

C-3 Report on Intensity Values

The USGS Lidar Base Specification 2022 rev. A states: "Intensity values are required for each multiple discrete return. The intensity values recorded in the LAS files shall be normalized to 16 bit, as required by the LAS Specification version 1.4-R15 (ASPRS, 2019). Intensity normalization should be 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.

[Data Source - D:\00_Nevada\QL1_Temp_Swaths](#)

File	Minimum	Maximum	Mean	Median	Mode
CS_00001.las	16	65,520	1,058	1,072	1,120
CS_00002.las	16	65,520	1,059	1,072	1,088
CS_00003.las	16	65,520	1,062	1,056	1,088
CS_00004.las	16	65,520	1,083	1,056	1,024
CS_00005.las	16	65,520	1,089	1,056	1,088
CS_00006.las	16	65,520	1,102	1,072	1,120
CS_00007.las	16	65,520	1,089	1,056	1,104
CS_00008.las	16	65,520	1,096	1,056	1,104
CS_00009.las	16	65,520	1,090	1,024	1,136
CS_00010.las	16	65,520	1,058	992	992
CS_00011.las	16	65,520	1,027	960	880
CS_00012.las	16	65,520	1,056	992	912
CS_00013.las	16	65,520	1,129	1,056	896
CS_00014.las	16	65,520	1,346	1,360	1,408
CS_00015.las	16	65,520	1,208	1,168	928
CS_00016.las	16	65,520	1,354	1,376	1,376
CS_00017.las	16	65,520	1,338	1,360	1,408
CS_00018.las	16	65,520	1,287	1,280	1,376
CS_00019.las	16	65,520	1,249	1,232	1,392
CS_00020.las	16	65,520	1,259	1,200	320
CS_00021.las	16	65,520	1,035	880	768
CS_00022.las	16	65,520	1,238	1,168	1,376
CS_00023.las	16	65,520	1,178	1,104	240
CS_00024.las	16	65,520	1,144	1,072	240
CS_00025.las	16	65,520	1,104	1,008	240
CS_00026.las	16	65,520	1,238	1,184	240
CS_00027.las	16	65,520	1,203	1,152	240

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File	Minimum	Maximum	Mean	Median	Mode
CS_00028.las	16	65,520	1,189	1,136	240
CS_00029.las	16	65,520	1,192	1,120	272
CS_00030.las	16	65,520	1,186	1,104	272
CS_00031.las	16	65,520	1,190	1,104	320
CS_00032.las	16	65,520	1,205	1,136	320
CS_00033.las	16	65,520	1,263	1,216	272
CS_00034.las	16	65,520	1,301	1,264	320
CS_00035.las	16	65,520	1,339	1,312	272
CS_00036.las	16	65,520	1,368	1,344	272
CS_00037.las	16	65,520	1,393	1,376	272
CS_00038.las	16	65,520	1,369	1,344	272
CS_00039.las	16	65,520	1,352	1,328	272
CS_00040.las	16	65,520	1,342	1,312	224
CS_00041.las	16	65,520	1,350	1,344	272
CS_00042.las	16	65,520	1,332	1,344	272
CS_00043.las	16	65,520	1,298	1,312	272
CS_00044.las	16	65,520	1,237	1,200	224
CS_00045.las	16	65,520	1,243	1,232	224
CS_00046.las	16	65,520	1,252	1,264	224
CS_00047.las	16	65,520	1,242	1,264	224
CS_00048.las	16	65,520	1,216	1,232	224
CS_00049.las	16	65,520	1,226	1,248	224
CS_00050.las	16	65,520	1,229	1,264	224
CS_00051.las	16	65,520	1,258	1,296	224
CS_00052.las	16	65,520	1,139	1,152	192
CS_00053.las	16	65,520	1,133	1,152	208
CS_00054.las	16	65,520	1,129	1,152	208
CS_00055.las	16	65,520	1,174	1,232	208
CS_00056.las	16	65,520	1,209	1,280	224
CS_00057.las	16	65,520	1,258	1,344	1,616
CS_00058.las	16	65,520	1,306	1,392	1,440
CS_00059.las	16	65,520	1,332	1,424	1,440
CS_00060.las	16	65,520	1,356	1,424	1,440

