

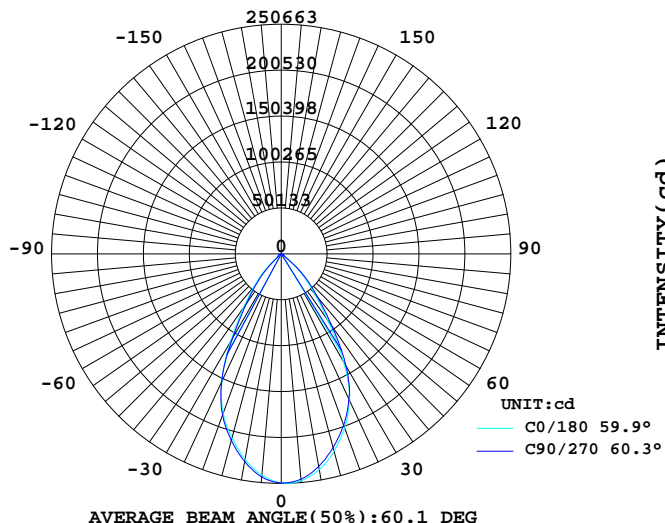
# LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

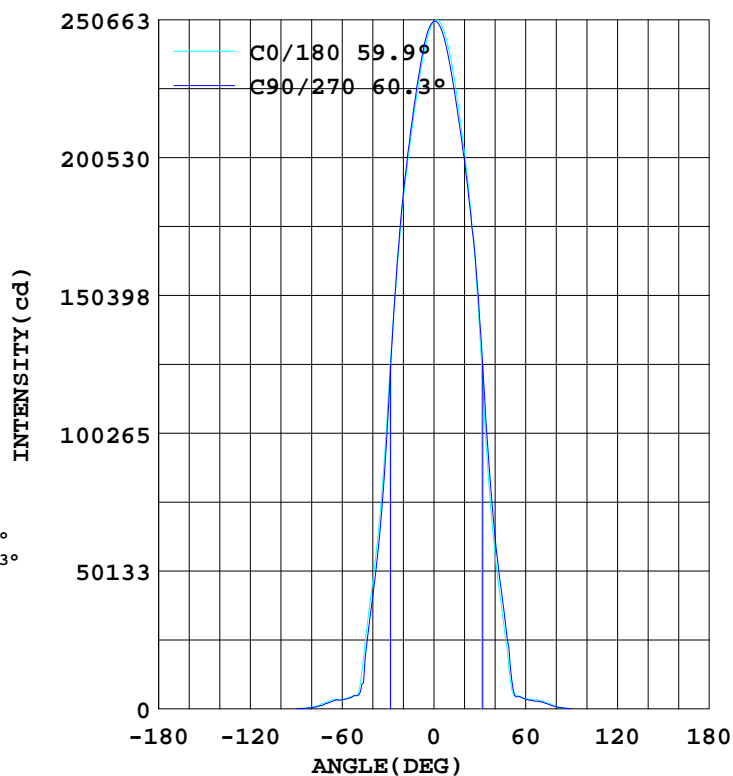
MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Kroos	TYPE:IL-SL13-N150040-060	WEIGHT:
SPECIFICATION:5050LED 4000K 60°	DIMENSION:	SERIAL No.:

DATA OF LAMP		Imax(cd)	250663	S/MH(C0/180)	0.86
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	0.84
NOMINAL POWER(W)	1500	TOTAL FLUX(lm)	240000	Voltage(V)	230.6
RATED VOLTAGE(V)	230	EFFICIENCY(lm/W)	160.0	Current(A)	6.505
NOMINAL FLUX(lm)	240000.0	$\eta$ up(%)	0.0	Power(W)	1500
LAMPS QUANTITY	1	$\eta$ down(%)	100.0	Power Factor(PF)	0.999
TEST VOLTAGE(V)	230.6	Effective Flux(lm)	240000.2	EEI	0.094

