

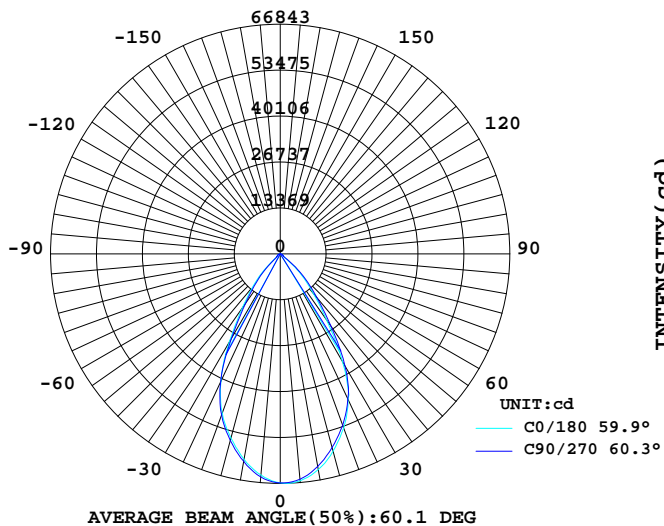
# LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

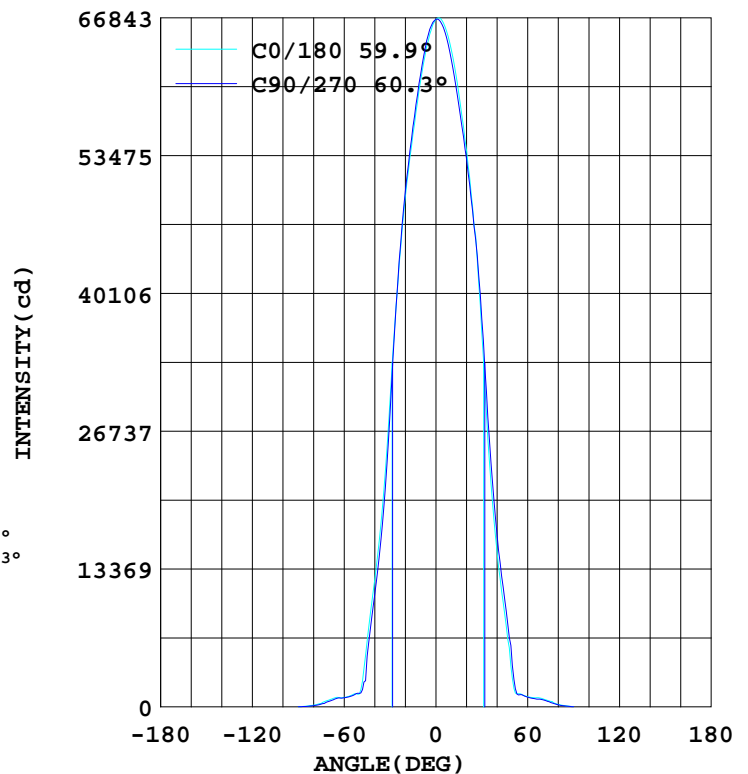
MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Kroos	TYPE:IL-SL13-N40040-060	WEIGHT:
SPECIFICATION:5050LED 4000K 60°	DIMENSION:	SERIAL No.:

DATA OF LAMP		Imax(cd)	66843	S/MH(C0/180)	0.86
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	0.84
NOMINAL POWER(W)	400	TOTAL FLUX(lm)	64000	Voltage(V)	230.6
RATED VOLTAGE(V)	230	EFFICIENCY(lm/W)	160.0	Current(A)	1.735
NOMINAL FLUX(lm)	64000.0	$\eta$ up(%)	0.0	Power(W)	400.0
LAMPS QUANTITY	1	$\eta$ down(%)	100.0	Power Factor(PF)	0.999
TEST VOLTAGE(V)	230.6	Effective Flux(lm)	64000.0	EEI	0.094

