



Spectra Lux

2750 Sabourin, Saint-Laurent (Quebec) H4S 1M2 Canada
Tel.: (514) 332-0082 Fax: (514) 332-3590 www.spectralux.ca



Lab Code: 200899-0

Moving Mirror Goniophotometer Test Report

Standard(s): IES LM-79:2019, ANSI C82.2:2002, ANSI C82.77-10:2021

Customer Luminaire Authentik, 1122 rue du sud, Cowansville, Quebec, Canada, J2K 2Y3

General Information		Lamp Details: CY5135		Driver Details: CY2397	
DUT Lab ID	SRIS 3129-1	Seasoning	0 Hour	Type	LED Power Supply
Lamp Type	LED/SSL	Test Product	Dome 24	Manufacturer	Tala
Current Mode	AC	Manufacturer	Tala	Catalog No.	Integrated
Test Report	S2205091-R1	Lamp Catalog No.	(1) 8 Watts E26 Coated LED Bulb Tala Sphere IV	Maximum Power	8 W
Test Date	9 May 2022	Drive Current	N.K.	Input Voltage	120.00 V
Report Date	20 May 2022	Nominal Color	2800 K	Operating Frequency	60 Hz
Ambient	24.6 °C	Burning Position	Junction Vertical Base Up	Input Power	8.21 W

Luminaire Data

General Information		Optics		Aperture (feet)	
Manufacturer	Luminaire Authentik	Optics	White Painted Dome 24 Shade	X	-2.0000
Name	Dome 24	Housing	White Painted Aluminum Dome Shade (24"Dx12"H)	Y	-2.0000
Catalog No.	Dome 24	Lens	None	Z	0.0000

Stabilization Time: 1 hour

Approved Signatory: Chrisnel Blot

Signature:



Luminaire Test Method

Precise installation and alignment of the luminaire to the rotation axis of the photometer is governed by a servomotor controlled via a microcontroller. A laser is used to validate the luminaire positioning. Before photometric measurements are taken, luminaire is operated long enough to reach stabilization and temperature equilibrium.

All movement commands issued to the photometer axes are mediated by the software to ensure the motion is within the limits of operation. The photometric detector used is a silicon detector corrected to closely match the spectral luminous efficiency photopic curve with a quality index less than 1.5%. Proper shielding is incorporated to the photometric test bench such that only the light from the unit under test is measured.

Luminous intensity measurements are performed at a distance great enough so that the inverse-square law applies. During each measurement the computer records the luminous intensity associated to the corresponding angles of radiation, as well as input electrical operational parameters and temperature measurements. Candela values are reported in IES format as per LM-63.

Equipment, reference standards are traceable to National Institute of Standards and Technology (NIST) and National Research Council of Canada (NRC).





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Electrical Equipment

Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date
Power Supply	iRDC	CIF-3000A	974998	N.P.C.R.	N.P.C.R.
Input Power Meter	Yokogawa	WT210	27E116584	2021/09/20	2022/09/22
Output Power Meter	N/A	N/A	N/A	N.P.C.R.	N.P.C.R.

Photometric Equipment

Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date
Photometer	N/A	N/A	N/A	N.P.C.R.	N.P.C.R.
Photodetector	INPHORA	IPR-PDET 19	110802	2021/09/05	2022/09/05

Environment Equipment

Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date
Temperature Humidity Sensor	Omega	HH311	120504176	2021/07/13	2022/07/13

