

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.

[Data Source - Y:\Mapping\Projects\65220171_USGS-TX_West_Texas\Production\Final_Client_Deliverables\Lot8_utm13\point_cloud\Swaths](#)

File	Minimum	Maximum	Mean	Median	Mode
CS_02002.las	32	65,535	6,937	7,104	7,552
CS_02029.las	32	65,535	6,621	6,848	7,232
CS_02032.las	32	65,535	6,997	7,200	7,552
CS_02034.las	32	65,535	6,878	7,104	7,552
CS_02067.las	32	65,535	6,841	7,008	7,680
CS_02070.las	32	65,535	7,388	7,488	7,680
CS_02073.las	32	65,535	7,028	7,200	7,520
CS_02075.las	32	65,535	6,895	7,104	7,584
CS_02096.las	272	32,672	4,102	4,160	4,336
CS_02099.las	416	11,056	5,296	5,408	5,536
CS_02122.las	32	65,535	6,638	6,752	6,944
CS_02123.las	32	65,535	5,908	5,792	5,312
CS_02126.las	32	65,535	6,871	7,072	7,360
CS_02129.las	32	65,535	7,460	7,584	7,840
CS_02132.las	32	65,535	7,046	7,232	7,552
CS_02134.las	512	13,760	6,445	6,656	7,072
CS_02153.las	416	9,056	4,438	4,528	4,672
CS_02156.las	400	10,384	4,025	4,112	4,064
CS_02160.las	432	10,912	5,421	5,472	5,488
CS_02170.las	32	65,535	6,917	7,008	7,136
CS_02186.las	32	65,535	6,437	6,592	6,720
CS_02187.las	32	65,535	5,878	5,792	5,248
CS_02188.las	32	65,535	6,190	6,336	6,720
CS_02189.las	32	65,535	6,201	6,368	5,984
CS_02193.las	32	65,535	6,798	6,976	7,360

C-3 Report on Intensity Values - continued

File	Minimum	Maximum	Mean	Median	Mode
CS_02197.las	32	65,535	7,384	7,552	7,872
CS_02200.las	32	65,535	7,075	7,264	7,616
CS_02204.las	320	65,520	5,758	5,920	6,496
CS_02222.las	400	27,568	4,601	4,656	4,720
CS_02225.las	416	36,288	4,727	4,704	4,384
CS_02229.las	384	65,520	5,303	5,328	5,376
CS_02240.las	32	65,535	7,077	7,168	7,232
CS_02257.las	32	65,535	6,276	6,432	6,720
CS_02258.las	32	65,535	5,785	5,728	5,216
CS_02259.las	32	65,535	6,257	6,432	7,520
CS_02260.las	32	65,535	6,003	6,208	5,984
CS_02264.las	32	65,535	6,862	7,008	7,328
CS_02268.las	32	65,535	7,347	7,488	7,872
CS_02271.las	32	65,535	7,115	7,296	7,616
CS_02275.las	64	65,520	6,154	6,240	6,656
CS_02278.las	272	65,520	5,658	5,792	6,240
CS_02294.las	336	26,256	4,659	4,656	4,688
CS_02297.las	351	23,395	5,486	5,613	5,789
CS_02301.las	336	65,520	4,396	4,496	4,672
CS_02310.las	32	65,535	7,034	7,136	7,264
CS_02324.las	32	65,535	6,208	6,368	6,592
CS_02325.las	32	65,535	5,880	5,856	5,248
CS_02326.las	32	65,535	6,648	6,816	7,584
CS_02327.las	32	65,535	5,853	6,080	5,696
CS_02331.las	32	65,535	6,790	6,944	7,232
CS_02338.las	32	65,535	7,099	7,296	7,552
CS_02345.las	64	65,520	5,608	5,696	6,224
CS_02359.las	270	42,286	6,103	6,073	6,052
CS_02361.las	335	12,483	5,286	5,466	5,674
CS_02365.las	288	41,184	4,034	4,320	4,784
CS_02373.las	32	65,535	6,943	7,104	7,552
CS_02387.las	32	65,535	6,049	6,208	6,560
CS_02388.las	32	65,535	5,864	5,888	5,344

