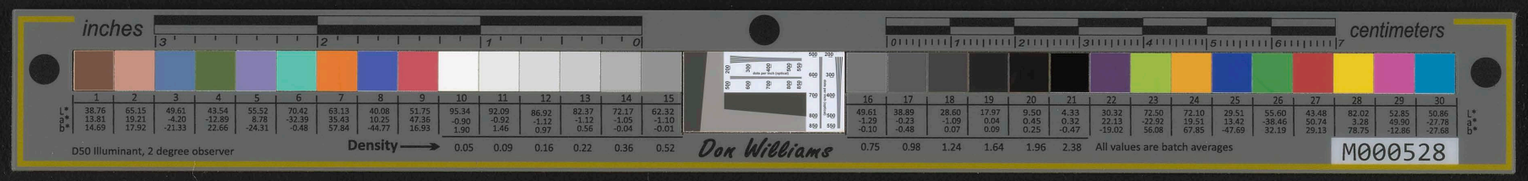

Kelsey, Theodore 1891-1987
PAPERS RELATING TO CHANTS
Chants with translations
typescripts
Queen Emma chants p. 52-102

Priv. Coll. M-86

F407

BX 17

inches centimeters
D50 Illuminant, 2 degree observer
Density → 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38
Don Williams
All values are batch averages
M000490

It was the breath of Ku who went to heaven,
The breath of Ku, Ku-ka-lani-hoonee-nuu.
A god was Luanuu for Kamakai'a,
Luanuu son of Laka, progenitor of chiefs
Of Ha'i and Kumalae.
Ku belonged to Ha'i, the red eyeball of Ku,
Carved out was Ku, the warrior of Kawaluna,
Ambitious was Ku to reach the clouds.
Like a dark mist spread in the sky,
Ku leaped down to sanctify the islands,
The child of heaven broke through
Rumbling even down to the shadowy depths of the land.
A choice color was red to Melemele
Forced through by his great love,
There was silence in the back, drawn and torn was the current,
A new island sprouted up,
Soon grown by the leafy plants of Lupe.
To Lupe belonged this neck wrapper,
To the child belonged the sacred helmet,
To the child belonged the carefully prepared food,
To him belonged all sacred things.
To the woman belonged the fruit on high
A heavenly fruit from on high was he
He who bore the highest of chiefs,
The highest who reached the zenith,
The high point, from which Laumaha built,
It was the steam of the umu where he was mothered,
The source of the steam, the sacred steam
The sacred chiefess who dared the dews of Kauakahi,

START

inches 3 2 1 0 centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

D50 Illuminant, 2 degree observer

Density → 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38

Don Williams

All values are batch averages

M000528

inches
centimeters
D50 Illuminant, 2 degree observer
Density
Don Williams
All values are batch averages
M000528

She dared to seek their first born.

Fearfully one approaches chiefs, fearfully touched, O heavenly one,

Delicate is the heavenly one, delicately fine,

Like the breath of Ku, her sacred parent.

As finely delicate as a ti leaf, as lightly as a dragon-fly lights the chief.

There can be no claim to relationship, none is bound to the chiefess

Nor to the kapu of the chiefess for kapu is her word.

Bound is she to the temples of Lono.

Point to a temple that is equal to that

And look to see.

The chiefess's kapu is entirely different,

The kapu of a chiefess born of the highest,

Emalani is that chiefess.

A chiefess who grew up with kapus, who matured with her kapu signs,

A sacred sign is the white drum,

A sign that commoners know and the lowliest recognize,

Brought by her male [parent] here,

Beyond it there is safety, inside of it there is heat,

The heat rises and goes away up.

From above comes the chief,

A good appetite has the younger chief, a chief over the land,

He who tells the news.

Ku issues a command to men,

"Lie still in the sea of your lord,

Do not move inthe sea of your chief,

A god is Ku whose gall bladder is on the back,

On the back is the bitter gall.

There is another thing on the back that is feared,

An eye is on the back that sees

The kapu ones who hold the kahilis.

inches 3 2 1 0 centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
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b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

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Don Williams

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0.75 0.98 1.24 1.64 1.96 2.38

All values are batch averages

M000528

inches centimeters
D50 Illuminant, 2 degree observer
Density
Don Williams
All values are batch averages
M000528

The chief has two persons there,

The two who faithfully serve the chief,

Faithful persons are the chiefs, made mana by the idolized god.

Twice feared is Kul, thrice feared, the chief,

Threefold and fourfold is the kapu of Lono,

To Lono belong the descendants, to Lono-nui-akea,

The royal ones, Keakealani and Kanehoalani,

Chiefly descendants of Kanehoalani.

You, O Kanehoalani, you are a descendant of Kanehoalani's,

From the gourds of Hoalani came the chief,

A heavenly lord was he,

He who wept in recognition of the heavenly one, Kama,

Kama, the descendant of that Kama,

Of the multitudinous kapus, a chief of strictest kapus was he,

He was Kauhi, Kauhi son of Kamalalawalu.

What of the cover over him, what of the shadow,

Sleepy and drowsy is the cover

It only prays and remains fast, it beseeches,

It beseeched, Piilani.

Beseeching for the kapu of Piilani wahine,

That heavenly who is thickened, darkened, thickened and darkened with kapus,

Layers upon layers, thick, multiple and double-skinned,

The double skin of the highest chief at Leleahana,

These are chiefs of the heated kapus here.

Kauhiokalani remains, firmly fixed,

Firmly fixed under the cover, that is being lifted by the shadow

Till the shadow penetrates the cover.

The heavenly one removes it from within Kaihehu,

Lifting it away from the great chiefs,

Kauhi and Keaka.

Keaka is descended from the distant heavens

inches 3 2 1 0 centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
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D50 Illuminant, 2 degree observer

Density ⟶ 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38

Don Williams

All values are batch averages

M000528

inches centimeters
D50 Illuminant, 2 degree observer
Density
Don Williams
All values are batch averages
M000528

From the highest of heavens is Keaka descended,

From Keaka comes heavenly and high descendants

Kaikilani, Kaikilani a great chiefly descendant,

Belonging to Keaka-ai-nehu is Maka,

Belonging to Kukona, the descendant, Kalani-kukuma,

Belonging to Kahiwa-a-Lono is Kaleleonalani the chiefess,

The chief Kahi-o-lana-i-maalo.

This is Maalohiolani's Kauhi,

That is Keaka who rejoices in her kapus.

The chiefs stretched forth from Wawau,

There are chiefs there who rank equally with these,

Many in number, all equals.

The chiefs are as the horizon clouds, no shadows are cast overhead because of the kapu.

They are truly chiefs whose ancestry reaches to remote antiquity,

This was the chief's possession, his land,

The kapus were as innumerable as trash to the ruling chief,

To the great chief who laid men on the sacrificial altar,

Who laid the foundation in his life time,

A time when he established his dynasty on Oahu,

Fixing it fast to the core of the earth,

The man made his pledge to Akua, the tree tree form of Laumalahea.

A leafy koa, a thrifty koa, a red koa, a well branched koa,

A koa that stood on the topmost ridge.

Delighted was Ku, parent and god,

The heavenly one, who was my father,

The heavenly one, your great-grand-uncle.

Yours, who had given him a great-great-grand child,

You, Kalaleonalani, child of Kauahoa.

The beauty of Hoohila was Kiha,

Kiha chief of Kahalahala.

inches 3 2 1 0 centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
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Density ⟶ 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

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b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

0.75 0.98 1.24 1.64 1.96 2.38

All values are batch averages

M000528

inches
centimeters
D50 Illuminant, 2 degree observer
Density
Don Williams
All values are batch averages
M000528

56.

My heavenly chief of Kaioe,
You, too, are a chief, O let me draw back
Draw my flowing tears back.
The tears well up, to flow, to drop, to pour,
There is no checking of the spilling tears
That fall upon you,
I do not seek without a reason
Seeking, dizzily unto Akea,
It is better that I should draw breath,
Draw breath and feel at ease.
Of the counsel of chiefs was Kalahu,
The heavenly Kalahu, red-headed chief of Wainiha,
Of the wig, the new hair of the heavenly one,
The cluster of dust-colored hair of a god
The coil that grew, the coil that became heavenly,
The place where the feather was made fast,
The feather that bore a message to the red-headed chief,
In the gathering of the dusk.
A feather of a bird was the form of Ku,
The war god of Kiha-a-Piilani,
Kiha ruled the land and as his end drew near,
He asked to be laid away at Laaina.
It was Kamakau who offered the dedication prayers,
And closed it that none shall bring him up.
Kauhi-lono-honua-a-Kama,
That Kauhi who was a caterpillar's twin,
Terrifying was Kauhi-lono-honua.
A god was Kalani-ku'i-hono-o-ka-moku,
A god was the person to compare him to.
Hush, that you may conceal yourself from the chief,

inches 3 2 1 0 centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
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Density ⟶ 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

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a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
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0.75 0.98 1.24 1.64 1.96 2.38 All values are batch averages

M000528

inches
centimeters
D50 Illuminant, 2 degree observer
Density
Don Williams
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M000528

You have seen him, a reverant hush has fallen,

Small lumps creep into your eyes,

And reach up for the eye balls,

Throbbing, throbbing against the ends of the lasher,

Trembling at the tips of the iris,

A ray of light slips in, there is a little vision.

These are chiefs that one does not fail to recognize,

No vines can creep over them,

No forest or trees that can tower above,

There can be no shadow cast on Kaleleonalani.

