 mm**Luminous Width: **370 mm**Luminous Height: **0 mm**

Electric Parameters

Voltage: **228.90 V** Current: **1.8320 A** Power: **399.30 W** Power Factor: **0.952** Frequency: **49.99 Hz**

Photometric Parameters

CIE Class: **Direct**Measurement Flux: **70 037.22 lm**Upward Ratio: **0.00 %**Maximum Intensity: **330.52 cd/klm**Central Intensity: **330.49 cd/klm**Luminaire Efficacy Rating (LER): **175.4**Beam Angle (C0-C180, C90-C270): **119.1 °, 118.8 °**Field Angle (C0-C180, C90-C270): **154.9 °, 154.8 °**Total Rated Lamp Lumens: **70 037.22 lm**Efficiency: **100.00 %**Downward Ratio: **100.00 %**Position Of Maximum Intensity: **C90° γ1°**S/MH(C0-C180, C90-C270): **1.34, 1.34**Energy Efficiency Class: **D (EU 2019/2015 η_{TM}:158lm/W)**Beam Angle (C45-C225, C135-C315): **120.2 °, 120.1 °**Field Angle (C45-C225, C135-C315): **155.5 °, 155.3 °**

Average Beam Angle (50%): 119.8°

Test Type: Type C Test Distance: 8.131 m

Test Device: Lisun LSG-1700B

Test Lab: Light Lab TU-Gabrovo

Test By: Eng. Ivaylo Stoyanov

C Plane (°): 0.0-360.0:5.0

Temperature: 21.9°C

Review By:

γ (°): 0.0-90.0:1.0

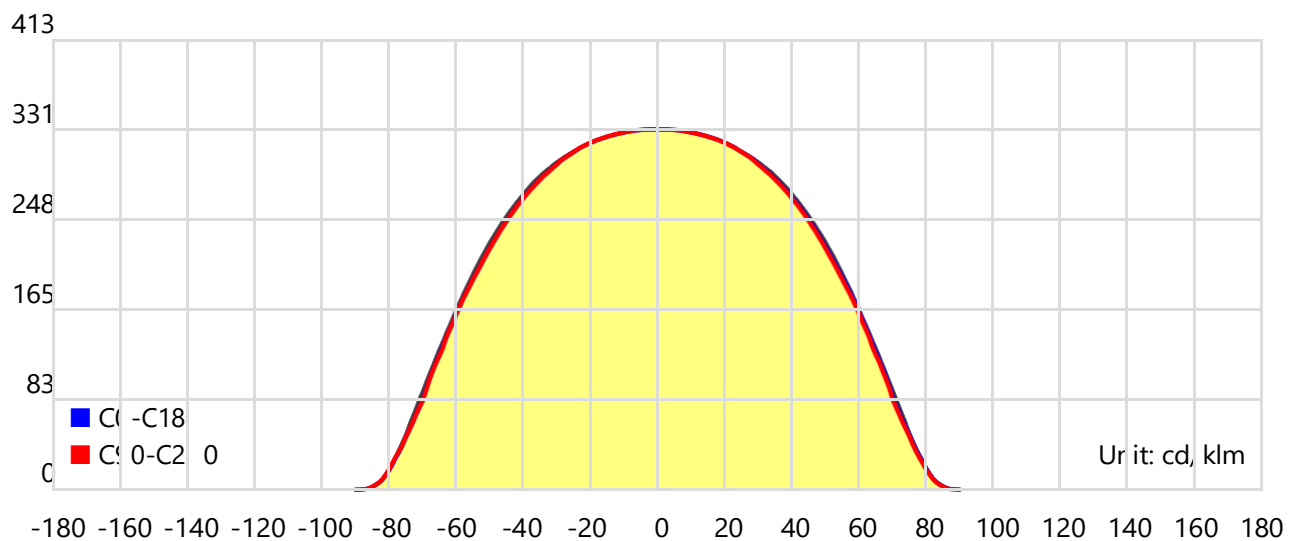
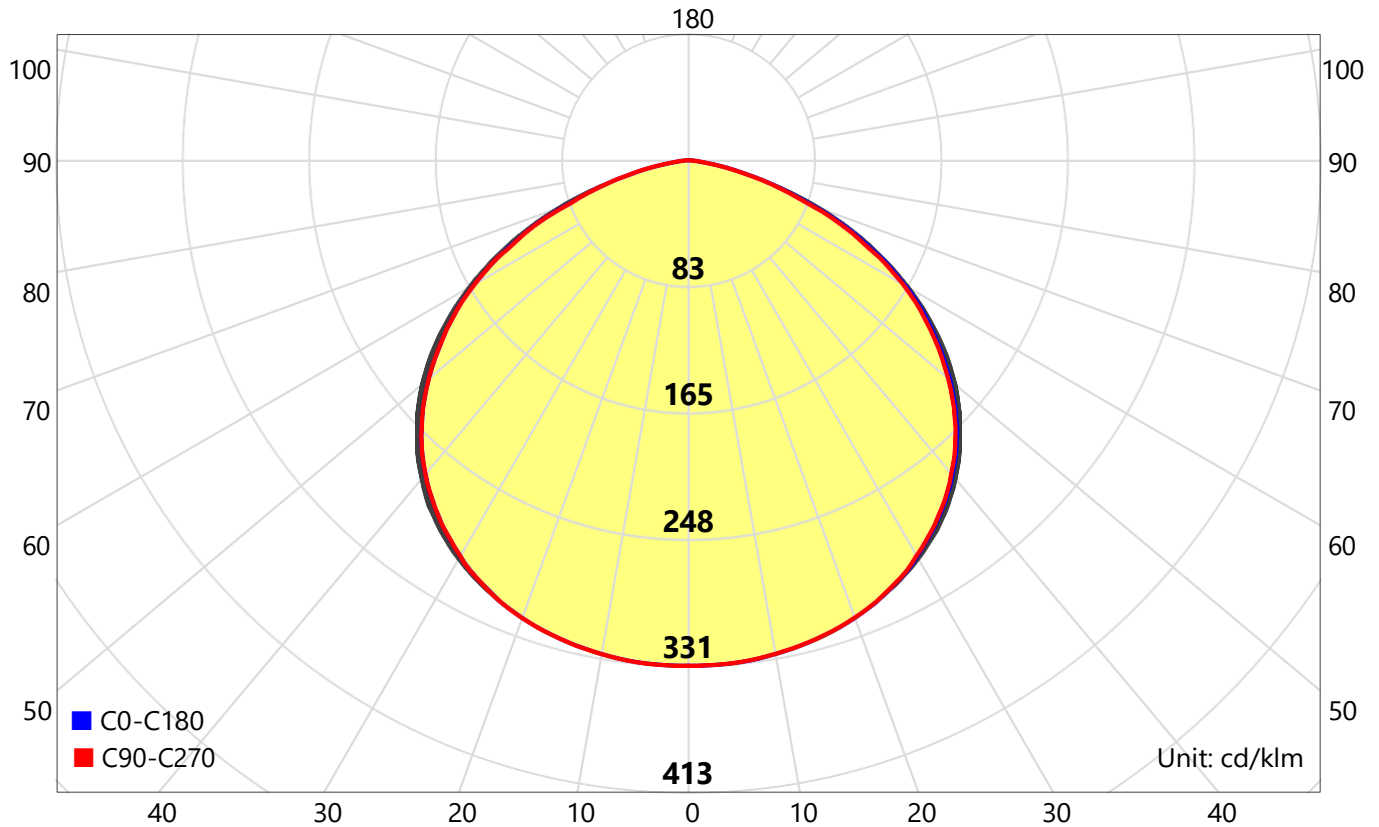
Humidity: 57.0%

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Light Distribution Curve



Test Type : Type C

Test Distance : 8.131 m

C Plane (°): 0.0-360.0:5.0

 γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1700B

Temperature : 21.9°C

Humidity : 57.0%

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivalyo Stoyanov

Review By :

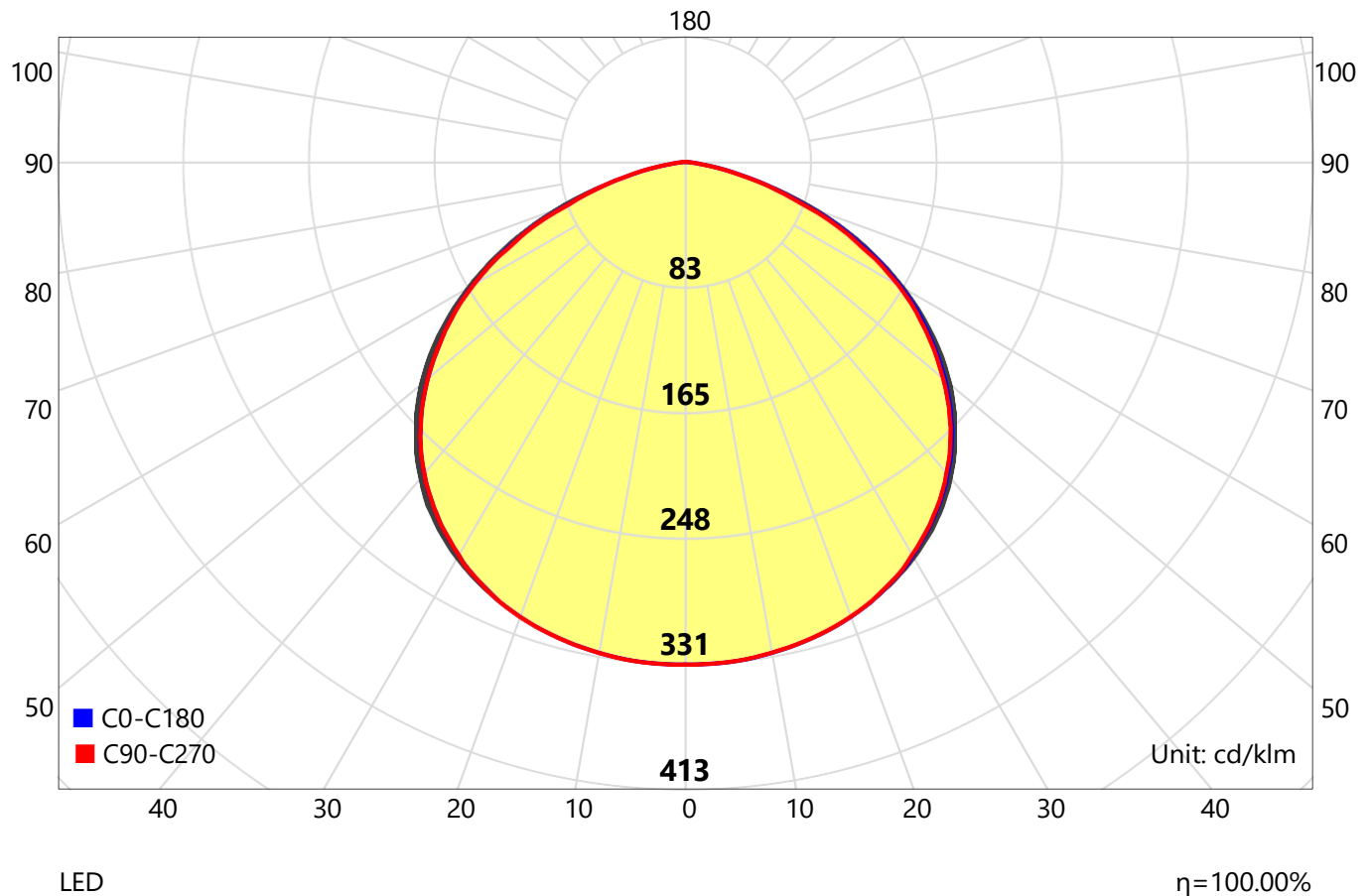


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Light Distribution Curve (cd/klm)



Test Type : Type C Test Distance : 8.131 m

Test Device : Lisun LSG-1700B

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

C Plane (°): 0.0-360.0:5.0

Temperature : 21.9°C

Review By :

γ (°): 0.0-90.0:1.0

Humidity : 57.0%

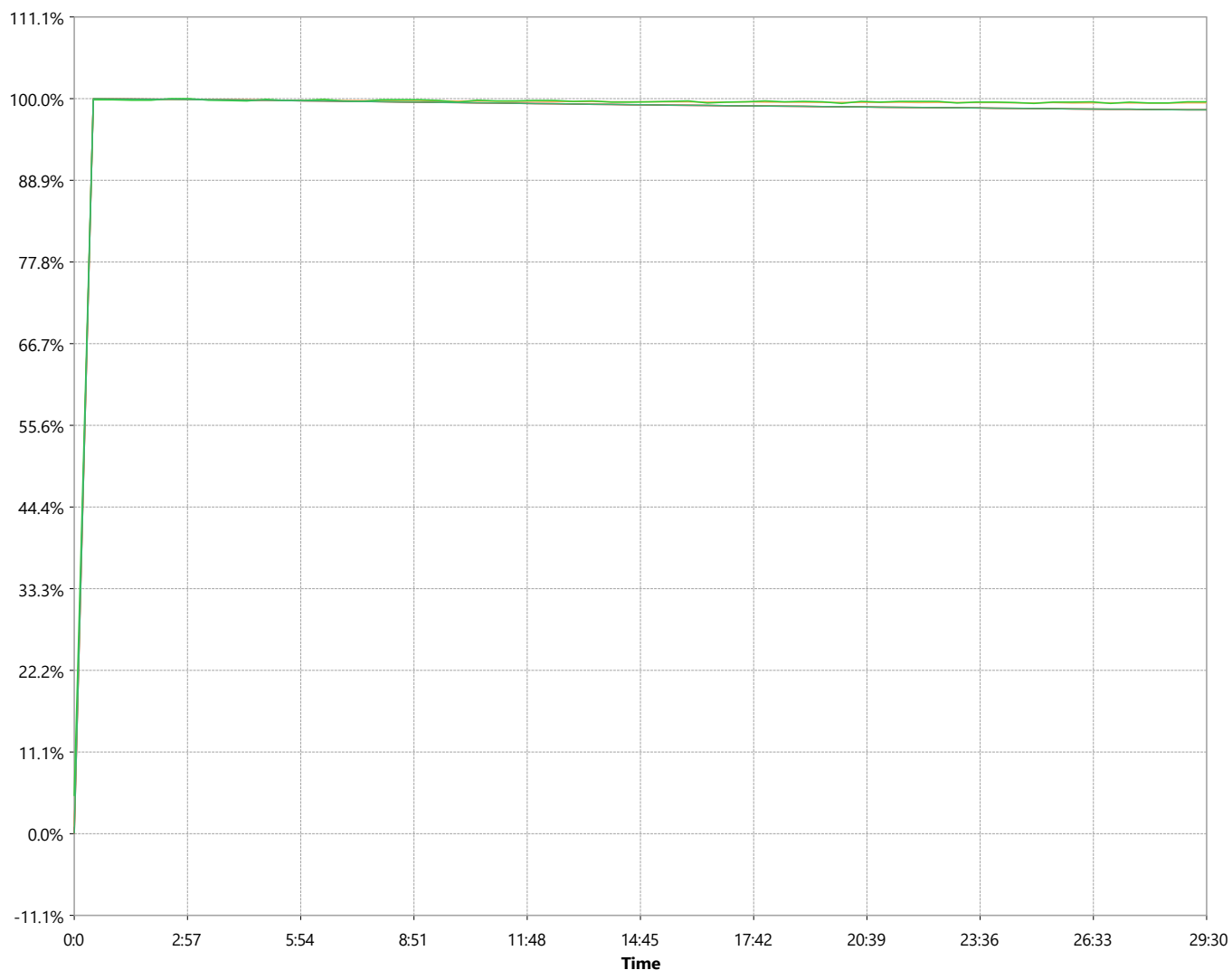


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Warmup Log



Stable time: 29:30

Uptime: 0:30

Parameters	Maximum	Minimum	Change
Luminous intensity ,cd	22209.84	0.00	22209.84
Power ,W	400.90	3.72	397.18
Current ,A	1.8370	0.0940	1.7430
Illumination ,lx	335.962	0.000	335.962

Test Type : Type C Test Distance : 8.131 m

Test Device : Lisun LSG-1700B

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

C Plane (°): 0.0-360.0:5.0

Temperature : 21.9°C

Review By :

 γ (°): 0.0-90.0:1.0

Humidity : 57.0%



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UGR

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	30.2	31.8	30.5	32.1	32.4	30.2	31.8	30.5	32.1	32.4
3H	31.6	33.1	32.0	33.4	33.8	31.6	33.1	32.0	33.4	33.8
4H	32.0	33.4	32.4	33.7	34.1	32.0	33.4	32.4	33.7	34.1
6H	32.1	33.4	32.5	33.8	34.2	32.2	33.4	32.6	33.8	34.2
8H	32.1	33.3	32.5	33.7	34.1	32.2	33.4	32.6	33.8	34.2
12H	32.1	33.3	32.5	33.7	34.1	32.1	33.3	32.6	33.7	34.1
X=4H Y=2H	30.8	32.1	31.2	32.5	32.9	30.8	32.2	31.2	32.5	32.9
3H	32.4	33.5	32.8	33.9	34.3	32.4	33.6	32.8	34.0	34.4
4H	32.8	33.9	33.3	34.3	34.7	32.9	33.9	33.3	34.3	34.8
6H	33.0	33.9	33.5	34.4	34.8	33.1	34.0	33.5	34.4	34.9
8H	33.0	33.9	33.5	34.3	34.8	33.1	33.9	33.5	34.4	34.8
12H	33.0	33.8	33.5	34.2	34.7	33.1	33.8	33.6	34.3	34.8
X=8H Y=4H	33.0	33.9	33.5	34.3	34.8	33.1	33.9	33.5	34.4	34.8
6H	33.2	33.9	33.7	34.4	34.9	33.3	34.0	33.8	34.5	35.0
8H	33.2	33.9	33.7	34.4	34.8	33.3	33.9	33.8	34.4	34.9
12H	33.2	33.8	33.7	34.3	34.8	33.3	33.8	33.8	34.3	34.9
X=12H Y=4H	33.0	33.8	33.5	34.2	34.7	33.1	33.8	33.5	34.3	34.8
6H	33.2	33.8	33.7	34.3	34.8	33.3	33.9	33.8	34.4	34.9
8H	33.2	33.8	33.7	34.3	34.8	33.3	33.9	33.8	34.3	34.9

Calculate in accordance with CIE 190:2010. The table is corrected with 65834lm ($8\log(F/F_0) = 14.5$).

