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entry:
%workspace = alloca [64 x float], align 16
%sample_range_limit = getelementptr inbounds %struct.jpeg_decompress_struct,
... %struct.jpeg_decompress_struct* %cinfo, i64 0, i32 61
%0 = load i8*, i8** %sample_range_limit, align 8, !tbaa !2
%1 = bitcast [64 x float]* %workspace to i8*
call void @llvm.lifetime.start(i64 256, i8* %1) #2
%dct_table = getelementptr inbounds %struct.jpeg_component_info,
... %struct.jpeg_component_info* %comp_ptr, i64 0, i32 20
%2 = bitcast i8** %dct_table to float**
%3 = load float*, float** %2, align 8, !tbaa !10
%arraydecay = getelementptr inbounds [64 x float], [64 x float]* %workspace,
... i64 0, i64 0
br label %for.body
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for.body:
%ctr.0450 = phi i32 [ 8, %entry ], [ %dec, %for.inc ]
%wspr.0449 = phi float* [ %arraydecay, %entry ], [ %wspr.1, %for.inc ]
%quantpr.0448 = phi float* [ %3, %entry ], [ %quantpr.1, %for.inc ]
%inptr.0447 = phi i16* [ %coef_block, %entry ], [ %inptr.1, %for.inc ]
%arrayidx = getelementptr inbounds i16, i16* %inptr.0447, i64 8
%4 = load i16, i16* %arrayidx, align 2, !tbaa !12
%arrayidx1 = getelementptr inbounds i16, i16* %inptr.0447, i64 16
%5 = load i16, i16* %arrayidx1, align 2, !tbaa !12
%or437 = or i16 %5, %4
%arrayidx3 = getelementptr inbounds i16, i16* %inptr.0447, i64 24
%6 = load i16, i16* %arrayidx3, align 2, !tbaa !12
%or5438 = or i16 %or437, %6
%arrayidx6 = getelementptr inbounds i16, i16* %inptr.0447, i64 32
%7 = load i16, i16* %arrayidx6, align 2, !tbaa !12
%or8439 = or i16 %or5438, %7
%arrayidx9 = getelementptr inbounds i16, i16* %inptr.0447, i64 40
%8 = load i16, i16* %arrayidx9, align 2, !tbaa !12
%or11440 = or i16 %or8439, %8
%arrayidx12 = getelementptr inbounds i16, i16* %inptr.0447, i64 48
%9 = load i16, i16* %arrayidx12, align 2, !tbaa !12
%or14441 = or i16 %or11440, %9
%arrayidx15 = getelementptr inbounds i16, i16* %inptr.0447, i64 56
%10 = load i16, i16* %arrayidx15, align 2, !tbaa !12
%or17442 = or i16 %or14441, %10
%cmp18 = icmp eq i16 %or17442, 0
%11 = load i16, i16* %inptr.0447, align 2, !tbaa !12
%conv21 = sitofp i16 %11 to float
%12 = load float, float* %quantpr.0448, align 4, !tbaa !13
%mul = fmul float %conv21, %12
br i1 %cmp18, label %if.then, label %if.end
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if.then:
store float %mul, float* %wspr.0449, align 4, !tbaa !13
br label %for.inc
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if.end:
%conv38 = sitofp i16 %5 to float
%arrayidx39 = getelementptr inbounds float, float* %quantpr.0448, i64 16
%13 = load float, float* %arrayidx39, align 4, !tbaa !13
%mul140 = fmul float %conv38, %13
%conv42 = sitofp i16 %7 to float
%arrayidx43 = getelementptr inbounds float, float* %quantpr.0448, i64 32
%14 = load float, float* %arrayidx43, align 4, !tbaa !13
%mul144 = fmul float %conv42, %14
%conv46 = sitofp i16 %9 to float
%arrayidx47 = getelementptr inbounds float, float* %quantpr.0448, i64 48
%15 = load float, float* %arrayidx47, align 4, !tbaa !13
%mul148 = fmul float %conv46, %15
%add = fadd float %mul, %mul144
%sub = fsub float %mul, %mul144
%add49 = fadd float %mul40, %mul148
%sub50 = fsub float %mul40, %mul148