There is no net that can catch Kawelo,

To catch the chief who was born a shark,

Kawelo was born a man, he bore chiefs who are these,

This chief here and that one there, of the two fins of Kawelo,

Two kinds of flesh has Kawelo before him,

Kawelo's descendants are kapu.

Mano sought on to bear chiefs,

They sought Mano that the kapu may become strengthened.

This is Emalani, who glitters with kapu.

Emalani stands forth, the islands are excited

Emalani goes, the heavens are agitated,

Return from your journey, O Emalani.

You have reached in the east, the length your kapu.

She looks toward Kauhola-nui-a-Mahu,

And finds Liloa, the parent of the kapu,

Forcing through, breaking, sliding down,

Liloa slides down like a breadfruit tree with a heavy trunk.

Like a heavy shower from the sea that darkens Hilo-pali-ku,

So are the kapus of the heavenly ones; of Mano, o Kakuhihewa,

inches 3 2 1 0 centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
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M000528

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Don Williams
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M000528

58.

Do not fail to distinguish the seven Kakuhihewa,

The Kakuhihewa who budded in the heavens, casting a shadow on the waters was one,

The bud that became Kakuhihewa Kaumeheiwa was the second,

From within Kakuhihewa came Ka-lani-nui-maka-hakuma-i-ka-lani,

The thrice kapu chief Maka-hakuma-i-ka-lani,

The source was he of the horn-billed turtle,

The setting up of the thick-shelled turtle,

The thick shelled turtle with the poisonous back,

Like the poisonous chiefs that makes the mouth bitter,

Should one try, he'd itch and cut his tongue with scratching.

Like the larnyx are the chiefs

Whose mightly voices makdes the throat harsh when the tongue moves slightly.

Be careful how you chew with your teeth,

Make the upper jaw fit with the lower,

[redacted] that holds the kapu of Kaulahea,

Budding, budding, ever budding forth are the kapus,

Widening, widening, ever widening for the woman

Who rapped on the heavens, knocking, tapping,

This daughter who taps on the heavens is Kaleleonalani.

From a long sacred foot grew the heavenly one,

From Iwikauikaua the man, Kauakuaana I came,

From the three chiefs of Kaiwi,

Should one attempt to reach the three, dread seizes him from behind

From the back of the child of Kaulahea, Kaleleonalani,

From Kanaka-nui, Haku-mea-lani, Ka-nakulu-ka-maka-o-Luanuu.

The heavenly one tried to set aside, to discard the kapu, .

The heavenly one drew it out, pushed it away to separate from it,

He left his seeds to the Haao rains,

His companion rose above,

Ka-iwi-ku-kahi-a-Kama-pialu.

inches 3 2 1 0 centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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M000528

Kama-pialu drew away Kaaka,

Took him to a wider place,

To the source from whence the heavenly one was twice sired,

A woman was the site where chiefs were preserved,

It was she who laid down for the increase of chiefs

The increase, the increasing seeds of Ku, that entwined up to Lono,

Lono was entangled and dropped from above

The seedlings that bore tendrils

Entwining as a fruitful tree.

The top of this great tree is Emalani,

Whose branches spread downward, sheltering Hawaii,

Great Hawaii, island of Keawe, the son of Umi,

Island of Kauhola-a-Mohu, the royal steam of Kauhola.

In Kau, the chiefs were rooted and head their taproot,

Neula, the woman, was the source of the kapu,

Liloa is the spring in the sands from which to drink,

He slept with Akahi, the kapu daughter of Kuleana,

Umi came forth, who rose and inter-mingled,

Intermingled with Kapukini and bore chiefs,

Kanaloakuaana dwelt in Halawa,

And a branch of Kapukini's was established on Maui,

A root of Kapukini's was Kalani-kau-maka-o-Wakea,

Blessed by the kapu-wrapped chiefs,

The wrapper that was mishapen by the chiefs within,

The disagreeable tasting contents, the bitterness of chiefs,

Chiefs of the same descent, from Kawau and from Kiha,

From Kiha came the kapu from which all flee,

The high chiefs almost flee from it in distress.

Lazy, very lazy are the chiefs of low descent,

These are prominent chiefs, there is none higher than they,

inches 3 2 1 0 centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

D50 Illuminant, 2 degree observer

Density → 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

0.75 0.98 1.24 1.64 1.96 2.38 All values are batch averages

M000528

inches
centimeters
D50 Illuminant, 2 degree observer
Density
Don Williams
All values are batch averages
M000528

60.

True descendants of the long line of Piilani,

A long line is Piilani's, a long line has the man,

Blossoms that are cherished by the lovers of chiefs,

There is no more dreaded chief whom I know,

No more dreaded one that this child of Kauhi-kea-lani-o-Kama's,

Who is the joy of the many descendants of chiefs,

Chiefs who had left this world, O grant her health, mana and life,

May Ekalani live always.

inches 3 2 1 0

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

D50 Illuminant, 2 degree observer

Density → 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

centimeters 0 1 2 3 4 5 6 7

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

0.75 0.98 1.24 1.64 1.96 2.38 All values are batch averages

M000528

END

inches
centimeters
D50 Illuminant, 2 degree observer
Density
Don Williams
All values are batch averages
M000528

He Inoa (Emalani)

Hana Hilo i ka hale lehua a ka manu,
I na hale ulu lehua a ka Puulena,
I kuu ia, i omou ia e ka Moani,
Na kihene lehua o Mokaulele,
Haawe ma ke kua, hii ma ke alo,
Na pua lehua malili a ka ua,
Akaka ke ala noho i Hila,
O ka hala, o ka lehua, o ka hinano,
Hauna i ka ihu pohu i ke ala,
Lawe ka huaka'i au a loko o ka poli
Aole e hemahema ka nahele o Kamakea,
I ka nani o Pohaku-o-Hanalei,
Kaua wale mai ana, a oia kahi a.
O oe ana hoi e-------.

O oe ia e ka lau makoli nei i ke ala
He ala mai Puakalia mai,
Mai loko mai o ka opua
He opua kai aloha no Lono,
Hoolono a lono i ke aloha,
Hoouku mai ana a uku i ko kahu, owau a------.

O Lalohonua ke alii, o ka Lalohonua ia Papa,
Ke kumu o na alii i laha mai ai i o Papa,
O Papa ke alii nui ha'i ipu leo o kakahiaka,
Ninihua i ka manawa i au a'e nei,
O Wakea kane a Hoohoku i noho,
Hanau Haloa ka liko alii nui,
Hanau maikai o Keakalana,

START

inches 3 2 1 0

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

D50 Illuminant, 2 degree observer

Density ⟶ 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

centimeters 0 1 2 3 4 5 6 7

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	-0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

0.75 0.98 1.24 1.64 1.96 2.38 All values are batch averages

M000528

inches centimeters
D50 Illuminant, 2 degree observer
Density ⟶ 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38
Don Williams
All values are batch averages
M000528

Hanau Kiwaha ka manu mai Kahiki,
Lele pono mai, kuhi ka mana o ka manu alii,
Lele, hakulu, oili, lele i ka lani,
Lele mai Keawe ka iwa kilou moku,
Ka io, ka pueo uauahi, ka manu nana i kaha ka lani,
Ka moa hulu maikai nani hemolele
I kau i ka hale uahi i Kaaona
Ea mai, i ka lolohe i ka pu a,
Ke kukui a pono i luna o ka moku,
Ka lala i ka hikina o Hakoa,
Naha mai ka liko kapu o Lauwawa,
Hua mai ka anoano alii,
I hele pono i ka i'o lani, i ku pono i kahi ano,
I ke kahua o Pakaalana,
I ke ke ewe, ka piko kapu o lakou
Kahi o ke kapu i laha mai ai,
I haua i kamaaha la i Puolea,
    I Kahiki mai ia la.

Ea mai ka liko o ka wauke kukahi,
Nana i kaha ke alo pali alii nui,
Hoike mai la ka lolo kapu o Keawe
Loaa mai loko mai o Puukahonua,
Aia hoi ha i ko kupuna-wahine,
O ke kapu, kapu ai ku i ka lani.
O ka nahae mai loko o Ku,
O Paikauwale ka aina,
O ka manawa o ke kai akea
Kai haa lumilumi i ka manawa,

inches 3 2 1 0

centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

D50 Illuminant, 2 degree observer

Density ⟶ 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

0.75 0.98 1.24 1.64 1.96 2.38

All values are batch averages

M000528

inches
centimeters
D50 Illuminant, 2 degree observer
Density
Don Williams
All values are batch averages
M000528

Ka eena i luna o Kalani,

Ke 'lii kapu o Lalohonua.

O ke kupuna hoi ia nana nei moopuna.

O ka lau, ka hua i ka lala kamahele,

I ohi ka i'o, kupu i o Hakalau,

I mohala i Maui a Piilani

Nahae mai na alii ulu mamaka walu,

Ulu mai ka wauke lala ole,

Ka opuu i mohala i loko o Kaaona,

He milimili na Ku laua o Lono,

Ku aku la i Lalohana, ka aina lau alii,

O Olopana i Wawau.

I Upolu na alii i hanau no i ka lewa nuu la----.