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	30.5	31.9	30.8	32.2	32.4	30.5	31.9	30.8	32.1	32.4
3H	31.8	33.1	32.1	33.3	33.6	31.8	33.0	32.1	33.3	33.6
4H	32.1	33.3	32.5	33.6	33.9	32.1	33.3	32.5	33.6	33.9
6H	32.3	33.4	32.6	33.7	34.0	32.2	33.3	32.6	33.6	34.0
8H	32.2	33.3	32.6	33.6	33.9	32.2	33.3	32.6	33.6	33.9
12H	32.2	33.2	32.6	33.6	33.9	32.2	33.2	32.6	33.5	33.9
X=4H Y=2H	31.2	32.4	31.5	32.7	33.0	31.2	32.4	31.5	32.7	32.9
3H	32.6	33.6	33.0	33.9	34.3	32.6	33.6	33.0	33.9	34.3
4H	33.0	33.9	33.4	34.3	34.7	33.0	33.9	33.4	34.3	34.6
6H	33.2	34.0	33.6	34.4	34.8	33.2	34.0	33.6	34.4	34.8
8H	33.2	33.9	33.6	34.3	34.7	33.2	33.9	33.6	34.3	34.7
12H	33.2	33.8	33.6	34.2	34.7	33.2	33.8	33.6	34.2	34.7
X=8H Y=4H	33.2	33.9	33.6	34.3	34.7	33.2	33.9	33.6	34.3	34.7
6H	33.4	34.0	33.9	34.4	34.9	33.4	34.0	33.9	34.4	34.9
8H	33.4	33.9	33.9	34.4	34.9	33.4	33.9	33.9	34.4	34.9
12H	33.4	33.8	33.9	34.3	34.8	33.4	33.8	33.9	34.3	34.8
X=12H Y=4H	33.2	33.8	33.6	34.2	34.7	33.2	33.8	33.6	34.2	34.7
6H	33.4	33.9	33.9	34.4	34.8	33.4	33.9	33.9	34.3	34.8
8H	33.4	33.9	33.9	34.3	34.8	33.4	33.8	33.9	34.3	34.8
Variations with the observer position at spacings										
S=1.0H	+0.1/-0.2					+0.2/-0.2				
S=1.5H	+0.3/-0.5					+0.3/-0.5				
S=2.0H	+0.7/-1.0					+0.7/-1.1				

Calculate in accordance with CIE Pub.117. The table is corrected with 65834lm ($8\log(F/F_0) = 14.5$).

Test Type : Type C

Test Distance : 8.131 m

C Plane (°): 0.0-360.0:5.0

 γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1700B

Temperature : 21.9°C

Humidity : 57.0%

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

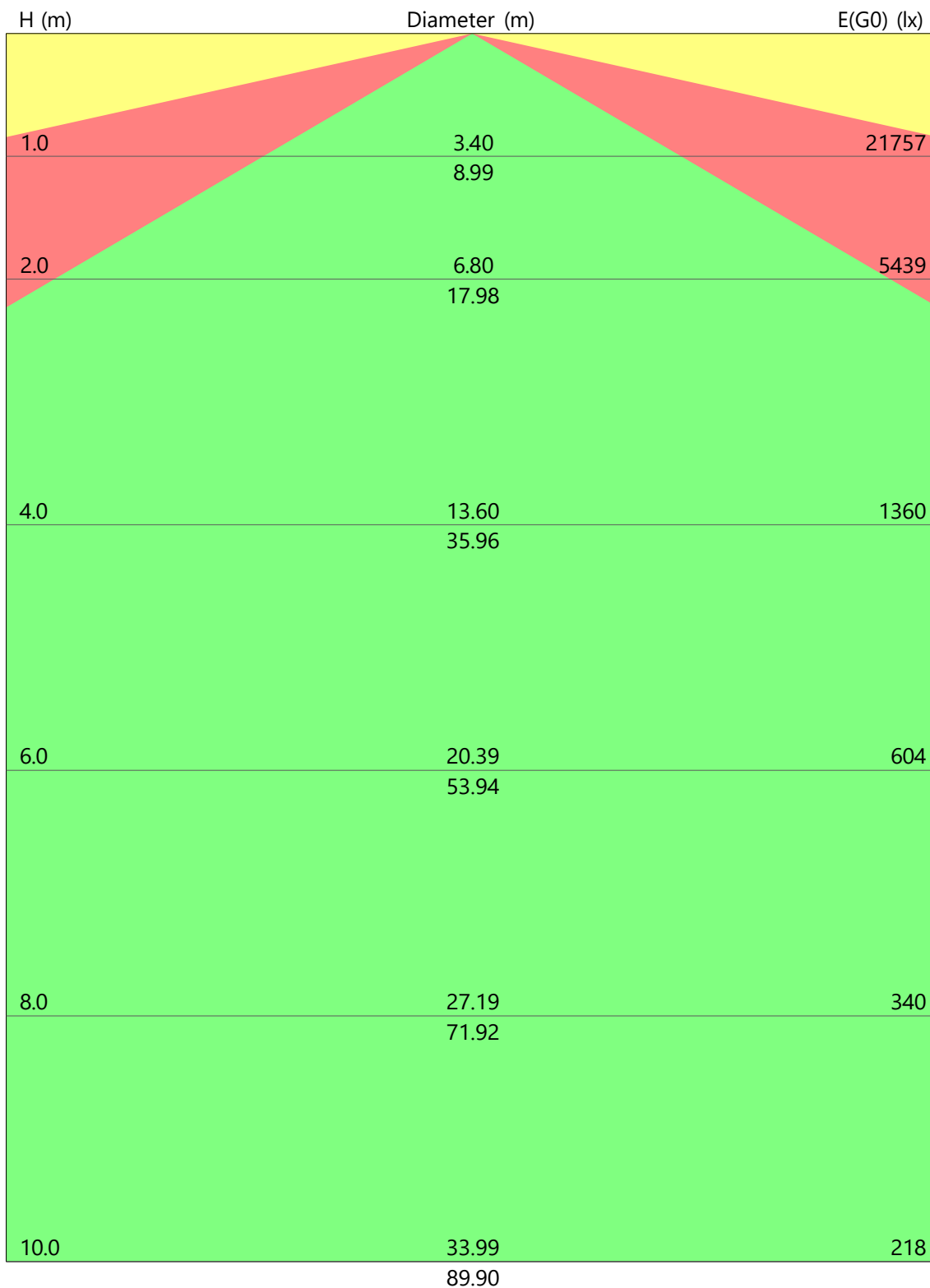
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Lux-Distance

Test Type : Type C

Test Distance : 8.131 m

C Plane (°): 0.0-360.0:5.0

γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1700B

Temperature : 21.9°C

Humidity : 57.0%

Test Lab : Light Lab TU-Gabrovo

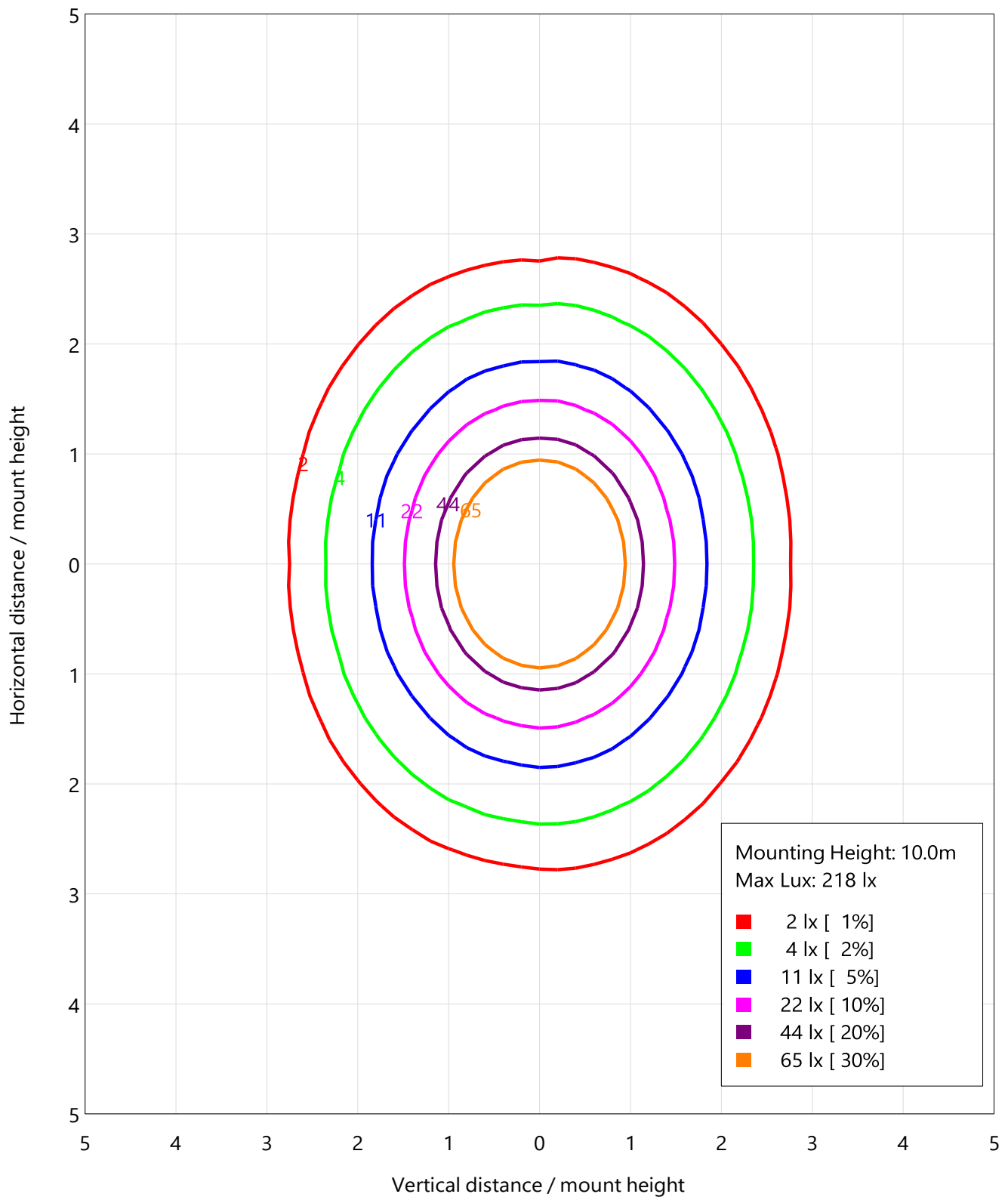
Test By : Eng. Ivaylo Stoyanov

Review By :

Report No. : 2

Test Time : 2024-05-29 11:35:17

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IsoLux

Test Type : Type C

Test Distance : 8.131 m

C Plane (°): 0.0-360.0:5.0

 γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1700B

Temperature : 21.9°C

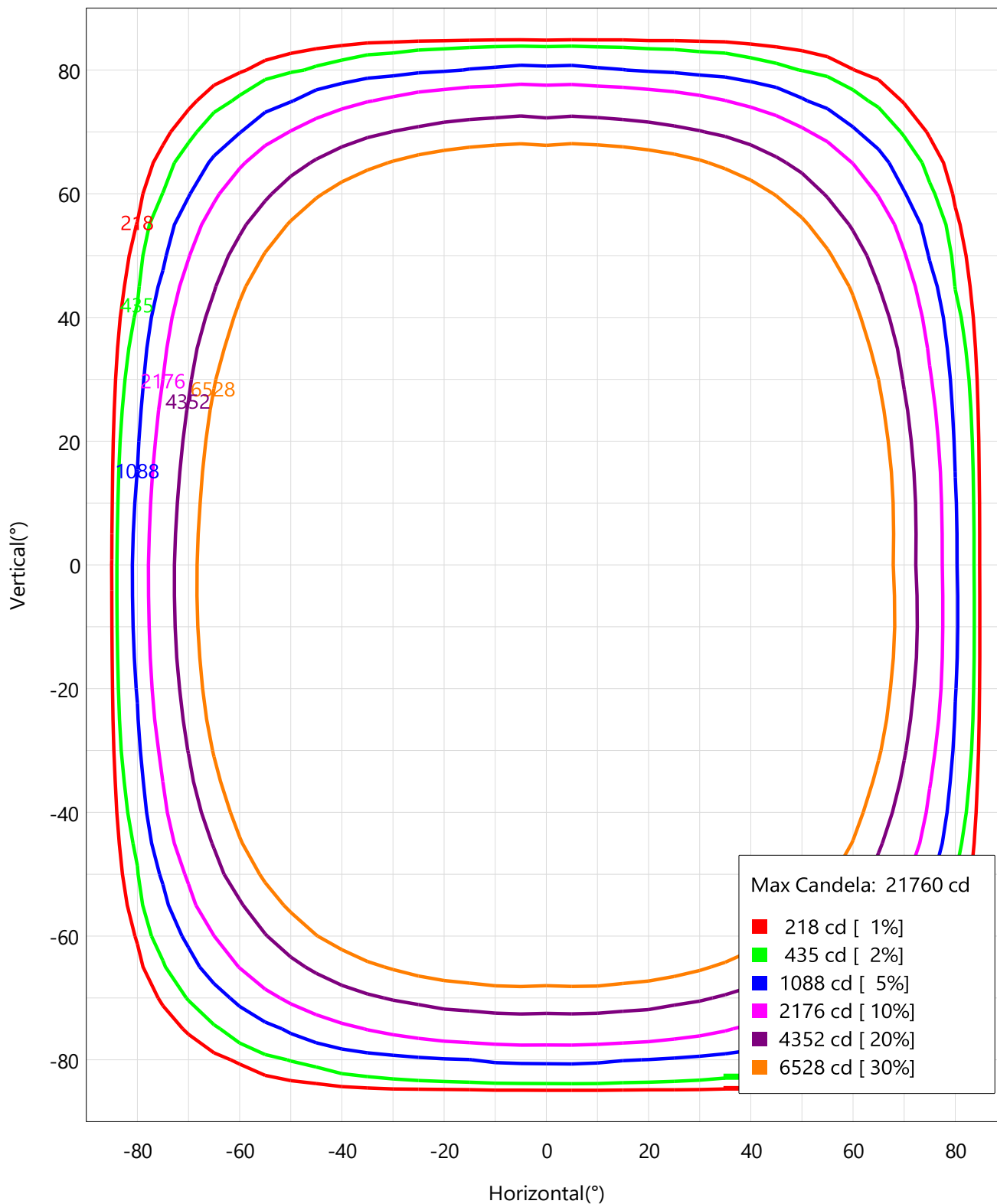
Humidity : 57.0%

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

Review By :

IsoCandela

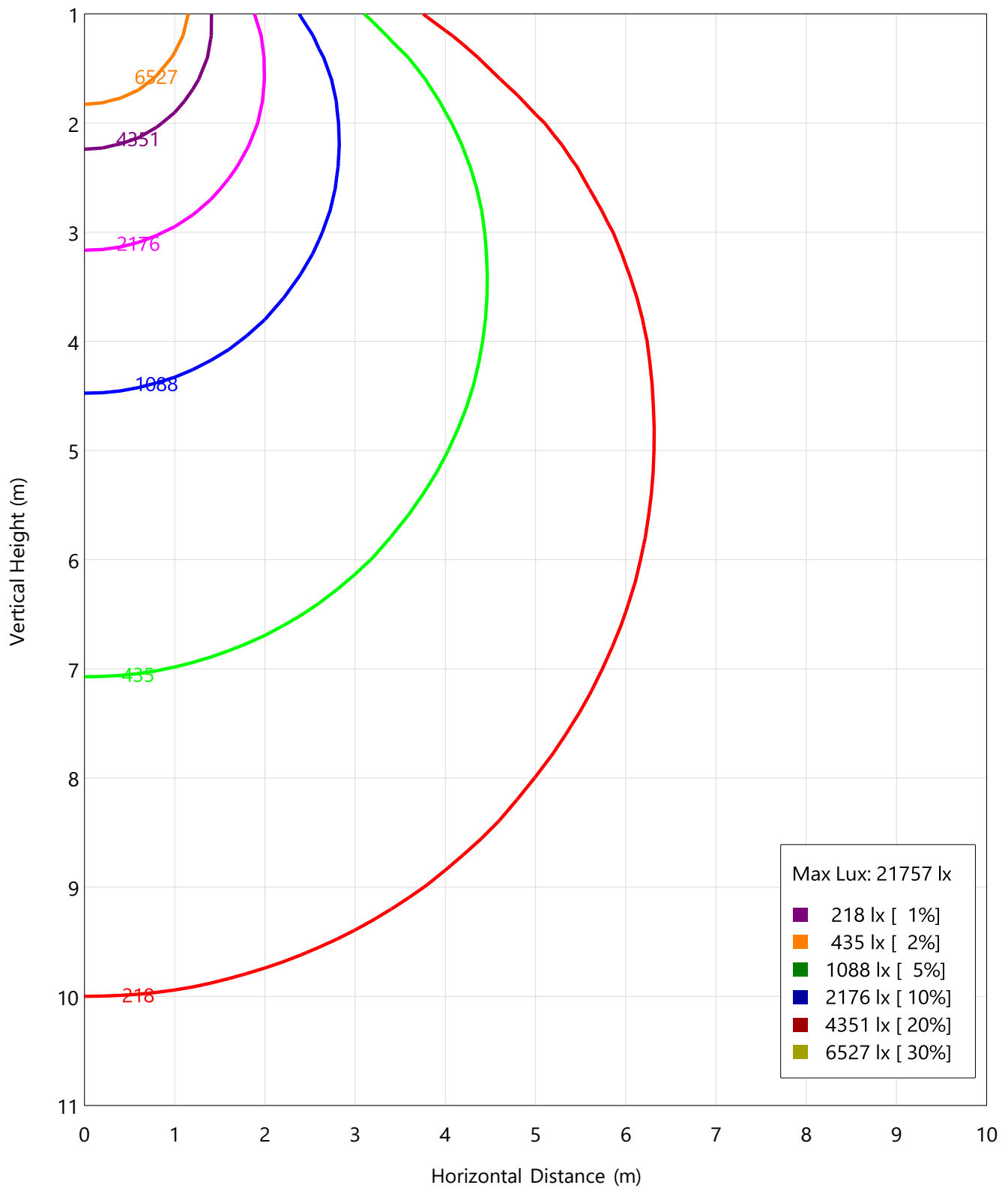


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Vertical IsoLux Plot



Test Type : Type C

Test Distance : 8.131 m

C Plane (°): 0.0-360.0:5.0

 γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1700B

Temperature : 21.9°C

Humidity : 57.0%

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Iwaylo Stoyanov

Review By :