%mul151 = fmul float %sub50, 0x3FF6A09E60000000
%sub52 = fsub float %sub51, %add49
%add53 = fadd float %add, %add49
%sub54 = fsub float %add, %add49
%add55 = fadd float %sub, %sub52
%sub56 = fsub float %sub, %sub52
%conv58 = sitofp i16 %4 to float
%arrayidx59 = getelementptr inbounds float, float* %quantpr.0448, i64 8
%16 = load float, float* %arrayidx59, align 4, !tbaa !13
%mul160 = fmul float %conv58, %16
%conv62 = sitofp i16 %6 to float
%arrayidx63 = getelementptr inbounds float, float* %quantpr.0448, i64 24
%17 = load float, float* %arrayidx63, align 4, !tbaa !13
%mul164 = fmul float %conv62, %17
%conv66 = sitofp i16 %8 to float
%arrayidx67 = getelementptr inbounds float, float* %quantpr.0448, i64 40
%18 = load float, float* %arrayidx67, align 4, !tbaa !13
%mul168 = fmul float %conv66, %18
%conv70 = sitofp i16 %10 to float
%arrayidx71 = getelementptr inbounds float, float* %quantpr.0448, i64 56
%19 = load float, float* %arrayidx71, align 4, !tbaa !13
%mul172 = fmul float %conv70, %19
%add73 = fadd float %mul64, %mul168
%sub74 = fsub float %mul68, %mul164
%add75 = fadd float %mul60, %mul172
%sub76 = fsub float %mul60, %mul172
%add77 = fadd float %add73, %add75
%sub78 = fsub float %add75, %add73
%mul179 = fmul float %sub78, 0x3FF6A09E60000000
%add80 = fadd float %sub74, %sub76
%mul181 = fmul float %add80, 0x3FFD906BC0000000
%mul182 = fmul float %sub76, 0x3FF1517A80000000
%sub83 = fsub float %mul182, %mul181
%mul184 = fmul float %sub74, 0x4004E7AEA0000000
%add85443 = fsub float %mul181, %mul184
%sub86 = fsub float %add85443, %add77
%sub87 = fsub float %mul179, %sub86
%add88 = fadd float %sub83, %sub87
%add89 = fadd float %add53, %add77
store float %add89, float* %wspr.0449, align 4, !tbaa !13
%sub91 = fsub float %add53, %add77
%add93 = fadd float %add55, %sub86
%sub95 = fsub float %add55, %sub86
%add97 = fadd float %sub56, %sub87
%sub99 = fsub float %sub56, %sub87
%add101 = fadd float %sub54, %add88
%sub103 = fsub float %sub54, %add88
br label %for.inc
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for.inc:
%mul.sink456 = phi float [ %sub91, %if.end ], [ %mul, %if.then ]
%mul.sink455 = phi float [ %add93, %if.end ], [ %mul, %if.then ]
%mul.sink454 = phi float [ %sub95, %if.end ], [ %mul, %if.then ]
%mul.sink453 = phi float [ %add97, %if.end ], [ %mul, %if.then ]
%mul.sink452 = phi float [ %sub99, %if.end ], [ %mul, %if.then ]
%mul.sink451 = phi float [ %add101, %if.end ], [ %mul, %if.then ]
%mul.sink = phi float [ %sub103, %if.end ], [ %mul, %if.then ]
%20 = getelementptr inbounds float, float* %wspr.0449, i64 56
store float %mul.sink456, float* %20, align 4
%21 = getelementptr inbounds float, float* %wspr.0449, i64 8
store float %mul.sink455, float* %21, align 4
%22 = getelementptr inbounds float, float* %wspr.0449, i64 48
store float %mul.sink454, float* %22, align 4
%23 = getelementptr inbounds float, float* %wspr.0449, i64 16
store float %mul.sink453, float* %23, align 4
%24 = getelementptr inbounds float, float* %wspr.0449, i64 40
store float %mul.sink452, float* %24, align 4
%25 = getelementptr inbounds float, float* %wspr.0449, i64 32
store float %mul.sink451, float* %25, align 4
%26 = getelementptr inbounds float, float* %wspr.0449, i64 24
store float %mul.sink, float* %26, align 4