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



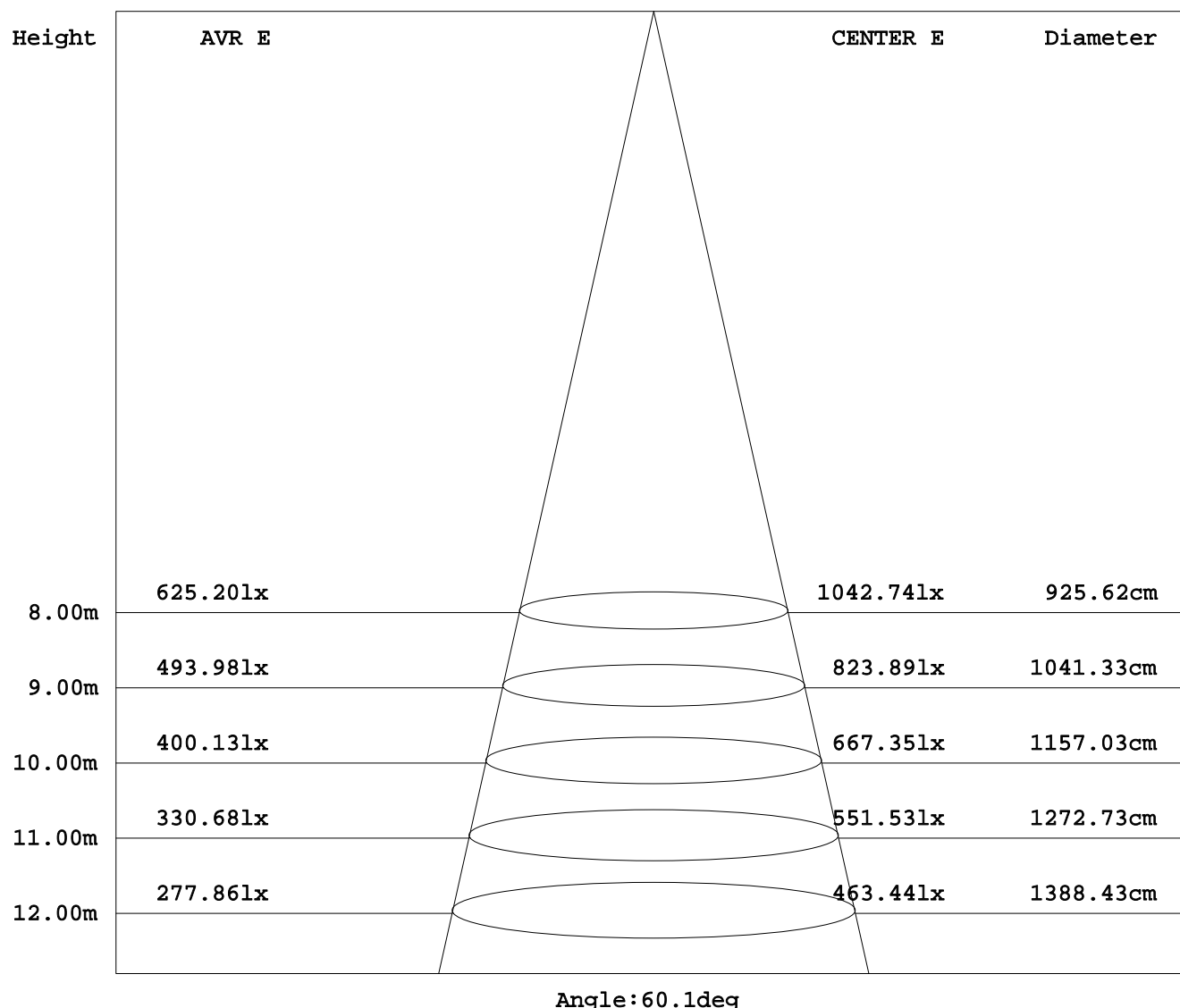
Test System:  
Temperature:25.3DEG  
Operators:  
Test Date:2025.02.20

