

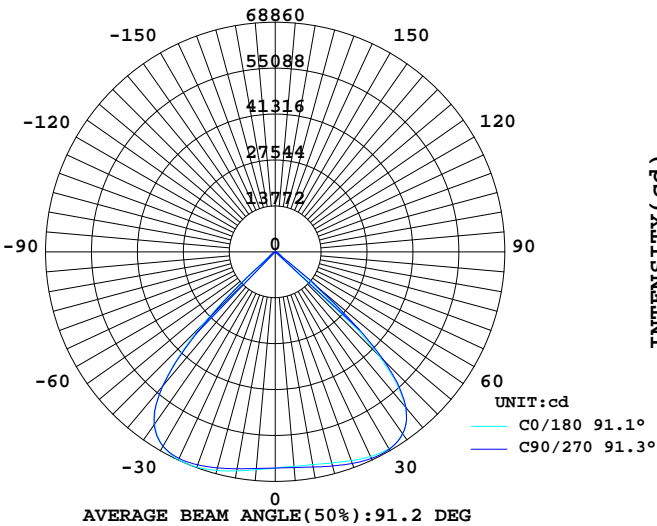
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

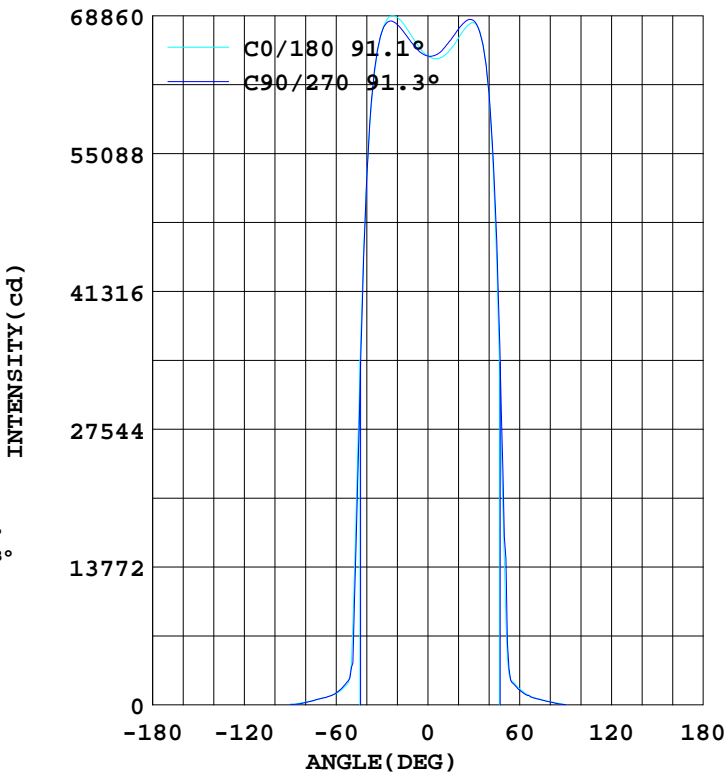
MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Kroos	TYPE:IL-SL13-N80040-090	WEIGHT:
SPECIFICATION:5050LED 4000K 90°	DIMENSION:	SERIAL No.:

DATA OF LAMP		Imax(cd)	68977	S/MH(C0/180)	1.32
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	1.31
NOMINAL POWER(W)	800	TOTAL FLUX(lm)	128000	Voltage(V)	231.0
RATED VOLTAGE(V)	230	EFFICIENCY(lm/W)	160.0	Current(A)	3.469
NOMINAL FLUX(lm)	128000.0	$\eta$ up(%)	0.0	Power(W)	800.0
LAMPS QUANTITY	1	$\eta$ down(%)	100.0	Power Factor(PF)	1.000
TEST VOLTAGE(V)	231.0	Effective Flux(lm)	127999.9	EEI	0.094