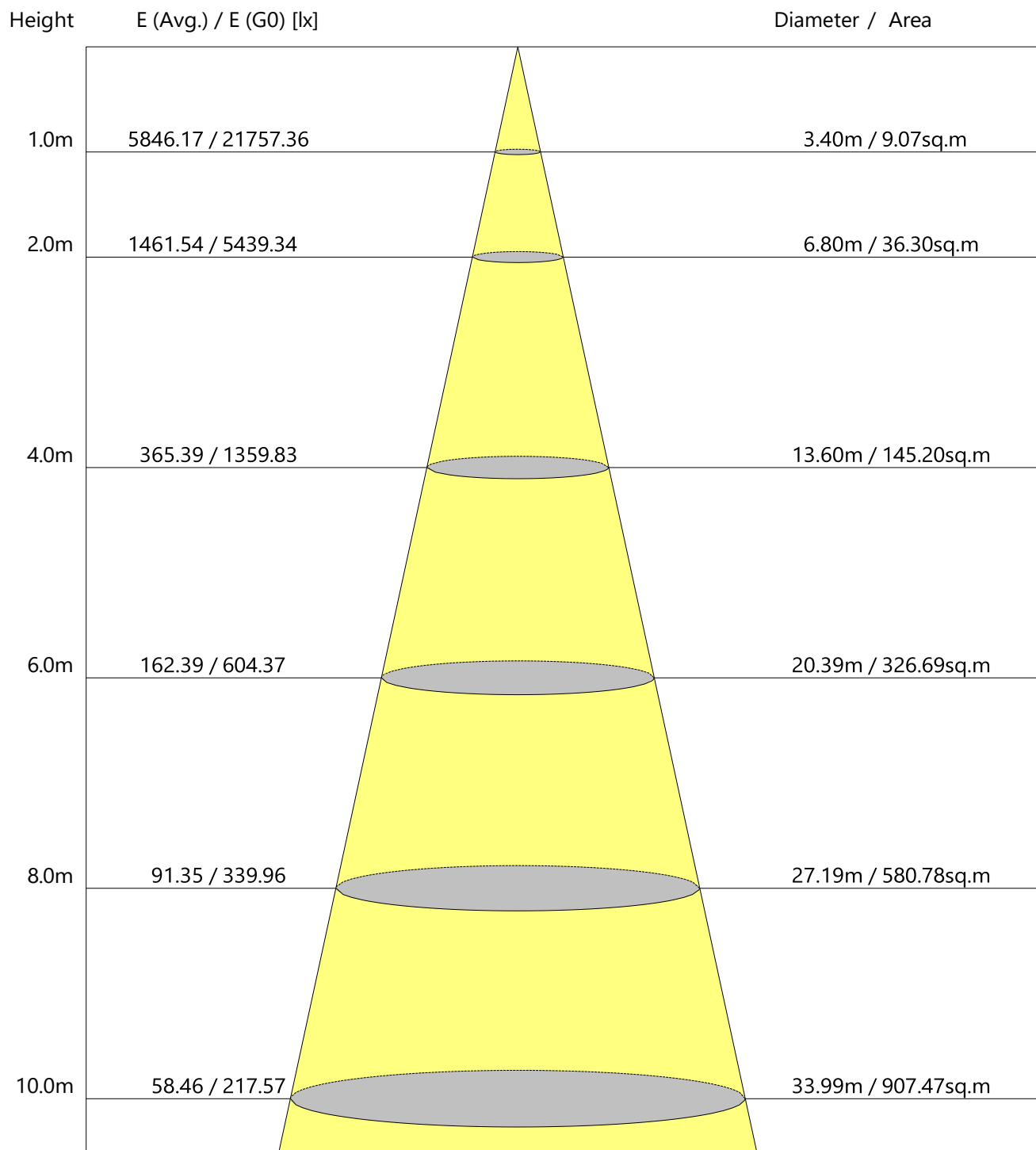


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Average Illuminance Effective Figure



Beam Angle: 119.1° Flux Out: 53052.30lm

Test Type : Type C

Test Distance : 8.131 m

C Plane (°): 0.0-360.0:5.0

γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1700B

Temperature : 21.9°C

Humidity : 57.0%

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

Review By :



Report No. : 2

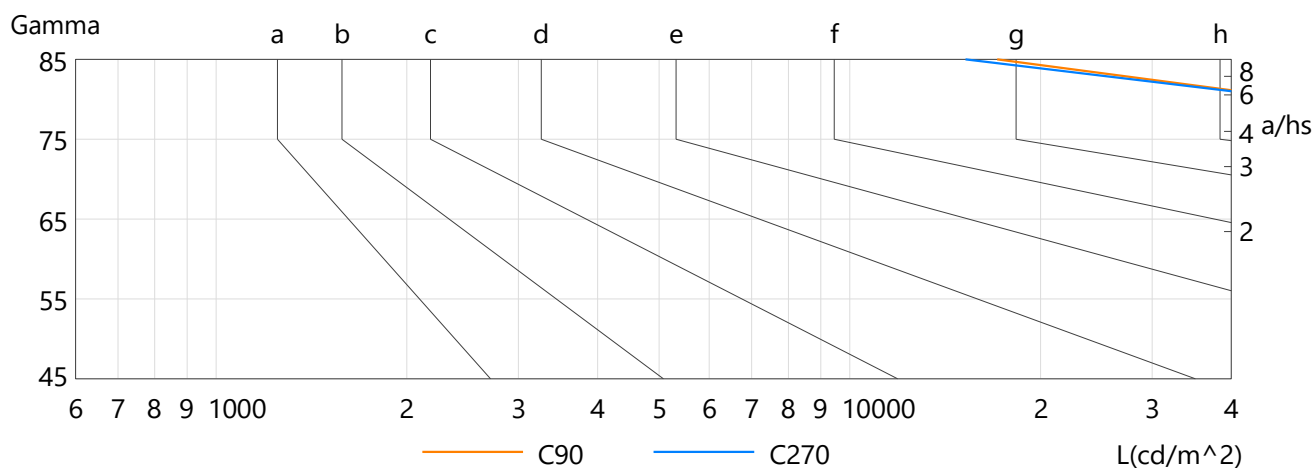
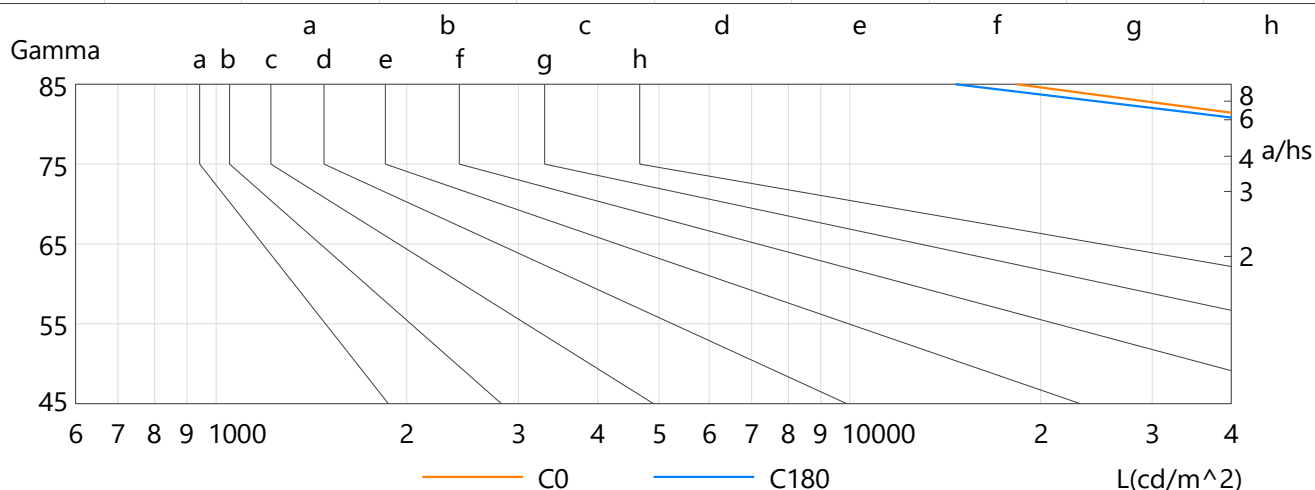
Test Time : 2024-05-29 11:35:17

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Lumen Limit Curve

L (cd/m ²)	G45	G50	G55	G60	G65	G70	G75	G80	G85
C0	168920	167048	163561	157289	143731	120055	93458	54702	18334
C90	167984	165782	161867	155520	140835	116967	90981	51222	17089
C270	167414	165431	161449	154542	139950	114650	89080	48898	14680
C90	167450	165480	161556	154272	139545	113884	89117	51192	15224

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



Test Type : Type C

Test Distance : 8.131 m

C Plane (°): 0.0-360.0:5.0

γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1700B

Temperature : 21.9°C

Humidity : 57.0%

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

Review By :



Report No. : 2

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TM5 UF Table

Utilisation Factors UF (F)			SHR NOM = 1.50								
Room Reflectance			Room Index(RI)								
C	W	F	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00
0.70	0.50	0.20	0.60	0.69	0.77	0.82	0.89	0.94	0.98	1.02	1.05
	0.30		0.53	0.61	0.70	0.75	0.84	0.89	0.93	0.98	1.02
	0.20		0.47	0.56	0.64	0.70	0.79	0.85	0.89	0.95	0.99
0.50	0.50	0.20	0.59	0.67	0.74	0.79	0.86	0.91	0.94	0.98	1.01
	0.30		0.52	0.60	0.68	0.74	0.81	0.86	0.90	0.95	0.98
	0.20		0.47	0.55	0.63	0.69	0.77	0.83	0.87	0.92	0.96
0.30	0.50	0.20	0.57	0.65	0.72	0.77	0.83	0.88	0.91	0.94	0.97
	0.30		0.51	0.59	0.67	0.72	0.79	0.84	0.87	0.92	0.95
	0.20		0.47	0.55	0.63	0.68	0.76	0.81	0.85	0.89	0.93
0.00	0.00	0.00	0.44	0.52	0.60	0.65	0.72	0.77	0.81	0.85	0.88
Utilisation Factors UF (W)			SHR NOM = 1.50								
Room Reflectance			Room Index(RI)								
C	W	F	0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00
0.70	0.50	0.20	0.95	0.80	0.67	0.58	0.45	0.37	0.32	0.24	0.20
	0.30		0.79	0.68	0.58	0.51	0.41	0.34	0.29	0.23	0.19
	0.20		0.68	0.60	0.52	0.46	0.37	0.32	0.27	0.22	0.18
0.50	0.50	0.20	0.91	0.77	0.64	0.55	0.43	0.39	0.30	0.23	0.19
	0.30		0.77	0.66	0.56	0.49	0.40	0.33	0.28	0.22	0.18
	0.20		0.67	0.59	0.51	0.45	0.36	0.31	0.27	0.21	0.17
0.30	0.50	0.20	0.89	0.74	0.61	0.53	0.41	0.34	0.29	0.22	0.18
	0.30		0.76	0.65	0.55	0.48	0.38	0.32	0.27	0.21	0.17
	0.20		0.66	0.58	0.50	0.44	0.35	0.30	0.26	0.20	0.16
0.00	0.00	0.00	0.56	0.48	0.40	0.35	0.28	0.23	0.20	0.15	0.12
Utilisation Factors UF (C)			SHR NOM = 1.50								
Room Reflectance			Room Index(RI)								
C	W	F	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	0.15	0.17	0.17	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	0.17
0.30	0.50	0.20	0.15	0.16	0.17	0.17	0.18	0.19	0.19	0.19	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: 399W Photometrically tested without ceiling board.											
Multiply UF values by service correction factors											
Calculate in accordance with CIBSE Technical Memorandum No.5/1980											

Test Type : Type C

Test Distance : 8.131 m

C Plane (°): 0.0-360.0:5.0

γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1700B

Temperature : 21.9°C

Humidity : 57.0%

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

Review By :



Report No. : 2

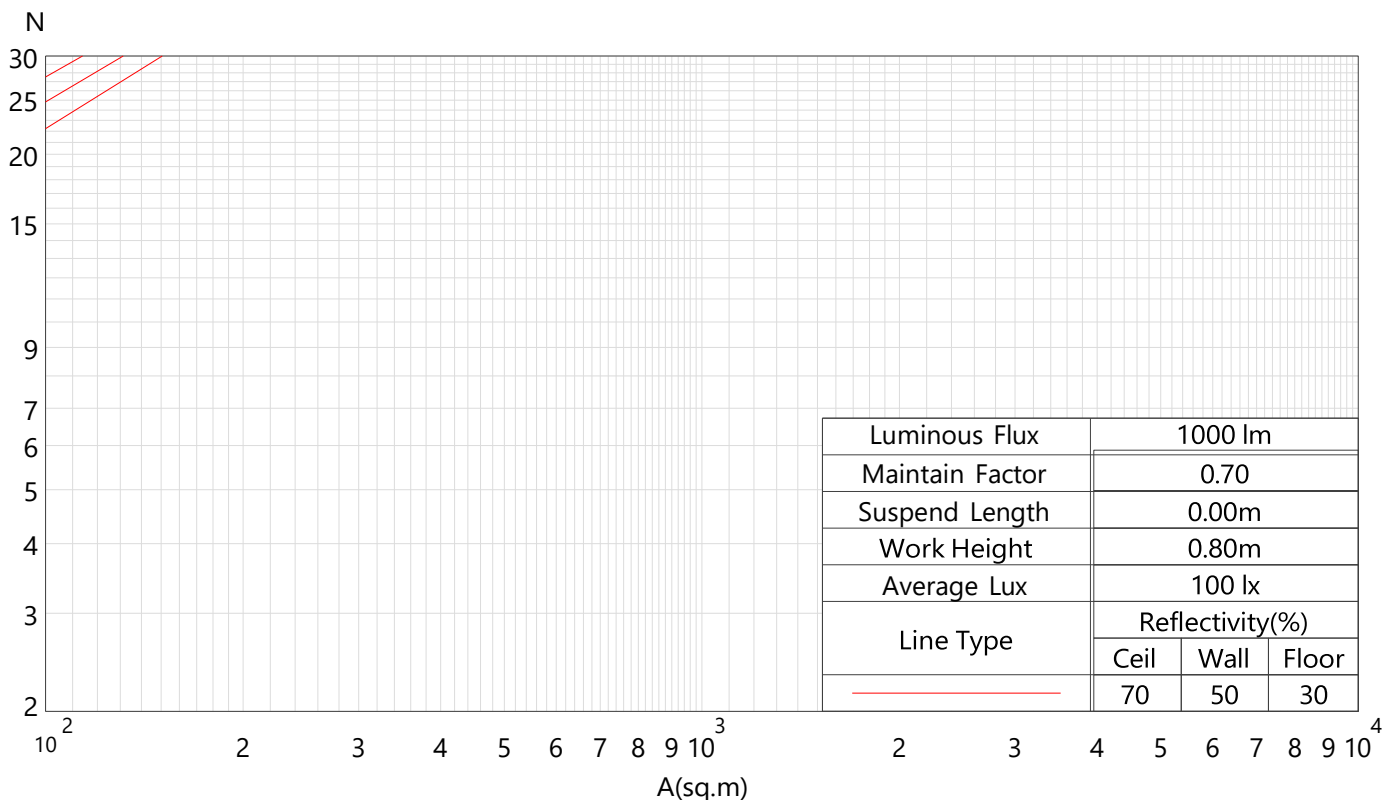
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Indoor CU, Curves of Luminaires vs Lighting Area

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	109	105	101	97	107	103	99	96	98	95	93	94	92	90	91	89	87	85
2	100	91	85	79	97	90	83	78	86	81	76	83	79	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	62	56	81	70	61	55	67	60	54	65	59	54	63	57	53	51
5	76	63	54	48	74	62	54	47	60	53	47	58	51	46	56	50	46	44
6	70	57	48	41	68	56	47	41	54	46	41	52	46	40	51	45	40	38
7	65	51	43	36	63	51	42	36	49	41	36	48	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

Spacing Criteria: 1.34 (0-180), 1.34 (90-270), 1.47 (Diagonal)



Test Type : Type C

Test Distance : 8.131 m

C Plane (°): 0.0-360.0:5.0

γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1700B

Temperature : 21.9°C

Humidity : 57.0%

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

Review By :