'Ha ka nalu, kahe mai ka inaina,

Ke kuakoko o ke alii

Kahe mai ka wai puna a kea,

Hoowiliwili, hoiloli, hoopuu mai la Kalani,

I ka hanau ana i ke alii mai loko o Hikina-a-ka-la,

Uhi ka lani, po ka honua,

Malamalama aku la Kahiki e,

Eia ua kapu la e Hawaii

Kapu a ano meha mai la i uka o Heeia,

Ko mai ke ano o ka liko o ka ohi'a,

Kapapa ka nani o Puna e waiho nei,

Ka pua koa mai ka lani ao uli,

Ua ku pa kohana wale i ka makani,

Olali, hinu ke alo o ua mauna,

Laumania i ka popo'i a ka Puulena,

inches 3 2 1 0

centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

D50 Illuminant, 2 degree observer

Density ⟶ 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38

Don Williams

All values are batch averages

M000528

inches centimeters
D50 Illuminant, 2 degree observer
Density 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38
All values are batch averages
Don Williams
M000528

Kupu maikai ka nehele hala, o ke pili,
Ka ulu lehua o Malailena o Malio,
Ka oioi o ka pali o Kaukini,
He kinikini kanaka e noho aku ana,
He kanaka ia ua helu ia ka malama,
    Owau e------.

Owau i kohia i ka mole o ka honua,
O ka aui, i ka nenewa o ka aina,
I ka moku o Kane-lu-honua,
Nana i lu ka moku, naue o Hawaii
Ke oniu nei ka moku me he okaa la,
Niniu, kaa, kuku a nenewa ka moku,
Nakolokolo Kahiki, kai nalu ka aina,
Naueue ka moku ia Liipaa,
I ke keiki koa o ka lani, i hea ia i ke kapa kaua,
Ke kapa ulu, kapa laau o Kalani,
Loaa mai ka piko o Wakea mai loko o Hoohokukalani,
Ka liliko o ke kapu o Haloa
    I puka a'e nei.

Hoowiliwili, kaakaahea ma ka lani,
Haa pono i loko o Makalii,
He alii Ku, ikea papa lani
I ka malama kapu o Hinaiaeleele,
Akahi ka mu'o o Haloa, o ke kapu ua loaa a'e nei,
I loko o ka liko alii nui, ka lala kamahele kapu,.
I ka e'a i ka hihia maikai,
Ulu mai ka maia a hua a lau.
He alii no Kakahaku,
Na ke alii ka pule o kakahiaka

inches 3 2 1 0 centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

D50 Illuminant, 2 degree observer

Density → 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38

Don Williams

All values are batch averages

M000528

inches
centimeters
D50 Illuminant, 2 degree observer
Density
Don Williams
All values are batch averages
M000528

E heihei a le'a ka leo o ka pahu,

E kani holu ana ka leo o kaekeeke,

O Ku pehea a ia wai ka pahu e kani?

E auau ka hele e noi mai ana ka leo o ka pahu kani alii.

E ili popo'i ana i luna o ka moku

He alii no ke kai hohonu,

I ku i ka wai he mapuna alii a----.

O lele oili, o ka haili ku lani,

O ke leo paha ia e pa'epa'e mai nei,

O ka wahine ai holoholo ia Kahiki,

I ai i ka lewanuu, ka lewa-lani,

Me ke oni ana a kou makua.

Poahi lelehuna ka uka o Kaumana,

O ka uka o Hanaula me he ipo la,

Me he kane la o Waiakea no Hilo.

Ka hoowali a wali a pulu ka nahele,

Nawaliwali Hilo i ka ua nui,

He ua mailani no Kupolohina no

Ke ike i ke oho o Loko o Upolu,

O ka opua ka i nana a ka hoku-loa i luna

Ku ana i ka luna a.

Kau hema a ke aloha i ka hoohemahema,

A mamuli hoi mai ana hoi e,

Ka iuiu alii o Maluhaku

O ka hakukoi alamea kapu ke alii.

O ka ala moe wai o Haunaka,

O ke kini hoololohe wai o Kaka'e,

O ke pani wai lolo alii,

inches 3 2 1 0 centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

D50 Illuminant, 2 degree observer

Density → 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

0.75 0.98 1.24 1.64 1.96 2.38

All values are batch averages

M000528

inches
centimeters
D50 Illuminant, 2 degree observer
Density
Don Williams
All values are batch averages
M000528

He alii o Kiha-nui-ka-lulu-moku,

Puka Liloa ke kaei lani,

Ka nioi e ku ana i Pakaalana,

I ka hou i ka paepae a Liloa,

Akahi a ha'i mai ka la halii

Ka ha'ina o na alii pii no i luna,

Pii no i luna, o ka hiki mai a'e la,

Ea Umi ke alii o ke kai uli,

Ke alii o ke kai moana hohonu,

He alii o Liloa no kela pali, no keia pali,

No Pawiliwili no ka pali ke,

Uwe ka leo o ka ohia hoopapali o Kaholokuaiwa

I luna hoi o Maluae -- a --, i Pakaalana hoi e.

Ilaila no na elemakule, o Loikioe o Loae,

Ka ele Liloa he kahiko, he hoolono pali o Liloa

Ai moku kahiko a Kiha,

O Keawe a ka auhuhu mole lua.

O ke kohola papa uno'a o Kalani,

Ka poopoo lua ia i ku ka lima,

I ekeeke i walania ke lalau i ke kapu o Keaka wahine,

Ke ko'a uli maka hina, ka puko'a hilo ole i ke kai nui,

O Ka-lani-nui-I-a-mamao,

O ka une kippaa i ke kapu o Ku-nui-a-lei-moku ko kupana-kane,

Holo ka ea mai ka kumu a ka lau.

Na Liloa, na ka liko i ka lani,

Hui ho'i ha i loko o Pakaalana,

Keehi ana i ka paepae kapu o Liloa,

No Waipio Kalani, no kuawa,

inches 3 2 1 0

centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

D50 Illuminant, 2 degree observer

Density → 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

0.75 0.98 1.24 1.64 1.96 2.38

All values are batch averages

M000528

inches centimeters
D50 Illuminant, 2 degree observer
Density 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38
Don Williams
All values are batch averages
M000528

Na Kauhola-nui-a-Mahu ia nei,
Na Hakau na ka lala pua kea,
He alii Umi na ka lou o ka pali,
He mau, he hihia na na 'lii i ke kapu,
Ke kapu ko Kauhi, he wohi o Kalani,
No lakou ka pali kapu o Iao,
No loko o Loiloi i Halulukahi,
No ka pela o Kaka'e i Haunaka,
O Kauhi-aimoku-a-Kama
O Ku-ka-eleiki, ka manomano,
Ka ihupani o ka hohonu,
Nana i hoohiolo huku pali paa,
Hiki mai la ka mu'o o Keawe
Loaa Kaka'e iki kiai o ke kahawai,
Ke ku haili nana e noho ka wai,
Aole laau nana e uneune,
Ua lolohe na alii lolohe i ka wai
Na Nanaea, na Kaleimoku ia nei,
Na Kekuiapoiwa no,
Na Kekela na i hanau,
Hanau ka ua me ka makani,
He kilohana ka la no ka aina,
He hoahanau no ka inaina, ka ukiuki,
E kua'i ana ia loko o ke kanaka oolea,
Lilo mai ka maka, kapu ka leo,
Hamahamau, hawanawana ka olelo,
E noho malie wale ana no nana i o,
He puni ka hu'e a ka onohi
Ilaila e akaka le'a ai ka ike iaia,
Aia la o ka noe o Alakai.

inches 3 2 1 0

centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

D50 Illuminant, 2 degree observer

Density ⟶ 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38

Don Williams

All values are batch averages

M000528

inches
centimeters
D50 Illuminant, 2 degree observer
Density
Don Williams
All values are batch averages
M000528

Ua hoohie wale i ka lehua makanoe,
Nau okoa no paha ia loa o Kawaikini
E kali iki iho oe ia Kahelekua,
He kane maoli no nau ke Koolau,
Heaha la kou kuleana e Ka-wai-pao,
E ake'ake'a nei oe ia Makaweli,
E hui pu me ka wai iliahi.
O Ema o ka ihi lani alii kapu o Liloa.

O Umi ka welau i luna o ka lani,
I kowiliwili na alii, i hua i luna,
Hua aku la i loko o Makakaualii,
Mai loko mai o na kupuna alii nui,
O Kalani-nui-I-a-mamao he alii
I ku ai ka hoonee nuu a ke kapu,
O ka ikaika koele alii na,
O ka wai hooma-u ia o loko,
O ka loko no o Kawaikea,
O ka lani kupaa aole i haule ke kapu,
Akahi a naha ka maka wai,
Naha ka maka wai puka mai ke kapu,
Laha na alii nui, hua kanawao o Maui,
I ku o Maui i ke anuenue pipio,
Nana aku i ke kai ula o Kahai,
E hea mai ana e pii ke kai ula,
Hele ma ka aoao kapu o Keawe mua,
O Keawe kena, o Umi keia.