C-3 Report on Intensity Values - continued

File	Minimum	Maximum	Mean	Median	Mode
CS_02390.las	32	65,535	5,250	5,504	5,440
CS_02394.las	32	65,535	6,879	7,040	7,360
CS_02400.las	32	65,535	7,140	7,360	7,744
CS_02403.las	112	65,520	6,156	6,208	6,832
CS_02405.las	160	65,520	5,461	5,536	5,456
CS_02421.las	448	10,592	4,899	4,983	5,095
CS_02425.las	352	65,520	4,081	4,400	4,896
CS_02446.las	32	65,535	5,948	6,112	6,400
CS_02447.las	32	65,535	6,210	6,304	6,080
CS_02458.las	32	65,535	7,101	7,296	7,744
CS_02462.las	320	65,520	6,153	6,208	7,168
CS_02464.las	272	65,520	5,411	5,520	5,488
CS_02476.las	441	19,891	5,130	5,088	5,107
CS_02483.las	384	11,360	4,201	4,528	4,848
CS_02491.las	32	65,535	7,062	7,264	7,744
CS_02505.las	32	65,535	5,692	5,792	5,664
CS_02506.las	32	65,535	6,161	6,240	6,112
CS_02515.las	32	65,535	6,959	7,168	7,616
CS_02519.las	304	65,520	6,057	6,112	6,880
CS_02521.las	48	65,520	5,296	5,440	6,208
CS_02539.las	288	12,624	3,931	4,224	4,752
CS_02547.las	32	65,535	6,979	7,200	7,776
CS_02553.las	32	65,535	6,790	6,912	7,232
CS_02555.las	240	65,520	5,667	5,760	5,376
CS_02561.las	32	65,535	5,779	5,792	5,664
CS_02562.las	32	65,535	6,113	6,176	5,952
CS_02566.las	32	65,535	6,887	7,072	7,360
CS_02574.las	112	65,520	6,175	6,240	6,832
CS_02576.las	224	65,520	5,059	5,104	4,640
CS_02592.las	304	12,688	3,886	4,096	4,640
CS_02605.las	32	65,535	6,742	6,880	7,168
CS_02607.las	272	65,520	5,589	5,760	6,192
CS_02613.las	32	65,535	5,612	5,568	5,280

C-3 Report on Intensity Values - continued

File	Minimum	Maximum	Mean	Median	Mode
CS_02614.las	32	65,535	6,001	6,112	6,016
CS_02617.las	32	65,535	7,062	7,200	7,360
CS_02622.las	32	65,535	6,743	6,976	7,328
CS_02625.las	64	65,520	6,343	6,336	6,656
CS_02627.las	64	65,520	5,051	5,200	6,608
CS_02641.las	320	65,520	3,897	4,096	4,880
CS_02652.las	32	65,535	6,801	7,072	7,680
CS_02655.las	64	65,520	5,629	5,776	5,792
CS_02661.las	32	65,535	5,758	5,632	5,248
CS_02662.las	32	65,535	6,141	6,240	6,304
CS_02673.las	320	65,520	6,275	6,272	6,496
CS_02675.las	48	65,520	5,156	5,216	4,656
CS_02688.las	272	28,448	3,892	4,032	5,168
CS_02700.las	32	65,535	6,895	7,168	7,872
CS_02710.las	32	65,535	6,047	6,144	6,144
CS_02719.las	272	65,520	6,305	6,368	6,656
CS_02721.las	48	65,520	5,422	5,520	4,912
CS_02744.las	32	65,535	6,965	7,232	7,808
CS_02748.las	224	65,520	5,607	5,744	5,760
CS_02755.las	32	65,535	6,101	6,208	6,304
CS_02764.las	160	65,520	6,210	6,320	6,704
CS_02789.las	32	65,535	7,112	7,392	7,840
CS_02925.las	208	65,520	3,980	4,064	4,272
CS_02965.las	448	65,520	3,961	4,048	4,224
CS_02990.las	592	21,216	4,890	5,088	4,928
CS_03028.las	272	65,520	5,815	5,952	6,320
CS_03031.las	272	65,520	6,158	6,208	6,544
CS_09000.las	272	12,688	5,689	5,824	6,064
Overall Statistics	32	65,535	6,185	6,304	7,072

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 - Y:\Mapping\Projects\65220171_USGS-TX_West_Texas\Production\Final_Client_Deliverables\Lot8_utm13\point_cloud\Swaths](Y:\Mapping\Projects\65220171_USGS-TX_West_Texas\Production\Final_Client_Deliverables\Lot8_utm13\point_cloud\Swaths)