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Zonal Flux

Gamma °	I _{mean} cd/klm	Zonal Flux lm	Sum Zonal Flux lm	Rel Zonal Flux %	Sum Rel Zonal Flux %
0.0-1.0	330.5	20.8	20.8	0.03	0.03
1.0-2.0	330.5	62.5	83.3	0.09	0.13
2.0-3.0	330.4	104.1	187.3	0.16	0.28
3.0-4.0	330.3	145.6	332.9	0.22	0.51
4.0-5.0	330.1	187.0	519.9	0.28	0.79
5.0-6.0	329.9	228.3	748.2	0.35	1.14
6.0-7.0	329.6	269.3	1017.5	0.41	1.55
7.0-8.0	329.1	310.2	1327.6	0.47	2.02
8.0-9.0	328.6	350.7	1678.3	0.53	2.55
9.0-10.0	328.0	390.9	2069.2	0.59	3.14
10.0-11.0	327.4	430.7	2499.8	0.65	3.80
11.0-12.0	326.7	470.2	2970.0	0.71	4.51
12.0-13.0	325.9	509.3	3479.3	0.77	5.28
13.0-14.0	325.1	548.0	4027.3	0.83	6.12
14.0-15.0	324.3	586.2	4613.4	0.89	7.01
15.0-16.0	323.4	623.9	5237.3	0.95	7.96
16.0-17.0	322.4	661.0	5898.3	1.00	8.96
17.0-18.0	321.3	697.6	6595.9	1.06	10.02
18.0-19.0	320.2	733.4	7329.3	1.11	11.13
19.0-20.0	318.9	768.5	8097.8	1.17	12.30
20.0-21.0	317.6	803.0	8900.8	1.22	13.52
21.0-22.0	316.2	836.6	9737.4	1.27	14.79
22.0-23.0	314.7	869.4	10606.9	1.32	16.11
23.0-24.0	313.1	901.3	11508.2	1.37	17.48
24.0-25.0	311.3	932.1	12440.3	1.42	18.90
25.0-26.0	309.5	962.0	13402.4	1.46	20.36
26.0-27.0	307.6	990.8	14393.2	1.51	21.86
27.0-28.0	305.6	1018.7	15411.9	1.55	23.41
28.0-29.0	303.5	1045.6	16457.5	1.59	25.00
29.0-30.0	301.2	1070.8	17528.3	1.63	26.63
30.0-31.0	298.8	1094.7	18623.1	1.66	28.29
31.0-32.0	296.2	1117.3	19740.4	1.70	29.99
32.0-33.0	293.5	1138.6	20879.0	1.73	31.71
33.0-34.0	290.9	1159.2	22038.2	1.76	33.48
34.0-35.0	288.0	1177.8	23215.9	1.79	35.26
35.0-36.0	285.0	1194.9	24410.8	1.81	37.08
36.0-37.0	281.9	1210.7	25621.5	1.84	38.92
37.0-38.0	278.7	1224.7	26846.2	1.86	40.78
38.0-39.0	275.3	1237.4	28083.5	1.88	42.66
39.0-40.0	271.8	1248.0	29331.6	1.90	44.55

Test Type : Type C Test Distance : 8.131 m

Test Device : Lisun LSG-1700B

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

C Plane (°): 0.0-360.0:5.0

Temperature : 21.9°C

Review By :

γ (°): 0.0-90.0:1.0

Humidity : 57.0%

**Zonal Flux**

Gamma °	I _{mean} cd/klm	Zonal Flux lm	Sum Zonal Flux lm	Rel Zonal Flux %	Sum Rel Zonal Flux %
40.0-41.0	268.0	1256.7	30588.3	1.91	46.46
41.0-42.0	264.3	1264.5	31852.8	1.92	48.38
42.0-43.0	260.3	1269.7	33122.5	1.93	50.31
43.0-44.0	256.1	1272.9	34395.4	1.93	52.25
44.0-45.0	251.9	1274.6	35669.9	1.94	54.18
45.0-46.0	247.4	1273.9	36943.9	1.94	56.12
46.0-47.0	242.8	1271.7	38215.6	1.93	58.05
47.0-48.0	238.0	1266.9	39482.4	1.92	59.97
48.0-49.0	233.0	1259.8	40742.2	1.91	61.89
49.0-50.0	228.0	1251.6	41993.8	1.90	63.79
50.0-51.0	222.6	1240.2	43234.0	1.88	65.67
51.0-52.0	217.1	1226.7	44460.8	1.86	67.53
52.0-53.0	211.5	1211.7	45672.4	1.84	69.38
53.0-54.0	205.7	1193.5	46865.9	1.81	71.19
54.0-55.0	199.8	1174.0	48039.9	1.78	72.97
55.0-56.0	193.6	1151.8	49191.7	1.75	74.72
56.0-57.0	187.3	1127.6	50319.3	1.71	76.43
57.0-58.0	181.2	1103.1	51422.4	1.68	78.11
58.0-59.0	174.6	1074.7	52497.1	1.63	79.74
59.0-60.0	167.8	1043.9	53541.0	1.59	81.33
60.0-61.0	161.0	1011.4	54552.4	1.54	82.86
61.0-62.0	154.0	976.8	55529.2	1.48	84.35
62.0-63.0	147.1	941.9	56471.1	1.43	85.78
63.0-64.0	139.7	902.7	57373.8	1.37	87.15
64.0-65.0	132.0	860.2	58234.0	1.31	88.46
65.0-66.0	124.5	818.0	59052.0	1.24	89.70
66.0-67.0	116.8	773.5	59825.5	1.17	90.87
67.0-68.0	109.1	727.5	60553.0	1.11	91.98
68.0-69.0	101.2	679.9	61232.9	1.03	93.01
69.0-70.0	92.9	628.5	61861.4	0.95	93.97
70.0-71.0	84.7	576.4	62437.8	0.88	94.84
71.0-72.0	76.6	524.4	62962.2	0.80	95.64
72.0-73.0	68.8	473.9	63436.1	0.72	96.36
73.0-74.0	61.6	426.2	63862.3	0.65	97.01
74.0-75.0	54.4	378.2	64240.5	0.57	97.58
75.0-76.0	47.3	330.3	64570.8	0.50	98.08
76.0-77.0	40.3	283.1	64853.9	0.43	98.51
77.0-78.0	33.9	239.2	65093.2	0.36	98.87
78.0-79.0	28.1	198.8	65292.0	0.30	99.18
79.0-80.0	22.1	157.0	65449.0	0.24	99.42



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Zonal Flux

Gamma °	I _{mean} cd/klm	Zonal Flux lm	Sum Zonal Flux lm	Rel Zonal Flux %	Sum Rel Zonal Flux %
80.0-81.0	16.7	118.7	65567.7	0.18	99.60
81.0-82.0	12.3	87.5	65655.2	0.13	99.73
82.0-83.0	8.7	62.2	65717.5	0.09	99.82
83.0-84.0	6.1	44.0	65761.4	0.07	99.89
84.0-85.0	4.2	30.3	65791.8	0.05	99.94
85.0-86.0	2.7	19.5	65811.3	0.03	99.97
86.0-87.0	1.6	11.5	65822.8	0.02	99.98
87.0-88.0	0.8	5.9	65828.7	0.01	99.99
88.0-89.0	0.4	3.2	65831.9	0.00	100.00
89.0-90.0	0.3	2.0	65833.9	0.00	100.00

Test Type : Type C Test Distance : 8.131 m
Test Device : Lisun LSG-1700B
Test Lab : Light Lab TU-Gabrovo
Test By : Eng. Ivaylo Stoyanov

C Plane (°): 0.0-360.0:5.0 γ (°): 0.0-90.0:1.0
Temperature : 21.9°C Humidity : 57.0%
Review By :



Report No. : 2

Test Time : 2024-05-29 11:35:17

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Light Distribution Data

Unit: cd/klm

G\C	C0.0	C5.0	C10.0	C15.0	C20.0	C25.0	C30.0	C35.0
G0.0	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5
G1.0	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5
G2.0	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5
G3.0	330.4	330.3	330.4	330.4	330.4	330.4	330.4	330.4
G4.0	330.3	330.2	330.2	330.3	330.3	330.2	330.2	330.2
G5.0	330.1	330.0	330.0	330.1	330.1	330.1	330.0	330.0
G6.0	329.8	329.8	329.8	329.8	329.8	329.8	329.7	329.6
G7.0	329.5	329.4	329.5	329.5	329.5	329.4	329.3	329.3
G8.0	329.0	328.9	329.0	329.0	329.1	328.9	328.9	328.8
G9.0	328.4	328.3	328.4	328.4	328.4	328.3	328.3	328.4
G10.0	327.8	327.7	327.8	327.8	327.7	327.7	327.7	327.7
G11.0	327.2	327.0	327.1	327.1	327.0	326.9	327.0	327.0
G12.0	326.5	326.4	326.4	326.4	326.4	326.3	326.3	326.2
G13.0	325.8	325.7	325.7	325.7	325.6	325.6	325.5	325.5
G14.0	324.9	324.8	324.8	324.8	324.8	324.8	324.7	324.6
G15.0	324.0	323.9	324.0	323.9	324.0	323.9	324.0	323.7
G16.0	323.1	322.9	323.0	322.9	323.0	322.9	322.9	322.7
G17.0	322.0	321.9	322.0	321.9	322.0	321.9	321.9	321.8
G18.0	321.0	320.8	320.9	320.8	320.9	320.8	320.7	320.7
G19.0	319.7	319.6	319.6	319.5	319.7	319.5	319.5	319.4
G20.0	318.4	318.3	318.3	318.3	318.3	318.1	318.2	318.2
G21.0	317.0	316.7	316.9	316.7	317.0	316.7	316.9	316.9
G22.0	315.5	315.3	315.4	315.3	315.4	315.2	315.3	315.5
G23.0	314.0	313.8	313.9	313.9	314.0	313.7	313.9	314.2
G24.0	312.0	311.8	312.1	312.1	312.3	312.1	312.2	312.5
G25.0	310.1	309.9	310.1	310.2	310.3	310.4	310.8	310.8
G26.0	308.2	308.0	308.3	308.3	308.4	308.5	309.2	309.2
G27.0	306.3	306.1	306.2	306.3	306.3	306.4	307.0	307.2
G28.0	304.3	304.2	304.4	304.5	304.5	304.5	305.1	305.2
G29.0	301.9	301.5	302.4	302.4	302.5	302.5	303.0	302.9
G30.0	299.0	298.9	299.3	299.7	300.2	300.6	300.9	300.7
G31.0	296.3	296.4	296.8	297.0	297.5	298.3	298.8	298.6
G32.0	293.6	293.5	293.9	294.1	294.6	295.3	296.2	296.3
G33.0	291.0	290.9	291.4	291.5	292.0	292.5	293.3	293.9
G34.0	288.2	288.1	288.7	288.8	289.5	289.9	290.3	291.2
G35.0	285.2	285.0	285.5	285.7	286.4	286.8	287.4	287.8
G36.0	282.1	282.1	282.6	282.8	283.6	283.8	284.6	285.0
G37.0	279.1	278.6	279.4	279.4	280.5	280.6	281.5	281.7
G38.0	275.7	275.4	275.9	276.1	277.1	277.5	278.2	278.7
G39.0	272.3	272.1	272.6	272.9	273.9	274.3	275.2	275.4

Test Type : Type C

Test Distance : 8.131 m

C Plane (°): 0.0-360.0:5.0

γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1700B

Temperature : 21.9°C

Humidity : 57.0%

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

Review By :



Report No. : 2

Test Time : 2024-05-29 11:35:17

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Light Distribution Data

Unit: cd/klm

G\C	C0.0	C5.0	C10.0	C15.0	C20.0	C25.0	C30.0	C35.0
G40.0	268.5	268.4	268.8	269.2	270.2	270.5	271.6	271.8
G41.0	264.8	264.6	265.0	265.6	266.4	267.0	267.9	268.4
G42.0	261.1	260.9	261.2	261.7	262.7	263.4	264.3	264.8
G43.0	256.8	256.5	257.0	257.5	258.5	259.1	260.2	260.8
G44.0	252.6	252.4	252.7	253.6	254.3	255.2	256.1	256.6
G45.0	248.4	247.8	248.6	248.8	250.2	250.8	252.1	251.6
G46.0	243.4	243.4	243.9	244.6	245.6	246.2	247.6	247.3
G47.0	238.8	238.7	239.3	240.1	241.1	241.8	243.1	242.9
G48.0	233.6	233.7	234.2	234.9	236.0	236.9	237.9	237.7
G49.0	228.4	228.9	229.5	230.1	231.3	231.9	232.8	233.0
G50.0	223.3	223.7	224.7	225.3	226.2	227.0	227.6	228.2
G51.0	217.6	218.1	218.9	219.5	220.8	221.5	221.9	222.4
G52.0	212.2	212.8	213.6	214.3	215.5	216.0	216.6	217.1
G53.0	206.5	206.6	208.3	208.5	210.1	209.6	211.2	211.1
G54.0	200.6	201.1	202.3	202.7	204.0	203.7	204.8	205.3
G55.0	195.1	195.5	196.5	197.1	198.1	197.8	199.0	199.5
G56.0	189.0	189.2	190.2	190.8	191.8	191.3	192.6	193.0
G57.0	183.3	183.3	184.3	184.9	185.9	185.1	186.6	186.9
G58.0	177.2	177.0	178.3	178.9	179.6	179.1	180.5	180.6
G59.0	170.4	170.3	171.3	171.9	172.6	172.5	173.4	173.4
G60.0	163.5	163.6	165.0	165.5	166.0	166.0	167.0	166.9
G61.0	156.2	156.7	157.9	157.9	158.6	159.0	159.4	159.7
G62.0	149.4	150.3	151.1	151.2	151.6	152.4	152.9	152.6
G63.0	142.5	143.7	144.6	144.4	144.7	145.3	146.0	145.8
G64.0	134.0	135.4	137.1	136.8	136.7	137.8	138.1	138.0
G65.0	126.3	127.6	128.6	129.2	129.4	130.9	131.2	130.4
G66.0	119.4	119.8	121.3	120.3	121.5	122.8	124.2	122.4
G67.0	111.8	112.5	113.6	113.3	113.8	114.2	115.5	115.1
G68.0	103.8	105.1	105.7	105.5	106.6	106.6	107.4	107.5
G69.0	95.7	97.5	97.7	97.1	98.5	98.6	99.6	98.7
G70.0	85.4	87.9	89.2	89.1	91.4	90.6	92.4	91.7
G71.0	77.7	79.2	79.6	78.9	82.2	83.3	83.9	84.2
G72.0	70.9	72.2	72.3	71.7	72.4	72.8	76.1	76.0
G73.0	63.5	64.8	65.3	65.1	65.4	65.3	66.6	68.7
G74.0	57.1	57.7	58.1	57.9	58.6	58.0	59.6	59.2
G75.0	50.3	51.3	51.1	51.7	51.6	51.6	52.2	51.8
G76.0	43.3	44.1	43.9	44.9	45.3	45.4	45.8	45.5
G77.0	36.5	37.7	36.8	37.1	37.5	38.4	38.8	38.8
G78.0	31.3	31.9	31.9	31.7	31.6	31.8	32.6	32.9
G79.0	26.0	26.7	26.5	26.2	26.4	26.2	26.3	25.6

Test Type : Type C

Test Distance : 8.131 m

C Plane (°): 0.0-360.0:5.0

 γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1700B

Temperature : 21.9°C

Humidity : 57.0%

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

Review By :



Report No. : 2

Test Time : 2024-05-29 11:35:17

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Light Distribution Data

Unit: cd/klm

G\C	C0.0	C5.0	C10.0	C15.0	C20.0	C25.0	C30.0	C35.0
G80.0	19.8	20.0	20.2	19.3	20.2	20.3	20.2	19.9
G81.0	15.1	15.6	15.7	15.2	14.9	14.8	14.6	15.4
G82.0	10.7	10.5	11.2	10.7	11.2	10.3	11.2	10.9
G83.0	7.4	7.4	7.6	7.6	7.5	7.4	7.6	8.1
G84.0	5.1	5.2	5.4	5.3	5.1	5.2	5.6	5.8
G85.0	3.3	3.4	3.7	3.5	3.5	3.6	3.7	4.0
G86.0	1.8	2.0	2.3	2.3	2.3	2.3	2.5	2.6
G87.0	0.9	1.0	1.2	1.3	1.3	1.4	1.4	1.5
G88.0	0.5	0.5	0.5	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
G90.0	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2

Test Type : Type C Test Distance : 8.131 m

Test Device : Lisun LSG-1700B

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

C Plane (°): 0.0-360.0:5.0

Temperature : 21.9°C

Review By :

