

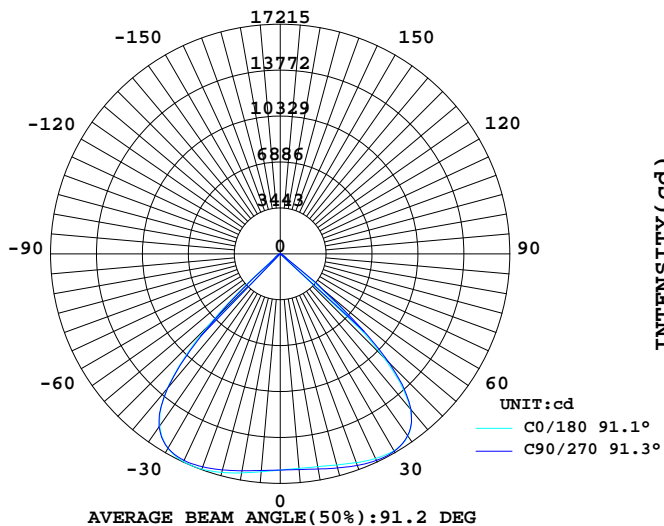
LUMINAIRE PHOTOMETRIC TEST REPORT

Report number:

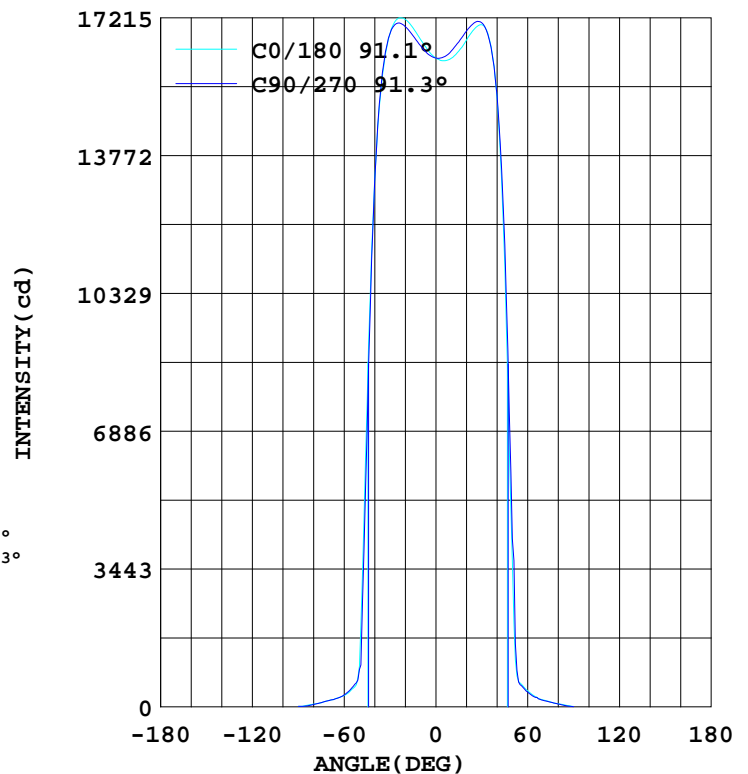
MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Kroos	TYPE:IL-SL13-N20040-090	WEIGHT:
SPECIFICATION:5050LED 4000K 90°	DIMENSION:	SERIAL No.:

DATA OF LAMP		Imax(cd)	17244	S/MH(C0/180)	1.32
MODEL		EFFICIENCY(%)	100.0	S/MH(C90/270)	1.31
NOMINAL POWER(W)	200	TOTAL FLUX(lm)	32000	Voltage(V)	231.0
RATED VOLTAGE(V)	230	EFFICIENCY(lm/W)	160.0	Current(A)	0.866
NOMINAL FLUX(lm)	32000.0	η up(%)	0.0	Power(W)	200.0
LAMPS QUANTITY	1	η down(%)	100.0	Power Factor(PF)	0.999
TEST VOLTAGE(V)	231.0	Effective Flux(lm)	32000.0	EEI	0.094