%wspr.1 = getelementptr inbounds float, float* %wspr.0449, i64 1
%quantpr.1 = getelementptr inbounds float, float* %quantpr.0448, i64 1
%inptr.1 = getelementptr inbounds i16, i16* %inptr.0447, i64 1
%dec = add nsw i32 %ctr.0450, -1
%cmp = icmp sgt i32 %ctr.0450, 1
br i1 %cmp, label %for.body, label %for.cond109.preheader
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for.cond109.preheader:
%add.ptr = getelementptr inbounds i8, i8* %0, i64 128
%idx.ext = zext i32 %output_col to i64
br label %for.body112
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for.body112:
%indvars.iv = phi i64 [ 0, %for.cond109.preheader ], [ %indvars.iv.next,
... %for.body112 ]
%wspr.2445 = phi float* [ %arraydecay, %for.cond109.preheader ], [
... %add.ptr227, %for.body112 ]
%arrayidx113 = getelementptr inbounds i8*, i8** %output_buf, i64 %indvars.iv
%27 = load i8*, i8** %arrayidx113, align 8, !tbaa !15
%add.ptr114 = getelementptr inbounds i8, i8* %27, i64 %idx.ext
%28 = load float, float* %wspr.2445, align 4, !tbaa !13
%arrayidx116 = getelementptr inbounds float, float* %wspr.2445, i64 4
%29 = load float, float* %arrayidx116, align 4, !tbaa !13
%add117 = fadd float %28, %29
%sub120 = fsub float %28, %29
%arrayidx121 = getelementptr inbounds float, float* %wspr.2445, i64 2
%30 = load float, float* %arrayidx121, align 4, !tbaa !13
%arrayidx122 = getelementptr inbounds float, float* %wspr.2445, i64 6
%31 = load float, float* %arrayidx122, align 4, !tbaa !13
%add123 = fadd float %30, %31
%sub126 = fsub float %30, %31
%mul127 = fmul float %sub126, 0x3FF6A09E60000000
%sub128 = fsub float %mul127, %add123
%add129 = fadd float %add117, %add123
%sub130 = fsub float %add117, %add123
%add131 = fadd float %sub120, %sub128
%sub132 = fsub float %sub120, %sub128
%arrayidx133 = getelementptr inbounds float, float* %wspr.2445, i64 5
%32 = load float, float* %arrayidx133, align 4, !tbaa !13
%arrayidx134 = getelementptr inbounds float, float* %wspr.2445, i64 3
%33 = load float, float* %arrayidx134, align 4, !tbaa !13
%add135 = fadd float %32, %33
%sub138 = fsub float %32, %33
%arrayidx139 = getelementptr inbounds float, float* %wspr.2445, i64 1
%34 = load float, float* %arrayidx139, align 4, !tbaa !13
%arrayidx140 = getelementptr inbounds float, float* %wspr.2445, i64 7
%35 = load float, float* %arrayidx140, align 4, !tbaa !13
%add141 = fadd float %34, %35
%sub144 = fsub float %34, %35
%add145 = fadd float %add135, %add141
%sub146 = fsub float %add141, %add135
%mul147 = fmul float %sub146, 0x3FF6A09E60000000
%add148 = fadd float %sub138, %sub144
%mul149 = fmul float %add148, 0x3FFD906BC0000000
%mul150 = fmul float %sub144, 0x3FF1517A80000000
%sub151 = fsub float %mul150, %mul149
%mul152 = fmul float %sub138, 0x4004E7AEA0000000
%add153444 = fsub float %mul149, %mul152
%sub154 = fsub float %add153444, %add145
%sub155 = fsub float %mul147, %sub154
%add156 = fadd float %sub151, %sub155
%add157 = fadd float %add129, %add145
%conv158 = fptosi float %add157 to i64
%add159 = add nsw i64 %conv158, 4
%shr421 = lshr i64 %add159, 3
%and = and i64 %shr421, 1023
%arrayidx162 = getelementptr inbounds i8, i8* %add.ptr, i64 %and
%36 = load i8, i8* %arrayidx162, align 1, !tbaa !16
store i8 %36, i8* %add.ptr114, align 1, !tbaa !16