O Liloa, o ke kapu o Kauhi ia Kekela,
O Ema ka mea nana e a'e ka moku a---,

inches 3 2 1 0 centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

D50 Illuminant, 2 degree observer

Density ⟶ 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

0.75 0.98 1.24 1.64 1.96 2.38 All values are batch averages

M000528

inches
centimeters
D50 Illuminant, 2 degree observer
Density
Don Williams
All values are batch averages
M000528

Nana e kunikuni ka maka o ka hoku
Lalapa i ka lani,
E lalapa no, he uila ka hoa noho,
Ka hoailona, o ka pohaku alii,
He alii ka pohaku ke ua nei,
Ke iolo mai nei ka leo,
He leo no ka lani ke nakolo mai nei,
Ke nakolo mai nei ka honua,
O ka honua ka i hehee o lakou,
O ka ha'i, ha'i wahi kapu alii nui,
O ka pela alii i loko o Iao,
No Iao ke kapu i laha mai ai,
Laha na alii hua aku la i Hawaii,
Hua aku la i Hawaii i ka ua noe lani,
I ka paepae alii kapu o Liloa,
O Liloa, o ke kaei kapu o Umi,
E ku ana ka pahu i Pakaalana,
O lele ku ia nei, o paa ke aho,
O ka inoa ia o ko kupuna wahine a.

inches 3 2 1 0 centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

D50 Illuminant, 2 degree observer

Density → 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

0.75 0.98 1.24 1.64 1.96 2.38 All values are batch averages

M000528

END

inches
centimeters
D50 Illuminant, 2 degree observer
Density
Don Williams
All values are batch averages
M000528

A Name Chant for Queen Emma.

Hilo builds a lehua blossom house for the birds,
The lehua grove houses loved by the Puulena breeze,
Bent over, pinned down by the Moani breeze,
A vessel for lehua blossoms is Mokaulele,
Borne on the back, carried in the arms,
Are the lehua blossoms blighted by the rain.
Distinct are the perfumes that dwell in Hilo,
That of the hala, the lehua, the hinano,
Sickenly sweet to the nose is the perfume when calm,
Carried directly within the bosom.
There is nothing lacking in the forest of Kamakea,
For there is the beauty of the Rock-of-Hanalei,
Seeming to beckon us to that place.
It is thou, then .... .

It is thou, O leaves premeated with fragrance,
A fragrance from Puakalia,
From within the horizon clouds,
The beloved horizon clouds of Lono,
Listening, hearkening to the voice of love,
Rewarding me your devotee, me indeed --- .

Lalohonua was chief, Lalohonua through Papa,
The source of the chiefs descended from Papa,
Papa was the great chiefess whose voice was heard in the morning,
Angrily reproaching in that time long ago.
Wakea was the husband with whom Hoohoku lived,
Born was Haloa, the great bud of chiefs,
Well born was Keakalana,

START

inches 3 2 1 0

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

D50 Illuminant, 2 degree observer

Density ⟶ 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

0.75 0.98 1.24 1.64 1.96 2.38 All values are batch averages

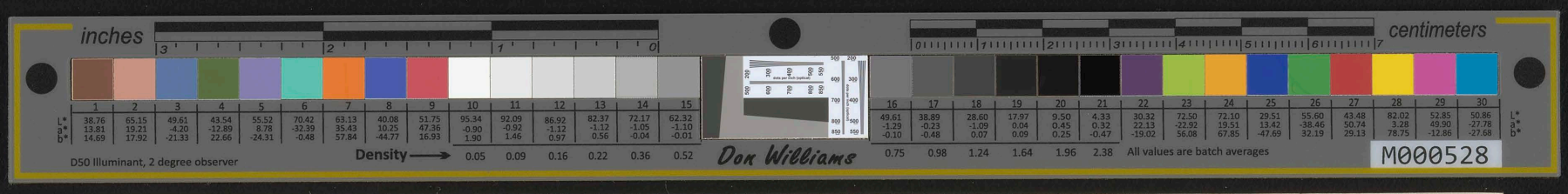
centimeters 0 1 2 3 4 5 6 7

M000528

inches
centimeters
D50 Illuminant, 2 degree observer
Density
Don Williams
All values are batch averages
M000528

Born was Kiwaha the bird from Kahiki,
This bird chief flew hither to point out the source of mana,
Flew, rumbled, appeared and flew to the sky,
Keawe flew hither the iwa bird that hooked the islands,
The hawk, the gray owl, the bird that crossed the sky,
The cock with beautiful, bright feathers,
That perched in the smoke house in the month of Kaaona.
Arise, listen to the call of the conch shell trumpet,
Watch for the light burning clear on the island,
The branch on the east side of Hakoa.
The sacred bud of Lauwawa burst forth,
Producing seeds, chiefs,
True to the heavenly stock, standing firm in a sacred place,
On the site of Pakaalana.
There belonged their sacred afterbirths, the umbilical cords,
On this sacred spot from which they branched.
Bound fast with coconut fiber cords at Puolea,
From Kahiki came they.

The bud of the lone wauke tree raises its head
To look up at the sheer cliff of a high chief,
Where the sacred brains of Keawe is seen,
He who was descended from Puukahonua.
There in the keeping of your ancestress,
Was the kapu, the kapu to stand the chiefs,
A branch was she from Ku,
Paikauwale her land
In the midst of the vast ocean.
As a restless sea rolling high overhead



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01
Density										0.05	0.09	0.16	0.22	0.36	0.52

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68
Density													0.75	0.98	1.24	1.64	1.96	2.38

inches centimeters
D50 Illuminant, 2 degree observer
Density
Don Williams
All values are batch averages
M000528

So is the forbidding aspects of the heavenly one,

The kapu chief Lalohonua.

He is the ancestor from whom this descendant came.

A leaf, a fruit on a wide spreading bough,

That filled out with pulp, grew at Hakalau,

Blossomed in Maui, island of Piilani,

The chiefs branched out, budding eight fold,

Up grew a branchless wauke tree,

A bud that unfolded in the month of Kaaona,

A favorite to Ku and to Lono,

It grew at Lalohana, the land of many chiefs,

Land of Olopana at Wawau.

To Upolu belonged the chiefs who were born to the upper strata --- .

The water bag burst, the reddish fluid flowed,

The chiefess was in labor,

The whitish fluid came forth.

Twisted, struggled, the heavenly one bent over in pain

In giving birth to a chief from within Hikina-a-ka-la,

The heavens were overcast, the earth was darkened.

Light reached Kahiki,

Lo, Hawaii was made kapu,

Kapu and silent was the upland of Heeia,

The stillness among the ohi'a leaf buds, was felt,

The many beautiful features of Puna was laid to view,

The tall blossoming koa trees against the sky,

Blown almost bare by the wind,

Smooth, shiny was the side of the mountain,

Swept bare by the sweeping of the Puulena wing,

inches

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

D50 Illuminant, 2 degree observer

Density ⟶ 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

0.75 0.98 1.24 1.64 1.96 2.38

All values are batch averages

centimeters

M000528

inches centimeters
D50 Illuminant, 2 degree observer
Density 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38
Don Williams
All values are batch averages
M000528

Beautifully grew the hala forests, the pili grass,
The lehua forest at Malailena, Maluo,
The point on the cliff of Kaukini
Where multitudes of people dwelt.
Men dwelt there for the seasons were observed,
I was there --- .

I held back the base of the earth,
As it turned, moving the land,
The island of Kane-shaker-of-the-earth,
He who shook the earth, moving Hawaii,
Spinning the island as though it were a top,
Dizzily spinning, jerking, reeling was the island.
Kahiki rumbled, tidal waves swept the land,
The island was shaken by Liipaa,
The youthful warrior of heaven, called to guard in battle,
The boundary of growing things, the forest boundary of the chief,
Descended from the loins of Wakea by Hoohokukalani,
Was Haloa of the strictest kapu.
Born was he.

The heavens writhed and twisted
Swaying, up with the Pleides.
Ku is chief, the foundation of heaven is revealed.
In the sacred month of Hinaiaeleele,
A new bud of Haloa's appeared; the kapu one is here,
Born of chiefs of the highest rank, of the longest sacred branch.
In the mountain banana patch where there is no entanglements
The bananas grow, fruit and leaf,
A chief of Kakahaku,
A chief who uttered his prayers in the morning,

inches

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

D50 Illuminant, 2 degree observer

Density → 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

0.75 0.98 1.24 1.64 1.96 2.38

All values are batch averages

centimeters

M000528

inches centimeters
D50 Illuminant, 2 degree observer
Density → 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38
Don Williams
All values are batch averages
M000528

Beating and enjoying the sound of the big drum,
The vibrating sound of the little drum.
O Ku, how and by whom was the drum beaten?
Make haste to ask for the drum beat to announce a chief,
One who shall arise and overwhelm the land,
A chief of the deep sea.
A chief also of the springs of chiefs --- .
    Flying, appearing, a sign is in the sky.

Perhaps it is a voice we hear,
The voice of a woman eating as she walks about in Kahiki,
Eating in the earthly strata, the heavenly strata,
Moving about as your family god does.
Dim, indistinct in the rain is the upland of Kaumana,
The upland of Hanaula is as a sweetheart
As a lover is Waiakea for Hilo.
Drenching, mixing, soaking the forest,
Are the heavy rains that weaken Hilo,
A rain that is dearly loved by Kupolohina.
When one sees the plants in upper Upolu,
The rain clouds had watched over them and the morning star above.
    Standing there above.

Unstable is love that is neglected,
But later it may be restored.
The highest of chiefs is Maluhaku
The highest chiefly kapu upon which no cloud rests,
Smooth as the water-worn alā stone of Haunaka
Are the multitudes of Kakae's descendants who listens to the water
Of the dam in the sacred valley of chiefs.

inches 3 2 1 0

centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

D50 Illuminant, 2 degree observer

Density → 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

0.75 0.98 1.24 1.64 1.96 2.38

All values are batch averages

M000528

inches centimeters
D50 Illuminant, 2 degree observer
Density 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38
Don Williams
All values are batch averages
M000528

A chief is Kiha-nui-lulu-moku,

Born was Liloa of the chiefly girdle,

Of the nioi tree that grew at Pakaalana,

That pierced through the sacred platform of Liloa,

At last the sun who sheds its light reveals the answer to

The riddle of the chiefs that ascended on high

They ascended upward, they have come,

Umi arose, the chief of the deep sea,

A chief of the ocean depths.

