

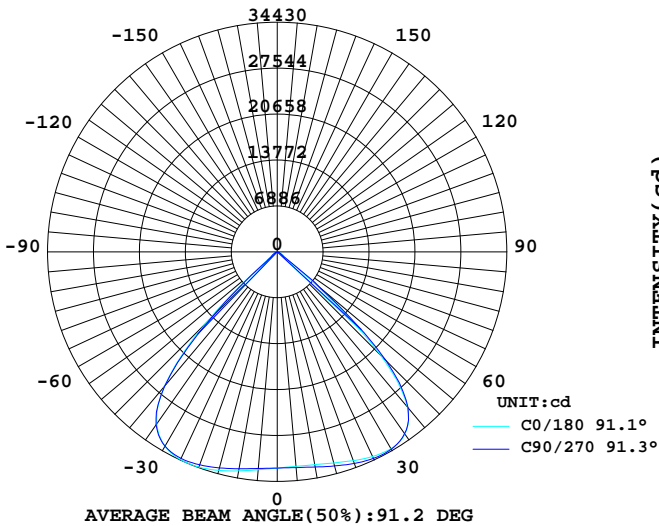
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

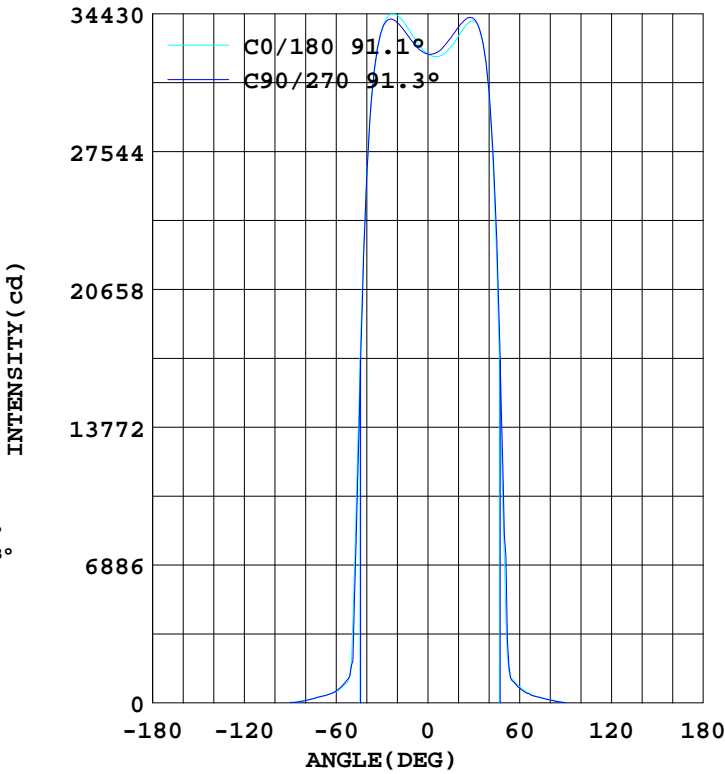
MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Kroos	TYPE:IL-SL13-N40040-090	WEIGHT:
SPECIFICATION:5050LED 4000K 90°	DIMENSION:	SERIAL No.:

DATA OF LAMP		Imax(cd)	34489	S/MH(C0/180)	1.32
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	1.31
NOMINAL POWER(W)	400	TOTAL FLUX(lm)	64000	Voltage(V)	231.0
RATED VOLTAGE(V)	230	EFFICIENCY(lm/W)	160.0	Current(A)	1.732
NOMINAL FLUX(lm)	64000.0	η up(%)	0.0	Power(W)	400.0
LAMPS QUANTITY	1	η down(%)	100.0	Power Factor(PF)	0.999
TEST VOLTAGE(V)	231.0	Effective Flux(lm)	63999.9	EEI	0.094