C-3 Report on Intensity Values - continued

File	Minimum	Maximum	Mean	Median	Mode
CS_00061.las	16	65,520	1,356	1,440	1,472
CS_00062.las	16	65,520	1,390	1,456	1,472
CS_00063.las	16	65,520	1,410	1,504	1,600
CS_00064.las	16	65,520	1,514	1,568	1,616
CS_00065.las	16	65,520	1,569	1,600	1,616
CS_00066.las	16	65,520	1,574	1,600	1,616
CS_00067.las	16	65,520	1,565	1,584	1,568
CS_00068.las	32	9,120	1,492	1,520	1,504
CS_00069.las	16	65,520	1,532	1,472	1,280
CS_00070.las	16	65,520	1,420	1,456	1,504
CS_00071.las	16	65,520	1,108	960	640
CS_00072.las	32	65,520	1,356	1,472	1,584
CS_00073.las	16	65,520	1,090	1,040	1,072
CS_00074.las	16	65,520	1,224	1,136	1,088
CS_00075.las	32	65,520	1,991	2,016	2,016
CS_00076.las	16	65,520	2,060	2,080	2,000
CS_00077.las	16	65,520	1,928	1,984	2,016
CS_00078.las	32	65,520	1,716	1,728	1,616
CS_00079.las	16	65,520	1,640	1,632	1,616
CS_00080.las	16	64,352	1,555	1,552	1,408
CS_00081.las	16	30,224	1,464	1,472	1,552
CS_00082.las	16	65,520	1,404	1,424	1,360
CS_00083.las	16	28,448	1,436	1,456	1,552
CS_00084.las	16	10,416	1,455	1,472	1,536
CS_00085.las	16	31,376	1,481	1,504	1,536
CS_00086.las	16	65,520	1,468	1,488	1,584
CS_00087.las	16	65,520	1,463	1,488	1,552
CS_00088.las	16	62,784	1,420	1,456	1,520
CS_00089.las	16	65,520	1,377	1,440	1,376
CS_00090.las	16	65,520	1,321	1,376	1,392
CS_00091.las	16	65,520	1,346	1,408	1,408
CS_00092.las	16	65,520	1,352	1,408	1,440
CS_00093.las	16	65,520	1,394	1,440	1,456

C-3 Report on Intensity Values - continued

File	Minimum	Maximum	Mean	Median	Mode
CS_00094.las	16	65,520	1,415	1,472	1,456
CS_00095.las	16	65,520	1,449	1,488	1,440
CS_00096.las	16	65,520	1,486	1,536	1,616
CS_00097.las	16	65,520	1,544	1,584	1,632
CS_00098.las	16	65,520	1,582	1,616	1,616
CS_00099.las	16	65,520	1,618	1,664	1,680
CS_00100.las	16	65,520	1,622	1,664	1,664
CS_00101.las	16	65,520	1,601	1,664	1,664
CS_00102.las	16	65,520	1,218	1,200	192
CS_00103.las	16	65,520	1,462	1,440	1,424
CS_00104.las	16	65,520	1,021	1,088	1,264
CS_00105.las	16	65,520	1,659	1,680	1,680
CS_00106.las	16	65,520	1,728	1,808	1,840
CS_00107.las	32	3,712	1,546	1,568	1,472
CS_00108.las	32	61,456	1,603	1,616	1,648
CS_00109.las	16	65,520	1,482	1,552	1,632
CS_00110.las	16	65,520	1,545	1,568	1,616
CS_00111.las	16	65,520	1,509	1,552	1,632
CS_00112.las	16	65,520	1,537	1,552	1,488
CS_00113.las	16	65,520	1,500	1,520	1,456
CS_00114.las	16	65,520	1,472	1,472	1,472
CS_00115.las	16	65,520	1,459	1,456	1,456
CS_00116.las	16	65,520	1,433	1,440	1,424
CS_00117.las	16	65,520	1,445	1,440	1,456
CS_00118.las	16	32,672	1,441	1,440	1,440
CS_00119.las	16	65,520	1,526	1,472	1,440
CS_00121.las	16	65,520	1,510	1,424	1,408
CS_00122.las	16	65,520	1,469	1,408	1,440
CS_00123.las	16	65,520	1,394	1,360	1,264
CS_00124.las	16	65,520	1,342	1,328	1,232
CS_00125.las	16	65,520	1,355	1,328	1,248
CS_00126.las	16	65,520	1,420	1,376	1,264
CS_00127.las	16	65,520	1,505	1,456	1,440

