

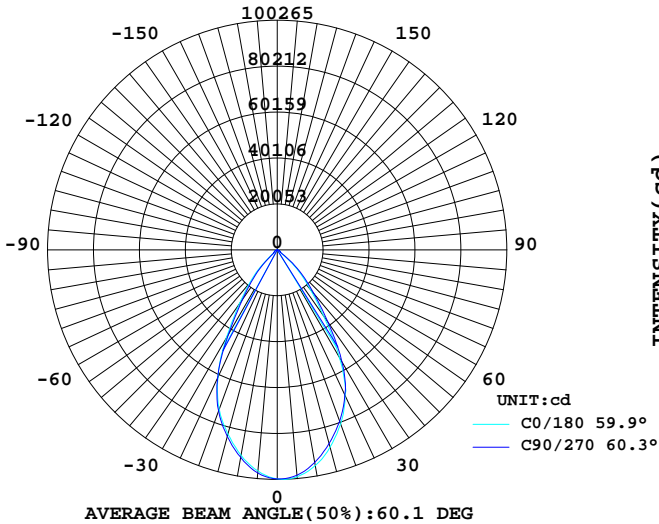
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

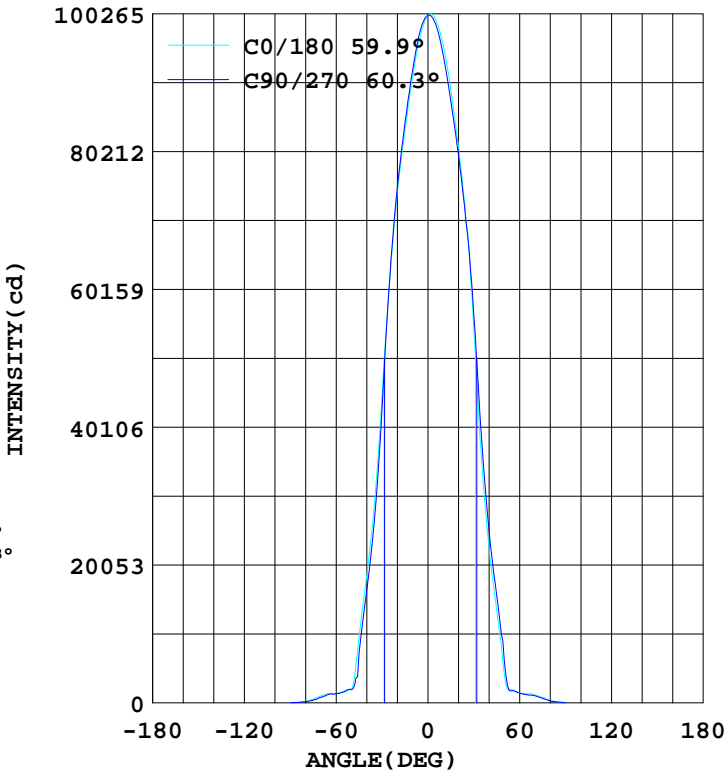
MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Kroos	TYPE:IL-SL13-N60040-060	WEIGHT:
SPECIFICATION:5050LED 4000K 60°	DIMENSION:	SERIAL No.:

DATA OF LAMP		Imax(cd)	100265	S/MH(C0/180)	0.86
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	0.84
NOMINAL POWER(W)	600	TOTAL FLUX(lm)	96000	Voltage(V)	230.6
RATED VOLTAGE(V)	230	EFFICIENCY(lm/W)	160.0	Current(A)	2.602
NOMINAL FLUX(lm)	96000.0	$\eta$ up(%)	0.0	Power(W)	600.0
LAMPS QUANTITY	1	$\eta$ down(%)	100.0	Power Factor(PF)	0.999
TEST VOLTAGE(V)	230.6	Effective Flux(lm)	96000.1	EEI	0.094