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



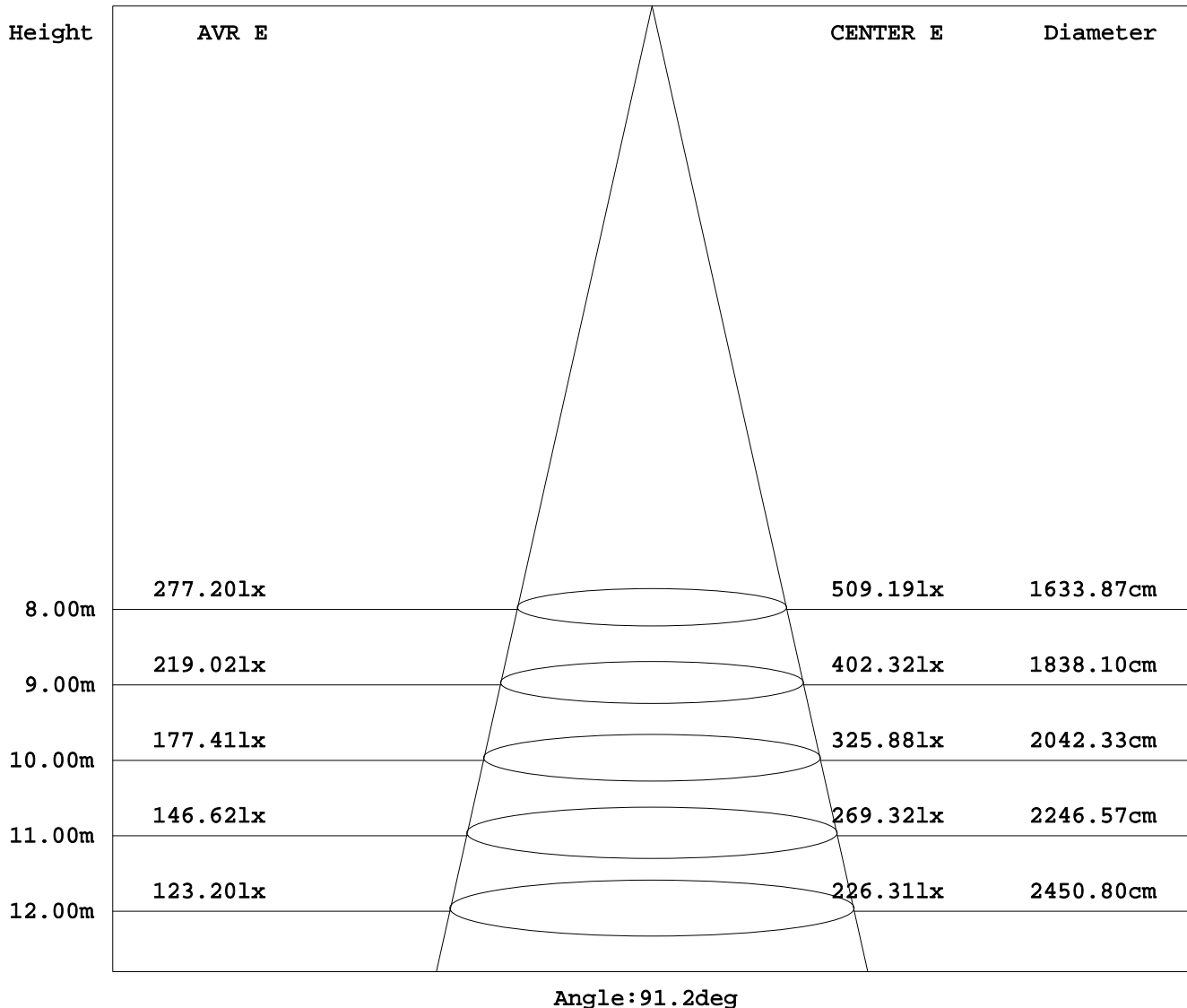
Test System:  
Temperature:25.3DEG  
Operators:  
Test Date:2025.02.20

