

C-3 Report on Intensity Values

The USGS Lidar Base Specification Version 1.3 states: "Intensity values are required for each multiple discrete return. The values recorded in the LAS files shall be normalized to 16 bit, as required by the LAS Specification version 1.4-R13 (ASPRS, 2011). It warrants re-emphasis that intensity normalization is strictly linear. Common image stretches (minimum-maximum, standard deviations, percent clip, histogram, and so forth) are expressly forbidden."

The purpose of this section is to report on the presence and quantities of lidar intensity in the LAS data.

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File	Minimum	Maximum	Mean	Median	Mode
CS_00103.las	16	65,520	8,863	9,696	1,408
CS_00104.las	16	65,520	9,058	9,952	12,192
CS_00105.las	368	65,520	9,258	10,176	11,648
CS_00106.las	16	65,520	9,328	10,320	11,760
CS_00107.las	32	65,520	9,171	10,224	11,520
CS_00108.las	16	65,520	9,112	10,144	11,504
CS_00109.las	16	65,520	9,462	10,560	12,048
CS_00110.las	16	65,520	9,563	10,512	11,760
CS_00111.las	16	65,520	9,549	10,576	11,968
CS_00112.las	16	65,520	9,132	10,224	11,776
CS_00113.las	16	65,520	9,738	10,896	12,240
CS_00114.las	16	65,520	9,833	10,832	11,824
CS_00115.las	16	65,520	9,943	10,960	11,920
CS_00116.las	16	65,520	10,150	11,040	11,744
CS_00117.las	16	65,520	10,566	11,344	12,000
CS_00118.las	16	65,520	8,267	8,816	9,120
CS_00119.las	16	65,520	8,468	8,960	9,216
CS_00120.las	16	65,520	8,533	8,992	9,200
CS_00121.las	16	65,520	8,593	9,088	9,264
CS_00122.las	16	65,520	8,472	8,960	9,264
CS_00123.las	480	65,520	8,685	9,264	9,552
CS_00124.las	16	65,520	8,643	9,248	9,536
CS_00125.las	16	65,520	8,599	9,264	9,728
CS_00126.las	32	65,520	8,845	9,488	9,792
CS_00127.las	240	65,520	8,507	9,200	9,696
CS_00128.las	16	65,520	10,590	11,296	11,872
CS_00129.las	16	65,520	10,431	11,280	11,984

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File	Minimum	Maximum	Mean	Median	Mode
CS_00130.las	16	65,520	9,967	10,896	11,744
CS_00131.las	16	65,520	10,374	11,344	12,016
CS_00132.las	16	65,520	10,562	11,424	11,984
CS_00133.las	16	65,520	10,461	11,392	12,032
CS_00134.las	16	65,520	10,088	11,008	11,712
CS_00135.las	16	54,672	10,596	11,344	11,712
CS_00136.las	16	65,520	10,472	11,312	11,792
CS_00137.las	528	65,520	9,657	10,752	11,664
CS_00138.las	16	65,520	9,736	10,816	11,824
CS_00139.las	16	65,520	9,745	10,912	11,920
CS_00140.las	16	65,520	9,357	10,672	11,984
CS_00141.las	16	65,520	9,308	10,592	12,016
CS_00142.las	16	65,520	8,847	9,920	11,552
CS_00143.las	16	65,520	8,954	10,112	11,760
CS_00144.las	16	65,520	9,133	10,384	11,776
CS_00145.las	16	65,520	9,095	10,304	12,000
CS_00146.las	16	65,520	8,877	10,048	11,856
CS_00147.las	16	65,520	8,967	10,112	12,224
CS_00148.las	16	65,520	9,156	10,400	12,400
CS_00149.las	16	65,520	8,925	10,208	12,384
CS_00150.las	16	65,520	8,730	9,808	12,224
CS_00151.las	16	65,520	8,736	9,520	1,440
CS_00152.las	16	65,520	9,346	10,480	12,688
CS_00153.las	480	65,520	6,945	7,712	9,456
CS_00154.las	544	34,768	7,182	8,016	9,776
CS_00155.las	16	65,520	7,270	8,096	9,728
CS_00156.las	528	65,520	7,518	8,560	9,712
CS_00157.las	528	65,520	7,655	8,720	9,600
CS_00158.las	560	65,520	8,138	9,136	9,648
CS_00159.las	480	65,520	7,979	9,088	9,776
CS_00160.las	512	65,520	8,428	9,408	9,968
CS_00161.las	16	65,520	8,093	9,136	9,648
CS_00162.las	416	65,520	7,985	9,248	10,240