 γ (°): 0.0-90.0:1.0

Humidity : 57.0%



Report No. : 2

Test Time : 2024-05-29 11:35:17

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Light Distribution Data

Unit: cd/klm

G\C	C40.0	C45.0	C50.0	C55.0	C60.0	C65.0	C70.0	C75.0
G0.0	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5
G1.0	330.5	330.5	330.5	330.5	330.4	330.5	330.5	330.4
G2.0	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5
G3.0	330.4	330.4	330.4	330.4	330.4	330.4	330.4	330.4
G4.0	330.2	330.2	330.2	330.2	330.2	330.2	330.2	330.2
G5.0	330.0	329.9	329.9	329.9	329.9	329.9	330.0	330.0
G6.0	329.6	329.6	329.6	329.6	329.6	329.6	329.7	329.6
G7.0	329.3	329.2	329.2	329.3	329.2	329.2	329.3	329.3
G8.0	328.9	328.8	328.8	328.7	328.8	328.7	328.8	328.7
G9.0	328.4	328.3	328.3	328.3	328.2	328.2	328.2	328.1
G10.0	327.8	327.8	327.8	327.6	327.6	327.5	327.6	327.5
G11.0	327.0	327.0	327.0	326.9	326.8	326.8	326.9	326.8
G12.0	326.3	326.1	326.2	326.2	326.1	326.1	326.2	326.2
G13.0	325.4	325.3	325.3	325.4	325.4	325.4	325.5	325.4
G14.0	324.5	324.3	324.4	324.5	324.6	324.6	324.7	324.6
G15.0	323.6	323.4	323.5	323.6	323.8	323.9	323.8	323.7
G16.0	322.6	322.5	322.6	322.7	322.8	322.9	322.8	322.7
G17.0	321.8	321.6	321.7	321.7	321.8	321.8	321.8	321.6
G18.0	320.7	320.7	320.7	320.6	320.6	320.6	320.7	320.6
G19.0	319.6	319.6	319.6	319.3	319.3	319.3	319.5	319.3
G20.0	318.4	318.5	318.4	318.1	318.1	318.1	318.2	318.0
G21.0	317.2	317.0	317.2	316.8	316.8	316.6	316.9	316.5
G22.0	315.7	315.6	315.6	315.4	315.3	315.1	315.2	315.1
G23.0	314.3	314.2	314.2	314.1	313.8	313.6	313.8	313.7
G24.0	312.6	312.5	312.6	312.5	312.2	312.1	312.0	311.8
G25.0	311.0	310.8	310.9	310.8	310.7	310.4	310.1	310.0
G26.0	309.3	309.2	309.2	309.2	309.0	308.5	308.3	308.1
G27.0	307.2	307.3	307.3	307.2	306.9	306.4	306.1	306.1
G28.0	305.5	305.3	305.5	305.2	305.0	304.4	304.2	304.2
G29.0	303.5	303.2	303.5	303.0	302.8	302.4	302.3	301.8
G30.0	301.1	301.3	301.1	300.7	300.7	300.4	299.7	299.0
G31.0	298.7	299.1	298.9	298.6	298.6	297.8	297.1	296.4
G32.0	296.3	296.4	296.3	296.3	295.8	294.9	294.3	293.7
G33.0	294.2	293.8	294.1	293.8	292.9	292.3	291.7	291.0
G34.0	291.8	291.2	291.8	290.9	290.2	289.6	289.0	288.4
G35.0	288.8	288.5	288.6	287.8	287.2	286.6	286.1	285.3
G36.0	285.7	286.1	285.3	285.0	284.3	283.7	283.2	282.2
G37.0	282.5	283.0	282.3	281.7	281.4	280.3	280.2	278.8
G38.0	279.0	279.3	279.0	278.5	278.0	277.1	276.6	275.6
G39.0	276.1	275.5	276.0	275.3	274.9	273.9	273.4	272.3

Test Type : Type C

Test Distance : 8.131 m

C Plane (°): 0.0-360.0:5.0

γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1700B

Temperature : 21.9°C

Humidity : 57.0%

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

Review By :



Report No. : 2

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Light Distribution Data

Unit: cd/klm

G\C	C40.0	C45.0	C50.0	C55.0	C60.0	C65.0	C70.0	C75.0
G40.0	272.4	271.6	272.4	271.6	271.3	270.2	269.6	268.4
G41.0	268.3	268.0	268.5	268.2	267.6	266.6	265.8	264.8
G42.0	264.5	264.4	264.6	264.6	263.8	262.9	262.1	261.0
G43.0	260.4	260.3	260.3	260.7	259.7	258.7	257.8	256.6
G44.0	256.3	256.2	256.3	256.6	255.6	254.6	253.6	252.5
G45.0	252.3	251.8	252.2	251.5	251.6	250.1	249.4	247.8
G46.0	247.8	247.6	247.7	247.1	247.2	245.7	244.7	243.3
G47.0	243.3	243.0	243.1	242.6	242.7	241.0	240.1	238.8
G48.0	238.3	238.1	238.1	237.7	237.6	235.9	235.1	233.8
G49.0	233.5	233.4	233.5	232.8	232.4	231.2	230.3	228.7
G50.0	228.4	228.3	228.3	227.8	227.0	226.0	225.4	223.8
G51.0	222.9	222.7	222.7	222.0	221.3	220.5	219.5	218.2
G52.0	217.6	217.4	217.4	216.6	215.9	215.2	214.2	212.8
G53.0	212.1	211.3	211.9	210.6	210.4	209.0	208.7	206.8
G54.0	205.7	205.3	205.5	204.9	204.1	202.7	202.6	201.2
G55.0	199.9	199.5	199.6	199.1	198.1	196.7	196.6	195.5
G56.0	193.4	192.9	193.0	192.3	191.7	190.2	190.3	189.2
G57.0	187.3	186.8	186.9	186.2	185.7	184.2	184.5	183.2
G58.0	180.7	180.1	180.4	180.0	179.5	178.2	178.3	176.9
G59.0	173.7	172.9	173.4	173.0	172.4	171.2	171.4	170.2
G60.0	167.1	166.2	166.8	166.2	166.0	164.7	164.7	163.4
G61.0	159.7	158.3	159.1	159.0	158.8	157.8	157.2	156.1
G62.0	152.7	151.5	152.4	151.9	152.2	151.1	150.1	149.5
G63.0	145.9	144.7	145.6	145.1	145.0	144.4	143.4	142.8
G64.0	138.1	137.3	137.7	137.4	137.4	136.8	135.6	134.8
G65.0	131.1	130.3	130.8	130.1	130.3	129.7	127.5	126.5
G66.0	124.0	122.6	123.7	122.2	123.3	121.0	119.5	118.9
G67.0	116.3	115.6	115.7	114.4	114.4	113.3	112.2	111.6
G68.0	108.8	107.8	108.6	106.4	106.5	105.7	105.0	103.7
G69.0	101.0	99.6	100.7	97.6	98.6	97.2	96.9	95.4
G70.0	92.9	91.8	92.2	90.9	91.0	89.6	90.3	86.6
G71.0	85.3	83.4	84.7	83.7	83.1	82.1	80.2	77.0
G72.0	77.5	75.0	77.1	75.3	74.9	71.4	71.4	70.3
G73.0	69.3	68.1	69.1	67.6	65.7	64.7	64.5	63.2
G74.0	61.9	60.2	61.9	58.7	59.2	57.0	57.4	56.8
G75.0	52.7	53.6	52.5	51.7	51.2	50.9	50.6	50.3
G76.0	45.8	44.0	45.8	45.2	44.8	44.5	44.2	43.1
G77.0	38.2	37.3	38.7	38.5	38.0	37.1	36.3	36.0
G78.0	32.0	31.4	31.7	32.3	31.8	30.8	30.7	30.0
G79.0	26.3	26.2	25.9	25.1	25.8	25.3	24.8	24.4

Test Type : Type C

Test Distance : 8.131 m

C Plane (°): 0.0-360.0:5.0

 γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1700B

Temperature : 21.9°C

Humidity : 57.0%

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

Review By :



Report No. : 2

Test Time : 2024-05-29 11:35:17

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Light Distribution Data

Unit: cd/klm

G\C	C40.0	C45.0	C50.0	C55.0	C60.0	C65.0	C70.0	C75.0
G80.0	20.3	20.0	19.9	19.5	19.6	19.3	18.5	17.8
G81.0	15.6	15.1	15.4	14.9	14.1	14.2	13.7	13.7
G82.0	11.4	11.2	11.2	10.7	10.6	9.8	10.3	9.4
G83.0	8.3	7.9	8.3	7.9	7.5	6.8	7.0	6.7
G84.0	5.9	5.9	5.8	5.8	5.5	4.9	4.7	4.7
G85.0	3.9	4.0	3.9	3.9	3.6	3.3	3.1	3.1
G86.0	2.5	2.4	2.5	2.4	2.3	2.1	1.9	1.8
G87.0	1.4	1.3	1.3	1.4	1.3	1.2	1.2	1.1
G88.0	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
G90.0	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.3

Test Type : Type C Test Distance : 8.131 m

Test Device : Lisun LSG-1700B

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

C Plane (°): 0.0-360.0:5.0

Temperature : 21.9°C

Review By :

 γ (°): 0.0-90.0:1.0

Humidity : 57.0%



Report No. : 2

Test Time : 2024-05-29 11:35:17

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Light Distribution Data

Unit: cd/klm

G\C	C80.0	C85.0	C90.0	C95.0	C100.0	C105.0	C110.0	C115.0
G0.0	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5
G1.0	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5
G2.0	330.4	330.4	330.5	330.4	330.4	330.4	330.4	330.4
G3.0	330.4	330.4	330.4	330.4	330.3	330.3	330.3	330.3
G4.0	330.2	330.2	330.2	330.2	330.2	330.2	330.2	330.2
G5.0	330.0	330.0	330.1	330.0	330.0	330.0	330.0	330.0
G6.0	329.7	329.7	329.7	329.7	329.7	329.7	329.7	329.7
G7.0	329.3	329.3	329.4	329.3	329.4	329.3	329.3	329.3
G8.0	328.9	328.7	328.9	328.8	328.9	328.8	328.9	328.8
G9.0	328.2	328.2	328.3	328.2	328.2	328.2	328.2	328.2
G10.0	327.6	327.6	327.7	327.7	327.7	327.6	327.6	327.6
G11.0	326.9	326.9	327.0	327.0	327.0	326.9	326.9	326.9
G12.0	326.3	326.3	326.3	326.3	326.3	326.2	326.2	326.2
G13.0	325.5	325.5	325.6	325.5	325.6	325.5	325.5	325.5
G14.0	324.7	324.7	324.7	324.7	324.7	324.6	324.7	324.7
G15.0	323.8	323.8	323.9	323.8	323.9	323.8	323.9	323.9
G16.0	322.7	322.8	322.9	322.8	322.9	322.7	322.8	322.8
G17.0	321.8	321.8	321.9	321.8	321.8	321.8	321.8	321.8
G18.0	320.7	320.7	320.7	320.7	320.7	320.7	320.7	320.7
G19.0	319.4	319.4	319.5	319.4	319.4	319.3	319.5	319.4
G20.0	318.1	318.1	318.2	318.1	318.2	318.2	318.2	318.1
G21.0	316.7	316.5	316.8	316.6	316.7	316.6	316.9	316.7
G22.0	315.2	315.2	315.3	315.3	315.3	315.2	315.3	315.2
G23.0	313.7	313.6	313.7	313.6	313.7	313.8	313.8	313.7
G24.0	311.8	311.7	311.7	311.7	311.8	311.9	312.1	312.1
G25.0	310.0	309.8	309.9	309.9	310.0	310.2	310.2	310.4
G26.0	308.0	307.9	308.0	307.9	308.1	308.2	308.4	308.6
G27.0	306.0	305.9	306.0	306.0	306.2	306.1	306.2	306.6
G28.0	304.2	303.9	304.0	304.0	304.3	304.4	304.4	304.5
G29.0	301.7	300.9	301.2	300.9	301.7	301.9	302.6	302.5
G30.0	298.8	298.4	298.4	298.4	298.8	299.1	299.8	300.6
G31.0	296.4	295.9	296.0	295.8	296.4	296.7	297.2	297.9
G32.0	293.6	293.1	293.1	293.1	293.7	293.8	294.4	295.0
G33.0	291.0	290.4	290.5	290.5	291.0	291.2	291.9	292.4
G34.0	288.2	287.7	287.7	287.6	288.2	288.5	289.2	289.7
G35.0	285.1	284.5	284.5	284.5	285.2	285.3	286.1	286.7
G36.0	282.1	281.4	281.5	281.5	282.0	282.4	283.3	283.7
G37.0	278.9	278.0	278.3	278.0	279.0	279.0	280.3	280.5
G38.0	275.4	274.7	274.8	274.7	275.5	275.7	276.8	277.3
G39.0	272.0	271.3	271.4	271.3	271.9	272.4	273.5	274.1

Test Type : Type C

Test Distance : 8.131 m

C Plane (°): 0.0-360.0:5.0

 γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1700B

Temperature : 21.9°C

Humidity : 57.0%

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

Review By :



Report No. : 2

Test Time : 2024-05-29 11:35:17

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Light Distribution Data

Unit: cd/klm

G\C	C80.0	C85.0	C90.0	C95.0	C100.0	C105.0	C110.0	C115.0
G40.0	267.9	267.3	267.3	267.3	268.0	268.6	269.8	270.3
G41.0	264.2	263.6	263.7	263.6	264.3	264.8	266.0	266.8
G42.0	260.4	259.9	259.9	259.9	260.6	261.1	262.2	263.1
G43.0	256.1	255.4	255.6	255.4	256.0	256.8	257.9	258.7
G44.0	251.8	251.3	251.3	251.2	251.9	252.5	253.8	254.8
G45.0	247.6	246.6	247.0	246.5	247.6	247.9	249.6	250.5
G46.0	242.8	242.0	241.9	241.9	242.7	243.6	244.9	246.0
G47.0	238.1	237.4	237.3	237.3	238.2	238.9	240.5	241.5
G48.0	233.0	232.3	232.0	232.1	233.1	233.8	235.2	236.3
G49.0	228.2	227.2	227.0	227.3	228.1	229.0	230.4	231.1
G50.0	223.0	222.2	221.6	222.0	223.1	223.8	225.5	226.2
G51.0	217.4	216.6	215.9	216.4	217.6	218.3	219.8	220.7
G52.0	212.2	211.1	210.4	211.1	212.4	213.1	214.6	215.2
G53.0	206.7	205.1	204.9	204.9	206.7	206.9	209.2	209.1
G54.0	200.4	199.5	198.9	199.4	200.7	201.3	203.0	203.3
G55.0	194.8	193.8	193.1	193.7	195.1	195.6	196.9	197.3
G56.0	188.4	187.4	187.0	187.3	188.6	189.3	190.5	190.7
G57.0	182.5	181.2	181.2	181.2	182.7	183.3	184.7	184.5
G58.0	176.2	175.2	175.1	175.2	176.7	177.1	178.7	178.5
G59.0	169.4	168.5	168.3	168.5	169.7	170.4	171.6	171.8
G60.0	162.9	161.7	161.7	161.7	163.1	164.1	165.1	165.3
G61.0	155.9	154.8	154.2	154.8	156.1	156.4	157.6	158.4
G62.0	149.3	148.5	147.3	148.5	149.8	149.8	150.5	151.7
G63.0	142.6	141.5	140.3	141.8	142.7	143.0	143.8	145.0
G64.0	134.1	132.8	131.0	132.7	134.8	135.0	136.1	137.3
G65.0	126.1	125.4	123.8	125.3	126.5	126.6	128.4	130.2
G66.0	119.3	118.1	117.5	118.0	119.3	119.0	120.1	121.2
G67.0	111.2	110.1	109.4	110.6	111.6	111.8	113.0	113.3
G68.0	103.3	102.8	101.6	102.9	103.6	103.4	105.9	106.3
G69.0	96.1	95.5	93.6	95.4	96.3	95.4	97.5	98.2
G70.0	86.4	84.8	83.2	84.7	86.7	87.5	90.8	90.2
G71.0	78.0	77.6	76.0	77.5	78.1	77.5	81.0	83.0
G72.0	70.5	69.9	69.0	69.9	70.9	70.7	71.8	71.7
G73.0	63.0	63.3	61.8	62.9	63.6	63.5	65.1	64.6
G74.0	56.8	56.5	55.4	56.1	56.8	56.9	57.9	57.5
G75.0	49.9	49.8	49.0	49.6	49.7	50.4	51.0	51.4
G76.0	42.2	42.6	41.6	42.5	42.5	43.2	44.2	44.9
G77.0	35.4	35.6	35.0	36.0	35.6	36.3	36.9	37.9
G78.0	30.1	29.9	29.3	30.1	30.2	30.6	31.2	31.6
G79.0	24.5	24.2	23.9	24.4	24.8	24.8	25.8	25.8

Test Type : Type C

Test Distance : 8.131 m

C Plane (°): 0.0-360.0:5.0

 γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1700B

Temperature : 21.9°C

Humidity : 57.0%

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

Review By :



Report No. : 2

Test Time : 2024-05-29 11:35:17

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Light Distribution Data

Unit: cd/klm

G\C	C80.0	C85.0	C90.0	C95.0	C100.0	C105.0	C110.0	C115.0
G80.0	18.6	18.6	18.5	18.8	18.8	18.3	19.2	20.2
G81.0	14.0	14.1	14.2	14.2	14.4	14.2	14.5	14.8
G82.0	9.9	9.6	10.0	9.6	10.1	9.9	10.8	10.3
G83.0	6.7	6.7	6.8	6.8	6.9	6.9	7.2	7.4
G84.0	4.8	4.7	4.9	4.7	4.9	4.9	5.0	5.3
G85.0	3.2	3.1	3.1	3.2	3.3	3.3	3.3	3.6
G86.0	1.9	1.7	1.6	1.8	2.0	2.0	2.1	2.2
G87.0	1.0	0.9	0.8	0.9	1.1	1.3	1.2	1.3
G88.0	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6
G89.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5
G90.0	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3

Test Type : Type C Test Distance : 8.131 m

Test Device : Lisun LSG-1700B

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

C Plane (°): 0.0-360.0:5.0

Temperature : 21.9°C

Review By :