A chief is Liloa of that cliff and of this cliff,

For Pawiliwili, the inaccessible cliff.

The voice of the ohia on the cliffside of Kaholokuaiwa is heard to cry,

Up above Maluae; above Pakaalana.

There lived the old men Loikioe and Loae,

Old, too, was Liloa, aged; a listener to the cliffs was Liloa,

An aged ruler was he; a descendant of Kiha's,

Of Keawe, the doubly poisonous rooted auhuhu plant.

A reef of sharp, spiked things was the heavenly one,

A hole that would cause the hand to be pierced,

One drew back with pain who reached for the kapu o Keaka-wahine,

A dark, mysterious reef, a reef not overwhelmed by rough seas.

Kalani-nui-I-a-mamao.

Was the one who held unmoved the kapu of Ku-nui-a-lei-moku, your ancestor

Strength poured forth from trunk to leaves,

Through Liloa, the top most bud,

That all were combined in Pakaalana,

All treaded on the sacred platform of Liloa.

To Waipio belonged the chief, to an enclosed valley.

inches 3 2 1 0 centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

D50 Illuminant, 2 degree observer

Density → 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

0.75 0.98 1.24 1.64 1.96 2.38

All values are batch averages

M000528

inches centimeters
D50 Illuminant, 2 degree observer
Density → 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38
All values are batch averages
Don Williams
M000528

7b.

To Kauhola-nui-a-Mahu belongs our chiefess,
To Hakau, the branch with the white blossom,
A chief was Umi, the great hook of the cliffs,
Continuing, entwining the chiefs with kapus.
A kapu had Kauhi, of the wohi rank was the chief,
To them belonged the sacred cliff of Iao,
From within Loiloi at Halulukahi,
From the sacred flesh of Kakae at Haunaka,
From Kauhi-ai-moku-a-Kama.
From Ku-ka-ele-iki, thick with royal blood
The fearless one of the depths,
Who overthrew the firm and solid cliffs.
The tender leaf of Keawe had come,
From him descended Kaka'e the short, guardian of streams,
A fearful guardian watching over the waters,
There was no stick to pry him loose,
The chiefs had heard the sound of waters.
From Nanaea, to Kaleimoku came she (our chiefess)
From Kekuiapoiwa herself.
Kekela gave birth to her,
Born with the rain and the wind.
A thing of beauty is the sun to the land,
A relative to rage and to anger,
That tears out the bowels of a strong man.
The eyes turn away, the voice is silenced,
All is hushed, speaking only in whispers,
Keeping still and looking yonder,
Till the eyes are weary and smart,
Only then can one know who she is.
Yonder is the mist of Alakai.

inches 3 2 1 0 centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

D50 Illuminant, 2 degree observer

Density ⟶ 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38

Don Williams

All values are batch averages

M000528

inches centimeters
D50 Illuminant, 2 degree observer
Density ⟶ 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38
Don Williams
All values are batch averages
M000528

Sweeping grandly through the stunted ohia trees

Perhaps you have come from distant Kawaikini,

Wait a little for Kahelekua.

Your lover indeed is the Koolau wind,

So what is that to you, O Ka-wai-pao?

Why should you obstruct Makaweli's way,

To make him join the red water (of Waimea?).

Emma is a sacred, kapu chiefess descended from Liloa

Umi stood at the top, up in the sky,

Intermingled were the blood of chiefs who bore fruit above,

Bore fruit that were descended from Makakaualii

From ancestors who were high chiefs,

Kalani-nui-I-a-mamao was a chief,

Who had the kapu held by the highest,

A strong, powerful chief was he,

Like water to cool the heat within,

The internal organs of Kawaikea.

A firm chief he whose kapus had never fallen.

At last the fountain head is opened,

The fountain head is opened for the kapu to appear,

Multiplied were the high chiefs, the kamawao seeds of Maui,

Maui who stood by the arching rainbows,

Looking toward the red sea of Kahai,

Calling for the red sea to rise,

To go to the kapu side of Keawe, the first.

That was Keawe, this was Umi.

Through Liloa and through Kauhi came the kapu to Kekela,

Emma is the person to stand at the head of the land.

inches 3 2 1 0 centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

D50 Illuminant, 2 degree observer

Density → 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

0.75 0.98 1.24 1.64 1.96 2.38

All values are batch averages

M000528

inches centimeters
D50 Illuminant, 2 degree observer
Density 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38
Don Williams
All values are batch averages
M000528

78

It is she who lights the eyes of the stars
Till they glow in the sky,
Glowing to match their companion the lightning
A royal omen, the thunder peal for chiefs,
A chief is the thunder bolt; rain is falling,
A small distant voice is heard,
A voice of heaven, it rumbles now,
Rumbling over the earth,
The earth that melted away from them,
They tell, tell of the sacred place of high chiefs,
Of the sacred flesh of the bodies in Iao.
From Iao the kapus multiplied,
The chiefs multiplied, bearing fruit in Hawaii,
Fruited in Hawaii in the misty rain of heaven,
At the sacred platform of Liloa,
Of Liloa, of the sacred girdle of Umi,
The drum that stood in Pakaalana,
Flee thou from him lest your breath be stopped,
Answer to the name of your ancestress.

inches 3 2 1 0 centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

D50 Illuminant, 2 degree observer

Density → 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38

Don Williams

All values are batch averages

M000490

END

inches
centimeters
D50 Illuminant, 2 degree observer
Density
Don Williams
All values are batch averages
M000528

Name Chant for Queen Emma.

O ka hikuhiku ia, o ke kuawalu,
O na walu a ka pua laha ole,
Ka pua i kupu i Holani, he alii,
Ke kamani ula mai Kahiki mai,
E ku ana i luna o Lanikeha,
Ke ku a keia alii weliweli
Aole e loaa i ka lalau,
Aole e loaa i ka hoopili ia,
E ninau mai ana oe 'ia'u
E ha'i aku au i lohe oe.
Na Kukulu-o-Kahiki kou kupuna
I na ilaila ka piko, ke aa, ka iewe o Kane,
Ke kumu o ka hanauna i laha mai ai olua,
Nakele iki ka pua i puka i ke ao,
I haawi mai i ke aho lou,
E kuu, e kuu i ai mai ka i'a nui,
O Hawaii ke poo o ka aina,
Ua awai ia i paa o Lohana,
I ka eu ike koa nui,
He ahonui o Kalani, he ola loa, he ana ole,
He ale po'i moku, he halau piha ole,
E liliha mai ana e kekena mai.

Ka moni, ka moni, ka momoni, moni,
E moni aku ana o Kalanikaumakaomano
I kona moku, o Kauai.
E ake ana e panee mai, e neenee,
E nenenee mai ana o Niihau ia Kaula,
E nana mai ana o Lehua i kai,

START

inches 3 2 1 0 centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

D50 Illuminant, 2 degree observer

Density ⟶ 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

0.75 0.98 1.24 1.64 1.96 2.38

All values are batch averages

M000528

inches centimeters
D50 Illuminant, 2 degree observer
Density
Don Williams
All values are batch averages
M000528

I ke kini auau wai o Wailua nui a Hoano,

E ano ana, e kahiko ana,

E hihi aku ana, he kahi ka wana,

Ke wana Kalani, he i'a kuku, kuku ooi,

He mau lau ooi no Kahiki,

E loha ana i ka pali lele a koa'e,

He punana ike ole ia o Olopana,

I imi a loaa o Kahiki, i ka pali aniani o Ku,

I ku mai makawalu, nanae,

Mana ia ka mamana i ka wai, ka nenehe,

Oni'oni'o, ka oni'oni'o ilikea,

La'i kea, noho kea, maka kea,

Na ka maka kea i hoopuka i ke ao,

Laha ai ka pu'epu'e hu'ahu'a,

Kaha i ka nui wai i kaha ole ia,

Aole i kahe a Kahiki makalike,

Hiki ai ka apapanuu, ka apapalani,

I ka hanau opua, he opua ua nui.

I paka, i kulu ka wai i haalekua,

He kua Beretane no Maleka,

He mau muliwai haliuliu,

He kahua hale laau i loko,

E nana ana i kana ike, e kilo ana e kilohi ana,

E alawa ana i ke kuku a Moi, ke kahuna mana,

E hoomana ana i kona kahu i pono,

I keekeehi i ka houpo o Kane,

Inu aku i ka wai ola loa a Kane,

E ola Ema a ka pua aneane.