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File	Minimum	Maximum	Mean	Median	Mode
CS_00128.las	16	65,520	1,700	1,648	1,424
CS_00129.las	16	65,520	1,879	1,856	1,504
CS_00130.las	32	25,440	1,975	2,000	2,080
CS_00131.las	16	65,520	1,474	1,472	1,408
CS_00132.las	16	65,520	1,430	1,408	1,424
CS_00133.las	16	20,944	1,483	1,440	1,296
CS_00134.las	32	65,520	1,512	1,536	1,488
CS_00135.las	16	65,520	1,609	1,616	1,616
CS_00136.las	16	65,520	1,615	1,648	1,680
CS_00137.las	16	65,520	1,636	1,680	1,648
CS_00138.las	16	65,520	1,679	1,728	1,664
CS_00139.las	16	65,520	1,695	1,728	1,808
CS_00140.las	32	65,520	1,462	1,584	1,472
CS_00141.las	16	65,520	1,477	1,616	1,776
CS_00142.las	16	65,520	1,734	1,760	1,840
CS_00143.las	16	65,520	1,708	1,712	1,680
CS_00144.las	16	65,520	1,667	1,680	1,648
CS_00145.las	16	65,520	1,612	1,616	1,632
CS_00146.las	16	65,520	1,600	1,600	1,600
CS_00147.las	16	65,520	1,593	1,584	1,504
CS_00148.las	16	65,520	1,570	1,568	1,568
CS_00149.las	16	65,520	1,551	1,536	1,488
CS_00150.las	16	65,520	1,494	1,488	1,488
CS_00151.las	16	65,520	1,447	1,440	1,440
CS_00152.las	16	65,520	1,426	1,440	1,424
CS_00153.las	16	65,520	1,511	1,504	1,440
CS_00154.las	16	65,520	1,469	1,520	1,504
CS_00155.las	16	65,520	1,608	1,664	1,680
CS_00156.las	32	44,896	1,439	1,440	1,328
CS_00157.las	16	65,520	1,534	1,552	1,680
CS_00158.las	16	65,520	1,603	1,632	1,824
CS_00159.las	16	65,520	1,636	1,664	1,648
CS_00160.las	16	65,520	1,634	1,680	1,808

C-3 Report on Intensity Values - continued

File	Minimum	Maximum	Mean	Median	Mode
CS_00161.las	16	65,520	1,663	1,696	1,808
CS_00162.las	16	65,520	1,693	1,728	1,792
CS_00163.las	16	65,520	1,646	1,696	1,776
CS_00164.las	32	65,520	1,614	1,664	1,696
CS_00165.las	32	65,520	1,552	1,600	1,632
CS_00166.las	32	65,520	1,456	1,472	1,440
CS_00167.las	32	65,520	1,512	1,504	1,488
CS_00168.las	16	65,520	1,481	1,536	1,616
CS_00169.las	16	65,520	1,248	1,280	1,232
CS_00170.las	16	65,520	1,431	1,456	1,424
CS_00171.las	16	65,520	1,278	1,312	1,312
CS_00172.las	16	65,520	1,292	1,296	1,296
CS_00173.las	16	65,520	1,384	1,392	1,408
CS_00174.las	32	2,640	1,277	1,296	1,296
CS_00175.las	16	65,520	1,324	1,376	1,424
CS_00176.las	16	65,520	1,241	1,280	1,232
CS_00177.las	32	65,520	1,092	1,104	1,184
CS_00178.las	16	65,520	1,213	1,264	1,328
CS_00179.las	16	65,520	1,305	1,360	1,488
CS_00180.las	16	65,520	1,398	1,456	1,616
CS_00181.las	16	65,520	1,447	1,488	1,600
CS_00182.las	16	65,520	1,469	1,504	1,600
CS_00183.las	16	65,520	1,470	1,504	1,616
CS_00184.las	16	65,520	1,404	1,456	1,632
CS_00185.las	16	65,520	1,370	1,440	1,616
CS_00186.las	16	65,520	1,323	1,376	1,488
CS_00187.las	16	65,520	1,337	1,360	1,472
CS_00188.las	16	65,520	1,321	1,344	1,440
CS_00189.las	32	65,520	1,256	1,280	1,296
CS_00190.las	32	7,696	1,209	1,328	1,504
CS_00191.las	16	65,520	1,111	1,120	1,072
CS_00192.las	32	65,520	1,463	1,472	1,488
CS_00193.las	16	65,520	1,127	1,088	1,056