 γ (°): 0.0-90.0:1.0

Humidity : 57.0%



Report No. : 2

Test Time : 2024-05-29 11:35:17

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Light Distribution Data

Unit: cd/klm

G\C	C120.0	C125.0	C130.0	C135.0	C140.0	C145.0	C150.0	C155.0
G0.0	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5
G1.0	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5
G2.0	330.5	330.5	330.5	330.5	330.4	330.4	330.5	330.5
G3.0	330.4	330.4	330.4	330.4	330.4	330.4	330.4	330.4
G4.0	330.2	330.2	330.2	330.2	330.3	330.3	330.3	330.3
G5.0	330.0	330.0	330.0	330.0	330.0	330.0	330.1	330.1
G6.0	329.7	329.7	329.7	329.7	329.7	329.7	329.7	329.8
G7.0	329.3	329.3	329.3	329.4	329.4	329.3	329.4	329.4
G8.0	328.9	328.8	328.9	328.9	329.0	328.9	329.0	328.9
G9.0	328.3	328.4	328.4	328.4	328.5	328.4	328.5	328.3
G10.0	327.7	327.7	327.9	327.9	327.9	327.8	327.8	327.7
G11.0	327.0	327.0	327.1	327.2	327.2	327.1	327.1	327.1
G12.0	326.3	326.3	326.4	326.3	326.4	326.4	326.4	326.4
G13.0	325.6	325.6	325.5	325.5	325.5	325.6	325.7	325.7
G14.0	324.8	324.7	324.6	324.5	324.7	324.7	324.9	324.9
G15.0	324.0	323.9	323.8	323.7	323.8	323.8	324.1	324.1
G16.0	323.0	322.9	322.9	322.8	322.8	322.9	323.1	323.1
G17.0	321.9	321.9	322.0	322.0	322.0	321.9	322.1	322.1
G18.0	320.8	320.8	321.0	321.0	321.1	320.9	320.9	320.9
G19.0	319.5	319.5	319.8	319.9	319.9	319.7	319.6	319.6
G20.0	318.3	318.3	318.6	318.8	318.8	318.4	318.4	318.4
G21.0	316.9	317.0	317.4	317.3	317.5	317.1	317.1	316.9
G22.0	315.6	315.6	315.9	315.9	316.0	315.8	315.6	315.5
G23.0	314.1	314.3	314.5	314.4	314.6	314.4	314.2	313.9
G24.0	312.4	312.6	312.8	312.8	312.9	312.7	312.6	312.3
G25.0	311.0	311.0	311.2	311.1	311.2	311.1	311.1	310.8
G26.0	309.2	309.4	309.5	309.5	309.5	309.4	309.6	309.1
G27.0	307.2	307.4	307.6	307.5	307.6	307.6	307.6	306.7
G28.0	305.2	305.4	305.8	305.6	305.8	305.7	305.4	304.8
G29.0	303.2	303.1	303.7	303.5	304.0	303.3	303.3	302.6
G30.0	301.0	300.9	301.4	301.6	301.7	300.9	300.9	300.7
G31.0	298.9	298.8	299.2	299.5	299.2	298.8	298.9	298.5
G32.0	296.0	296.5	296.5	296.9	296.6	296.4	296.4	295.8
G33.0	293.2	294.0	294.5	294.2	294.3	294.1	293.9	293.1
G34.0	290.4	291.0	292.3	291.4	291.9	291.6	290.9	290.3
G35.0	287.4	287.9	289.1	288.7	289.1	288.5	288.0	287.3
G36.0	284.5	285.2	285.6	286.3	286.3	285.5	285.2	284.5
G37.0	281.6	282.1	282.4	283.1	283.1	282.2	282.1	281.2
G38.0	278.3	279.0	279.1	279.7	279.7	279.2	278.8	278.0
G39.0	275.0	275.6	276.1	276.1	276.7	276.1	275.7	274.8

Test Type : Type C Test Distance : 8.131 m

Test Device : Lisun LSG-1700B

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

C Plane (°): 0.0-360.0:5.0

Temperature : 21.9°C

Review By :

 γ (°): 0.0-90.0:1.0

Humidity : 57.0%



Report No. : 2

Test Time : 2024-05-29 11:35:17

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Light Distribution Data

Unit: cd/klm

G\C	C120.0	C125.0	C130.0	C135.0	C140.0	C145.0	C150.0	C155.0
G40.0	271.5	271.7	272.6	272.1	273.0	272.3	272.1	271.2
G41.0	268.1	268.3	269.0	268.5	268.9	268.9	268.4	267.5
G42.0	264.5	264.7	265.2	264.9	265.1	265.5	264.8	263.9
G43.0	260.1	260.9	260.9	260.8	261.0	261.4	260.8	259.8
G44.0	255.9	256.9	256.7	256.7	257.0	257.1	256.7	255.7
G45.0	251.8	252.3	252.7	252.3	252.9	252.3	252.6	251.3
G46.0	247.2	247.6	248.2	248.1	248.4	247.8	248.3	247.0
G47.0	242.9	243.1	243.6	243.7	243.8	243.5	243.9	242.3
G48.0	237.9	238.1	238.6	238.7	238.9	238.5	238.6	237.4
G49.0	232.8	233.1	234.0	234.0	234.2	233.6	233.6	232.6
G50.0	227.6	228.2	229.1	228.8	229.4	228.8	228.5	227.7
G51.0	221.8	222.7	223.2	223.3	223.6	223.2	222.7	222.0
G52.0	216.5	217.1	217.9	218.0	218.3	217.7	217.4	216.6
G53.0	211.0	211.1	212.5	212.0	212.9	211.8	211.9	210.3
G54.0	204.5	205.5	206.3	206.0	206.7	206.1	205.7	204.1
G55.0	198.7	199.6	200.3	200.2	200.7	200.3	199.6	198.3
G56.0	192.3	193.1	193.8	193.7	194.1	193.8	193.2	191.8
G57.0	186.0	186.8	187.7	187.5	188.0	187.4	187.3	185.9
G58.0	179.9	180.6	181.4	180.8	181.4	181.2	180.8	179.6
G59.0	173.2	173.7	174.1	173.6	174.4	174.2	174.0	172.9
G60.0	166.8	167.0	167.5	166.6	167.9	167.5	167.6	166.5
G61.0	159.3	159.8	160.2	159.2	160.5	160.3	160.5	159.5
G62.0	152.8	153.0	153.0	152.2	153.4	153.5	153.8	153.0
G63.0	146.0	145.9	146.2	145.3	146.6	146.3	146.8	146.3
G64.0	137.9	138.1	138.7	138.0	139.1	138.6	139.2	138.9
G65.0	131.3	130.8	131.4	131.0	131.8	131.5	132.2	131.7
G66.0	124.1	122.7	124.4	123.3	124.9	123.7	125.2	124.1
G67.0	115.1	115.2	116.6	116.3	117.2	116.1	117.1	115.1
G68.0	107.0	107.5	109.3	108.7	110.2	108.8	108.5	108.0
G69.0	99.4	98.8	101.4	100.7	102.0	100.2	100.8	100.2
G70.0	91.3	91.8	93.1	93.5	94.8	92.8	94.0	92.3
G71.0	83.8	84.5	85.8	85.2	86.2	86.0	85.7	84.6
G72.0	76.2	75.9	78.0	75.8	78.7	77.3	77.6	74.5
G73.0	66.5	69.1	70.3	69.6	70.8	70.2	67.9	66.8
G74.0	59.7	59.4	62.9	61.6	63.5	60.1	61.1	60.2
G75.0	51.8	52.4	53.9	54.8	53.8	53.3	54.2	53.3
G76.0	45.7	45.9	46.8	45.4	47.0	46.8	47.2	46.5
G77.0	39.0	39.4	39.2	38.2	39.8	40.2	40.2	40.0
G78.0	32.6	33.3	32.6	32.4	33.2	34.1	33.7	32.9
G79.0	27.0	25.9	27.0	27.1	27.6	26.5	27.3	27.1

Test Type : Type C

Test Distance : 8.131 m

C Plane (°): 0.0-360.0:5.0

 γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1700B

Temperature : 21.9°C

Humidity : 57.0%

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

Review By :



Report No. : 2

Test Time : 2024-05-29 11:35:17

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Light Distribution Data

Unit: cd/klm

G\C	C120.0	C125.0	C130.0	C135.0	C140.0	C145.0	C150.0	C155.0
G80.0	20.5	20.6	20.9	21.2	21.2	20.7	21.2	20.7
G81.0	14.9	15.8	16.3	15.8	16.5	15.9	15.1	15.3
G82.0	11.4	11.4	11.9	11.8	12.0	11.5	11.5	10.8
G83.0	8.0	8.5	8.8	8.4	8.7	8.6	8.1	7.7
G84.0	5.9	6.0	6.2	6.4	6.2	6.2	6.0	5.5
G85.0	3.8	4.1	4.2	4.3	4.2	4.3	4.0	3.7
G86.0	2.5	2.6	2.7	2.7	2.8	2.8	2.8	2.5
G87.0	1.5	1.5	1.5	1.5	1.6	1.7	1.6	1.6
G88.0	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7
G89.0	0.4	0.5	0.4	0.4	0.4	0.5	0.5	0.5
G90.0	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3

Test Type : Type C Test Distance : 8.131 m

Test Device : Lisun LSG-1700B

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

C Plane (°): 0.0-360.0:5.0

Temperature : 21.9°C

Review By :

 γ (°): 0.0-90.0:1.0

Humidity : 57.0%



Report No. : 2

Test Time : 2024-05-29 11:35:17

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Light Distribution Data

Unit: cd/klm

G\C	C160.0	C165.0	C170.0	C175.0	C180.0	C185.0	C190.0	C195.0
G0.0	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5
G1.0	330.5	330.5	330.5	330.5	330.5	330.5	330.4	330.5
G2.0	330.5	330.5	330.5	330.5	330.5	330.5	330.4	330.5
G3.0	330.4	330.4	330.4	330.4	330.4	330.4	330.3	330.4
G4.0	330.3	330.3	330.3	330.3	330.2	330.3	330.2	330.3
G5.0	330.1	330.1	330.1	330.1	330.1	330.1	330.0	330.1
G6.0	329.8	329.8	329.8	329.9	329.8	329.8	329.7	329.8
G7.0	329.5	329.5	329.5	329.5	329.4	329.5	329.4	329.5
G8.0	329.0	329.0	329.0	329.0	328.9	329.0	328.8	329.0
G9.0	328.4	328.4	328.4	328.4	328.3	328.3	328.2	328.3
G10.0	327.8	327.8	327.8	327.8	327.7	327.8	327.7	327.7
G11.0	327.1	327.1	327.2	327.2	327.1	327.1	326.9	327.0
G12.0	326.5	326.5	326.5	326.5	326.3	326.4	326.3	326.3
G13.0	325.8	325.7	325.9	325.8	325.6	325.7	325.5	325.6
G14.0	325.0	324.9	325.0	324.9	324.7	324.8	324.6	324.8
G15.0	324.1	324.0	324.1	324.0	323.8	323.9	323.8	323.9
G16.0	323.1	323.0	323.1	323.0	322.8	323.0	322.7	323.0
G17.0	322.1	322.0	322.1	322.0	321.8	321.9	321.7	321.9
G18.0	321.0	320.9	321.0	321.0	320.8	320.8	320.6	320.8
G19.0	319.8	319.6	319.7	319.7	319.5	319.6	319.3	319.5
G20.0	318.5	318.4	318.5	318.5	318.2	318.2	318.1	318.3
G21.0	317.2	316.9	317.1	317.0	316.7	316.9	316.7	317.0
G22.0	315.6	315.5	315.6	315.6	315.3	315.4	315.2	315.4
G23.0	314.1	314.1	314.2	314.2	313.8	314.0	313.9	314.1
G24.0	312.5	312.4	312.4	312.3	311.7	312.2	311.9	312.5
G25.0	310.8	310.4	310.4	310.2	309.6	309.9	309.9	310.3
G26.0	308.6	308.4	308.4	308.2	307.7	308.0	307.9	308.3
G27.0	306.4	306.3	306.3	306.1	305.7	305.9	305.9	306.2
G28.0	304.5	304.4	304.6	304.3	303.6	304.0	304.0	304.3
G29.0	302.6	302.2	302.4	301.7	301.2	301.7	301.8	302.2
G30.0	300.3	300.0	299.8	299.2	298.3	298.8	299.0	299.6
G31.0	297.9	297.2	297.1	296.5	295.8	296.2	296.3	296.8
G32.0	295.0	294.4	294.3	293.7	293.0	293.4	293.6	294.0
G33.0	292.5	291.7	291.8	291.1	290.2	290.6	290.9	291.4
G34.0	289.8	289.0	288.9	288.3	287.5	287.9	288.2	288.7
G35.0	286.8	286.0	285.9	285.2	284.3	284.8	285.1	285.5
G36.0	284.0	283.0	282.8	282.1	281.3	281.7	282.0	282.6
G37.0	281.0	279.6	279.7	278.7	277.8	278.6	278.6	279.6
G38.0	277.6	276.5	276.2	275.5	274.6	275.1	275.2	275.9
G39.0	274.3	273.2	272.9	272.2	271.1	271.5	271.8	272.6

Test Type : Type C

Test Distance : 8.131 m

C Plane (°): 0.0-360.0:5.0

γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1700B

Temperature : 21.9°C

Humidity : 57.0%

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

Review By :



Report No. : 2

Test Time : 2024-05-29 11:35:17

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Light Distribution Data

Unit: cd/klm

G\C	C160.0	C165.0	C170.0	C175.0	C180.0	C185.0	C190.0	C195.0
G40.0	270.4	269.3	268.9	268.4	267.2	267.5	267.8	268.7
G41.0	266.8	265.8	265.3	264.6	263.6	263.9	264.1	265.0
G42.0	263.1	262.1	261.5	260.9	259.6	260.0	260.3	261.4
G43.0	258.8	257.7	257.1	256.5	255.4	255.7	255.8	257.1
G44.0	254.8	253.8	253.1	252.5	251.1	251.4	251.6	253.0
G45.0	250.7	249.2	248.9	247.9	246.2	247.2	247.0	248.7
G46.0	245.9	244.7	244.0	243.5	241.7	242.4	242.6	243.8
G47.0	241.5	240.2	239.6	238.8	236.9	237.6	237.9	239.3
G48.0	236.5	235.2	234.5	233.7	231.6	232.5	232.9	234.0
G49.0	231.6	230.5	229.8	228.9	226.5	227.4	227.8	229.2
G50.0	226.7	225.3	224.6	223.7	221.1	222.4	222.8	224.1
G51.0	221.2	219.7	219.0	218.1	215.4	216.6	217.0	218.6
G52.0	215.9	214.3	213.9	212.9	209.8	211.4	211.8	213.1
G53.0	210.5	208.5	208.3	207.0	203.8	205.7	205.6	207.8
G54.0	204.2	203.0	202.2	201.1	198.3	199.6	200.1	201.8
G55.0	198.6	197.3	196.6	195.5	192.6	193.7	194.2	195.9
G56.0	192.2	191.0	190.4	189.2	186.4	187.3	187.9	189.5
G57.0	186.4	185.2	184.3	183.3	180.3	181.1	181.6	183.3
G58.0	180.2	178.9	178.3	177.0	174.5	175.1	175.5	177.2
G59.0	173.2	172.2	171.6	170.3	167.3	168.4	168.7	170.3
G60.0	166.6	165.6	165.3	164.1	160.7	161.8	162.1	163.9
G61.0	159.0	158.5	158.0	156.8	153.2	155.3	155.2	157.0
G62.0	152.3	151.9	151.6	150.5	146.4	148.4	148.5	149.8
G63.0	145.6	145.2	145.1	144.0	139.1	141.8	141.6	142.7
G64.0	137.7	137.3	137.6	136.4	131.1	133.7	134.3	134.9
G65.0	130.8	130.4	129.9	127.8	123.0	125.3	125.7	127.0
G66.0	123.4	121.1	121.7	120.5	116.5	118.6	118.3	119.4
G67.0	114.9	113.9	114.3	113.6	109.0	110.9	110.4	111.4
G68.0	107.8	107.1	107.3	106.0	100.4	103.1	102.4	103.8
G69.0	100.0	98.1	98.8	98.3	91.4	95.5	94.4	95.8
G70.0	92.6	90.1	90.3	89.5	81.5	84.7	85.1	86.6
G71.0	84.0	80.6	80.7	80.1	75.0	77.1	77.1	77.0
G72.0	74.0	72.6	73.6	73.3	68.3	70.3	69.8	70.4
G73.0	67.4	66.5	66.8	66.4	60.8	62.8	62.2	63.8
G74.0	60.1	59.0	59.5	59.4	54.2	56.6	56.0	57.1
G75.0	53.2	52.8	52.0	52.9	47.9	49.5	48.3	50.1
G76.0	46.5	46.6	46.0	45.4	40.4	41.7	41.0	42.8
G77.0	38.7	38.4	38.1	38.7	34.3	35.6	34.6	36.0
G78.0	32.5	32.5	32.6	33.1	29.2	30.0	29.3	30.3
G79.0	27.2	26.9	27.6	27.8	22.9	23.9	23.5	24.5

Test Type : Type C

Test Distance : 8.131 m

C Plane (°): 0.0-360.0:5.0

 γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1700B

Temperature : 21.9°C

Humidity : 57.0%

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

Review By :



Report No. : 2

Test Time : 2024-05-29 11:35:17

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Light Distribution Data

Unit: cd/klm

G\C	C160.0	C165.0	C170.0	C175.0	C180.0	C185.0	C190.0	C195.0
G80.0	20.9	20.3	21.0	20.6	17.7	18.1	17.4	17.6
G81.0	15.5	15.4	16.2	16.1	13.4	13.7	12.9	13.3
G82.0	11.4	11.3	12.0	11.3	9.2	9.5	8.8	9.4
G83.0	7.8	8.0	8.2	8.1	6.4	6.4	6.1	6.4
G84.0	5.4	5.5	5.7	5.7	4.5	4.5	4.3	4.4
G85.0	3.7	3.9	3.9	3.7	2.7	2.8	2.8	2.8
G86.0	2.5	2.5	2.6	2.3	1.2	1.5	1.7	1.7
G87.0	1.4	1.4	1.4	1.2	0.6	0.7	0.8	0.9
G88.0	0.6	0.6	0.6	0.6	0.4	0.4	0.4	0.5
G89.0	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3
G90.0	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2

Test Type : Type C Test Distance : 8.131 m

Test Device : Lisun LSG-1700B

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

C Plane (°): 0.0-360.0:5.0

Temperature : 21.9°C

Review By :