## LUMINOUS INTENSITY DISTRIBUTION



## LUMINOUS INTENSITY DISTRIBUTION



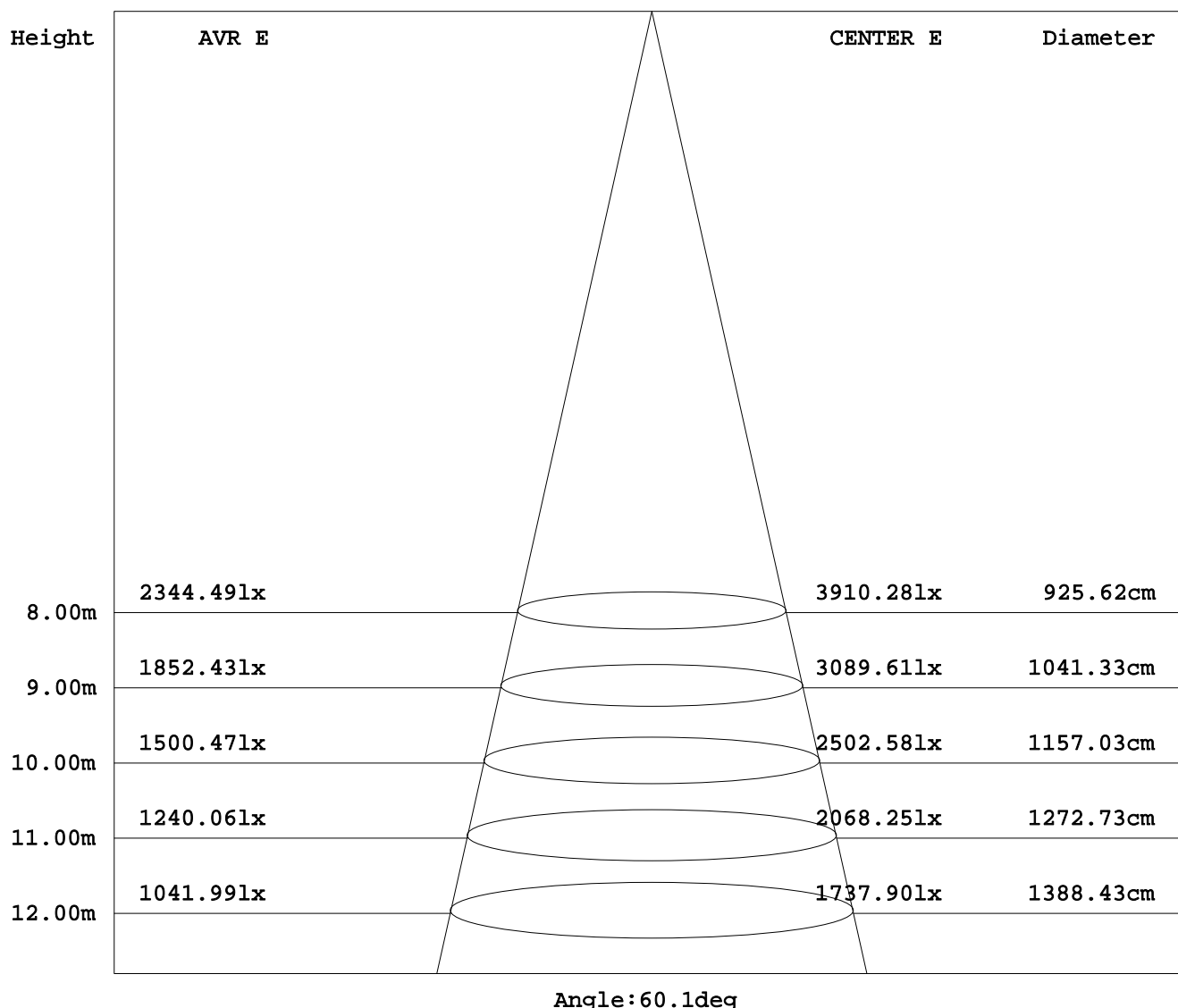
Test System:  
 Temperature:25.3DEG  
 Operators:  
 Test Date:2025.02.20

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-N150040-060	WEIGHT:
SPECIFICATION:5050LED 4000K 60°	DIMENSION:	SERIAL No.:



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## ZONAL FLUX DIAGRAM

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Kroos	TYPE:IL-SL13-N150040-060	WEIGHT:
SPECIFICATION:5050LED 4000K 60°	DIMENSION:	SERIAL No.:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	zone	total
5.0	2424	2431	2444	2449	2487	2481	2470	2461	0- 5	5926	5926
10.0	2277	2285	2300	2318	2392	2379	2356	2342	5- 10	17120	23045
15.0	2083	2097	2109	2129	2229	2217	2187	2166	10- 15	26571	49616
20.0	1852	1859	1872	1892	2024	2018	1993	1965	15- 20	33658	83274
25.0	1533	1537	1540	1571	1751	1761	1747	1707	20- 25	37614	120888
30.0	1115	1070	1068	1091	1362	1381	1413	1355	25- 30	36537	157425
35.0	721.9	673.3	661.7	678.1	892.0	957.7	969.8	925.2	30- 35	29736	187161
40.0	460.5	416.5	407.3	419.3	561.8	608.6	623.7	600.5	35- 40	21677	208838
45.0	239.6	218.8	184.0	219.4	335.0	374.5	387.9	372.3	40- 45	14715	223553
50.0	47.53	47.26	49.05	48.19	104.6	140.7	150.8	94.58	45- 50	7171	230724
55.0	42.51	39.27	40.04	39.85	47.74	48.96	44.26	48.19	50- 55	2427	233151
60.0	34.49	31.21	33.31	32.45	36.89	37.74	35.37	36.66	55- 60	1811	234962
65.0	34.52	27.83	30.63	28.84	33.00	31.42	29.31	30.38	60- 65	1581	236543
70.0	24.77	20.95	20.05	22.00	29.44	27.05	26.18	26.10	65- 70	1414	237957
75.0	12.28	13.32	10.09	14.32	19.80	20.78	16.10	20.14	70- 75	1066	239023
80.0	6.192	4.377	4.558	5.052	8.966	12.38	7.575	11.84	75- 80	620.5	239643
85.0	2.532	1.176	1.532	1.301	4.064	4.175	2.912	3.928	80- 85	266.2	239909
90.0	1.056	0.613	1.008	0.622	1.032	1.330	0.710	1.212	85- 90	90.65	240000
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	

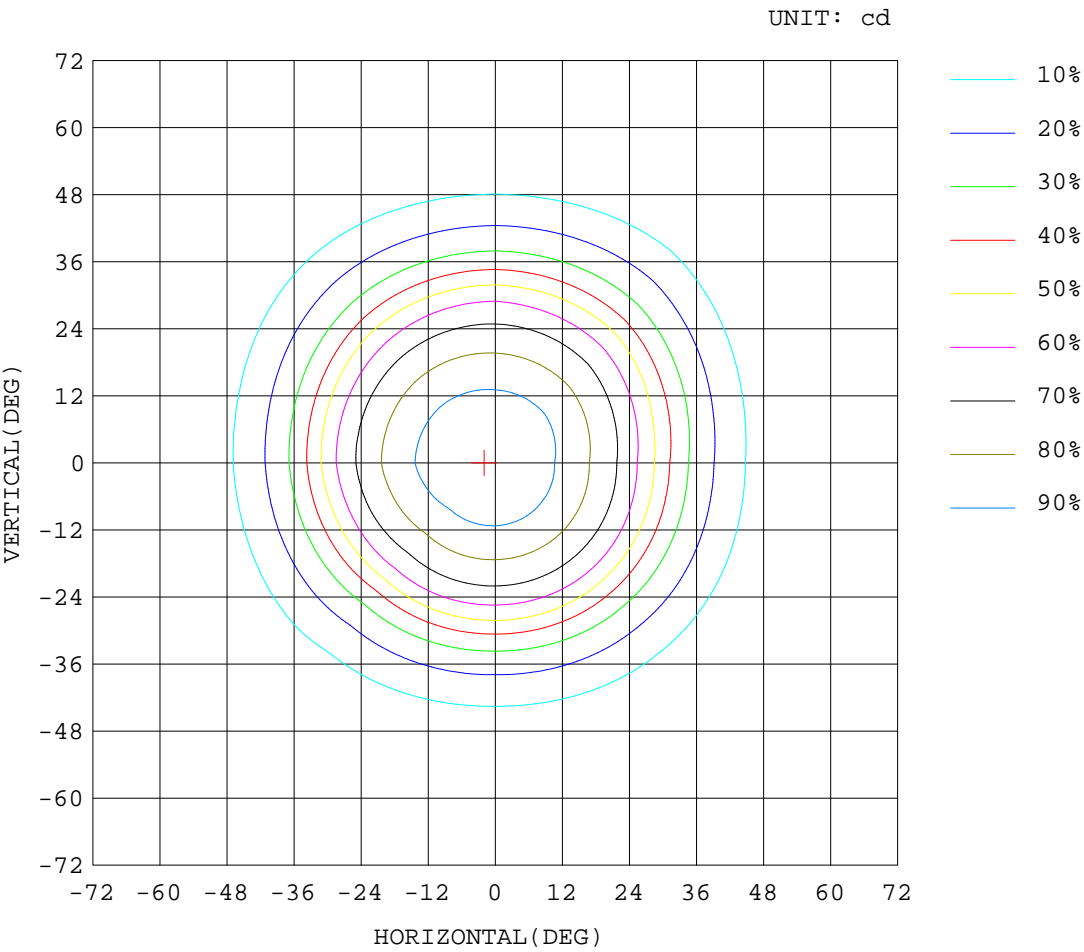
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ISOCANDELA DIAGRAM