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File	Minimum	Maximum	Mean	Median	Mode
CS_00163.las	496	65,520	7,919	9,168	10,128
CS_00164.las	16	65,520	7,515	8,736	9,408
CS_00165.las	16	63,392	7,823	8,976	9,456
CS_00166.las	16	65,520	7,916	8,976	9,232
CS_00167.las	160	65,520	7,788	8,880	9,552
CS_00168.las	16	65,520	8,004	8,928	9,552
CS_00169.las	496	65,520	7,134	8,400	9,520
CS_00170.las	16	65,520	7,133	8,320	9,440
CS_00171.las	528	65,520	7,858	9,168	9,968
CS_00172.las	16	65,520	8,283	9,264	9,632
CS_00173.las	16	65,520	7,676	8,672	9,312
CS_00174.las	624	17,856	7,945	9,024	9,504
CS_00175.las	512	65,520	7,280	8,448	9,584
CS_00176.las	16	65,520	14,419	15,504	16,720
CS_00177.las	16	65,520	14,087	15,104	16
CS_00178.las	16	65,520	14,270	15,488	16,512
CS_00179.las	16	65,520	13,651	14,832	16
CS_00180.las	16	65,520	13,611	14,928	16
CS_00181.las	32	65,520	14,000	15,184	16,208
CS_00182.las	16	65,520	14,709	15,808	16
CS_00183.las	16	65,520	14,660	15,904	16,992
CS_00184.las	16	65,520	14,135	15,344	16
CS_00185.las	16	65,520	13,164	14,544	16
CS_00186.las	16	65,520	12,396	13,808	15,824
CS_00187.las	16	65,520	12,811	14,208	16,144
CS_00188.las	16	65,520	12,345	13,744	16
CS_00189.las	16	65,520	12,232	13,632	15,744
CS_00190.las	16	65,520	12,271	13,728	15,552
CS_00191.las	16	65,520	12,577	14,000	15,824
CS_00192.las	16	65,520	12,613	13,920	15,824
CS_00193.las	16	65,520	12,171	13,616	16,016
CS_00194.las	16	65,520	12,136	13,536	16
CS_00195.las	16	65,520	11,684	12,960	16

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File	Minimum	Maximum	Mean	Median	Mode
CS_00196.las	16	65,520	11,778	13,200	15,488
CS_00197.las	16	65,520	12,048	13,344	16,064
CS_00198.las	32	65,520	12,887	14,464	16,272
CS_00199.las	16	65,520	12,164	13,712	16,080
CS_00200.las	16	65,520	12,602	14,176	16,208
CS_00201.las	16	65,520	12,592	13,936	16,320
CS_00202.las	16	65,520	12,049	13,648	16,240
CS_00203.las	16	65,520	12,630	14,240	16,640
CS_00204.las	16	65,520	12,724	14,128	16,224
CS_00205.las	16	65,520	12,482	13,968	16,160
CS_00206.las	16	65,520	12,785	14,176	16,544
CS_00207.las	16	65,520	12,259	13,664	16,128
CS_00208.las	16	65,520	12,601	14,000	16,144
CS_00209.las	16	65,520	9,072	10,000	11,376
CS_00210.las	16	65,520	9,759	10,736	12,176
CS_00211.las	16	65,520	9,850	10,848	12,240
CS_00212.las	16	65,520	9,707	10,704	12,208
CS_00213.las	16	65,520	9,795	10,880	12,256
CS_00214.las	16	65,520	9,538	10,512	11,824
CS_00215.las	16	65,520	8,925	9,712	11,344
CS_00216.las	16	65,520	8,890	9,728	11,520
CS_00217.las	16	65,520	9,274	10,032	11,856
CS_00218.las	16	65,520	8,999	9,936	12,032
CS_00219.las	16	65,520	9,174	9,984	12,032
CS_00220.las	16	65,520	7,902	8,592	9,472
CS_00221.las	16	65,520	13,446	14,672	15,952
CS_00222.las	48	65,520	8,268	9,040	9,840
CS_00223.las	16	65,520	13,189	14,448	16,128
CS_00224.las	16	65,520	7,746	8,640	9,600
CS_00225.las	16	65,520	13,998	15,040	16,112
CS_00226.las	16	65,520	15,224	16,032	16,272
CS_00227.las	16	65,520	7,964	8,608	9,392
CS_00228.las	16	65,520	7,768	8,640	9,648

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File	Minimum	Maximum	Mean	Median	Mode
CS_00229.las	16	65,520	13,375	14,624	15,920
CS_00230.las	16	65,520	14,377	15,232	15,600
CS_00231.las	16	65,520	13,976	14,896	15,472
CS_00232.las	16	65,520	14,837	15,632	15,920
CS_00233.las	16	65,520	13,651	14,800	15,664
CS_00234.las	16	65,520	13,805	14,816	15,872
CS_00235.las	16	65,520	13,743	14,832	15,984
CS_00236.las	16	65,520	13,278	14,496	15,808
CS_00237.las	16	65,520	14,258	15,136	15,920
CS_00238.las	16	65,520	13,251	14,512	15,952
CS_00239.las	16	65,520	7,857	8,560	9,360
CS_00240.las	16	65,520	14,364	15,200	15,856
CS_00241.las	16	65,520	12,602	13,936	15,568
CS_00242.las	16	65,520	13,576	14,672	15,776
CS_00243.las	16	65,520	15,269	16,048	16,048
CS_00244.las	16	65,520	13,391	14,544	15,696
CS_00245.las	16	65,520	15,188	16,032	16,144
CS_00246.las	16	65,520	7,680	8,560	9,520
CS_00247.las	16	65,520	7,807	8,528	9,440
CS_00248.las	16	65,520	13,673	14,752	16,064
CS_00249.las	16	65,520	13,364	14,448	15,632
CS_00250.las	16	65,520	14,548	15,376	16,016
CS_00251.las	16	65,520	12,904	14,192	15,744
CS_00252.las	16	65,520	7,565	8,432	9,360
CS_00253.las	16	65,520	7,634	8,480	9,472
CS_00254.las	16	65,520	7,738	8,640	9,936
CS_00255.las	16	65,520	7,611	8,496	9,696
CS_00256.las	16	65,520	7,625	8,480	9,712
CS_00257.las	16	65,520	10,024	11,232	12,992
CS_00258.las	16	65,520	9,753	10,880	12,736
CS_00259.las	16	65,520	10,225	11,392	12,928
CS_00260.las	16	65,520	10,414	11,584	13,152
CS_00261.las	16	65,520	10,679	11,792	13,200