 γ (°): 0.0-90.0:1.0

Humidity : 57.0%



Report No. : 2

Test Time : 2024-05-29 11:35:17

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Light Distribution Data

Unit: cd/klm

G\C	C200.0	C205.0	C210.0	C215.0	C220.0	C225.0	C230.0	C235.0
G0.0	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5
G1.0	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5
G2.0	330.5	330.5	330.5	330.4	330.5	330.4	330.5	330.5
G3.0	330.4	330.4	330.4	330.4	330.4	330.4	330.4	330.4
G4.0	330.3	330.3	330.3	330.2	330.2	330.2	330.2	330.2
G5.0	330.0	330.1	330.0	330.1	330.0	330.0	330.0	330.0
G6.0	329.7	329.8	329.7	329.7	329.7	329.7	329.7	329.7
G7.0	329.4	329.4	329.3	329.3	329.3	329.3	329.4	329.4
G8.0	328.8	329.0	328.9	329.0	328.9	329.0	328.9	329.0
G9.0	328.2	328.3	328.3	328.4	328.4	328.5	328.4	328.4
G10.0	327.6	327.7	327.7	327.8	327.8	327.9	327.9	327.8
G11.0	326.9	327.0	327.0	327.1	327.1	327.2	327.1	327.1
G12.0	326.3	326.4	326.3	326.4	326.3	326.4	326.3	326.4
G13.0	325.6	325.7	325.6	325.6	325.5	325.5	325.5	325.7
G14.0	324.8	325.0	324.8	324.7	324.5	324.6	324.6	324.7
G15.0	323.9	324.1	324.0	323.9	323.7	323.8	323.7	323.9
G16.0	322.9	323.2	323.0	323.0	322.8	322.9	322.8	323.1
G17.0	322.0	322.1	321.9	321.9	321.9	322.0	322.0	321.9
G18.0	320.9	321.0	320.8	320.9	320.9	321.1	320.9	320.9
G19.0	319.7	319.7	319.6	319.7	319.8	320.0	319.7	319.6
G20.0	318.4	318.4	318.3	318.5	318.7	318.8	318.5	318.5
G21.0	317.1	317.1	317.0	317.2	317.4	317.5	317.3	317.3
G22.0	315.5	315.6	315.5	315.9	315.8	316.0	315.8	315.8
G23.0	313.9	314.1	314.1	314.4	314.3	314.5	314.4	314.5
G24.0	312.4	312.6	312.5	312.9	312.6	313.0	312.7	313.0
G25.0	310.5	311.0	311.0	311.1	311.0	311.1	311.2	311.1
G26.0	308.4	309.2	309.5	309.4	309.3	309.5	309.4	309.5
G27.0	306.2	306.8	307.3	307.6	307.3	307.6	307.4	307.5
G28.0	304.2	304.7	305.0	305.7	305.5	305.6	305.5	305.6
G29.0	302.2	302.8	302.9	303.4	303.7	303.7	303.5	303.4
G30.0	299.8	300.7	300.6	300.9	301.4	301.6	301.1	300.9
G31.0	297.4	298.5	298.5	298.7	298.9	299.5	298.9	298.6
G32.0	294.4	295.7	296.0	296.4	296.3	296.9	296.2	296.4
G33.0	291.9	292.9	293.4	294.1	294.0	294.1	294.0	294.1
G34.0	289.3	290.1	290.4	291.5	291.5	291.4	291.8	291.5
G35.0	286.4	287.2	287.5	288.5	288.7	288.4	288.9	288.0
G36.0	283.3	284.2	284.6	285.5	285.7	286.0	285.5	285.1
G37.0	280.0	281.2	281.3	282.5	282.1	283.4	281.9	282.3
G38.0	276.7	277.8	278.3	279.1	278.8	279.9	278.6	279.0
G39.0	273.4	274.4	275.1	275.9	275.9	276.1	275.6	275.5

Test Type : Type C

Test Distance : 8.131 m

C Plane (°): 0.0-360.0:5.0

 γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1700B

Temperature : 21.9°C

Humidity : 57.0%

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

Review By :



Report No. : 2

Test Time : 2024-05-29 11:35:17

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Light Distribution Data

Unit: cd/klm

G\C	C200.0	C205.0	C210.0	C215.0	C220.0	C225.0	C230.0	C235.0
G40.0	269.6	270.7	271.5	271.9	272.3	271.9	272.1	271.7
G41.0	265.8	267.1	267.7	268.5	268.5	268.3	268.5	268.1
G42.0	262.1	263.2	264.0	265.0	264.5	264.6	264.7	264.6
G43.0	257.7	259.1	259.7	261.1	260.1	260.6	260.2	260.6
G44.0	253.7	255.3	255.6	257.0	256.3	256.5	256.3	256.8
G45.0	249.0	251.1	251.1	252.3	251.7	252.5	251.7	252.4
G46.0	244.8	246.4	247.1	247.5	247.5	247.8	247.5	247.5
G47.0	240.2	241.8	242.7	243.1	242.9	243.5	242.9	242.8
G48.0	235.1	236.7	237.6	237.9	237.9	238.5	237.9	237.8
G49.0	230.0	231.5	232.1	232.9	233.0	233.6	233.0	233.1
G50.0	225.2	226.6	227.0	228.0	228.1	228.4	228.1	227.9
G51.0	219.4	221.0	221.4	222.5	222.3	222.9	222.4	222.4
G52.0	214.1	215.8	215.8	217.0	217.0	217.4	216.9	216.9
G53.0	208.2	209.9	209.8	211.6	211.0	211.9	210.9	211.2
G54.0	202.4	203.3	203.9	205.2	205.2	205.7	205.0	205.1
G55.0	196.3	197.1	198.1	199.4	199.3	199.7	199.3	199.3
G56.0	190.0	190.5	191.4	192.9	192.5	193.1	192.5	192.5
G57.0	184.3	184.4	185.4	186.5	186.3	186.6	186.4	186.5
G58.0	178.0	178.5	178.9	180.1	180.0	180.3	179.8	180.0
G59.0	171.0	171.9	172.1	173.1	172.7	173.1	172.8	173.1
G60.0	163.9	165.4	165.5	166.4	165.9	166.0	166.3	166.4
G61.0	156.7	159.0	158.4	159.8	158.6	159.0	158.7	159.8
G62.0	149.7	151.6	151.4	152.2	151.5	151.5	151.6	152.2
G63.0	142.9	144.9	144.7	145.4	144.8	144.4	144.8	145.4
G64.0	135.1	137.2	136.8	137.5	137.1	137.2	137.0	137.2
G65.0	128.2	130.3	129.9	130.3	130.1	130.3	129.6	130.0
G66.0	119.3	122.9	122.6	122.7	122.8	123.0	122.6	122.7
G67.0	112.0	113.5	114.7	114.8	114.7	115.0	115.1	114.7
G68.0	105.0	106.0	105.7	107.2	107.6	107.8	107.9	107.1
G69.0	96.6	98.6	98.2	99.0	99.8	100.3	99.6	98.9
G70.0	89.4	90.1	91.0	91.3	91.7	91.9	91.2	91.1
G71.0	79.9	82.4	83.0	84.5	84.5	84.3	84.2	84.1
G72.0	70.6	71.5	74.5	75.8	76.5	75.0	76.3	75.7
G73.0	64.4	64.8	65.1	68.7	68.2	68.5	68.8	66.7
G74.0	56.9	58.8	58.5	59.1	61.2	61.2	59.7	58.9
G75.0	49.6	51.4	50.6	52.1	51.1	52.8	51.4	51.9
G76.0	43.9	44.9	44.7	45.4	45.1	43.4	44.9	45.3
G77.0	36.0	37.3	38.0	38.6	36.7	37.3	37.5	38.5
G78.0	30.3	31.6	31.1	32.4	31.0	31.5	31.0	32.0
G79.0	25.0	25.5	25.5	25.1	25.6	26.0	25.3	25.1

Test Type : Type C

Test Distance : 8.131 m

C Plane (°): 0.0-360.0:5.0

 γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1700B

Temperature : 21.9°C

Humidity : 57.0%

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

Review By :



Report No. : 2

Test Time : 2024-05-29 11:35:17

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Light Distribution Data

Unit: cd/klm

G\C	C200.0	C205.0	C210.0	C215.0	C220.0	C225.0	C230.0	C235.0
G80.0	18.0	19.5	18.5	19.6	19.6	19.9	19.6	19.7
G81.0	13.5	14.1	13.5	15.1	14.7	15.0	14.8	14.8
G82.0	9.3	9.9	10.1	10.8	10.5	11.4	10.4	10.9
G83.0	6.5	6.9	7.2	7.9	7.7	7.8	7.8	7.8
G84.0	4.5	4.9	5.2	5.5	5.6	5.8	5.5	5.5
G85.0	3.0	3.3	3.4	3.7	3.7	3.7	3.6	3.6
G86.0	1.9	2.1	2.2	2.3	2.2	2.2	2.3	2.4
G87.0	1.0	1.1	1.2	1.3	1.2	1.2	1.2	1.3
G88.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
G89.0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
G90.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Test Type : Type C Test Distance : 8.131 m

Test Device : Lisun LSG-1700B

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

C Plane (°): 0.0-360.0:5.0

Temperature : 21.9°C

Review By :

 γ (°): 0.0-90.0:1.0

Humidity : 57.0%



Report No. : 2

Test Time : 2024-05-29 11:35:17

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Light Distribution Data

Unit: cd/klm

G\C	C240.0	C245.0	C250.0	C255.0	C260.0	C265.0	C270.0	C275.0
G0.0	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5
G1.0	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5
G2.0	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5
G3.0	330.4	330.4	330.4	330.4	330.4	330.4	330.4	330.4
G4.0	330.2	330.3	330.3	330.2	330.2	330.2	330.3	330.3
G5.0	330.0	330.1	330.2	330.1	330.1	330.1	330.1	330.1
G6.0	329.7	329.8	330.0	329.8	329.9	329.9	329.9	329.9
G7.0	329.4	329.5	329.6	329.5	329.5	329.5	329.5	329.5
G8.0	328.9	329.0	329.1	329.0	329.0	329.1	329.0	329.1
G9.0	328.4	328.4	328.5	328.4	328.4	328.4	328.4	328.4
G10.0	327.7	327.7	327.8	327.8	327.8	327.9	327.8	327.8
G11.0	327.0	327.0	327.1	327.0	327.1	327.1	327.1	327.1
G12.0	326.3	326.3	326.4	326.4	326.4	326.5	326.4	326.4
G13.0	325.6	325.7	325.8	325.7	325.7	325.8	325.7	325.8
G14.0	324.8	324.9	325.0	324.9	324.8	324.9	324.8	324.8
G15.0	324.1	324.2	324.1	323.9	323.9	324.0	323.9	324.0
G16.0	323.0	323.2	323.1	323.0	322.9	323.1	322.9	323.1
G17.0	321.9	322.1	322.1	321.9	322.0	322.0	321.9	322.0
G18.0	320.8	321.0	321.0	320.9	320.9	320.9	320.8	320.9
G19.0	319.5	319.7	319.7	319.6	319.6	319.6	319.5	319.6
G20.0	318.3	318.4	318.5	318.4	318.3	318.5	318.3	318.4
G21.0	316.9	317.1	317.2	317.1	316.9	317.0	316.8	317.0
G22.0	315.6	315.6	315.5	315.4	315.4	315.5	315.4	315.4
G23.0	314.1	314.0	314.0	314.0	313.8	313.9	313.8	313.9
G24.0	312.3	312.5	312.3	312.3	311.9	312.1	311.8	312.1
G25.0	310.9	310.7	310.5	310.4	310.1	310.1	309.9	310.1
G26.0	309.2	308.9	308.5	308.4	308.0	307.9	307.8	308.0
G27.0	307.1	306.8	306.3	306.2	305.9	305.8	305.8	305.9
G28.0	305.1	304.6	304.2	304.4	304.1	304.0	303.8	304.0
G29.0	302.8	302.5	302.5	302.5	302.0	301.8	301.5	301.8
G30.0	300.5	300.6	300.1	299.7	298.9	298.6	298.3	298.7
G31.0	298.5	298.3	297.4	296.9	296.4	296.1	295.8	296.1
G32.0	295.9	295.4	294.4	294.1	293.5	293.2	292.9	293.2
G33.0	293.1	292.5	291.9	291.5	290.9	290.6	290.3	290.5
G34.0	290.1	289.9	289.2	288.7	288.1	287.8	287.6	287.8
G35.0	287.1	286.9	286.2	285.6	285.0	284.7	284.3	284.7
G36.0	284.2	284.0	283.2	282.5	281.8	281.5	281.2	281.6
G37.0	281.0	281.0	279.8	279.4	278.4	278.5	277.8	278.5
G38.0	277.8	277.5	276.5	276.0	275.0	274.9	274.5	274.8
G39.0	274.6	274.2	273.2	272.5	271.6	271.4	271.1	271.5

Test Type : Type C

Test Distance : 8.131 m

C Plane (°): 0.0-360.0:5.0

 γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1700B

Temperature : 21.9°C

Humidity : 57.0%

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

Review By :



Report No. : 2

Test Time : 2024-05-29 11:35:17

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Light Distribution Data

Unit: cd/klm

G\C	C240.0	C245.0	C250.0	C255.0	C260.0	C265.0	C270.0	C275.0
G40.0	271.0	270.4	269.3	268.7	267.8	267.6	267.3	267.5
G41.0	267.6	266.9	265.7	264.9	264.0	263.8	263.5	263.8
G42.0	263.9	263.0	261.9	261.3	260.2	260.1	259.7	259.9
G43.0	259.4	258.9	257.5	256.9	255.7	255.6	255.2	255.6
G44.0	255.3	254.8	253.5	252.8	251.6	251.6	251.1	251.3
G45.0	250.7	250.8	248.8	248.5	246.8	247.2	246.2	247.1
G46.0	246.6	246.2	244.5	243.8	242.5	242.3	241.8	242.1
G47.0	242.1	241.6	239.9	239.1	237.7	237.6	237.0	237.5
G48.0	237.2	236.4	234.6	234.0	232.6	232.5	231.7	232.4
G49.0	232.1	231.2	229.8	229.1	227.6	227.4	226.4	227.4
G50.0	226.9	226.0	224.9	224.2	222.6	222.4	221.2	222.4
G51.0	221.1	220.5	219.2	218.4	217.0	216.5	215.5	216.7
G52.0	215.5	215.1	214.0	213.2	211.6	211.3	209.9	211.5
G53.0	209.4	209.7	208.2	207.6	205.7	205.7	203.9	205.8
G54.0	203.7	203.5	202.3	201.6	199.9	199.6	198.2	199.7
G55.0	197.7	197.2	196.4	195.9	194.4	194.0	192.7	193.7
G56.0	191.3	190.6	189.7	189.3	187.8	187.4	186.2	187.3
G57.0	185.2	184.4	183.8	183.3	181.8	181.4	180.5	181.1
G58.0	178.9	178.4	177.5	177.1	175.6	175.2	174.2	175.2
G59.0	172.1	171.4	170.7	170.4	168.7	168.4	167.4	168.4
G60.0	165.3	165.3	163.9	163.7	162.2	161.7	160.4	161.6
G61.0	158.3	158.6	156.6	157.3	155.2	155.5	153.3	155.4
G62.0	151.4	151.4	149.6	149.9	149.0	148.4	146.5	148.3
G63.0	144.5	144.8	142.9	143.1	142.0	141.7	139.2	141.6
G64.0	136.8	137.2	134.9	135.2	134.0	133.0	129.6	132.9
G65.0	129.9	130.0	127.5	126.6	125.2	124.8	122.6	124.7
G66.0	122.8	122.7	119.0	119.3	118.0	118.3	116.2	118.2
G67.0	113.8	112.9	111.5	111.4	110.6	110.7	108.6	110.2
G68.0	105.9	106.0	104.6	103.2	102.2	102.9	100.2	102.7
G69.0	98.3	98.5	96.1	95.1	93.5	94.1	90.2	94.0
G70.0	90.2	90.1	87.5	85.1	84.3	84.1	81.0	84.2
G71.0	82.7	80.5	78.0	76.7	77.3	77.3	75.2	77.3
G72.0	72.7	71.0	70.3	70.2	69.9	70.4	68.2	70.6
G73.0	64.6	64.3	63.6	62.9	62.5	63.0	61.1	63.5
G74.0	58.2	57.8	56.6	57.0	56.1	56.8	54.4	57.3
G75.0	50.4	51.0	49.2	49.8	49.0	49.4	48.0	49.9
G76.0	44.3	44.2	43.0	42.4	41.1	42.5	40.7	42.4
G77.0	37.8	36.6	35.4	36.3	35.3	36.4	35.3	36.5
G78.0	31.2	30.7	30.2	30.8	30.5	31.4	30.0	31.2
G79.0	25.4	25.2	24.9	25.1	24.4	25.0	24.1	25.1

Test Type : Type C

Test Distance : 8.131 m

C Plane (°): 0.0-360.0:5.0

 γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1700B

Temperature : 21.9°C

Humidity : 57.0%

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

Review By :



Report No. : 2

Test Time : 2024-05-29 11:35:17

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Light Distribution Data

Unit: cd/klm

G\C	C240.0	C245.0	C250.0	C255.0	C260.0	C265.0	C270.0	C275.0
G80.0	19.1	19.0	18.1	18.3	18.4	19.1	18.5	19.2
G81.0	13.5	14.0	13.4	13.7	13.6	14.3	13.7	14.3
G82.0	9.9	9.7	9.2	9.7	9.3	10.0	9.4	10.1
G83.0	7.3	6.8	6.7	6.7	6.3	6.5	6.5	6.6
G84.0	5.3	5.0	4.5	4.7	4.4	4.6	4.5	4.6
G85.0	3.4	3.2	3.0	3.1	3.0	2.9	2.8	2.9
G86.0	2.2	2.1	1.9	1.9	1.8	1.6	1.3	1.5
G87.0	1.3	1.2	1.0	1.0	0.9	0.7	0.7	0.7
G88.0	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4
G89.0	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3
G90.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1

Test Type : Type C Test Distance : 8.131 m

Test Device : Lisun LSG-1700B

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

C Plane (°): 0.0-360.0:5.0

Temperature : 21.9°C

Review By :