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



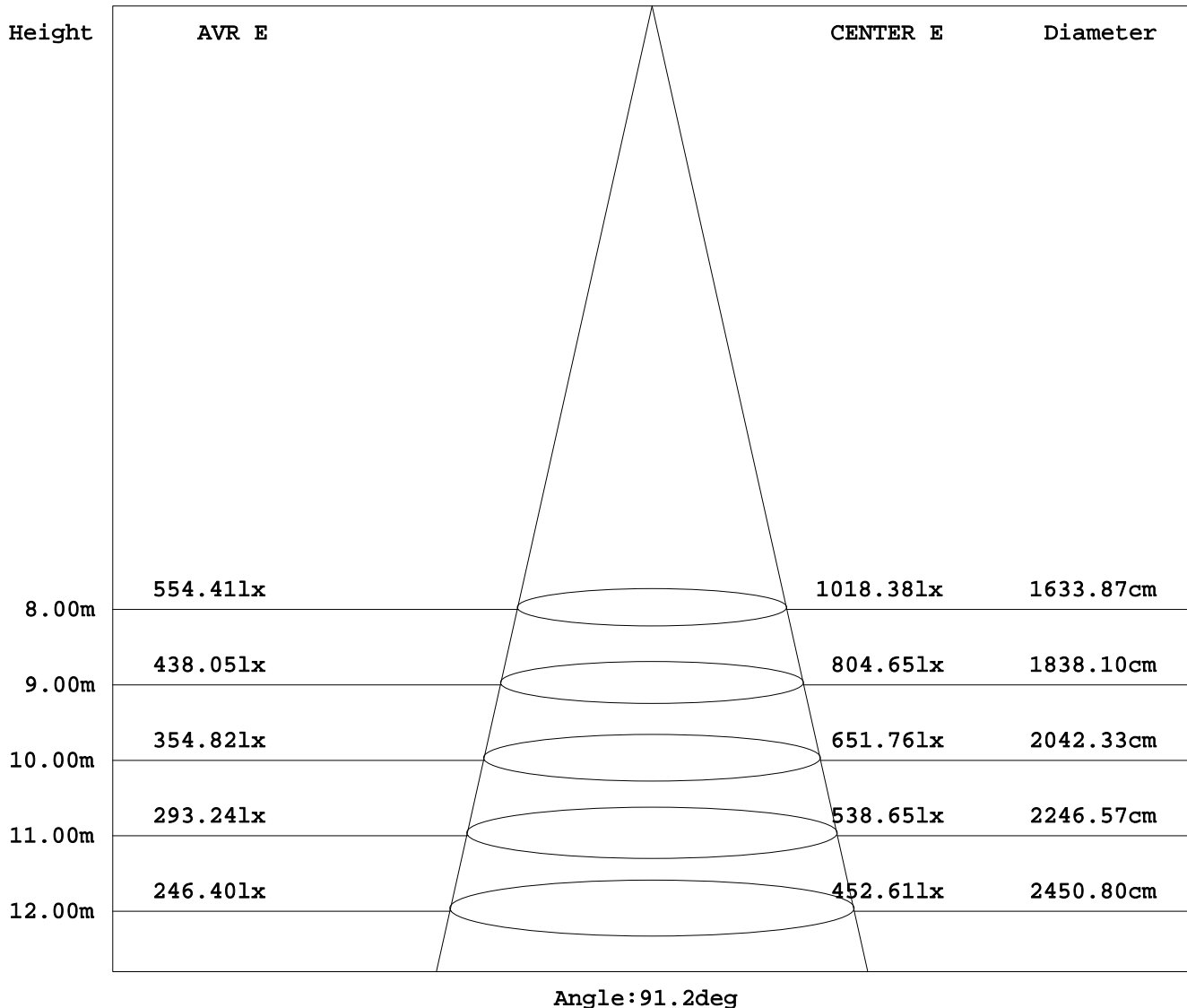
Test System:  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2025.02.20

Test Set: 5.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:10.000 m  
 Remarks:

## AVERAGE AND CENTER E Figure

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Kroos	TYPE:IL-SL13-N80040-090	WEIGHT:
SPECIFICATION:5050LED 4000K 90°	DIMENSION:	SERIAL No.:



Test System:  
Temperature:25.3DEG  
Operators:  
Test Date:2025.02.20

Test Set: 5.0deg/s C-Gamma (TYPE C)  
Humidity:65.0%  
Test Distance:10.000 m  
Remarks:

## ZONAL FLUX DIAGRAM

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Kroos	TYPE:IL-SL13-N80040-090	WEIGHT:
SPECIFICATION:5050LED 4000K 90°	DIMENSION:	SERIAL No.:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	zone	total
5.0	6559	6549	6521	6492	6456	6461	6493	6525	0- 5	1553	1553
10.0	6668	6652	6605	6549	6481	6492	6552	6614	5- 10	4681	6234
15.0	6786	6764	6708	6646	6555	6574	6646	6728	10- 15	7864	14097
20.0	6870	6844	6797	6749	6664	6683	6754	6833	15- 20	11090	25187
25.0	6877	6853	6833	6816	6771	6780	6834	6895	20- 25	14284	39471
30.0	6729	6701	6728	6762	6816	6818	6836	6858	25- 30	17259	56730
35.0	6303	6259	6334	6427	6670	6678	6658	6611	30- 35	19614	76344
40.0	5266	5132	5251	5404	6084	6150	6101	5975	35- 40	20468	96812
45.0	3039	2739	2766	2933	4411	4639	4622	4406	40- 45	17699	114511
50.0	408.1	382.7	374.7	426.7	1464	1634	1680	1552	45- 50	9225	123736
55.0	175.4	171.9	188.8	210.4	238.8	259.4	223.8	233.9	50- 55	1876	125612
60.0	114.0	109.6	119.1	132.3	160.8	176.0	147.5	150.9	55- 60	801.8	126414
65.0	85.61	77.97	84.30	83.92	101.2	111.3	95.39	104.1	60- 65	555.2	126969
70.0	64.09	54.66	63.69	57.96	69.81	71.23	66.15	72.49	65- 70	396.4	127366
75.0	41.35	37.55	42.83	40.24	48.88	51.63	47.52	51.88	70- 75	288.6	127654
80.0	27.69	21.66	23.99	22.73	30.93	34.94	28.77	35.65	75- 80	195.6	127850
85.0	13.40	7.081	8.126	7.563	17.19	16.31	12.14	17.12	80- 85	109.5	127959
90.0	5.169	3.119	5.121	3.144	4.623	5.479	3.131	5.481	85- 90	40.42	128000
95.0									90- 95		
100.0									95-100		
105.0									100-105		
110.0									105-110		
115.0									110-115		
120.0									115-120		
125.0									120-125		
130.0									125-130		
135.0									130-135		
140.0									135-140		
145.0									140-145		
150.0									145-150		
155.0									150-155		
160.0									155-160		
165.0									160-165		
170.0									165-170		
175.0									170-175		
180.0									175-180		
DEG	LUMINOUS INTENSITY:×10cd									UNIT:lm	