LUMINOUS INTENSITY DISTRIBUTION



LUMINOUS INTENSITY DISTRIBUTION



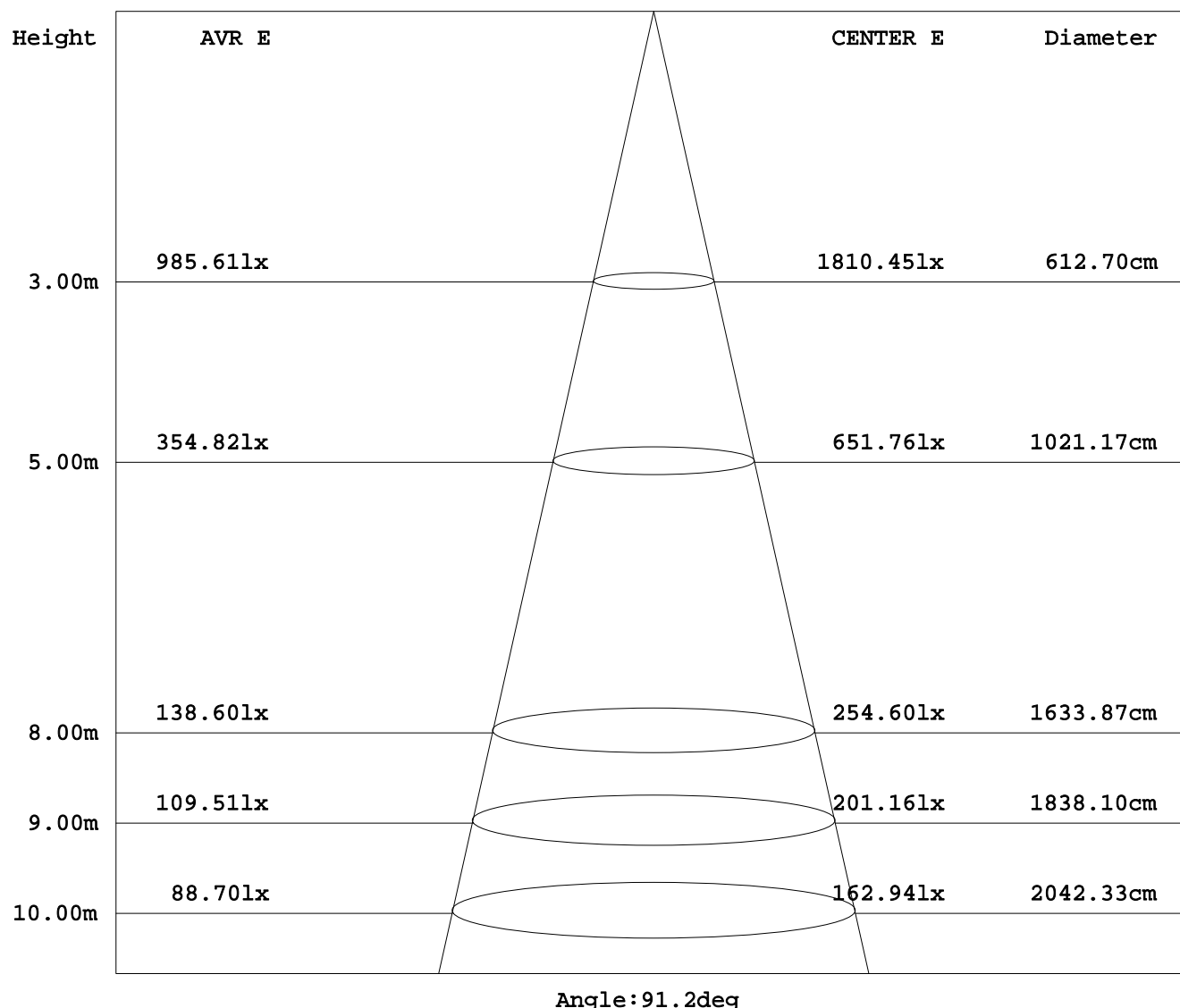
Test System:
Temperature:25.3DEG
Operators:
Test Date:2025.02.20

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:	
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SPECIFICATION:5050LED 4000K 90°	DIMENSION:	SERIAL No.:



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ZONAL FLUX DIAGRAM

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Kroos	TYPE:IL-SL13-N20040-090	WEIGHT:
SPECIFICATION:5050LED 4000K 90°	DIMENSION:	SERIAL No.:

γ	C0	C45	C90	C135	C180	C225	C270	C315	γ	zone	total
5.0	1640	1637	1630	1623	1614	1615	1623	1631	0- 5	388.2	388.2
10.0	1667	1663	1651	1637	1620	1623	1638	1654	5- 10	1170	1558
15.0	1696	1691	1677	1662	1639	1644	1661	1682	10- 15	1966	3524
20.0	1717	1711	1699	1687	1666	1671	1689	1708	15- 20	2772	6297
25.0	1719	1713	1708	1704	1693	1695	1709	1724	20- 25	3571	9868
30.0	1682	1675	1682	1690	1704	1705	1709	1715	25- 30	4315	14182
35.0	1576	1565	1584	1607	1667	1669	1665	1653	30- 35	4904	19086
40.0	1316	1283	1313	1351	1521	1537	1525	1494	35- 40	5117	24203
45.0	759.8	684.7	691.5	733.3	1103	1160	1155	1102	40- 45	4425	28628
50.0	102.0	95.69	93.68	106.6	365.8	408.5	419.9	388.0	45- 50	2306	30934
55.0	43.85	42.99	47.20	52.61	59.70	64.85	55.95	58.49	50- 55	469.1	31403
60.0	28.51	27.41	29.79	33.09	40.20	44.01	36.88	37.73	55- 60	200.4	31603
65.0	21.40	19.49	21.07	20.98	25.30	27.82	23.84	26.02	60- 65	138.8	31742
70.0	16.02	13.66	15.92	14.49	17.45	17.80	16.53	18.12	65- 70	99.10	31841
75.0	10.33	9.389	10.70	10.06	12.22	12.90	11.88	12.97	70- 75	72.15	31914
80.0	6.924	5.416	5.999	5.683	7.733	8.735	7.194	8.913	75- 80	48.90	31962
85.0	3.351	1.770	2.031	1.890	4.297	4.078	3.036	4.281	80- 85	27.39	31990
90.0	1.292	0.780	1.280	0.786	1.155	1.369	0.783	1.370	85- 90	10.10	32000
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	

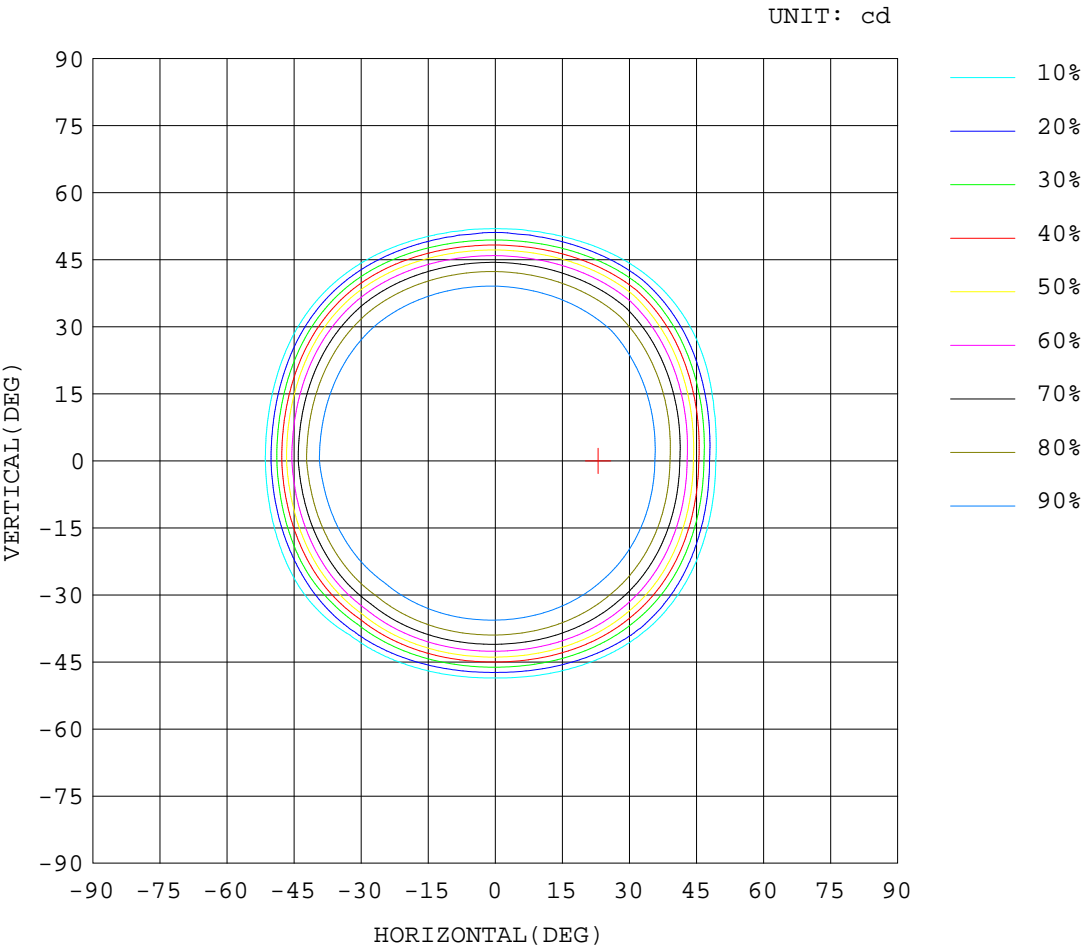
Test System:
Temperature:25.3DEG
Operators:
Test Date:2025.02.20