Aneane au e hopu i ka la

inches 3 2 1 0

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

D50 Illuminant, 2 degree observer

Density ⟶ 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

centimeters 0 1 2 3 4 5 6 7

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

0.75 0.98 1.24 1.64 1.96 2.38 All values are batch averages

M000528

inches
centimeters
Density
D50 Illuminant, 2 degree observer
Don Williams
All values are batch averages
M000528

Ho mai, ho mai i ke oho lai e,

Ka hua welo lani i ka mahamaha,

I na po malama i o Hoku,

I hooholu, hookua i ka lani

I lulu, i mamaka, i kupu ke kanu i ka hua

He kahua na ka I hanohano i hana a loaa,

I kipu i luna i Haili i ke koena lehua a ka manu,

Ka manu kiai nahele e hai wale ana i kona a,

E kani iki ana, e koha mai ana ka leo

O ka oo kani kua mauna,

O ke kupuna ua puka oiai ke nana nei,

I pepehe, i pehe, i kalole, i namu kona leo,

O ka leo o ke kolea kani hali'a i Nuuhiwa,

Hiwahiwa na kini nana na makua o ia nei,

E noho i ka moku e a'e i luna o Ulunui,

I ulu mai a ki'eki'e, ulu kapu ka pua i mohala,

I mohala, i kui a i kui a helelei ka pua

I milia, i olioli i milimili o Kaumakaamano i kana pua,

E nana ana ia noa,

I 'koi, i 'koi, i 'koi, i 'koi ai; e 'koi ana auanei oe,

Loaa ia oe a ulu nui ka pua laha ole o Hakalauai,

Ua kupu, ua ulu, ua ohaha,

I na i Hawaii, ke poo o na aina,

Ike au ia Kupulanakehau,

I a'e, a'e, i a'e, pii kai o Kaha'i,

I ha'ina mai e ka manini kapala ka ili

O ka awaawa, awaawa uahi polena,

He polena uahi makanoe i uka o Kali'u.

Ke 'lili nei no o Kulilikaua,

Ke hoano mai la e kapu ka lehua

inches 3 2 1 0 centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

D50 Illuminant, 2 degree observer

Density → 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

0.75 0.98 1.24 1.64 1.96 2.38 All values are batch averages

M000528

inches
centimeters
D50 Illuminant, 2 degree observer
Density
Don Williams
All values are batch averages
M000528

Ke oho o ka ohia a ka Wahine

I kahu i ka luna o Moekaua.

O kuu moe ia e imi a'e nei a,

I imi au i ke kukui ahinahina i ka 'moo pilia,

I pilia i kaha ua a ke anu a ----.

O ke anu ia e maeele ai kona onohi,

O kona onohi alawa i o.

E kohi ana i loko ka ii a ka manao,

O ua manao kuhihewa nei keia

E kuhi mai ana ua moe au a ----------.

(Na Kalikookalani-nui)

inches 3 2 1 0 | 0 1 2 3 4 5 6 7 centimeters

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

D50 Illuminant, 2 degree observer

Density → 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

0.75 0.98 1.24 1.64 1.96 2.38 All values are batch averages

M000528

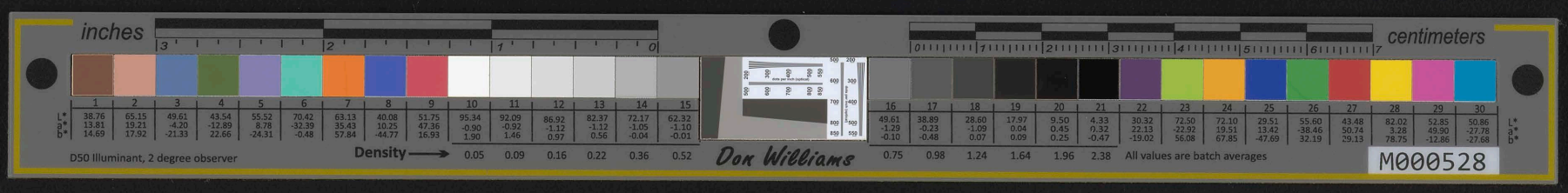
END

inches centimeters
D50 Illuminant, 2 degree observer
Density 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38
Don Williams
All values are batch averages
M000528

Name Chant for Queen Emma.

Seven times seven and eight times, too,
Eight times rarer is this blossom,
The blossom that spouted in Holani, a chief,
A red kamani tree from Kahiki,
That stood up on Lanikeha,
So stood this fearful chief,
One that could not be reached for,
One that could not be drawn close to.
You have asked me a question,
I shall tell you, that you may hear,
From the Pillar-of-Kahiki came your ancestor,
There the navel string, the umbilical cord, the placenta of Kane,
The source of the generations from whence you two came
The descendants that slipped into the world,
And given the line and hook.
Let it down, let it down that the great fish might take it,
Hawaii, the foremost of islands.
Wound and held fast by Lohana,
The mischievous and skilled warrior,
Patient is the heavenly one, long lived, without bounds,
A great billow dashing over the islands, a canoe shed that can not be filled.
Satisfied and satiated is she
In swallowing, swallowing, swallowing, swallowing,
Kalanikaumakamano swallows down
Her island, Kauai.
Eager to move closer, closer together,
Niihau and Kaula draw nearer together
Lehua watches from below,

START



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

D50 Illuminant, 2 degree observer

Density ⟶ 0.05 0.09 0.16 0.22 0.36 0.52

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	-22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

0.75 0.98 1.24 1.64 1.96 2.38

All values are batch averages

inches
centimeters
D50 Illuminant, 2 degree observer
Density
Don Williams
All values are batch averages
M000528

The multitude that bathe in Wailua, great land of Hoano,

Keeping silence, bedecking themselves.

Creeping forth, like a toothed comb, the sea egg,

A sea-egg is the heavenly one, a spiked "fish", sharply spiked,

A thorny tree from Kahiki

That hangs over a sheer precipice accessible only to sea birds,

A nest well hidden is Olopana,

Sought for and found in Kahiki, on the wind swept cliffs of Ku,

Innumerable and sheer.

Branching, branching toward water, moving silently,

Streaked, streaked with a white skin,

A peaceful white person, dwelling as a white person, with a white face

It was a white faced one from which she came into the world,

So multiplied the heaping foam

Moving over waters that none had been before,

All from Kahiki had not flowed the same way

To reach the eartly strata, the heavenly strata

To give birth to horizon clouds, great horizon clouds

That formed into drops; the water dropped and ran over the back of the land

A back is Great Britain for America,

These great transparent rivers

Containing wooden houses within,

To see what can be seen, watching, observing,

Glancing over to the deity of Moi, the powerful kahuna,

Who benefitted his devotee with mana,

To tread upon the chest of Kane

To drink of the ever living water of Kane

May Emma live to extreme old age.

I almost reached to catch the sun,

inches

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

D50 Illuminant, 2 degree observer

Density ⟶ 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

0.75 0.98 1.24 1.64 1.96 2.38

All values are batch averages

centimeters

M000528

inches
centimeters
D50 Illuminant, 2 degree observer
Density
Don Williams
All values are batch averages
M000528

Give, O give me a ti leaf (and)
A seedling of a family of high chiefs,
On the bright night of the moon, Hoku.
Like the many stars that dot the sky,
Scattered, budded, sprouted from the planted seeds,
A field prepared and founded by the honored Supreme One.
Protected were the remaining lehua blossoms left by the birds,
The birds that watch the upland and crying out their calls,
Singing softly or with voices crying aloud,
Are the oo birds that call in the mountain.
The ancestor has been mentioned to you who look on,
Fair skinned, fair, straight of hair and of intelligible speech,
The voice of the plover that cries its remembrance of Nuuhiwa
A favorite of the people, he sired her mother and others,
To dwell on the islands, to step over Ulunui
They grew tall; with kapus grew the flower that opened,
Unfolded and strung until the flower dropped of itself,
Fondled, enjoyed, Kaumakaamano cherished her blossom.
She looks toward another for a candle,
A candle, a candle,a candle, perhaps you can find it
You find it and many rare flowers of Hakalauai shall grow
They had sprouted, grown, became fully developed,
Yonder in Hawaii, foremost of islands,
I have seen Kupulanakehau
Who had stepped over, stepped over, stepped over, the rising sea o Kaha'i
It was told me by a maninin fish with striped skin
Bitterly cold, bitterly cold, with yellow smoke
A yellow smoke cloud is in the upland of Kali'u.
Kulilikaua lava beds glisten yet,
And try to make the lehua blossoms kapu

inches 3 2 1 0

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

D50 Illuminant, 2 degree observer

Density → 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

centimeters 0 1 2 3 4 5 6 7

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

0.75 0.98 1.24 1.64 1.96 2.38

All values are batch averages

M000528

inches centimeters
D50 Illuminant, 2 degree observer
Density 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38
Don Williams
All values are batch averages
M000528

The leaves of the ohia trees of the woman (Pele)
Scorched by her on the top of Moekaua.
This is the dream I seek to find,
I seek it among the silvery kukui trees close to the ridge,
Close to the place where the rain is cold
That is the cold that aches her eyes,
Her eyes as they look yonder.
Holding within her the desire, the wish,
Here is the mistaken thought,
I thought that I had been asleep.