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



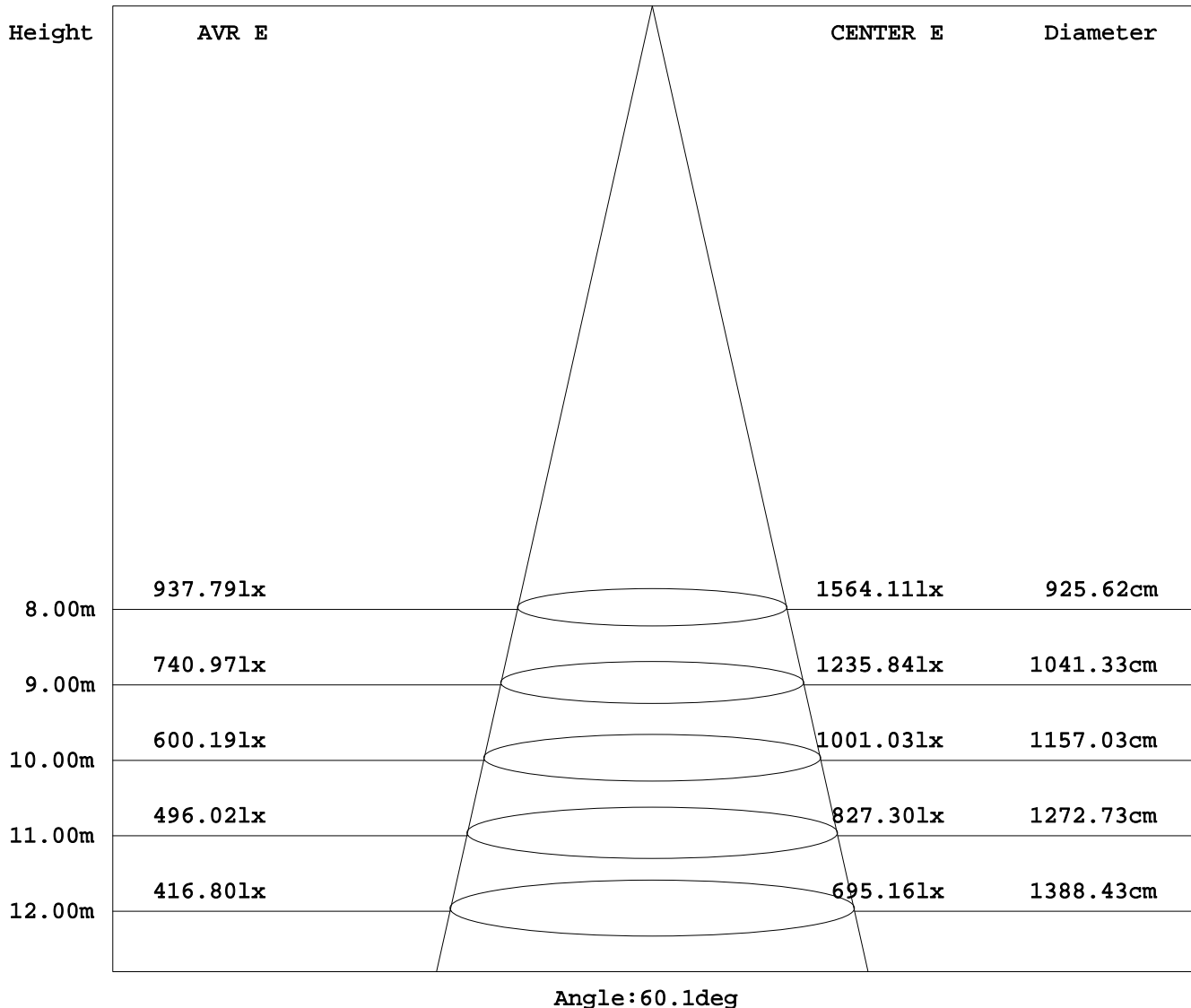
Test System:  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2025.02.20

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-N60040-060	WEIGHT:
SPECIFICATION:5050LED 4000K 60°	DIMENSION:	SERIAL No.:



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

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Humidity:65.0%  
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Remarks:

## ZONAL FLUX DIAGRAM

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Kroos	TYPE:IL-SL13-N60040-060	WEIGHT:
SPECIFICATION:5050LED 4000K 60°	DIMENSION:	SERIAL No.:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	zone	total
5.0	969.5	972.5	977.7	979.7	994.8	992.2	988.1	984.3	0- 5	2370	2370
10.0	910.8	913.9	920.1	927.0	956.9	951.7	942.5	936.9	5- 10	6848	9218
15.0	833.0	838.6	843.6	851.6	891.7	886.8	874.9	866.4	10- 15	10628	19846
20.0	740.9	743.5	748.9	756.6	809.6	807.0	797.0	786.1	15- 20	13463	33309
25.0	613.2	614.6	615.9	628.3	700.3	704.3	698.7	682.6	20- 25	15046	48355
30.0	446.0	428.1	427.3	436.5	544.9	552.4	565.3	542.0	25- 30	14615	62970
35.0	288.7	269.3	264.6	271.2	356.8	383.1	387.9	370.0	30- 35	11894	74865
40.0	184.2	166.6	162.9	167.7	224.7	243.4	249.5	240.2	35- 40	8671	83535
45.0	95.85	87.55	73.62	87.78	134.0	149.8	155.1	148.9	40- 45	5886	89421
50.0	19.01	18.90	19.62	19.27	41.85	56.31	60.34	37.83	45- 50	2868	92289
55.0	17.00	15.70	16.01	15.94	19.09	19.58	17.70	19.27	50- 55	970.9	93260
60.0	13.79	12.48	13.32	12.98	14.75	15.09	14.15	14.66	55- 60	724.3	93985
65.0	13.81	11.13	12.25	11.53	13.20	12.56	11.72	12.15	60- 65	632.3	94617
70.0	9.908	8.383	8.022	8.801	11.77	10.82	10.47	10.44	65- 70	565.6	95183
75.0	4.912	5.329	4.037	5.730	7.921	8.312	6.441	8.058	70- 75	426.3	95609
80.0	2.477	1.750	1.823	2.021	3.586	4.952	3.030	4.737	75- 80	248.2	95857
85.0	1.012	0.471	0.613	0.521	1.625	1.670	1.164	1.571	80- 85	106.5	95964
90.0	0.423	0.245	0.403	0.249	0.413	0.532	0.284	0.485	85- 90	36.26	96000
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:×100cd									UNIT: lm	

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

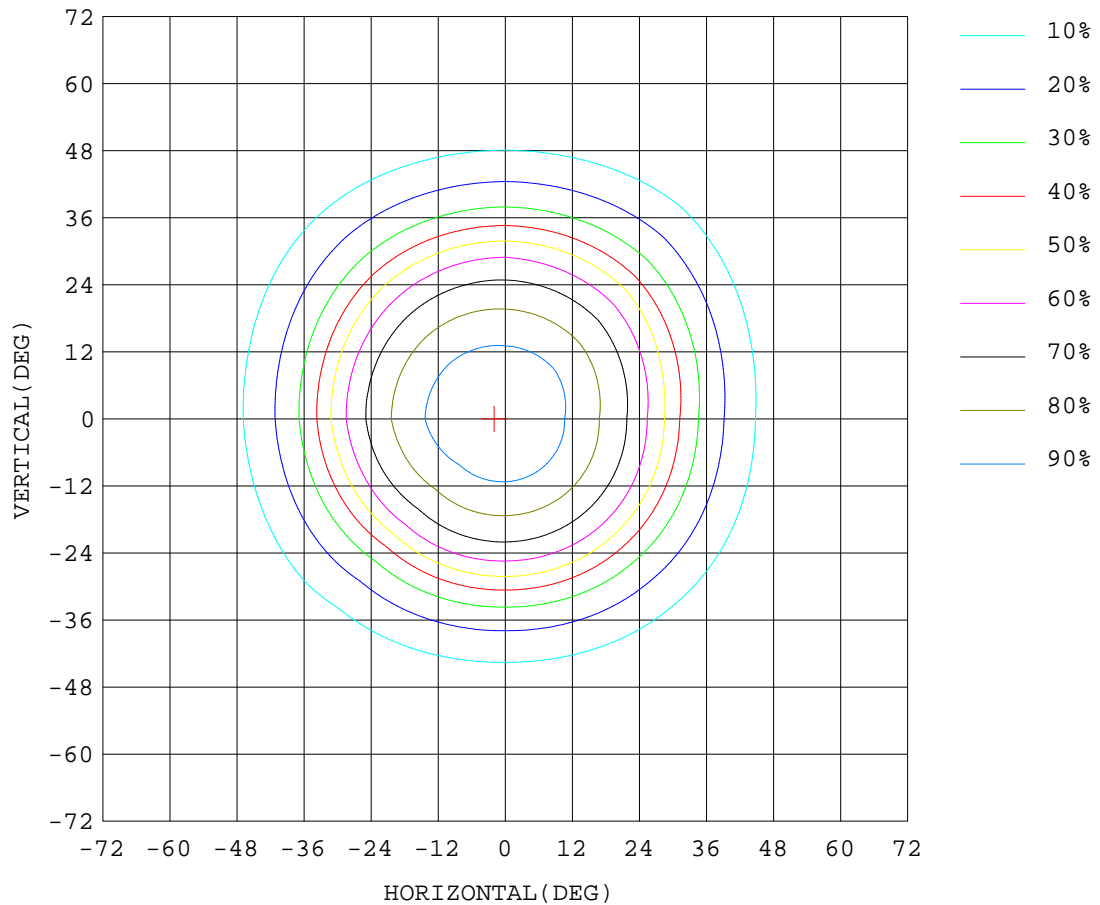
Test Set: 5.0deg/s C-Gamma (TYPE C)  
 Humidity:65.0%  
 Test Distance:10.000 m  
 Remarks:

## ISOCANDELA DIAGRAM

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Kroos	TYPE:IL-SL13-N60040-060	WEIGHT:
SPECIFICATION:5050LED 4000K 60°	DIMENSION:	SERIAL No.:

UNIT: cd



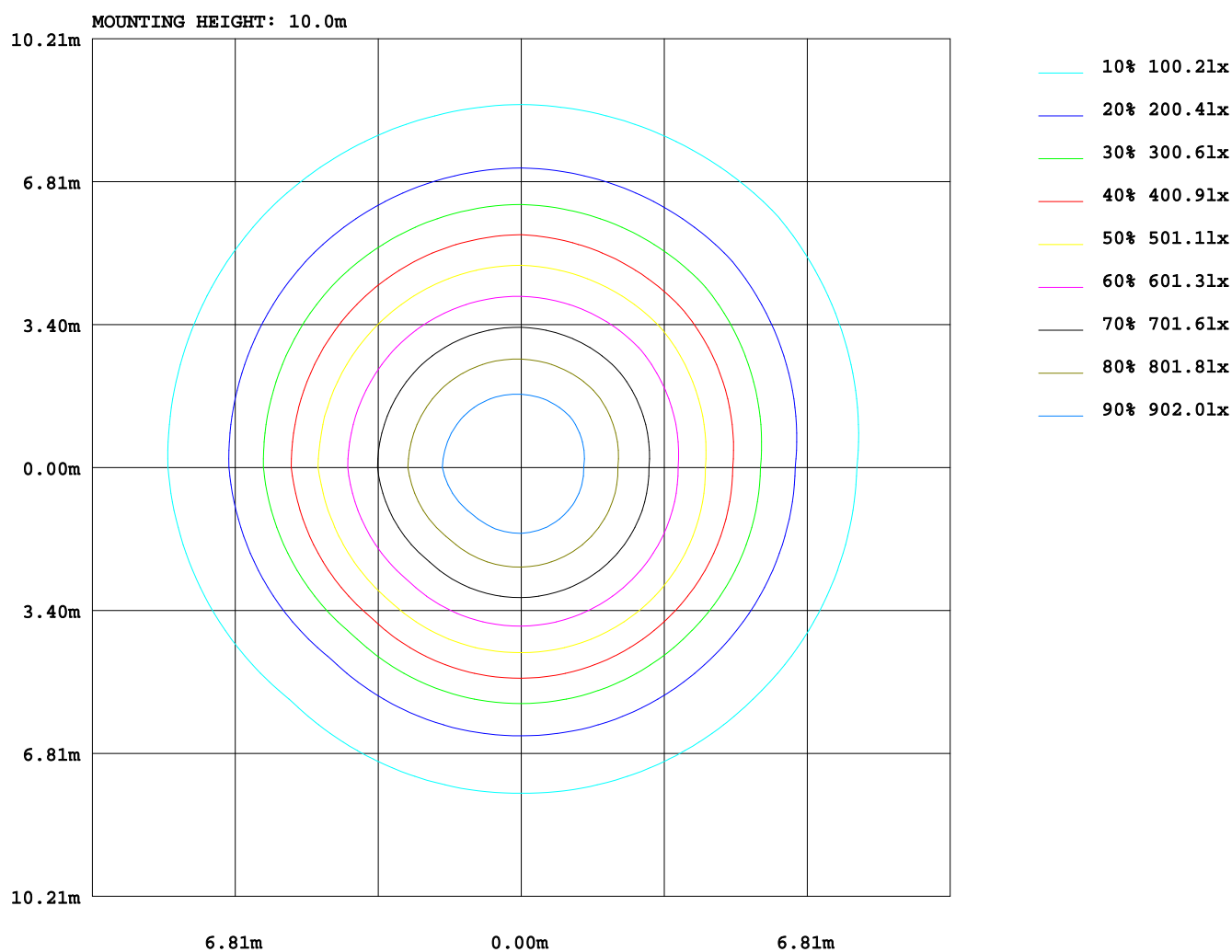
Test System:  
Temperature:25.3DEG  
Operators:  
Test Date:2025.02.20