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Remarks:

ISOCANDELA DIAGRAM

Report number:

MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Kroos	TYPE:IL-SL13-N20040-090	WEIGHT:
SPECIFICATION:5050LED 4000K 90°	DIMENSION:	SERIAL No.:



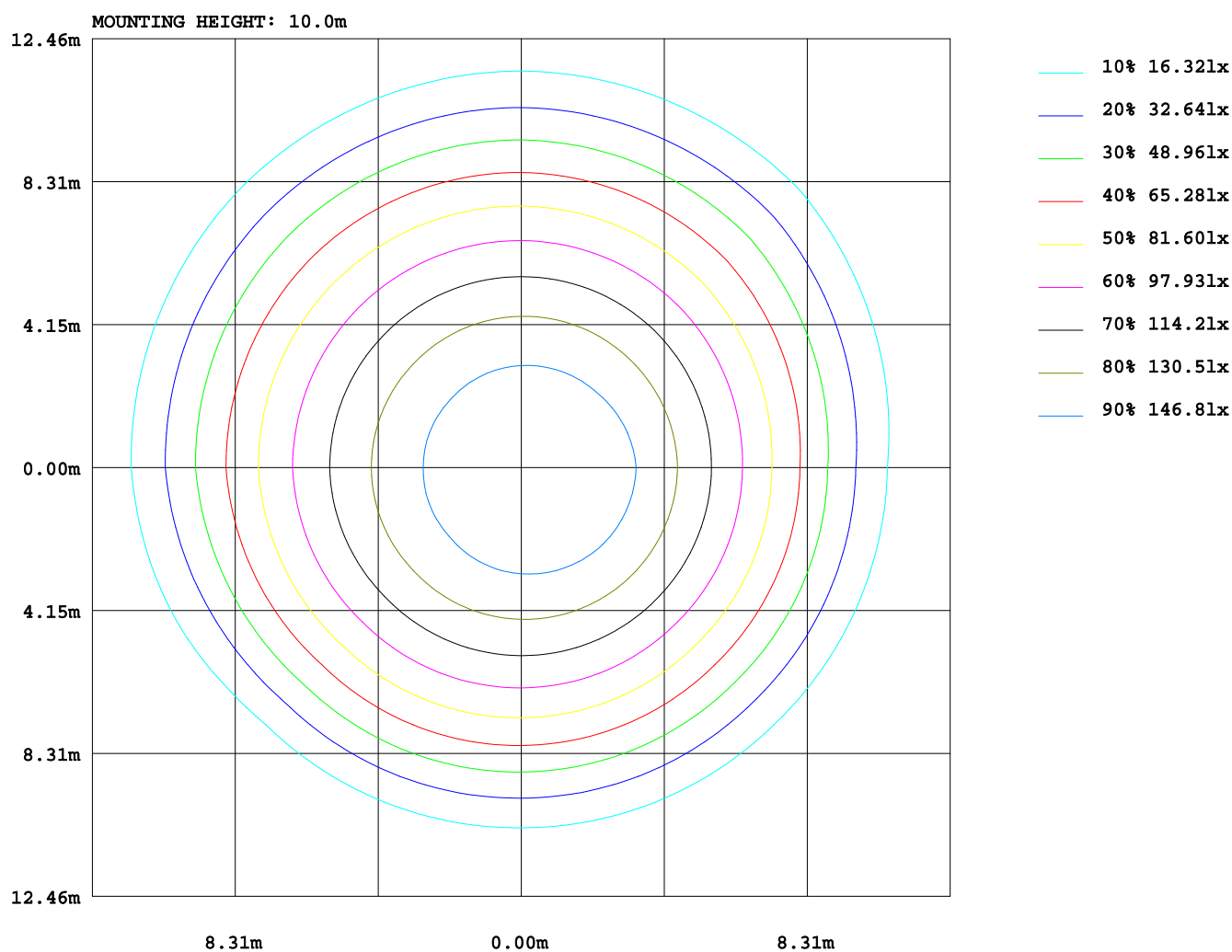
Test System:
Temperature:25.3DEG
Operators:
Test Date:2025.02.20