Test System:  
Temperature:25.3DEG  
Operators:  
Test Date:2025.02.20

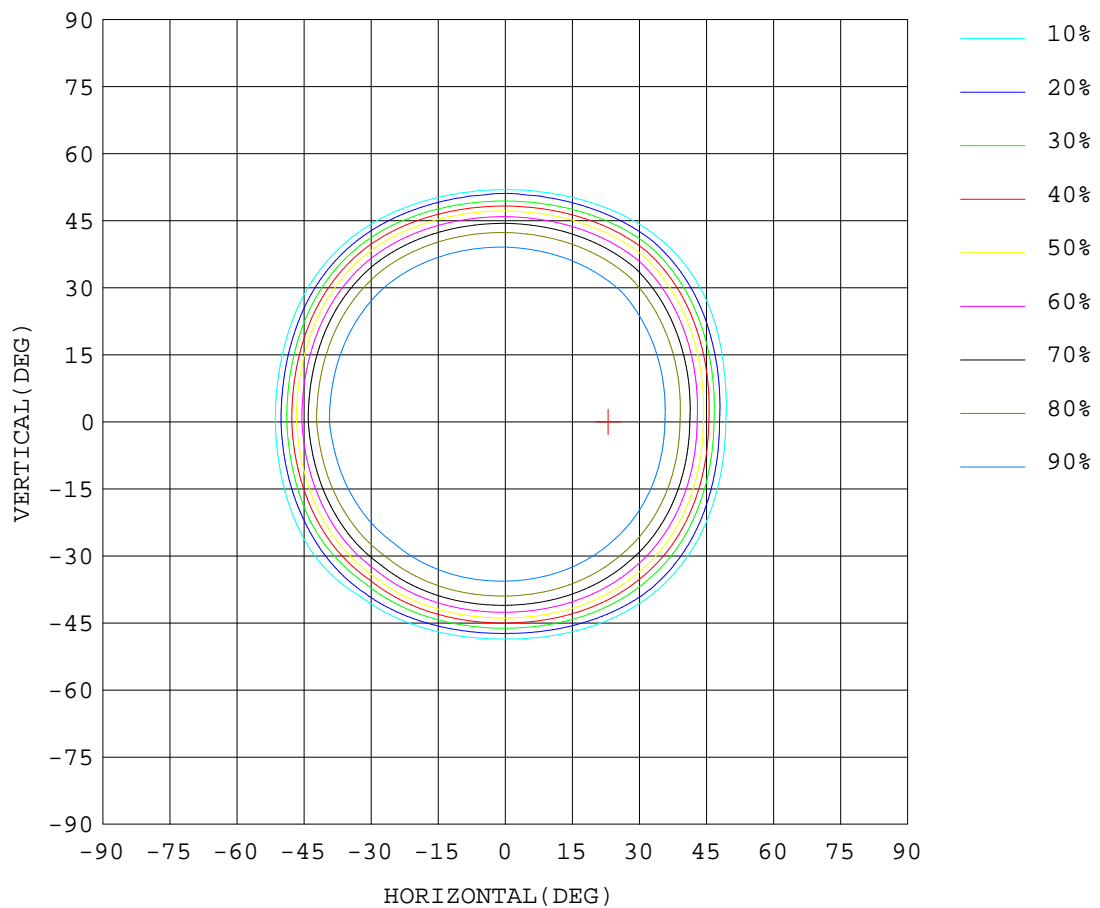
Test Set: 5.0deg/s C-Gamma (TYPE C)  
Humidity:65.0%  
Test Distance:10.000 m  
Remarks:

## ISOCANDELA DIAGRAM

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Kroos	TYPE:IL-SL13-N80040-090	WEIGHT:
SPECIFICATION:5050LED 4000K 90°	DIMENSION:	SERIAL No.:

UNIT: cd



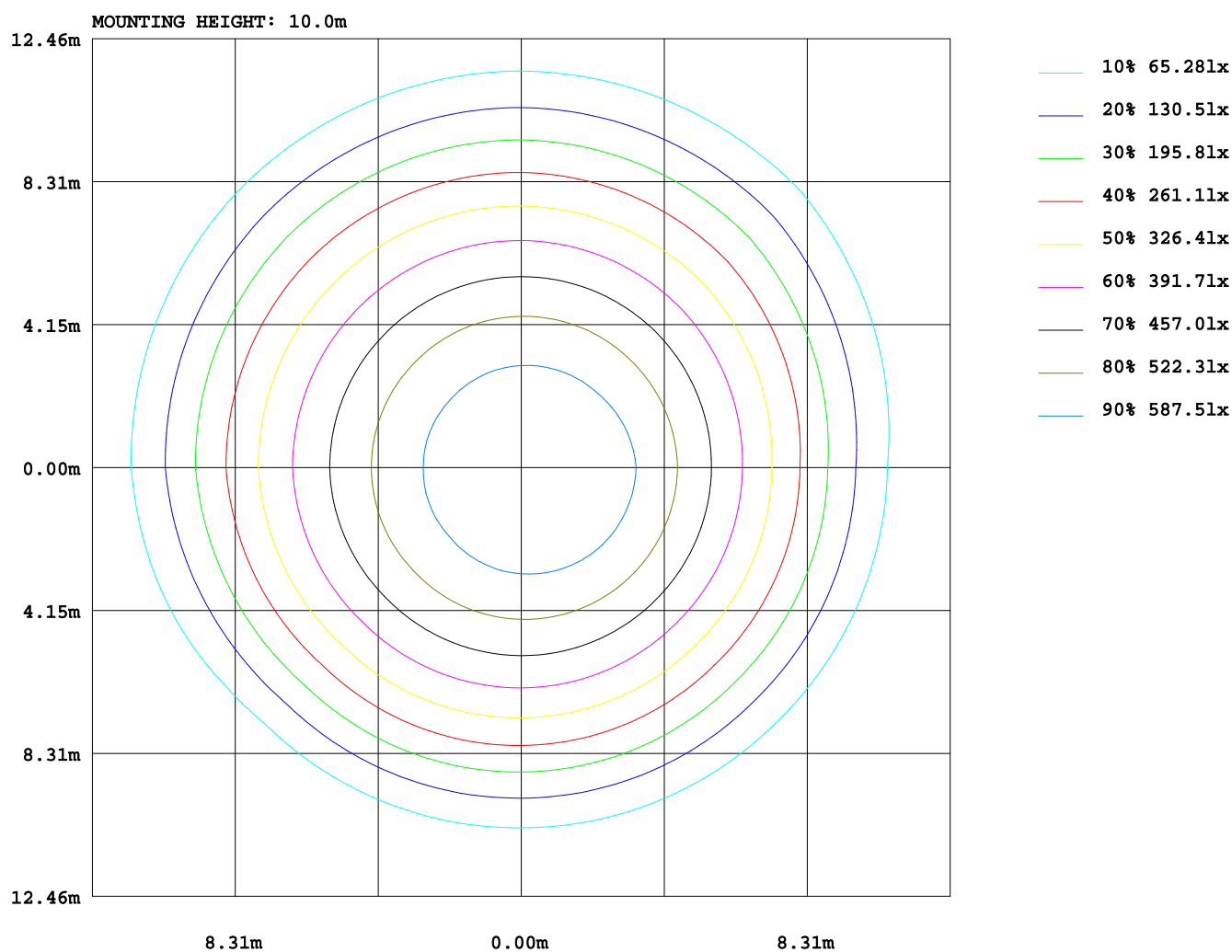
Test System:  
Temperature:25.3DEG  
Operators:  
Test Date:2025.02.20

Test Set: 5.0deg/s C-Gamma (TYPE C)  
Humidity:65.0%  
Test Distance:10.000 m  
Remarks:

## ISOLUX DIAGRAM

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Kroos	TYPE:IL-SL13-N80040-090	WEIGHT:
SPECIFICATION:5050LED 4000K 90°	DIMENSION:	SERIAL No.:



Test System:  
Temperature:25.3DEG  
Operators:  
Test Date:2025.02.20

Test Set: 5.0deg/s C-Gamma (TYPE C)  
Humidity:65.0%  
Test Distance:10.000 m  
Remarks:

## Uncorrected UGR Table

Report number:

MANUFACTURER: ILUMEN GMBH	Address:			
NAME: Kroos	TYPE:IL-SL13-N80040-090		WEIGHT:	
SPECIFICATION:5050LED 4000K 90°	DIMENSION:		SERIAL No.:	

ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working 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	27.5	28.7	27.7	28.8	29.0	27.4	28.5	27.6	28.7	28.9
3H	27.3	28.4	27.6	28.6	28.8	27.2	28.3	27.5	28.5	28.7
4H	27.2	28.2	27.5	28.5	28.7	27.1	28.1	27.4	28.3	28.6
6H	27.1	28.1	27.5	28.3	28.6	27.0	28.0	27.3	28.2	28.5
8H	27.1	28.0	27.4	28.3	28.5	27.0	27.9	27.3	28.1	28.4
12H	27.1	27.9	27.4	28.2	28.5	26.9	27.8	27.3	28.1	28.4
4H 2H	27.2	28.2	27.5	28.4	28.7	27.1	28.1	27.4	28.3	28.6
3H	27.1	27.9	27.4	28.2	28.5	26.9	27.8	27.3	28.1	28.3
4H	27.0	27.7	27.3	28.1	28.4	26.8	27.6	27.2	27.9	28.2
6H	26.9	27.6	27.3	27.9	28.3	26.8	27.4	27.2	27.8	28.1
8H	26.9	27.5	27.3	27.8	28.2	26.7	27.4	27.1	27.7	28.1
12H	26.8	27.4	27.2	27.8	28.2	26.7	27.3	27.1	27.6	28.0
8H 4H	26.8	27.5	27.2	27.8	28.2	26.7	27.3	27.1	27.7	28.1
6H	26.8	27.3	27.2	27.7	28.1	26.6	27.2	27.1	27.6	28.0
8H	26.7	27.2	27.2	27.6	28.0	26.6	27.1	27.1	27.5	27.9
12H	26.7	27.1	27.2	27.5	28.0	26.6	26.9	27.0	27.4	27.9
12H 4H	26.8	27.4	27.2	27.7	28.1	26.7	27.2	27.1	27.6	28.0
6H	26.7	27.2	27.2	27.6	28.0	26.6	27.0	27.0	27.5	27.9
8H	26.7	27.1	27.2	27.5	28.0	26.6	26.9	27.0	27.4	27.9

Variations with the observer position at spacings:

S = 1.0H	+ 2.6 / -12.0	+ 2.6 / -12.1
1.5H	+ 3.9 / -12.0	+ 4.1 / -11.9
2.0H	+ 8.1 / - 8.3	+ 8.1 / - 7.9

CIE Pub.117 Corrected 128000 lm Total Lamp Luminous Flux.(8log(F/F0) = 16.9)

Test System:  
Temperature:25.3DEG  
Operators:  
Test Date:2025.02.20

Test Set: 5.0deg/s C-Gamma (TYPE C)  
Humidity:65.0%  
Test Distance:10.000 m  
Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

Report number:

<b>MANUFACTURER:</b> ILUMEN GMBH	<b>Address:</b>	
<b>NAME:</b> Kroos	<b>TYPE:</b> IL-SL13-N80040-090	<b>WEIGHT:</b>
<b>SPECIFICATION:</b> 5050LED 4000K 90°	<b>DIMENSION:</b>	<b>SERIAL No.:</b>

UNIT: ×10cd

C (DEG) γ (DEG)	0	45	90	135	180	225	270	315
0.0	6484	6484	6484	6484	6484	6484	6484	6484
5.0	6559	6549	6521	6492	6456	6461	6493	6525
10.0	6668	6652	6605	6549	6481	6492	6552	6614
15.0	6786	6764	6708	6646	6555	6574	6646	6728
20.0	6870	6844	6797	6749	6664	6683	6754	6833
25.0	6877	6853	6833	6816	6771	6780	6834	6895
30.0	6729	6701	6728	6762	6816	6818	6836	6858
35.0	6303	6259	6334	6427	6670	6678	6658	6611
40.0	5266	5132	5251	5404	6084	6150	6101	5975
45.0	3039	2739	2766	2933	4411	4639	4622	4406
50.0	408	383	375	427	1464	1634	1680	1552
55.0	175	172	189	210	239	259	224	234
60.0	114	110	119	132	161	176	148	151
65.0	85.6	77.9	84.3	83.9	101	111	95.3	104
70.0	64.0	54.6	63.6	57.9	69.8	71.2	66.1	72.4
75.0	41.3	37.5	42.8	40.2	48.8	51.6	47.5	51.8
80.0	27.6	21.6	23.9	22.7	30.9	34.9	28.7	35.6
85.0	13.4	7.08	8.12	7.56	17.1	16.3	12.1	17.1
90.0	5.16	3.11	5.12	3.14	4.62	5.47	3.13	5.48

**Test System:**  
**Temperature:**25.3DEG  
**Operators:**  
**Test Date:**2025.02.20

**Test Set:** 5.0deg/s C-Gamma (TYPE C)  
**Humidity:**65.0%  
**Test Distance:**10.000 m  
**Remarks:**