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: Kroos	TYPE:IL-SL13-N60040-060	WEIGHT:
SPECIFICATION:5050LED 4000K 60°	DIMENSION:	SERIAL No.:



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

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Remarks:

## Uncorrected UGR Table

Report number:

MANUFACTURER: ILUMEN GMBH	Address:			
NAME: Kroos	TYPE:IL-SL13-N60040-060		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	23.0	24.0	23.2	24.2	24.4	22.6	23.6	22.8	23.8	23.9
3H	23.1	24.0	23.4	24.2	24.5	22.7	23.6	22.9	23.8	24.0
4H	23.1	24.0	23.4	24.2	24.5	22.6	23.5	22.9	23.7	24.0
6H	23.1	23.9	23.4	24.2	24.4	22.6	23.4	22.9	23.7	23.9
8H	23.1	23.9	23.4	24.1	24.4	22.6	23.3	22.9	23.6	23.9
12H	23.0	23.8	23.4	24.1	24.3	22.5	23.3	22.8	23.5	23.8
4H 2H	22.8	23.7	23.1	23.9	24.2	22.4	23.3	22.7	23.5	23.8
3H	23.0	23.8	23.4	24.1	24.4	22.6	23.4	22.9	23.6	23.9
4H	23.1	23.8	23.5	24.1	24.4	22.6	23.3	23.0	23.6	23.9
6H	23.1	23.7	23.5	24.0	24.4	22.6	23.2	23.0	23.5	23.9
8H	23.1	23.6	23.5	24.0	24.4	22.6	23.1	22.9	23.5	23.8
12H	23.1	23.6	23.5	23.9	24.3	22.5	23.0	22.9	23.4	23.8
8H 4H	23.0	23.6	23.4	24.0	24.3	22.6	23.1	23.0	23.5	23.8
6H	23.0	23.5	23.5	23.9	24.3	22.5	23.0	23.0	23.4	23.8
8H	23.0	23.4	23.5	23.9	24.3	22.5	22.9	23.0	23.3	23.8
12H	23.0	23.4	23.5	23.8	24.3	22.5	22.8	22.9	23.3	23.7
12H 4H	23.0	23.5	23.4	23.9	24.3	22.5	23.0	22.9	23.4	23.8
6H	23.0	23.4	23.4	23.8	24.3	22.5	22.9	22.9	23.3	23.8
8H	23.0	23.3	23.5	23.8	24.2	22.5	22.8	22.9	23.3	23.7

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 96000 lm Total Lamp Luminous Flux.(8log(F/F0) = 15.9)

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Remarks:

## LUMINOUS DISTRIBUTION INTENSITY DATA

Report number:

<b>MANUFACTURER:</b> ILUMEN GMBH	<b>Address:</b>	
<b>NAME:</b> Kroos	<b>TYPE:</b> IL-SL13-N60040-060	<b>WEIGHT:</b>
<b>SPECIFICATION:</b> 5050LED 4000K 60°	<b>DIMENSION:</b>	<b>SERIAL No.:</b>

UNIT: ×100cd

C (DEG) γ (DEG)	0	45	90	135	180	225	270	315
0.0	1000	1000	1000	1000	1000	1000	1000	1000
5.0	970	973	978	980	995	992	988	984
10.0	911	914	920	927	957	952	943	937
15.0	833	839	844	852	892	887	875	866
20.0	741	744	749	757	810	807	797	786
25.0	613	615	616	628	700	704	699	683
30.0	446	428	427	437	545	552	565	542
35.0	289	269	265	271	357	383	388	370
40.0	184	167	163	168	225	243	250	240
45.0	95.8	87.5	73.6	87.7	134	150	155	149
50.0	19.0	18.9	19.6	19.2	41.8	56.3	60.3	37.8
55.0	17.0	15.7	16.0	15.9	19.0	19.5	17.7	19.2
60.0	13.7	12.4	13.3	12.9	14.7	15.0	14.1	14.6
65.0	13.8	11.1	12.2	11.5	13.2	12.5	11.7	12.1
70.0	9.90	8.38	8.02	8.80	11.7	10.8	10.4	10.4
75.0	4.91	5.32	4.03	5.73	7.92	8.31	6.44	8.05
80.0	2.47	1.75	1.82	2.02	3.58	4.95	3.03	4.73
85.0	1.01	0.47	0.61	0.52	1.62	1.67	1.16	1.57
90.0	0.42	0.25	0.40	0.25	0.41	0.53	0.28	0.49

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**Operators:**  
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