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File	Minimum	Maximum	Mean	Median	Mode
CS_00262.las	16	65,520	8,266	9,056	9,984
CS_00263.las	16	65,520	8,408	9,200	10,064
CS_00264.las	16	65,520	7,808	8,656	9,600
CS_00265.las	16	65,520	7,825	8,720	9,664
CS_00266.las	16	65,520	8,129	8,928	9,728
CS_00267.las	16	65,520	7,872	8,736	9,472
CS_00268.las	16	65,520	7,952	8,816	9,680
CS_00269.las	16	65,520	7,989	8,816	9,504
CS_00270.las	16	65,520	13,768	15,248	16,192
CS_00271.las	16	65,520	13,831	15,248	16,320
CS_00272.las	16	65,520	13,712	15,232	16,320
CS_00273.las	16	65,520	13,280	14,784	15,712
CS_00274.las	16	65,520	13,613	15,088	16,016
CS_00275.las	16	65,520	13,090	14,624	15,648
CS_00276.las	16	65,520	13,185	14,752	15,968
CS_00277.las	16	65,520	12,644	14,224	15,040
CS_00278.las	16	65,520	11,465	13,296	15,216
CS_00279.las	16	65,520	7,477	8,400	8,912
CS_00280.las	16	65,520	7,389	8,336	8,768
CS_00281.las	16	65,520	7,202	8,288	8,896
CS_00282.las	16	65,520	6,919	8,080	8,912
CS_00283.las	16	65,520	6,826	7,968	8,960
CS_00284.las	16	65,520	6,841	7,952	8,992
CS_00285.las	16	65,520	7,035	8,112	8,896
CS_00286.las	16	65,520	7,054	8,112	8,912
CS_00287.las	16	65,520	6,976	8,048	9,040
CS_00288.las	16	65,520	6,988	7,984	8,816
CS_00289.las	16	65,520	6,923	7,888	8,992
CS_00290.las	16	65,520	6,785	7,824	9,072
CS_00291.las	16	65,520	6,663	7,728	8,880
CS_00292.las	16	65,520	6,653	7,664	9,024
CS_00293.las	16	65,520	6,645	7,568	9,232
CS_00294.las	16	65,520	8,354	8,976	9,840

C-3 Report on Intensity Values - continued

File	Minimum	Maximum	Mean	Median	Mode
CS_00295.las	592	30,480	6,174	6,784	8,752
CS_00296.las	16	65,520	8,303	8,992	9,856
CS_00297.las	16	65,520	8,075	8,896	9,712
CS_00298.las	16	65,520	8,361	8,992	9,888
CS_00299.las	16	65,520	8,221	8,976	9,952
CS_00300.las	16	65,520	8,042	8,848	9,760
CS_00301.las	16	65,520	7,988	8,832	9,792
CS_00302.las	16	65,520	7,870	8,768	9,136
CS_00303.las	16	65,520	8,053	8,896	9,264
CS_00304.las	16	65,520	7,797	8,752	9,168
CS_00305.las	16	65,520	7,512	8,560	9,216
CS_00306.las	16	65,520	7,084	8,160	9,024
CS_00307.las	16	65,520	7,097	8,192	9,136
CS_00308.las	16	65,520	7,349	8,384	9,216
CS_00309.las	16	65,520	7,107	8,192	9,296
CS_00310.las	16	65,520	7,740	8,672	9,200
CS_00311.las	16	65,520	7,358	8,336	9,200
CS_00312.las	16	65,520	7,233	8,288	9,232
CS_00313.las	16	65,520	7,670	8,752	9,376
CS_00314.las	16	65,520	7,527	8,688	9,424
CS_00315.las	16	65,520	7,711	8,816	9,456
CS_00316.las	16	65,520	8,526	9,344	9,616
Overall Statistics	16	65,520	10,068	9,856	9,472

C-3 Report on Intensity Values - continued

The purpose of this section is to show a frequency distribution chart of intensities throughout all of the lidar files.

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