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Kroos	TYPE:IL-SL13-N150040-060	WEIGHT:
SPECIFICATION:5050LED 4000K 60°	DIMENSION:	SERIAL No.:



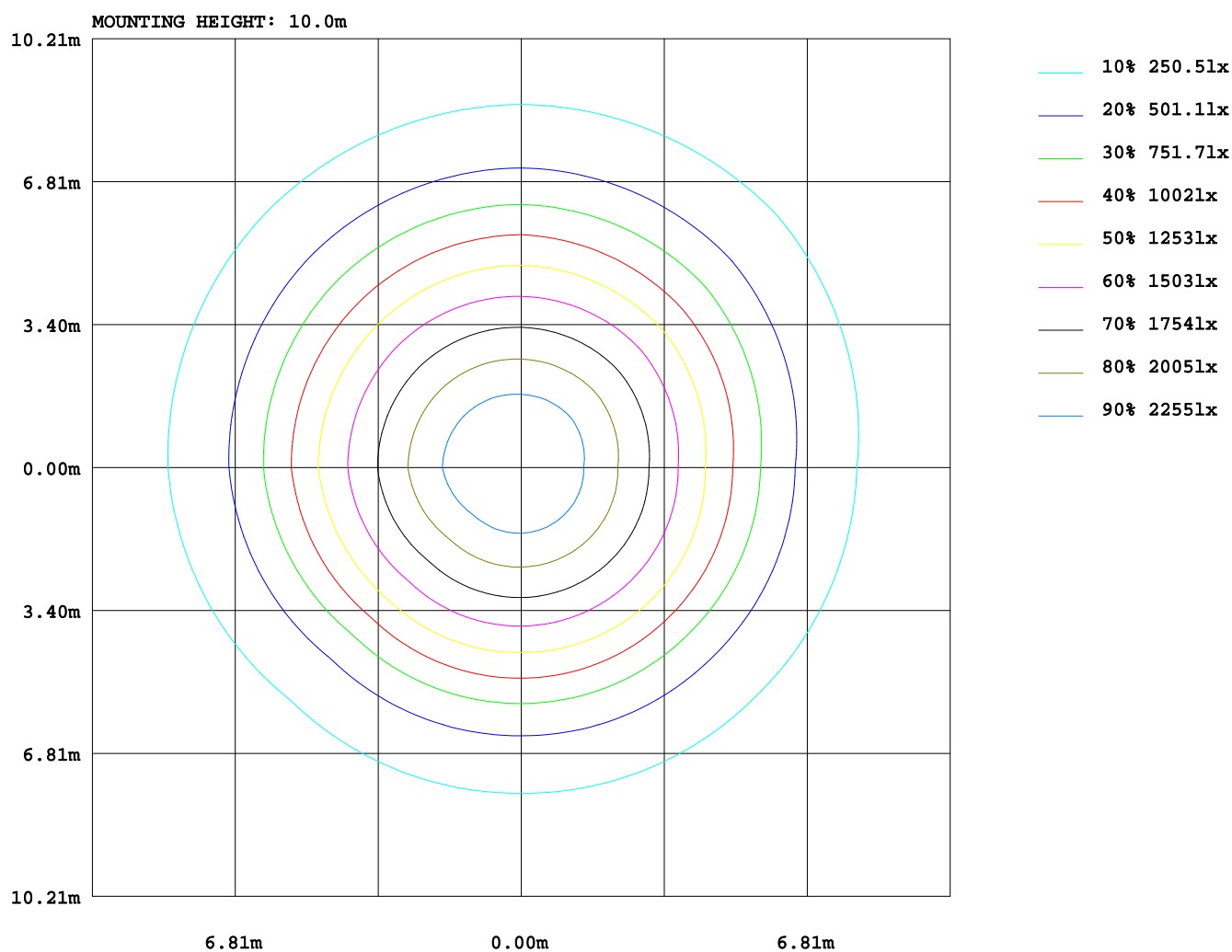
Test System:  
Temperature:25.3DEG  
Operators:  
Test Date:2025.02.20