%sub164 = fsub float %add129, %add145
%conv165 = fptosi float %sub164 to i64
%add166 = add nsw i64 %conv165, 4
%shr167423 = lshr i64 %add166, 3
%and169 = and i64 %shr167423, 1023
%arrayidx171 = getelementptr inbounds i8, i8* %add.ptr, i64 %and169
%37 = load i8, i8* %arrayidx171, align 1, !tbaa !16
%arrayidx172 = getelementptr inbounds i8, i8* %add.ptr114, i64 7
store i8 %37, i8* %arrayidx172, align 1, !tbaa !16
%add173 = fadd float %add131, %sub154
%conv174 = fptosi float %add173 to i64
%add175 = add nsw i64 %conv174, 4
%shr176425 = lshr i64 %add175, 3
%and178 = and i64 %shr176425, 1023
%arrayidx180 = getelementptr inbounds i8, i8* %add.ptr, i64 %and178
%38 = load i8, i8* %arrayidx180, align 1, !tbaa !16
%arrayidx181 = getelementptr inbounds i8, i8* %add.ptr114, i64 1
store i8 %38, i8* %arrayidx181, align 1, !tbaa !16
%sub182 = fsub float %add131, %sub154
%conv183 = fptosi float %sub182 to i64
%add184 = add nsw i64 %conv183, 4
%shr185427 = lshr i64 %add184, 3
%and187 = and i64 %shr185427, 1023
%arrayidx189 = getelementptr inbounds i8, i8* %add.ptr, i64 %and187
%39 = load i8, i8* %arrayidx189, align 1, !tbaa !16
%arrayidx190 = getelementptr inbounds i8, i8* %add.ptr114, i64 6
store i8 %39, i8* %arrayidx190, align 1, !tbaa !16
%add191 = fadd float %sub132, %sub155
%conv192 = fptosi float %add191 to i64
%add193 = add nsw i64 %conv192, 4
%shr194429 = lshr i64 %add193, 3
%and196 = and i64 %shr194429, 1023
%arrayidx198 = getelementptr inbounds i8, i8* %add.ptr, i64 %and196
%40 = load i8, i8* %arrayidx198, align 1, !tbaa !16
%arrayidx199 = getelementptr inbounds i8, i8* %add.ptr114, i64 2
store i8 %40, i8* %arrayidx199, align 1, !tbaa !16
%sub200 = fsub float %sub132, %sub155
%conv201 = fptosi float %sub200 to i64
%add202 = add nsw i64 %conv201, 4
%shr203431 = lshr i64 %add202, 3
%and205 = and i64 %shr203431, 1023
%arrayidx207 = getelementptr inbounds i8, i8* %add.ptr, i64 %and205
%41 = load i8, i8* %arrayidx207, align 1, !tbaa !16
%arrayidx208 = getelementptr inbounds i8, i8* %add.ptr114, i64 5
store i8 %41, i8* %arrayidx208, align 1, !tbaa !16
%add209 = fadd float %sub130, %add156
%conv210 = fptosi float %add209 to i64
%add211 = add nsw i64 %conv210, 4
%shr212433 = lshr i64 %add211, 3
%and214 = and i64 %shr212433, 1023
%arrayidx216 = getelementptr inbounds i8, i8* %add.ptr, i64 %and214
%42 = load i8, i8* %arrayidx216, align 1, !tbaa !16
%arrayidx217 = getelementptr inbounds i8, i8* %add.ptr114, i64 4
store i8 %42, i8* %arrayidx217, align 1, !tbaa !16
%sub218 = fsub float %sub130, %add156
%conv219 = fptosi float %sub218 to i64
%add220 = add nsw i64 %conv219, 4
%shr221435 = lshr i64 %add220, 3
%and223 = and i64 %shr221435, 1023
%arrayidx225 = getelementptr inbounds i8, i8* %add.ptr, i64 %and223
%43 = load i8, i8* %arrayidx225, align 1, !tbaa !16
%arrayidx226 = getelementptr inbounds i8, i8* %add.ptr114, i64 3
store i8 %43, i8* %arrayidx226, align 1, !tbaa !16
%indvars.iv.next = add nuw nsw i64 %indvars.iv, 1
%exitcond = icmp eq i64 %indvars.iv.next, 8
br i1 %exitcond, label %for.end229, label %for.body112
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for.end229:
call void @llvm.lifetime.end(i64 256, i8* %1) #2
ret void
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