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

ISOLUX DIAGRAM

Report number:

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NAME: Kroos	TYPE: IL-SL13-N20040-090	WEIGHT:
SPECIFICATION: 5050LED 4000K 90°	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-N20040-090		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	27.9	29.1	28.2	29.3	29.5	27.8	29.0	28.1	29.2	29.4
3H	27.8	28.8	28.0	29.0	29.3	27.6	28.7	27.9	28.9	29.1
4H	27.7	28.7	28.0	28.9	29.2	27.6	28.6	27.8	28.8	29.0
6H	27.6	28.5	27.9	28.8	29.0	27.5	28.4	27.8	28.7	28.9
8H	27.6	28.5	27.9	28.7	29.0	27.4	28.3	27.7	28.6	28.9
12H	27.5	28.4	27.8	28.6	28.9	27.4	28.2	27.7	28.5	28.8
4H 2H	27.7	28.7	28.0	28.9	29.1	27.5	28.5	27.8	28.8	29.0
3H	27.5	28.4	27.8	28.6	28.9	27.4	28.2	27.7	28.5	28.8
4H	27.4	28.2	27.8	28.5	28.8	27.3	28.1	27.7	28.4	28.7
6H	27.3	28.0	27.7	28.4	28.7	27.2	27.9	27.6	28.2	28.6
8H	27.3	27.9	27.7	28.3	28.7	27.2	27.8	27.6	28.2	28.5
12H	27.3	27.8	27.7	28.2	28.6	27.1	27.7	27.6	28.1	28.5
8H 4H	27.3	27.9	27.7	28.3	28.6	27.2	27.8	27.6	28.1	28.5
6H	27.2	27.7	27.7	28.1	28.5	27.1	27.6	27.5	28.0	28.4
8H	27.2	27.6	27.6	28.0	28.5	27.1	27.5	27.5	27.9	28.4
12H	27.1	27.5	27.6	28.0	28.4	27.0	27.4	27.5	27.8	28.3
12H 4H	27.2	27.8	27.7	28.2	28.6	27.1	27.7	27.5	28.1	28.5
6H	27.2	27.6	27.6	28.0	28.5	27.0	27.5	27.5	27.9	28.4
8H	27.1	27.5	27.6	28.0	28.4	27.0	27.4	27.5	27.8	28.3

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 32000 lm Total Lamp Luminous Flux.(8log(F/F0) = 12.0)

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LUMINOUS DISTRIBUTION INTENSITY DATA

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MANUFACTURER: ILUMEN GMBH	Address:	
NAME: Kroos	TYPE: IL-SL13-N20040-090	WEIGHT:
SPECIFICATION: 5050LED 4000K 90°	DIMENSION:	SERIAL No.:

UNIT: ×10cd

C (DEG) γ (DEG)	0	45	90	135	180	225	270	315
0.0	1621	1621	1621	1621	1621	1621	1621	1621
5.0	1640	1637	1630	1623	1614	1615	1623	1631
10.0	1667	1663	1651	1637	1620	1623	1638	1654
15.0	1696	1691	1677	1662	1639	1644	1661	1682
20.0	1717	1711	1699	1687	1666	1671	1689	1708
25.0	1719	1713	1708	1704	1693	1695	1709	1724
30.0	1682	1675	1682	1690	1704	1705	1709	1715
35.0	1576	1565	1584	1607	1667	1669	1665	1653
40.0	1316	1283	1313	1351	1521	1537	1525	1494
45.0	760	685	692	733	1103	1160	1155	1102
50.0	102	95.6	93.6	107	366	409	420	388
55.0	43.8	42.9	47.2	52.6	59.7	64.8	55.9	58.4
60.0	28.5	27.4	29.7	33.0	40.2	44.0	36.8	37.7
65.0	21.4	19.4	21.0	20.9	25.3	27.8	23.8	26.0
70.0	16.0	13.6	15.9	14.4	17.4	17.8	16.5	18.1
75.0	10.3	9.38	10.7	10.0	12.2	12.9	11.8	12.9
80.0	6.92	5.41	5.99	5.68	7.73	8.73	7.19	8.91
85.0	3.35	1.77	2.03	1.89	4.29	4.07	3.03	4.28
90.0	1.29	0.78	1.28	0.79	1.15	1.36	0.78	1.37

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