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

## ISOLUX DIAGRAM

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Kroos	TYPE:IL-SL13-N150040-060	WEIGHT:
SPECIFICATION:5050LED 4000K 60°	DIMENSION:	SERIAL No.:



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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-N150040-060		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	22.6	23.6	22.9	23.8	24.0	22.2	23.2	22.5	23.4	23.6
3H	22.7	23.7	23.0	23.9	24.1	22.3	23.2	22.6	23.4	23.6
4H	22.8	23.6	23.0	23.9	24.1	22.3	23.2	22.6	23.4	23.6
6H	22.7	23.6	23.0	23.8	24.1	22.2	23.0	22.5	23.3	23.5
8H	22.7	23.5	23.0	23.8	24.0	22.2	23.0	22.5	23.2	23.5
12H	22.7	23.4	23.0	23.7	24.0	22.1	22.9	22.5	23.2	23.5
4H 2H	22.5	23.4	22.8	23.6	23.8	22.1	23.0	22.4	23.2	23.4
3H	22.7	23.4	23.0	23.7	24.0	22.2	23.0	22.6	23.3	23.5
4H	22.7	23.4	23.1	23.7	24.0	22.3	22.9	22.6	23.2	23.6
6H	22.7	23.3	23.1	23.7	24.0	22.2	22.8	22.6	23.2	23.5
8H	22.7	23.3	23.1	23.6	24.0	22.2	22.7	22.6	23.1	23.5
12H	22.7	23.2	23.1	23.6	24.0	22.1	22.7	22.6	23.0	23.4
8H 4H	22.7	23.2	23.1	23.6	24.0	22.2	22.8	22.6	23.1	23.5
6H	22.7	23.1	23.1	23.5	23.9	22.2	22.6	22.6	23.0	23.4
8H	22.7	23.1	23.1	23.5	23.9	22.1	22.5	22.6	23.0	23.4
12H	22.6	23.0	23.1	23.4	23.9	22.1	22.5	22.6	22.9	23.4
12H 4H	22.6	23.1	23.0	23.5	23.9	22.1	22.7	22.6	23.0	23.4
6H	22.6	23.0	23.1	23.5	23.9	22.1	22.5	22.6	23.0	23.4
8H	22.6	23.0	23.1	23.4	23.9	22.1	22.4	22.6	22.9	23.4

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 240000 lm Total Lamp Luminous Flux.(8log(F/F0) = 19.0)

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Operators:  
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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-N150040-060	<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	2501	2501	2501	2501	2501	2501	2501	2501
5.0	2424	2431	2444	2449	2487	2481	2470	2461
10.0	2277	2285	2300	2318	2392	2379	2356	2342
15.0	2083	2097	2109	2129	2229	2217	2187	2166
20.0	1852	1859	1872	1892	2024	2018	1993	1965
25.0	1533	1537	1540	1571	1751	1761	1747	1707
30.0	1115	1070	1068	1091	1362	1381	1413	1355
35.0	722	673	662	678	892	958	970	925
40.0	461	417	407	419	562	609	624	601
45.0	240	219	184	219	335	375	388	372
50.0	47.5	47.2	49.0	48.1	105	141	151	94.5
55.0	42.5	39.2	40.0	39.8	47.7	48.9	44.2	48.1
60.0	34.4	31.2	33.3	32.4	36.8	37.7	35.3	36.6
65.0	34.5	27.8	30.6	28.8	33.0	31.4	29.3	30.3
70.0	24.7	20.9	20.0	22.0	29.4	27.0	26.1	26.1
75.0	12.2	13.3	10.0	14.3	19.8	20.7	16.1	20.1
80.0	6.19	4.37	4.55	5.05	8.96	12.3	7.57	11.8
85.0	2.53	1.17	1.53	1.30	4.06	4.17	2.91	3.92
90.0	1.05	0.61	1.00	0.62	1.03	1.33	0.71	1.21

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**Operators:**  
**Test Date:**2025.02.20

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**Remarks:**