C-3 Report on Intensity Values - continued

File	Minimum	Maximum	Mean	Median	Mode
CS_00194.las	16	65,520	1,543	1,392	1,344
CS_00195.las	16	65,520	1,508	1,472	1,344
CS_00196.las	16	65,520	1,468	1,456	1,344
CS_00197.las	16	65,520	1,412	1,392	1,312
CS_00198.las	16	65,520	1,353	1,344	1,264
CS_00199.las	16	65,520	1,326	1,312	1,312
CS_00200.las	16	65,520	1,306	1,328	1,328
CS_00201.las	16	65,520	1,351	1,376	1,344
CS_00202.las	16	65,520	1,435	1,472	1,584
CS_00203.las	16	65,520	1,574	1,584	1,568
CS_00204.las	48	65,520	1,611	1,600	1,600
CS_00205.las	48	65,520	1,765	1,712	1,584
CS_00206.las	48	65,520	1,886	1,840	1,808
CS_00207.las	16	65,520	1,747	1,792	1,856
CS_00208.las	16	61,168	1,410	1,488	16
CS_00209.las	16	65,520	817	912	16
CS_00210.las	16	65,520	1,801	1,856	1,824
CS_00211.las	48	65,520	1,700	1,696	1,696
CS_00212.las	32	65,520	1,890	1,920	1,968
CS_00213.las	48	65,520	1,845	1,888	1,840
CS_00214.las	48	65,520	1,801	1,840	1,904
CS_00215.las	32	65,520	1,691	1,728	1,792
CS_00216.las	16	65,520	1,621	1,648	1,632
CS_00217.las	32	65,520	1,624	1,632	1,648
CS_00218.las	16	65,520	1,682	1,696	1,600
CS_00219.las	16	65,520	1,741	1,760	1,888
CS_00220.las	48	65,520	1,777	1,792	1,872
CS_00221.las	48	65,520	1,756	1,744	1,824
CS_00222.las	48	65,520	1,747	1,744	1,888
CS_00223.las	16	65,520	1,754	1,760	1,872
CS_00224.las	16	65,520	1,828	1,840	1,888
CS_00225.las	16	65,520	1,915	1,888	1,904
CS_00226.las	16	65,520	1,986	1,936	1,920

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File	Minimum	Maximum	Mean	Median	Mode
CS_00227.las	16	65,520	1,978	1,952	1,872
CS_00228.las	16	65,520	1,951	1,968	1,904
CS_00229.las	16	65,520	1,910	1,984	1,952
CS_00230.las	48	65,520	1,912	1,984	1,904
CS_00231.las	48	65,520	2,009	2,016	1,920
CS_00244.las	48	65,520	1,308	1,280	1,136
CS_00245.las	48	65,520	1,380	1,392	1,344
CS_00246.las	48	65,520	1,478	1,472	1,328
CS_00248.las	48	65,520	1,631	1,680	1,776
CS_00250.las	48	65,520	1,706	1,728	1,728
CS_00256.las	64	65,520	1,644	1,648	1,632
CS_00257.las	64	65,520	1,656	1,712	1,680
CS_00258.las	64	65,520	1,629	1,680	1,808
CS_00259.las	64	65,520	1,601	1,600	1,744
CS_00260.las	64	27,152	1,324	1,344	1,440
CS_00265.las	48	3,792	1,033	992	816
CS_00268.las	80	65,520	1,696	1,728	1,936
CS_00271.las	64	65,520	1,583	1,568	1,568
CS_00272.las	48	65,520	1,592	1,616	1,616
CS_00274.las	48	65,520	1,398	1,424	1,408
CS_00281.las	64	65,520	1,955	2,016	2,224
CS_00284.las	64	7,040	1,385	1,392	1,424
Overall Statistics	16	65,520	1,350	1,392	1,472

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.

[Data Source - D:\00_Nevada\QL1_Temp_Swaths](#)