(Composed by Kalikookalani-nui).

inches 3 2 1 0

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

D50 Illuminant, 2 degree observer

Density → 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

centimeters 0 1 2 3 4 5 6 7

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

0.75 0.98 1.24 1.64 1.96 2.38 All values are batch averages

M000528

END

Hula Song for Queen Emma

A kai o Hale Kauila
Ike ia na kumu o ka hana
Ehuehu na makaainana
Paa ole i ke kau mai
E ake aku ana ha manao
E kau aku i ka lei alii
E noho Kaleleonalani
I ke kalaunu o Hawaii
Pehea makou e ka lani
Ua kuikahi like ka manao
Ua ike o luna me lalo
Ua lohe Hawaii o Keawe
Ua Puni Kauai-o-Mano
Ua kui ka lono i Pelekane
He lawe ke aloha i ke kino
E kuili nei i ka poli
Pono ole ka hale o Keweiki
Aohe heahea leo aku
A he kunou Haole ke aloha
Ka maalo ana ae mawaho
A he lohe olelo wale mai
I ka hale hoolulu i ke kai
Kumaka ka i ike i na pipi
Mena apo hao i ka nuku
[illegible] Kaleleonalani
A kau i ka pua aneane

We were down at Halekauila
To see what was being done.
The people were so excited,
They could not be restrained.
All were so eager to have
The crown placed ~~to~~ on thee.
To have Kaleleonalani
Lit on the throne of Hawaii.
What of us, O heavenly one,
We are all of one mind.
All those above and below know
Hawaii island of Keawe has heard,
It has gone around Kauai of Mano,
The news have reach Britannia.
Love dwells fast in your body
It is wound tight in the bosom.
It is not to have the house of David
He never calls us to him.
His greeting is a nod like the Haole's,
When he passes by, outside,
We have heard some rumors
Of the "houses" that are stationed on the sea.
Mine eyes have seen the cattle
With rings of iron in their noses.
Long may Kaleleonalani live
Till old and very feeble.

START

inches 3 2 1 0 centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

D50 Illuminant, 2 degree observer

Density → 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

0.75 0.98 1.24 1.64 1.96 2.38

All values are batch averages

M000528

END

inches
centimeters
Density
D50 Illuminant, 2 degree observer
Don Williams
All values are batch averages
M000528

Chant for Queen Emma.

(Composed for the Widowed Queen when she went to Kauai).

Ke uka i Kilohana ka anoi la	In the upland of Kilohana is our delight
Ka iini kau a ka manao	The endless joy of our hearts.
Ka hali'a i ke anu o uka la	We recall the cold of that upland,
I ka ohu nee o ka mauna	The mists that creep over the mountains.
He kapoko, he pahee, he pakika la	Slipping, smooth, and slippery
Koala a hiki aku ai	Is the trail to reach up there.
Paa i ka lala kamale la	We held to any straggling branch
Na hinahina ku alanui	And the hinahina on the side of the trail
Ke hiki aku i Puukapele la	To get up to Puukapele
I ke kauila pano ohiohi	Where the tall kauila trees flourish,
Kuana i Wainaki ka wahine la	The lady rested at Waineki,
Kaleleonalani he inoa.	Kaleleonalani is her name.
Noe aku i ka Hale kamala la	We slept in a temporary shelter
Hale o ka Pupu kanioe	At the home of the singing land shells.
A kohu wawae Elekoni la	With the silence of an Indian's footsteps
Kinikini na hoa painiu	Walked her many followers midst the painiu.
Ka piina aku o Kakaula	On the incline up to Kakaula
He kaua lima ke aloha	All held hands like lovers.
Komo i ka nahele wehiwehi la	We entered the beautiful forest
I ka ulu ohia, mokihana	Where ohia and mokihana trees grow,
Kuha'o kalehua makanoa	Strange indeed are the stunted lehua trees
Ponaha i ka wao-laau	Surrounded by tall forest trees,
Noe wale mai no ka lehua	Dainty are the lehua trees
Neenee papa i ke kohekohe	Creeping low amid the kohekohe grass.
Ua poni ka maka o ia pua la	Deep colored are the centers of the blossoms
Noho hiehie i ka lau laau	Dwelling in pride amidst the leaves.
He Honolu ke ala o hiki ai la	The trail to reach them is marshy,

START

inches 3 2 1 0 centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

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L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

D50 Illuminant, 2 degree observer

Density ⟶ 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38

Don Williams

All values are batch averages

M000528

inches
centimeters
D50 Illuminant, 2 degree observer
Density
Don Williams
All values are batch averages
M000528

He ulika launa ole mai	And very much like sticky clay.
Hoa'o i na lepo pilali la	We tasted some pilali earth
Kohu lepo ai o Kawainui	And found it like the edible earth of Kawainui.
Aukika i ka Puukolea la	We slid along to Puukolea
Ka piina aku o Kawaiko'i	On the ascent to Kawaiko'i.
Koikua inea i ka loa la	We were so tired with the distance
Aikena ua maopaopa	And were weary in our limbs
He ihonahon i Halepaakai la	There was the down grade to Halepaakai,
He molale hinu hoi ka nahela	Where the forest was so green and shiny
Ka nahele o Aipo-nui la	The forest of Aipo-nui
Kuniki mai Aipo-iki	Partly hidden by Aipo-iki.
Lawelawe na lima o ke anu la	The cold reached out its fingers,
Na hoa i ka hui kalakala la	Chilling the travelling companions.
Hoolale i ke ahi lala poli	A warming bonfire was suggested
Pulupulu i ka pua limu	That was kindled with some mosses.
Aia i ka pono o ke ao la	Just so that when morning comes
I loaa kipapa a Ola.	We'll find the paved path of Ola.

inches 3 2 1 0 centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

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L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
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D50 Illuminant, 2 degree observer

Density → 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38

Don Williams

All values are batch averages

M000528

END

inches centimeters
D50 Illuminant, 2 degree observer
Density → 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38
All values are batch averages
Don Williams
M000490

He Inoa no Kaleleonalani.

Maikai Waipio, alo lua na pali
E poai ana a puni na moku,
Pihoihoi ka piina o Koa'ekea
Pii no a hoomau i Kaholokuaiwa,
Hoa'ia'i ka wai o Hiilawe i luna,
Ua hele a hochuelo i na pali,
O ke Ki'owai kapu ia o Ha'i wahine,
Oiaio, oia paha.

Papa ka ohu a malu o Pokahi,
Makaukau ka upena lawaia a ke kupa,
E hoala lua ana a puni ka i'a manu,
Hei ma ka akau, ulu mai ka hema,
Ohi hapuku ka maka pohu o Kaunu,
E hoolale ana i ke ahi no ka i'a,
No ua i'a hoomalu ula o Kaukini.
Oiaio, oia paha.

O oe hoi kahi e Na-huna-a-palai,
E uhai nei i ka uahi manu a ka maino,
He hilahila ole Makaukiu e kaunu nei,
Aohe ke kohu o Hanunanuna,
Puiwa ka manu eena i ke kanaka,
Aohe wahi hopohopo o Hopoileau
I ka moe o ka i'a o Kakaauki.
Oiaio, oia paha
E pawai au a e kepa kaua.
(Na Lahilahi)

START

inches 3 2 1 0

centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

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D50 Illuminant, 2 degree observer

Density ⟶ 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38

Don Williams

All values are batch averages

M000528

inches centimeters
Density → 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38
D50 Illuminant, 2 degree observer
All values are batch averages
Don Williams
M000528

91.

Maikai Kawaikini nani ke nana,
Ka hemolele o ia uka me ke onaona,
Ua hele a nolu pe i ka lehua makanoe,
Ua ike maka iho nei i ka maikai o Aipo,
E li ana ka i'o i ke anu o Hauailiki,
I ka hana hemolele a Kukalakamanu,
Ulu a mai a nui ka hele kua.
Oiaio, oia paha.

Oia o ke kaluha o Kapaa ka'u minamina
O ka nu'a o ke kalukalu i Ka-puu-kolu,
Ke nana iho i ka piko wai o Wailua,
E nawe malie ana ka wai i ka pua hau,
Ka paa ia a'e la e ke Koolau,
Ua luheluhe ka pua hoolana i Hauola,
I ke akalawe ka aiele ia Ema-Luka.
Oiaio, oia paha.

Pau ole ko'u hoohihi ia Waialeale,
O ke kumu ia o ka noe o Kawaikini,
Aohe hemahema iki o Pelehuna
Ua huhui a kua o Koholalele,
O ka lahui a ka wai i Mauna Kapu,
E aho e ae mai oe e Waiehu
A i kau ki'eki'e la i Kalalea
Oiaio, oia paha.
E pa wai au a e kepa kaua.
(Na Moehonua)

inches 3 2 1 0

centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

D50 Illuminant, 2 degree observer

Density → 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

0.75 0.98 1.24 1.64 1.96 2.38 All values are batch averages

M000528

inches centimeters
D50 Illuminant, 2 degree observer
Density → 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38
Don Williams
All values are batch averages
M000528

Maikai Puna maemae i ke akua wahine kapu
Kupu ke kino o ke ahi papa i ka lani,
Kela no e oi maluna o Kumukahi
I hopu ia a'e la e Uwekahuna,
E maopoopo la no e hou e komo i Puuonioni,
Ua ii mamau i ka papa o Malama.
Oiaio, oia paha.

Aole ia e eu ae he oi na Hawaii,
Na ka moku i ku pono a ka hiwa,
Lohi mai Apua, ua pa'e mai leo,
Ua kamaaina e kipa i Kukii
E ake ana e hoi e hana mai i Ha'eha'e,
O oe e ka la ka mea nona ka lani,
E ho'iho'i mai oe ia'u i keia mea.
Oiaio, oia paha.