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-N40040-090	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-N40040-090	WEIGHT:
SPECIFICATION:5050LED 4000K 90°	DIMENSION:	SERIAL No.:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	zone	total
5.0	3279	3274	3260	3246	3228	3230	3247	3263	0- 5	776.4	776.4
10.0	3334	3326	3302	3274	3240	3246	3276	3307	5- 10	2340	3117
15.0	3393	3382	3354	3323	3277	3287	3323	3364	10- 15	3932	7049
20.0	3435	3422	3398	3374	3332	3342	3377	3417	15- 20	5545	12594
25.0	3438	3426	3417	3408	3385	3390	3417	3447	20- 25	7142	19735
30.0	3364	3350	3364	3381	3408	3409	3418	3429	25- 30	8629	28365
35.0	3152	3129	3167	3214	3335	3339	3329	3306	30- 35	9807	38172
40.0	2633	2566	2625	2702	3042	3075	3050	2988	35- 40	10234	48406
45.0	1520	1370	1383	1467	2205	2320	2311	2203	40- 45	8849	57255
50.0	204.0	191.3	187.3	213.3	731.7	817.1	839.9	776.0	45- 50	4612	61868
55.0	87.71	85.98	94.40	105.2	119.4	129.7	111.9	116.9	50- 55	938.2	62806
60.0	57.03	54.83	59.59	66.18	80.40	88.03	73.76	75.46	55- 60	400.9	63207
65.0	42.80	38.98	42.15	41.96	50.60	55.65	47.69	52.05	60- 65	277.6	63485
70.0	32.04	27.33	31.84	28.98	34.90	35.61	33.07	36.24	65- 70	198.2	63683
75.0	20.67	18.77	21.41	20.12	24.44	25.81	23.76	25.94	70- 75	144.3	63827
80.0	13.84	10.83	11.99	11.36	15.46	17.47	14.38	17.82	75- 80	97.80	63925
85.0	6.703	3.540	4.063	3.781	8.595	8.156	6.073	8.562	80- 85	54.79	63980
90.0	2.584	1.559	2.560	1.572	2.311	2.739	1.565	2.740	85- 90	20.21	64000
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

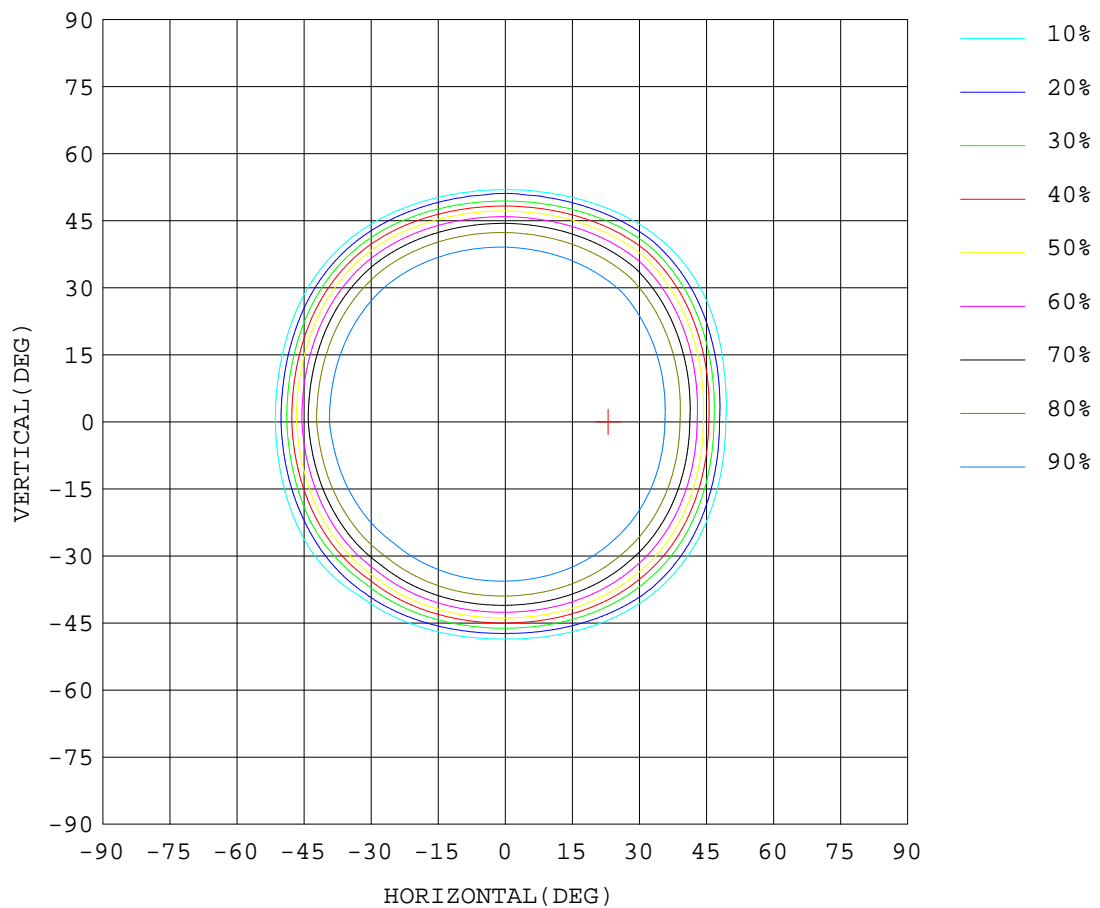
Test Set: 5.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:10.000 m  
 Remarks:

## ISOCANDELA DIAGRAM

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Kroos	TYPE:IL-SL13-N40040-090	WEIGHT:
SPECIFICATION:5050LED 4000K 90°	DIMENSION:	SERIAL No.:

UNIT: cd



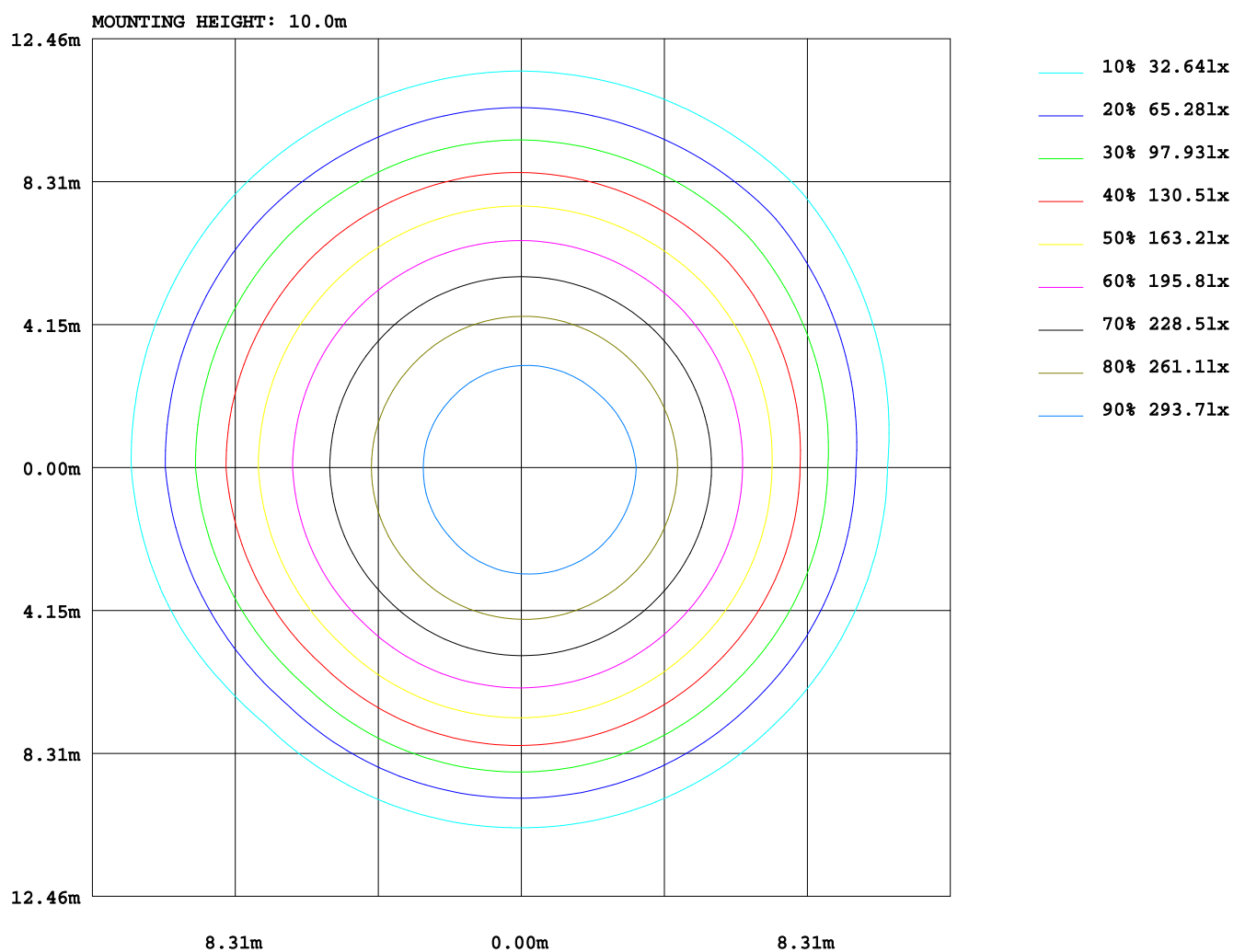
Test System:  
Temperature:25.3DEG  
Operators:  
Test Date:2025.02.20