 γ (°): 0.0-90.0:1.0

Humidity : 57.0%



Report No. : 2

Test Time : 2024-05-29 11:35:17

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Light Distribution Data

Unit: cd/klm

G\C	C280.0	C285.0	C290.0	C295.0	C300.0	C305.0	C310.0	C315.0
G0.0	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5
G1.0	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5
G2.0	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5
G3.0	330.4	330.4	330.4	330.4	330.4	330.5	330.4	330.4
G4.0	330.3	330.3	330.2	330.3	330.2	330.3	330.2	330.2
G5.0	330.1	330.1	330.0	330.0	330.0	330.0	330.0	330.0
G6.0	329.8	329.8	329.7	329.7	329.7	329.7	329.6	329.6
G7.0	329.5	329.5	329.4	329.4	329.3	329.3	329.2	329.3
G8.0	328.9	329.0	328.9	328.9	328.9	328.9	328.8	328.9
G9.0	328.3	328.3	328.3	328.3	328.3	328.4	328.3	328.4
G10.0	327.7	327.7	327.6	327.7	327.7	327.8	327.8	327.8
G11.0	327.0	327.0	326.9	327.0	327.0	327.1	327.1	327.1
G12.0	326.3	326.3	326.2	326.3	326.3	326.4	326.2	326.2
G13.0	325.6	325.6	325.5	325.5	325.6	325.5	325.4	325.4
G14.0	324.8	324.8	324.7	324.8	324.7	324.6	324.4	324.4
G15.0	323.8	323.9	323.8	324.0	323.9	323.7	323.5	323.6
G16.0	322.8	322.9	322.8	323.0	322.9	322.9	322.6	322.7
G17.0	321.8	321.8	321.8	321.9	321.7	321.8	321.7	321.7
G18.0	320.8	320.8	320.7	320.7	320.6	320.8	320.8	320.9
G19.0	319.4	319.4	319.5	319.4	319.3	319.5	319.6	319.8
G20.0	318.2	318.2	318.1	318.2	318.1	318.3	318.4	318.5
G21.0	316.8	316.9	316.9	316.7	316.8	317.1	317.1	317.2
G22.0	315.2	315.3	315.2	315.3	315.3	315.7	315.5	315.7
G23.0	313.7	313.9	313.6	313.7	313.9	314.2	314.1	314.2
G24.0	311.8	312.3	311.9	312.2	312.2	312.8	312.3	312.6
G25.0	310.0	310.3	310.2	310.5	310.6	310.9	310.8	310.8
G26.0	308.0	308.4	308.2	308.7	309.0	309.2	309.0	309.1
G27.0	305.8	306.0	306.0	306.6	306.9	307.2	307.0	307.2
G28.0	304.1	304.2	303.9	304.4	304.8	305.3	305.1	305.2
G29.0	301.9	302.3	302.1	302.4	302.6	303.1	303.1	303.3
G30.0	299.0	299.6	299.8	300.3	300.1	300.7	300.8	301.1
G31.0	296.2	296.7	297.2	298.2	298.1	298.3	298.5	299.0
G32.0	293.5	293.9	294.1	295.2	295.7	295.7	295.9	296.1
G33.0	290.9	291.2	291.5	292.4	292.9	293.7	293.3	293.5
G34.0	288.0	288.5	288.8	289.6	290.0	291.3	290.8	291.0
G35.0	284.9	285.5	285.8	286.6	286.9	288.0	288.0	288.1
G36.0	281.7	282.4	282.9	283.6	284.0	285.0	285.1	285.4
G37.0	278.4	279.3	279.5	280.7	280.7	281.8	281.6	282.9
G38.0	275.0	275.7	276.2	277.3	277.7	278.4	278.4	279.0
G39.0	271.6	272.4	272.9	273.9	274.4	275.0	275.3	275.3

Test Type : Type C

Test Distance : 8.131 m

C Plane (°): 0.0-360.0:5.0

 γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1700B

Temperature : 21.9°C

Humidity : 57.0%

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

Review By :



Report No. : 2

Test Time : 2024-05-29 11:35:17

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Light Distribution Data

Unit: cd/klm

G\C	C280.0	C285.0	C290.0	C295.0	C300.0	C305.0	C310.0	C315.0
G40.0	267.5	268.5	269.2	270.2	270.8	271.4	271.5	271.0
G41.0	263.9	264.9	265.4	266.6	267.2	268.0	267.4	267.4
G42.0	259.9	261.1	261.7	262.9	263.3	264.5	263.6	263.6
G43.0	255.6	256.9	257.3	258.6	259.1	260.3	259.1	259.5
G44.0	251.3	252.6	253.3	254.7	255.0	256.0	255.2	255.4
G45.0	246.7	248.4	248.5	250.4	250.5	251.4	250.6	251.4
G46.0	242.2	243.5	244.2	245.5	246.4	246.6	246.4	246.8
G47.0	237.6	239.0	239.6	240.8	241.9	242.1	241.8	242.3
G48.0	232.5	233.9	234.5	235.7	236.3	237.0	236.8	237.4
G49.0	227.5	228.9	229.4	230.7	231.2	232.2	231.9	232.4
G50.0	222.6	223.8	224.6	225.9	225.9	227.1	226.9	227.3
G51.0	216.8	218.3	218.8	220.2	220.2	221.5	221.0	221.7
G52.0	211.7	212.8	213.4	214.9	214.7	216.0	215.7	216.3
G53.0	205.5	207.5	207.2	208.8	208.7	210.3	209.5	210.5
G54.0	200.0	201.2	201.6	202.4	202.7	204.2	203.8	204.4
G55.0	194.2	195.5	195.7	196.5	197.0	198.4	198.0	198.3
G56.0	187.8	189.2	189.4	189.7	190.3	191.5	191.2	191.7
G57.0	181.5	182.9	183.3	183.7	184.2	185.5	184.8	185.2
G58.0	175.5	176.9	177.2	177.5	178.1	179.0	178.4	178.9
G59.0	168.6	169.9	170.2	170.8	171.0	172.0	171.4	171.4
G60.0	161.8	163.3	163.2	164.3	164.5	165.2	164.5	164.6
G61.0	155.0	156.4	155.8	158.0	157.1	158.6	157.2	157.8
G62.0	148.4	149.2	148.8	150.4	150.5	150.9	150.2	150.0
G63.0	141.7	142.3	142.2	143.8	143.2	144.1	143.3	143.3
G64.0	133.9	134.8	134.2	136.3	135.5	136.0	135.5	135.7
G65.0	124.6	125.8	126.7	129.3	128.7	128.9	128.5	128.6
G66.0	117.9	118.7	118.0	121.7	121.2	121.5	121.1	121.6
G67.0	110.1	110.9	110.8	112.4	112.6	113.5	113.3	113.5
G68.0	102.0	102.8	103.7	104.9	104.4	106.0	106.4	106.3
G69.0	92.9	95.1	95.5	97.1	96.7	97.5	98.6	98.7
G70.0	84.1	84.8	87.2	88.7	88.7	89.9	89.7	90.2
G71.0	76.7	76.5	77.9	79.6	81.5	82.9	82.9	82.1
G72.0	69.6	69.9	70.0	70.2	72.1	74.5	74.8	73.6
G73.0	62.1	63.2	63.3	64.0	64.0	66.0	66.5	66.8
G74.0	55.9	57.1	56.4	57.2	57.3	57.7	58.4	59.2
G75.0	48.7	50.1	49.2	50.5	49.2	50.4	49.5	51.0
G76.0	41.2	42.5	42.9	44.1	42.8	44.2	43.5	41.5
G77.0	35.2	36.3	35.9	36.3	36.5	37.3	35.4	35.6
G78.0	30.4	30.8	30.3	30.7	30.6	30.9	29.6	29.8
G79.0	24.4	25.2	24.9	25.2	24.7	24.1	23.9	24.7

Test Type : Type C

Test Distance : 8.131 m

C Plane (°): 0.0-360.0:5.0

 γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1700B

Temperature : 21.9°C

Humidity : 57.0%

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

Review By :



Report No. : 2

Test Time : 2024-05-29 11:35:17

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Light Distribution Data

Unit: cd/klm

G\C	C280.0	C285.0	C290.0	C295.0	C300.0	C305.0	C310.0	C315.0
G80.0	18.6	18.6	18.1	18.7	17.8	18.7	18.4	18.3
G81.0	13.8	13.9	13.4	13.8	12.9	14.0	13.5	13.9
G82.0	9.4	9.7	9.3	9.5	9.6	10.2	9.7	10.5
G83.0	6.4	6.7	6.5	6.6	6.7	7.3	7.2	7.2
G84.0	4.5	4.6	4.4	4.7	4.9	5.0	5.1	5.0
G85.0	3.0	2.9	2.9	3.1	3.1	3.3	3.2	3.4
G86.0	1.7	1.8	1.9	1.9	2.0	2.1	2.0	1.9
G87.0	0.8	0.9	1.0	1.0	1.0	1.1	1.0	0.9
G88.0	0.4	0.5	0.5	0.5	0.4	0.5	0.5	0.4
G89.0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
G90.0	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2

Test Type : Type C Test Distance : 8.131 m

Test Device : Lisun LSG-1700B

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

C Plane (°): 0.0-360.0:5.0

Temperature : 21.9°C

Review By :

 γ (°): 0.0-90.0:1.0

Humidity : 57.0%



Report No. : 2

Test Time : 2024-05-29 11:35:17

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Light Distribution Data

Unit: cd/klm

G\C	C320.0	C325.0	C330.0	C335.0	C340.0	C345.0	C350.0	C355.0
G0.0	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5
G1.0	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5
G2.0	330.5	330.5	330.5	330.5	330.5	330.5	330.5	330.5
G3.0	330.4	330.4	330.3	330.4	330.3	330.4	330.3	330.4
G4.0	330.2	330.2	330.2	330.2	330.2	330.2	330.2	330.2
G5.0	329.9	330.0	330.0	330.0	330.0	330.0	330.0	330.0
G6.0	329.6	329.6	329.6	329.7	329.7	329.7	329.7	329.8
G7.0	329.2	329.3	329.3	329.3	329.3	329.4	329.3	329.4
G8.0	328.8	328.9	328.7	328.8	328.7	328.8	328.7	328.8
G9.0	328.3	328.3	328.2	328.2	328.1	328.2	328.2	328.3
G10.0	327.7	327.7	327.5	327.5	327.5	327.6	327.6	327.6
G11.0	326.9	326.9	326.8	326.8	326.8	326.9	326.9	326.9
G12.0	326.2	326.2	326.1	326.1	326.1	326.2	326.2	326.3
G13.0	325.4	325.5	325.4	325.4	325.4	325.4	325.4	325.5
G14.0	324.4	324.6	324.6	324.6	324.5	324.6	324.5	324.6
G15.0	323.5	323.8	323.8	323.8	323.6	323.6	323.6	323.7
G16.0	322.6	322.9	322.8	322.9	322.6	322.7	322.6	322.8
G17.0	321.7	321.8	321.7	321.8	321.6	321.6	321.5	321.7
G18.0	320.6	320.7	320.5	320.7	320.5	320.5	320.5	320.6
G19.0	319.4	319.3	319.2	319.4	319.2	319.2	319.1	319.3
G20.0	318.2	318.2	317.9	318.1	317.9	318.0	317.9	317.9
G21.0	317.0	316.9	316.6	316.7	316.6	316.5	316.4	316.5
G22.0	315.4	315.5	315.1	315.1	315.0	315.1	314.9	315.0
G23.0	314.0	314.0	313.5	313.6	313.5	313.6	313.3	313.4
G24.0	312.2	312.5	311.9	312.1	311.7	311.8	311.2	311.5
G25.0	310.6	310.7	310.4	310.2	309.7	309.8	309.3	309.3
G26.0	308.7	309.0	308.6	308.2	307.8	307.9	307.5	307.5
G27.0	306.9	307.0	306.5	306.0	305.7	305.9	305.4	305.6
G28.0	305.0	304.9	304.3	304.1	303.7	303.9	303.5	303.5
G29.0	302.9	302.7	302.4	302.3	301.8	301.8	301.0	300.9
G30.0	300.5	300.4	300.1	300.1	299.0	298.8	298.0	297.9
G31.0	298.2	298.3	298.0	297.6	296.3	296.2	295.5	295.4
G32.0	295.6	296.0	295.0	294.5	293.4	293.3	292.7	292.5
G33.0	293.6	293.6	292.2	291.7	290.8	290.7	290.0	289.8
G34.0	291.1	290.5	289.4	289.1	288.2	287.8	287.3	287.1
G35.0	288.0	287.3	286.3	286.1	285.1	284.7	284.1	284.0
G36.0	284.7	284.4	283.5	283.1	282.1	281.8	281.1	280.8
G37.0	281.1	281.6	280.3	280.1	278.8	278.6	277.5	277.7
G38.0	277.8	278.2	277.1	276.5	275.5	275.0	274.3	274.1
G39.0	274.7	275.0	273.7	273.2	272.2	271.5	270.7	270.6

Test Type : Type C

Test Distance : 8.131 m

C Plane (°): 0.0-360.0:5.0

γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1700B

Temperature : 21.9°C

Humidity : 57.0%

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

Review By :



Report No. : 2

Test Time : 2024-05-29 11:35:17

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Light Distribution Data

Unit: cd/klm

G\C	C320.0	C325.0	C330.0	C335.0	C340.0	C345.0	C350.0	C355.0
G40.0	271.3	271.1	270.1	269.3	268.3	267.7	266.8	266.6
G41.0	267.6	267.3	266.5	265.9	264.5	264.0	263.1	262.9
G42.0	263.6	263.8	262.9	262.1	260.7	260.2	259.1	259.0
G43.0	259.0	259.8	258.5	257.9	256.3	255.7	254.7	254.6
G44.0	255.1	255.9	254.5	253.7	252.2	251.6	250.4	250.3
G45.0	250.5	251.5	249.7	249.7	247.5	247.3	245.8	246.1
G46.0	246.2	246.4	245.5	245.1	243.1	242.5	241.2	241.2
G47.0	241.7	241.7	241.1	240.4	238.5	237.8	236.6	236.4
G48.0	236.7	236.6	236.2	235.3	233.5	232.7	231.2	231.2
G49.0	231.7	231.7	231.0	230.2	228.5	227.7	226.4	226.1
G50.0	226.7	226.8	225.6	225.1	223.5	222.8	221.2	221.1
G51.0	220.9	221.0	219.7	219.3	218.0	217.0	215.5	215.2
G52.0	215.6	215.7	214.1	214.2	212.5	211.7	210.0	209.9
G53.0	209.3	209.9	208.1	208.5	206.6	206.1	204.2	204.2
G54.0	203.6	203.8	202.2	202.1	200.7	200.0	198.6	198.2
G55.0	197.8	198.0	196.3	195.6	195.0	194.4	192.7	192.3
G56.0	190.9	191.1	189.5	189.0	188.2	187.8	186.1	186.0
G57.0	184.8	185.0	183.5	182.8	182.2	181.6	180.1	179.8
G58.0	178.2	178.5	177.5	176.8	176.0	175.4	174.0	173.8
G59.0	171.2	171.6	170.3	169.8	169.2	168.7	166.9	166.6
G60.0	164.3	164.8	163.7	163.6	162.6	162.1	160.5	160.3
G61.0	157.1	158.3	156.6	156.9	154.7	155.3	153.3	154.0
G62.0	150.0	150.6	149.6	149.7	147.6	148.1	146.5	146.6
G63.0	143.3	143.8	142.8	142.7	140.7	141.3	139.9	139.8
G64.0	135.5	135.7	134.9	135.3	132.7	132.9	131.6	131.0
G65.0	128.4	128.4	128.1	128.0	125.2	124.6	123.4	123.5
G66.0	121.0	120.8	120.6	120.1	117.2	117.6	116.0	116.5
G67.0	112.9	112.8	111.8	111.3	109.7	109.6	108.3	108.4
G68.0	105.8	104.9	103.8	103.9	102.3	101.4	100.5	101.2
G69.0	97.8	96.9	96.2	96.4	94.1	93.4	92.0	93.0
G70.0	89.5	89.4	88.2	87.9	86.0	83.5	82.3	82.3
G71.0	82.5	81.7	80.8	79.1	76.4	74.9	75.0	75.3
G72.0	74.2	73.7	70.8	69.2	68.4	68.1	67.6	67.8
G73.0	65.8	65.2	62.9	62.9	61.5	61.2	60.3	61.0
G74.0	57.9	57.3	56.2	55.9	54.7	55.0	53.7	54.6
G75.0	49.1	49.5	48.7	48.7	47.5	48.1	46.6	47.2
G76.0	42.6	43.3	42.4	42.4	40.9	40.8	38.9	40.1
G77.0	34.8	36.5	35.7	35.0	33.5	33.8	32.6	34.0
G78.0	29.3	29.7	28.8	29.2	28.2	28.1	27.5	28.4
G79.0	23.5	23.1	23.1	23.4	22.7	22.5	21.4	22.2

Test Type : Type C

Test Distance : 8.131 m

C Plane (°): 0.0-360.0:5.0

γ (°): 0.0-90.0:1.0

Test Device : Lisun LSG-1700B

Temperature : 21.9°C

Humidity : 57.0%

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

Review By :



Report No. : 2

Test Time : 2024-05-29 11:35:17

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Light Distribution Data

Unit: cd/klm

G\C	C320.0	C325.0	C330.0	C335.0	C340.0	C345.0	C350.0	C355.0
G80.0	17.8	17.9	16.6	16.8	16.2	16.2	15.8	16.8
G81.0	13.4	13.5	12.1	12.4	11.8	12.1	11.7	12.3
G82.0	9.5	9.8	8.9	8.8	8.2	8.5	7.9	8.6
G83.0	7.0	7.0	6.3	6.1	5.5	5.6	5.3	5.6
G84.0	4.9	4.9	4.5	4.3	3.8	3.9	3.8	3.9
G85.0	3.2	3.2	2.9	2.7	2.5	2.4	2.4	2.4
G86.0	1.9	2.0	1.8	1.7	1.6	1.5	1.4	1.2
G87.0	0.9	1.0	0.9	0.8	0.8	0.7	0.6	0.5
G88.0	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.3
G89.0	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2
G90.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1

Test Type : Type C Test Distance : 8.131 m

Test Device : Lisun LSG-1700B

Test Lab : Light Lab TU-Gabrovo

Test By : Eng. Ivaylo Stoyanov

C Plane (°): 0.0-360.0:5.0

Temperature : 21.9°C

Review By :

 γ (°): 0.0-90.0:1.0

Humidity : 57.0%