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: IKroos	TYPE:IL-SL13-N40040-060	WEIGHT:
SPECIFICATION:5050LED 4000K 60°	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: IKroos	TYPE:IL-SL13-N40040-060	WEIGHT:
SPECIFICATION:5050LED 4000K 60°	DIMENSION:	SERIAL No.:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	zone	total
5.0	6463	6484	6519	6532	6632	6615	6587	6562	0- 5	1580	1580
10.0	6072	6093	6134	6181	6379	6345	6284	6246	5- 10	4565	6145
15.0	5553	5591	5624	5677	5945	5912	5833	5776	10- 15	7086	13231
20.0	4940	4957	4993	5044	5397	5380	5314	5241	15- 20	8975	22206
25.0	4088	4098	4106	4189	4669	4695	4659	4551	20- 25	10030	32237
30.0	2974	2854	2849	2910	3633	3683	3769	3613	25- 30	9743	41980
35.0	1925	1796	1765	1808	2379	2554	2586	2467	30- 35	7930	49910
40.0	1228	1111	1086	1118	1498	1623	1663	1601	35- 40	5780	55690
45.0	639.0	583.7	490.8	585.2	893.5	998.8	1034	992.8	40- 45	3924	59614
50.0	126.7	126.0	130.8	128.5	279.0	375.4	402.3	252.2	45- 50	1912	61526
55.0	113.3	104.7	106.7	106.2	127.3	130.5	118.0	128.5	50- 55	647.3	62174
60.0	91.99	83.23	88.85	86.55	98.39	100.6	94.33	97.76	55- 60	482.9	62656
65.0	92.07	74.22	81.68	76.91	88.01	83.78	78.18	81.03	60- 65	421.5	63078
70.0	66.05	55.88	53.48	58.67	78.50	72.13	69.83	69.60	65- 70	377.0	63455
75.0	32.74	35.53	26.91	38.20	52.81	55.41	42.94	53.72	70- 75	284.2	63739
80.0	16.51	11.67	12.15	13.47	23.91	33.01	20.20	31.58	75- 80	165.4	63905
85.0	6.752	3.138	4.087	3.470	10.83	11.13	7.766	10.47	80- 85	71.00	63976
90.0	2.816	1.633	2.689	1.659	2.752	3.546	1.893	3.233	85- 90	24.17	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

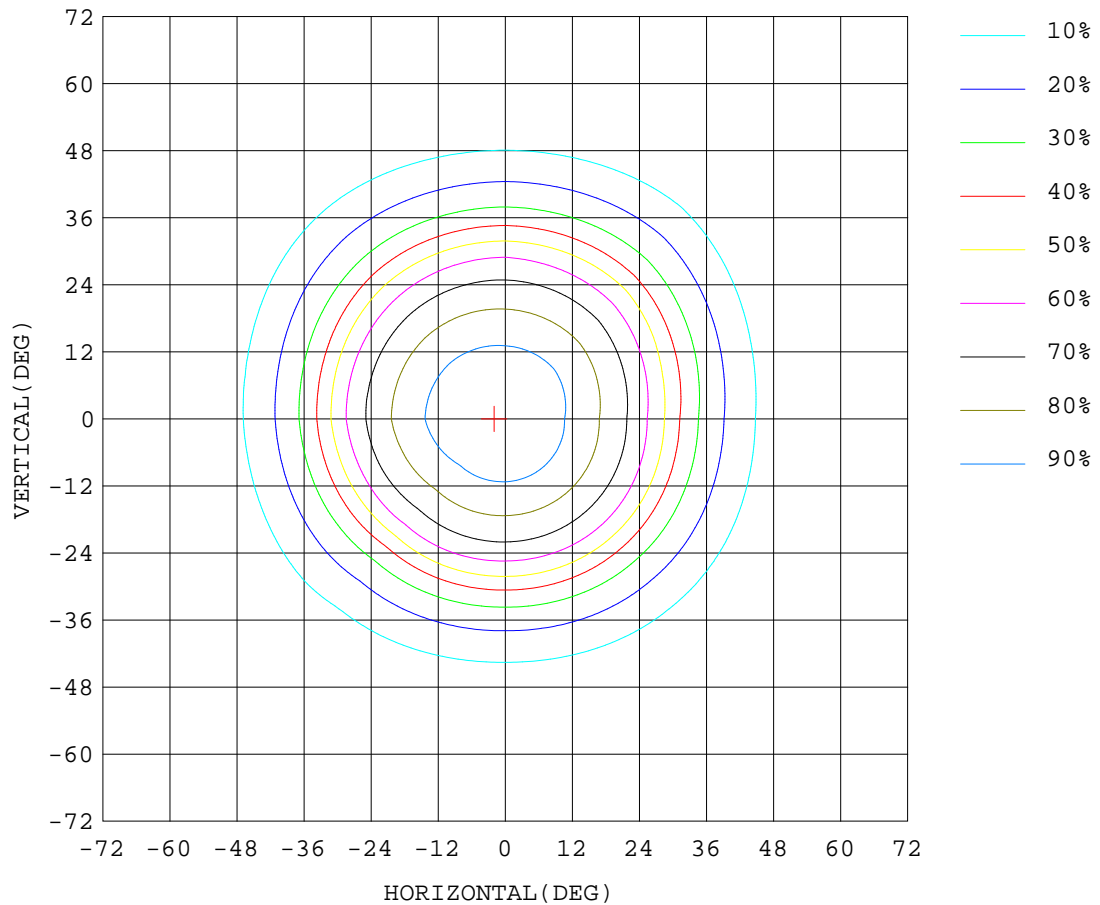
Test Set: 5.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:10.000 m  
 Remarks:

## ISOCANDELA DIAGRAM

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: IKroos	TYPE:IL-SL13-N40040-060	WEIGHT:
SPECIFICATION:5050LED 4000K 60°	DIMENSION:	SERIAL No.:

UNIT: cd



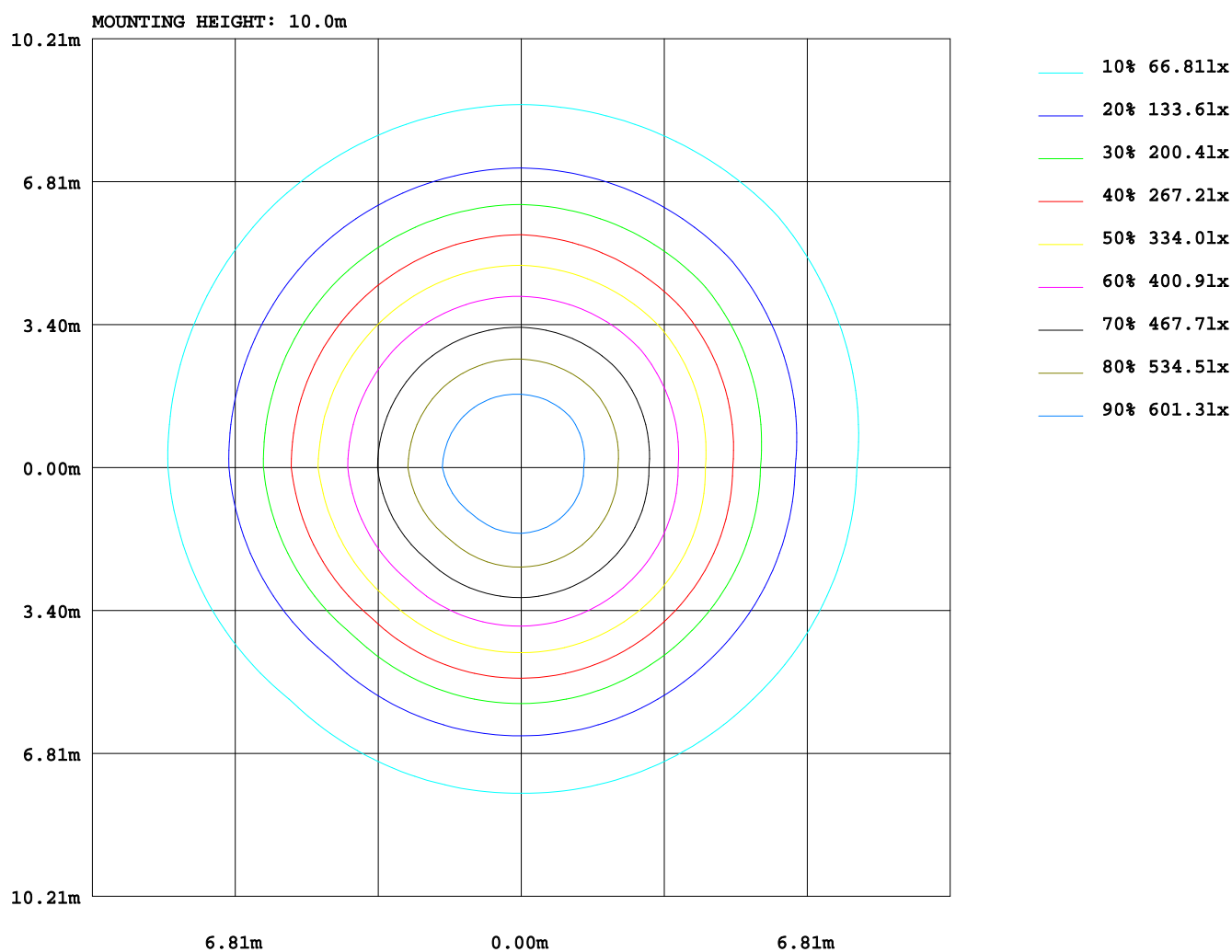
Test System:  
Temperature:25.3DEG  
Operators:  
Test Date:2025.02.20