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-N40040-090	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-N40040-090		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	27.6	28.8	27.9	29.0	29.2	27.5	28.7	27.7	28.9	29.0
3H	27.5	28.5	27.7	28.7	29.0	27.3	28.4	27.6	28.6	28.8
4H	27.4	28.4	27.7	28.6	28.8	27.3	28.3	27.5	28.5	28.7
6H	27.3	28.2	27.6	28.5	28.7	27.2	28.1	27.5	28.4	28.6
8H	27.2	28.1	27.6	28.4	28.7	27.1	28.0	27.4	28.3	28.6
12H	27.2	28.1	27.5	28.3	28.6	27.1	27.9	27.4	28.2	28.5
4H 2H	27.4	28.4	27.6	28.6	28.8	27.2	28.2	27.5	28.5	28.7
3H	27.2	28.1	27.5	28.3	28.6	27.1	27.9	27.4	28.2	28.5
4H	27.1	27.9	27.5	28.2	28.5	27.0	27.8	27.3	28.1	28.4
6H	27.0	27.7	27.4	28.1	28.4	26.9	27.6	27.3	27.9	28.3
8H	27.0	27.6	27.4	28.0	28.4	26.9	27.5	27.3	27.9	28.2
12H	27.0	27.5	27.4	27.9	28.3	26.8	27.4	27.2	27.8	28.2
8H 4H	27.0	27.6	27.4	28.0	28.3	26.9	27.5	27.3	27.8	28.2
6H	26.9	27.4	27.3	27.8	28.2	26.8	27.3	27.2	27.7	28.1
8H	26.9	27.3	27.3	27.7	28.2	26.7	27.2	27.2	27.6	28.1
12H	26.8	27.2	27.3	27.7	28.1	26.7	27.1	27.2	27.5	28.0
12H 4H	26.9	27.5	27.4	27.9	28.3	26.8	27.4	27.2	27.8	28.2
6H	26.9	27.3	27.3	27.7	28.2	26.7	27.2	27.2	27.6	28.1
8H	26.8	27.2	27.3	27.7	28.1	26.7	27.1	27.2	27.5	28.0

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 64000 lm Total Lamp Luminous Flux.(8log(F/F0) = 14.4)

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Operators:  
Test Date:2025.02.20

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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-N40040-090	<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	3242	3242	3242	3242	3242	3242	3242	3242
5.0	3279	3274	3260	3246	3228	3230	3247	3263
10.0	3334	3326	3302	3274	3240	3246	3276	3307
15.0	3393	3382	3354	3323	3277	3287	3323	3364
20.0	3435	3422	3398	3374	3332	3342	3377	3417
25.0	3438	3426	3417	3408	3385	3390	3417	3447
30.0	3364	3350	3364	3381	3408	3409	3418	3429
35.0	3152	3129	3167	3214	3335	3339	3329	3306
40.0	2633	2566	2625	2702	3042	3075	3050	2988
45.0	1520	1370	1383	1467	2205	2320	2311	2203
50.0	204	191	187	213	732	817	840	776
55.0	87.7	85.9	94.4	105	119	130	112	117
60.0	57.0	54.8	59.5	66.1	80.4	88.0	73.7	75.4
65.0	42.8	38.9	42.1	41.9	50.6	55.6	47.6	52.0
70.0	32.0	27.3	31.8	28.9	34.9	35.6	33.0	36.2
75.0	20.6	18.7	21.4	20.1	24.4	25.8	23.7	25.9
80.0	13.8	10.8	11.9	11.3	15.4	17.4	14.3	17.8
85.0	6.70	3.54	4.06	3.78	8.59	8.15	6.07	8.56
90.0	2.58	1.55	2.56	1.57	2.31	2.73	1.56	2.74

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

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**Test Distance:**10.000 m  
**Remarks:**