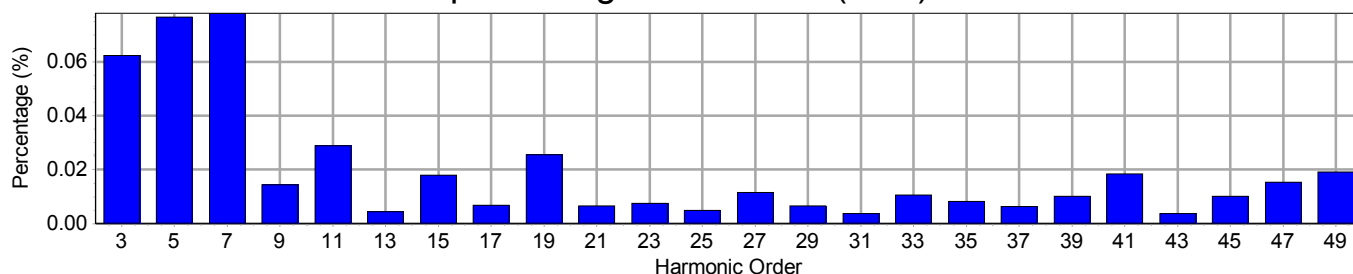


Electrical Measurements

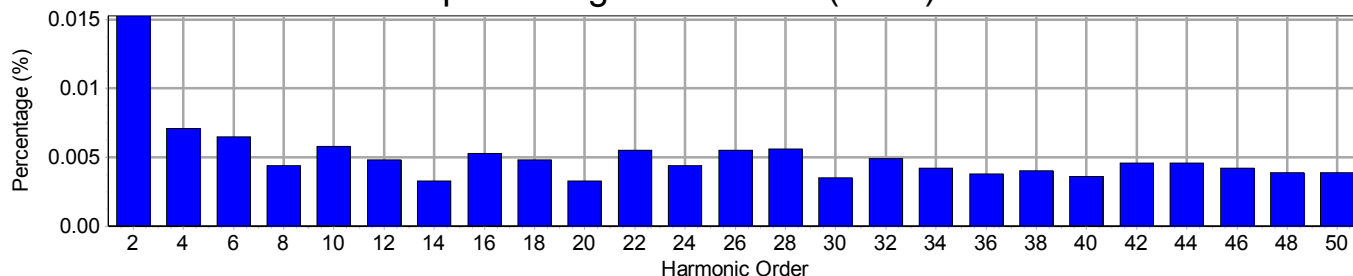
Input

Frequency	60 Hz	Active Power	8.21 W	THDV [ANSI]	0.14 %
Voltage	120.0 V(rms)	Apparent Power	9.52 VA	THDA [ANSI]	58.06 %
Current	0.0793 A(rms)	Power Factor	0.863	Max. Harmonic At	3rd order

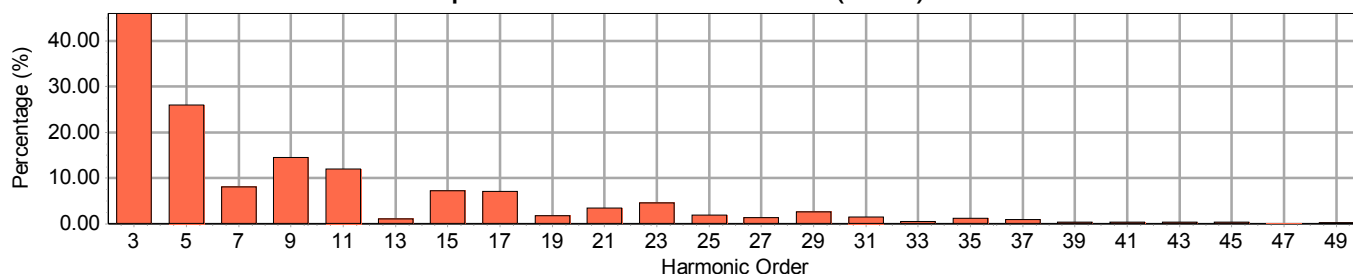
Input Voltage Harmonics (Odd)