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: IKroos	TYPE:IL-SL13-N40040-060	WEIGHT:
SPECIFICATION:5050LED 4000K 60°	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: IKroos	TYPE:IL-SL13-N40040-060		WEIGHT:	
SPECIFICATION:5050LED 4000K 60°	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	23.1	24.1	23.3	24.3	24.5	22.7	23.7	22.9	23.9	24.0
3H	23.2	24.1	23.5	24.3	24.5	22.8	23.7	23.0	23.9	24.1
4H	23.2	24.1	23.5	24.3	24.6	22.7	23.6	23.0	23.8	24.1
6H	23.2	24.0	23.5	24.3	24.5	22.7	23.5	23.0	23.8	24.0
8H	23.2	24.0	23.5	24.2	24.5	22.7	23.4	23.0	23.7	24.0
12H	23.1	23.9	23.5	24.2	24.4	22.6	23.4	22.9	23.6	23.9
4H 2H	22.9	23.8	23.2	24.0	24.3	22.5	23.4	22.8	23.6	23.9
3H	23.1	23.9	23.5	24.2	24.4	22.7	23.5	23.0	23.7	24.0
4H	23.2	23.9	23.6	24.2	24.5	22.7	23.4	23.1	23.7	24.0
6H	23.2	23.8	23.6	24.1	24.5	22.7	23.3	23.1	23.6	24.0
8H	23.2	23.7	23.6	24.1	24.5	22.7	23.2	23.0	23.6	23.9
12H	23.1	23.7	23.6	24.0	24.4	22.6	23.1	23.0	23.5	23.9
8H 4H	23.1	23.7	23.5	24.0	24.4	22.7	23.2	23.1	23.6	23.9
6H	23.1	23.6	23.6	24.0	24.4	22.6	23.1	23.1	23.5	23.9
8H	23.1	23.5	23.6	23.9	24.4	22.6	23.0	23.1	23.4	23.9
12H	23.1	23.5	23.6	23.9	24.4	22.6	22.9	23.0	23.4	23.8
12H 4H	23.1	23.6	23.5	24.0	24.4	22.6	23.1	23.0	23.5	23.9
6H	23.1	23.5	23.5	23.9	24.4	22.6	23.0	23.0	23.4	23.9
8H	23.1	23.4	23.6	23.9	24.3	22.6	22.9	23.0	23.4	23.8

Variations with the observer position at spacings:

S = 1.0H	+ 2.3 / - 4.7	+ 2.2 / - 4.8
1.5H	+ 4.3 / - 4.7	+ 4.3 / - 4.5
2.0H	+ 5.7 / - 1.9	+ 5.1 / - 1.2

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

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> IKroos	<b>TYPE:</b> IL-SL13-N40040-060	<b>WEIGHT:</b>
<b>SPECIFICATION:</b> 5050LED 4000K 60°	<b>DIMENSION:</b>	<b>SERIAL No.:</b>

UNIT: ×10cd

C (DEG)								
γ (DEG)	0	45	90	135	180	225	270	315
0.0	6669	6669	6669	6669	6669	6669	6669	6669
5.0	6463	6484	6519	6532	6632	6615	6587	6562
10.0	6072	6093	6134	6181	6379	6345	6284	6246
15.0	5553	5591	5624	5677	5945	5912	5833	5776
20.0	4940	4957	4993	5044	5397	5380	5314	5241
25.0	4088	4098	4106	4189	4669	4695	4659	4551
30.0	2974	2854	2849	2910	3633	3683	3769	3613
35.0	1925	1796	1765	1808	2379	2554	2586	2467
40.0	1228	1111	1086	1118	1498	1623	1663	1601
45.0	639	584	491	585	894	999	1034	993
50.0	127	126	131	129	279	375	402	252
55.0	113	105	107	106	127	131	118	129
60.0	91.9	83.2	88.8	86.5	98.3	101	94.3	97.7
65.0	92.0	74.2	81.6	76.9	88.0	83.7	78.1	81.0
70.0	66.0	55.8	53.4	58.6	78.5	72.1	69.8	69.6
75.0	32.7	35.5	26.9	38.2	52.8	55.4	42.9	53.7
80.0	16.5	11.6	12.1	13.4	23.9	33.0	20.2	31.5
85.0	6.75	3.13	4.08	3.47	10.8	11.1	7.76	10.4
90.0	2.81	1.63	2.68	1.65	2.75	3.54	1.89	3.23

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

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**Humidity:**65.0%  
**Test Distance:**10.000 m  
**Remarks:**