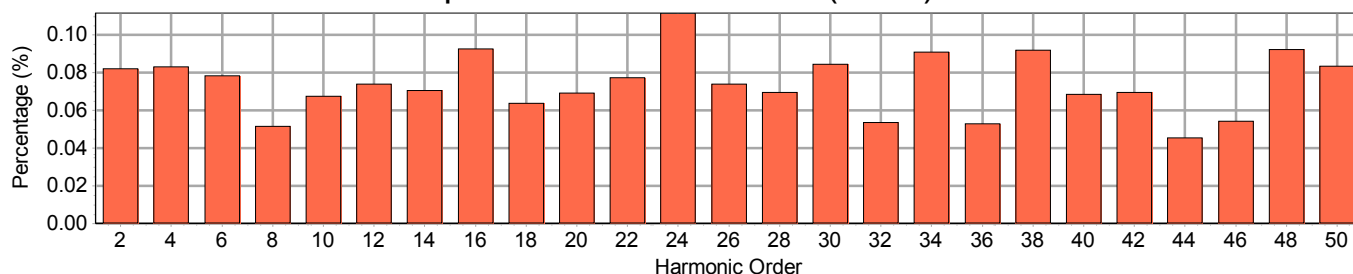
Input Voltage Harmonics (Even)



Input Current Harmonics (Odd)



Input Current Harmonics (Even)





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Harmonic Measurements

Odd Harmonics				Even Harmonics			
Harmonic Order	Frequency (HZ)	Voltage Harmonics (%)	Current Harmonics (%)	Harmonic Order	Frequency (HZ)	Voltage Harmonics (%)	Current Harmonics (%)
1	60	100.000	100.000	2	120	0.015	0.082
3	180	0.062	46.067	4	240	0.007	0.083
5	300	0.077	26.012	6	360	0.007	0.078
7	420	0.078	8.087	8	480	0.004	0.052
9	540	0.015	14.444	10	600	0.006	0.067
11	660	0.029	11.909	12	720	0.005	0.074
13	780	0.004	1.108	14	840	0.003	0.070
15	900	0.018	7.203	16	960	0.005	0.093
17	1020	0.007	7.133	18	1080	0.005	0.064
19	1140	0.026	1.766	20	1200	0.003	0.069
21	1260	0.007	3.426	22	1320	0.006	0.077
23	1380	0.008	4.499	24	1440	0.004	0.112
25	1500	0.005	1.826	26	1560	0.006	0.074
27	1620	0.012	1.345	28	1680	0.006	0.069
29	1740	0.007	2.653	30	1800	0.004	0.084
31	1860	0.004	1.424	32	1920	0.005	0.053
33	1980	0.011	0.443	34	2040	0.004	0.091
35	2100	0.008	1.223	36	2160	0.004	0.053
37	2220	0.006	0.954	38	2280	0.004	0.092
39	2340	0.010	0.337	40	2400	0.004	0.068
41	2460	0.018	0.358	42	2520	0.005	0.069
43	2580	0.004	0.400	44	2640	0.005	0.045
45	2700	0.010	0.284	46	2760	0.004	0.054
47	2820	0.015	0.105	48	2880	0.004	0.092
49	2940	0.019	0.159	50	3000	0.004	0.083



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Lab Code: 200899-0

Photometric Report: S2205091-R1

Prepared for: Luminaire Authentik · Test Date: 09 May 2022

Luminaire: Dome 24 · Lumcat: Dome 24

Coefficients of Utilization - Zonal Cavity Method

RCR	RC	0.9				0.8				0.7				0.5			0.1			0
	RW	0.7	0.5	0.3	0.1	0.7	0.5	0.3	0.1	0.7	0.5	0.3	0.1	0.5	0.3	0.1	0.5	0.3	0.1	0
0		122	122	122	122	119	119	119	119	116	116	116	116	111	111	111	102	102	102	100
1		111	106	101	96	108	103	99	95	106	101	97	93	97	93	90	89	87	85	83
2		101	91	83	77	98	89	82	76	95	87	81	75	84	78	73	77	73	70	68
3		91	79	70	63	89	77	69	62	86	76	68	61	73	66	60	67	62	58	56
4		83	69	60	52	81	68	59	52	78	67	58	51	64	57	51	60	54	49	47
5		76	62	52	44	74	60	51	44	72	59	50	44	57	49	43	53	47	42	40
6		70	55	45	38	68	54	45	38	66	53	44	38	51	43	38	48	42	37	35
7		65	50	40	33	63	49	40	33	61	48	39	33	46	39	33	44	37	32	30
8		60	45	36	30	58	44	36	29	57	44	35	29	42	35	29	40	34	29	27
9		56	41	32	26	54	41	32	26	53	40	32	26	39	31	26	37	30	26	24
10		52	38	29	24	51	37	29	24	50	37	29	24	36	29	24	34	28	23	22

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0 - 10	18	2.81	2.81
10 - 20	52	8.17	8.17
20 - 30	80	12.73	12.73
30 - 40	101	16.01	16.01
40 - 50	112	17.68	17.68
50 - 60	112	17.74	17.74
60 - 70	97	15.34	15.34
70 - 80	51	8.07	8.07
80 - 90	9	1.46	1.46
90 - 120	0	0.00	0.00
90 - 130	0	0.00	0.00
90 - 150	0	0.00	0.00
90 - 180	0	0.00	0.00
0 - 180	631	100.00	100.00

Average Luminance (Cd/m²)

Angle	0 Degree	45 Degree	90 Degree
45.0	702	702	702
55.0	750	750	750
65.0	809	809	809
75.0	637	637	637
85.0	271	271	271

Luminaire Luminous Flux: 631

Measured Input Power: 8.21 W

Total Luminaire Efficiency: N/A

Luminaire Luminous Efficacy: 76.9 lm/W

Luminaire Spacing Criterion (0 Degree): 1.3426

Luminaire Spacing Criterion (90 Degree): 1.3426

Category: Downlight

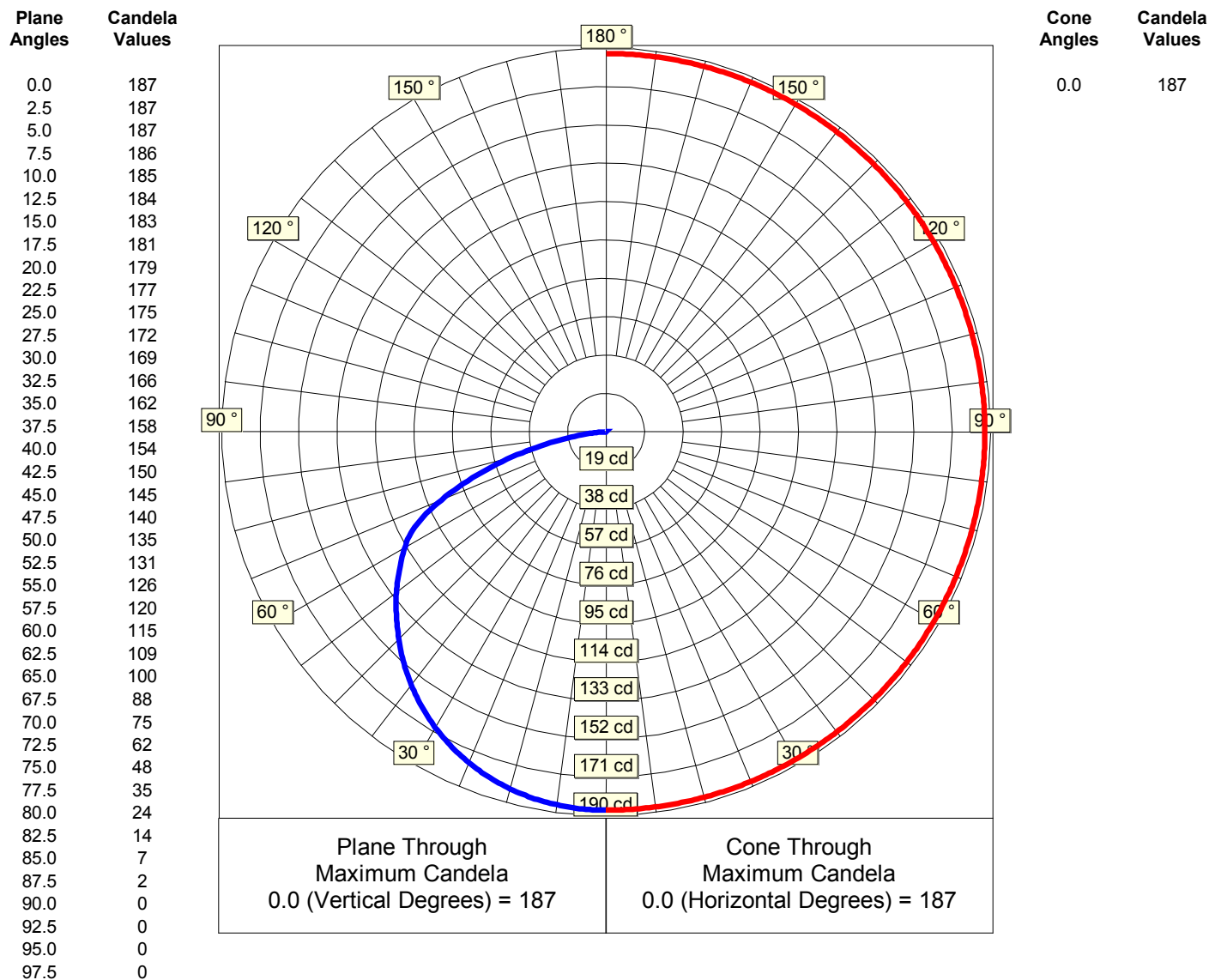


Photometric Report: S2205091-R1

Prepared for: Luminaire Authentik · Test Date: 09 May 2022

Luminaire: Dome 24 · Lumcat: Dome 24

Luminous Intensity - Polar Curve for each Plane(1)



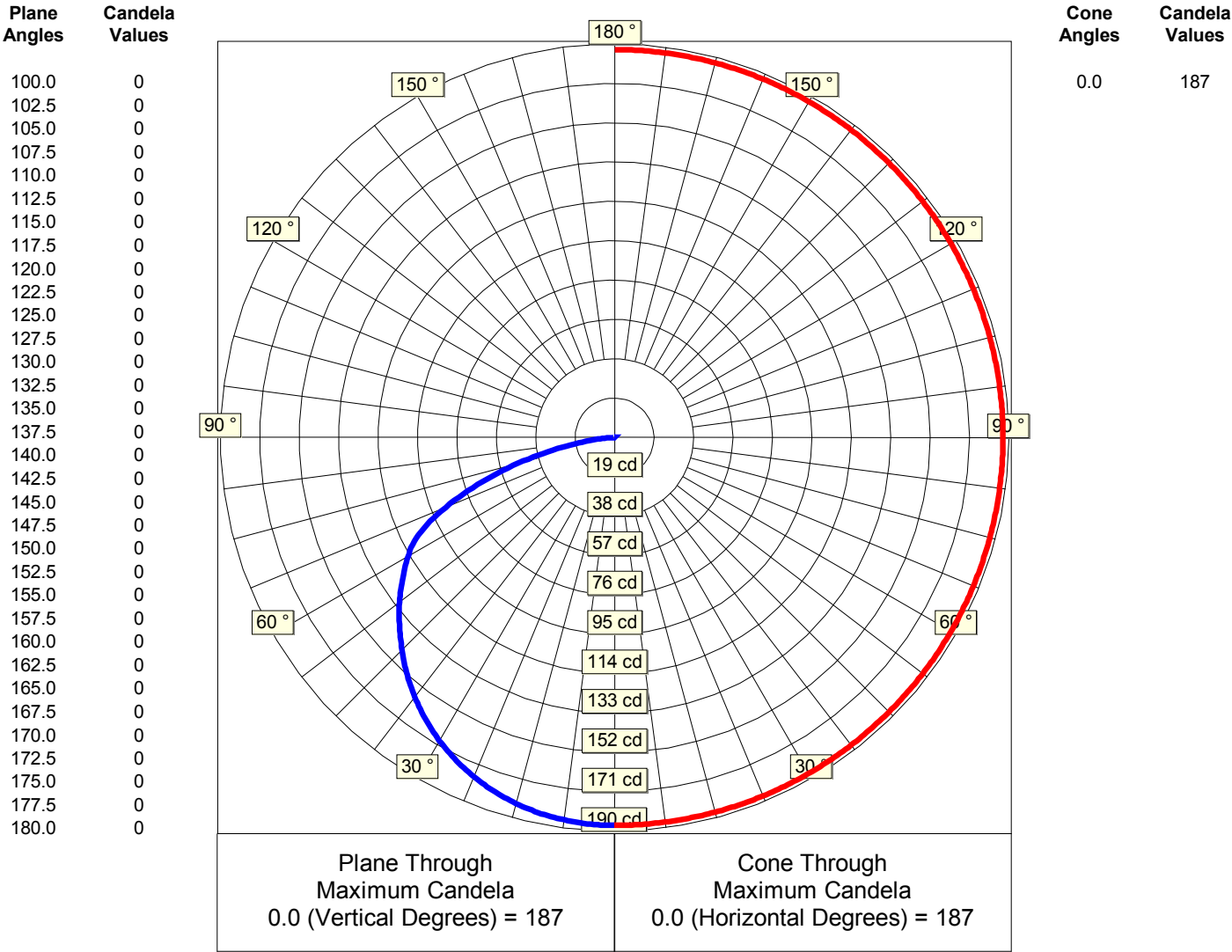


Photometric Report: S2205091-R1

Prepared for: Luminaire Authentik · Test Date: 09 May 2022

Luminaire: Dome 24 · Lumcat: Dome 24

Luminous Intensity - Polar Curve for each Plane(2)





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IES File Headers

IESNA:LM-63
[ISSUEDATE] 09 May 2022
[TESTLAB] Spectra Lux
[TEST] S2205091-R1
[MANUFAC] Luminaire Authentik
[LUMCAT] Dome 24
[LUMINAIRE] Dome 24
[LAMP] (1) 8 Watts E26 Coated LED Bulb Tala Sphere IV c/w Integrated LED Driver @ 120.00V
[_BURNING] Vertical Base Up (631 Luminaire Lumens)
[_OPTICS] White Painted Dome 24 Shade
[_LENS] None
[_HOUSING] White Painted Aluminum Dome Shade (24"Dx12"H)
[_NOMINAL COLOR] 2800 K
[_DRIVE CURRENT] N.K

Candela Table

Lateral Angles

	0.0
V e r t i c a l	0.0 187
	2.5 187
	5.0 187
	7.5 186
	10.0 185
	12.5 184
	15.0 183
	17.5 181
	20.0 179
	22.5 177
A n g l e s	25.0 175
	27.5 172
	30.0 169
	32.5 166
	35.0 162
	37.5 158
	40.0 154
	42.5 150
	45.0 145
	47.5 140
	50.0 135
	52.5 131
	55.0 126
	57.5 120
	60.0 115
	62.5 109
	65.0 100
	67.5 88
	70.0 75
	72.5 62
	75.0 48
	77.5 35
	80.0 24
	82.5 14
	85.0 7
	87.5 2
	90.0 0



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Lateral Angles

	0.0
	92.5
	95.0
	97.5
	100.0
	102.5
	105.0
	107.5
	110.0
	112.5
V e r t i c a l	115.0
	117.5
	120.0
	122.5
	125.0
	127.5
	130.0
	132.5
	135.0
	137.5
A n g l e s	140.0
	142.5
	145.0
	147.5
	150.0
	152.5
	155.0
	157.5
	160.0
	162.5
	165.0
	167.5
	170.0
	172.5
	175.0
	177.5
	180.0