Aia o kuu kane hala i Kookoolau,
Ua noho aloha wale me ka Puulena,
Me ka makani halihali ala mai Puna,
E pe ana i ke kai o Hanakahi
Ka maka lupalupa o ka lehua i ke kai,
I leha maikai ae i ka nalu o Huia,
O kuu manao keu no e malama nei a kuokoa,
Oiaio, oia paha
E pa wai au a e kepa kana.
(Na Alapai)

inches 3 2 1 0

centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

D50 Illuminant, 2 degree observer

Density ⟶ 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38

Don Williams

All values are batch averages

M000528

inches 3 2 1 0 centimeters 0 1 2 3 4 5 6 7
Density → 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38
D50 Illuminant, 2 degree observer
Don Williams
All values are batch averages
M000528

O oe ka ia e ka lani e loku nei i ka manawa o ka aina,
I ka manawa o Kane nui, o Lono i ka lani,
O Hooilo i ka pohaku o Ikuwa,
O ena kahi ka maka o Welehu
Ka maka o ka hekili ku'i nakeke,
Kapeku ana ka leo o ka hekili
Ku'i uina i ka maka o ka lani,
Ka maka o ka uila anapu holoholo,
Ke hoowakawaka mai la i ao e,
E hua'i e ikea mai ana ke kumu lani paa,
Puka mai ke alii o Kalanikaumakaamano.
Eia la.

Ka hekili ku'i nakeke i ka lani,
O Keawe-i-kekahi-alii-o-ka-moku,
Ke alii nana e paku paa ka lani,
Pani'o ka lani he alii
Nana e kikoni ka onohi eleele,
E ike iho ai na mea lani awaahia nei la,
Ua ike no au he aloha e, eia e.
(Author???)

[This one is in M 59 - pp. 8 but the last ten lines were omitted]

Maikai ke kuahiwi nani ke nana,
Ka aula wai o Namolokama, e ola 'na ia Mamalahoa,
I hoohoa i hoa o Kupakoili
Ka lihau wai hau o Maunahina,
Aunaki i ka la-i me he polope'a la,
Ke kakaha me he lupe la i ka malie.

Oiaio, oia paha,

inches 3 2 1 0

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

D50 Illuminant, 2 degree observer

Density ⟶ 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

centimeters 0 1 2 3 4 5 6 7

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

0.75 0.98 1.24 1.64 1.96 2.38 All values are batch averages

M000528

inches centimeters
D50 Illuminant, 2 degree observer
Density → 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38
Don Williams
All values are batch averages
M000528

Aia la o ka noe o Alakai, ua haanolu wale i Hauailiki,
Ka holo kake wai a ka Lupua,
Pupu aku la i Kaianana
Ka maka o ka lehua ai a ka manu,
Ua noho aloha wale i ka laau o Kipapa-a-Ola,
Ua haalulu wale i ka ua i ka nahele,
Ke kahelahela la o Lono-koiuiu,
Oiaio, oia paha.

Nana aku o ka lae o Kalaau,
Hele a enaena ke kula i ka la,
Ka aulii halalii a ke kohekohe,
Kaana pau ka ohu i ka laau,
Paa Waialeale naue ole i ka makani
I haka hulili ia i Kahelekua,
I holo a lino ia o luna e Kawaikini
Ka pala hinu me he hulu mamo la i ka la,
Hana Kemamo i ke ao humu i ka papale kapu no Haupu
E kau ana ma ka maka
Me ke kihi poohiwi o ka Oolewa,
Oiaio, oia paha
E pa wai au a e kepa kaua.
(Na Hikoni)

inches 3 2 1 0

centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

D50 Illuminant, 2 degree observer

Density ⟶ 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38

Don Williams

All values are batch averages

M000528

inches
centimeters
D50 Illuminant, 2 degree observer
Density
Don Williams
All values are batch averages
M000528

He Inoa no ka Mo'i wahine Emalani.

Ike ia Waialeale he anu Alakai,

He nahele lipo na ka noe o Maunahina,

Nani ke oo a ka ua o Puu-kolu

Eia a'e la i Hauailiki,

Ua hiki mai la paha ka pua he-i, paha la,

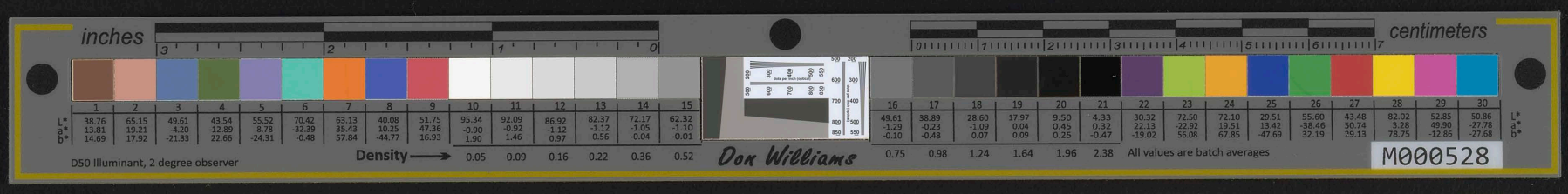
Ke paha wale mai la no ia'u na lehua o Luluupali,

Ke i a'e la oia i kahi o Kawaikini

Aole ou kuleana malaila

No'u ka lani me ka honua

Aole i kini ia i auka wale mai no e.



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01
Density										0.05	0.09	0.16	0.22	0.36	0.52

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	-29.13	78.75	-12.86	-27.68
Density	0.75	0.98	1.24	1.64	1.96	2.38									

END

inches centimeters
D50 Illuminant, 2 degree observer
Density → 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38
All values are batch averages
Don Williams
M000528

A Chant in Praise of Queen Emma.

Beautiful is Waipio Valley, enclosed by cliffs,
Cliffs that surround the land,
Weary is the climb to Ko'aekea,
The continuous climb to Kaholokuaiwa,
Sparkling, bright is the falls of Hiilawe above,
Streaming like a tail down the cliff side.
There is the sacred pool of Ha'i the woman.
True; perhaps it is so.

The mists spread thickly, darkening Pokahi,
The native sons prepare their nets
Awakening and surrounding the birds
Cathhing them on the right, frightening on the left,
The hungry hosts of Kaunu take recklessly,
Urging the fire be lit to cook their meat,
The meat that once cast a shadow on Kaukini.
True; perhaps it is so.

You, too, O Na-huna-a-palai,
You follow after the cruel smoke of the bird cooking fire.
Makaukiu is shamelessly acting the coquette,
She does not make a match for Hanunanuna.
The birds are startled, the fear the approach of man,
But Hopoileau is not daunted
By the sleeping of the shark of Kakaauki.
True; perhaps it is so.
Let me sip water, and let us eat heartily.
(Composed by Lahilahi, Queen Emma's aunt).

START

inches 3 2 1 0 centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

D50 Illuminant, 2 degree observer

Density ⟶ 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38

Don Williams

All values are batch averages

M000528

inches centimeters
D50 Illuminant, 2 degree observer
Density → 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38
Don Williams
All values are batch averages
M000528

97.

Beautiful is Kawaikini, lovely to behold,
A peacefulness is up there with fragrance,
Rain drenched are the stunted lehua trees.
I have seen for myself, the beauty of Aipo,
Where the skin is chilled by the cold of Hanailiki,
It was the neat work of Kukalakamanu
That caused much growth by the upland trails.
True; perhaps it is so.

How fond I have grown of the reeds of Kapaa,
The bunches of kalukalu grass of Ka-puu-kolu,
When you look down on the water in the center of Wailua,
The water that gently moves the blossoms of the hau,
Held back there by the Koolau breeze.
The flowers hang down into the water at Hauola,
While the (ship) Emma Rooke sails quietly by.
True; perhaps it is so.

Endless is my admiration for Waialeale,
The source of the fog of Kawaikini.
There is nothing lacking by Pelekuna,
All has been borne on the back of the Koholalele breeze,
The waters gather together at Mauna Kapu,
It would better if you were agreeable, O Waiehu,
Who stand so high up there at Kalalea.
True; perhaps it is so.
Let me sip water and let us eat heartily.

(Composed by Moehonua).

inches 3 2 1 0 centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

D50 Illuminant, 2 degree observer

Density → 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.66	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

0.75 0.98 1.24 1.64 1.96 2.38

All values are batch averages

M000528

inches centimeters
D50 Illuminant, 2 degree observer
Density → 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38
Don Williams
All values are batch averages
M000528

Beautiful is Puna, purified by the sacredness of the goddess,
The body of the fire rises, to glow in the heavens,
Rising highor than Point Kumukahi,
There it is caught up by Uwekahuna,
Where it struggles to push, to enter at Puuonioni,
Forcing and striving on the foundation of Malama.

True; perhaps it is so.

She will not move, the greatest one of Hawaii,
The island that is suited for its loveliness,
Apua glistens; voices are heard from afar,
She is a friend to be received at Kukii,
Anxious is she to return to work at Ha'eha'e.
To you, O sun, belong the heavenly one,
Bring these things back to me.

True; perhaps it is so.

My mate, the hala trees of Kookoolau
Are on friendly terms with the Puulena breeze
With the wind that wafts the fragrance from Puna.
Drenched by the sea sprays of Hanakahi
The full blown lehua on the sea shore,
That turned to glance gently at the surf of Hina,
In my mind I hold to the thought of independence.

True; perhaps it is so.

Let me sip water and let us eat heartily.

(Composed by Alapai).

inches 3 2 1 0 centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

D50 Illuminant, 2 degree observer

Density ⟶ 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

0.75 0.98 1.24 1.64 1.96 2.38

All values are batch averages

M000528

inches centimeters
D50 Illuminant, 2 degree observer
Density
Don Williams
All values are batch averages
M000528

It is thou, O heaven, pouring heavily upon the head of the land
The head of Kane the great, and Lono in heaven.
It is Winter, the thunder of Ikuwa is heard,
Wild is the appearance of the eyes of Welehu,
The eyes of the thunder that peal aloud,
Angry is the sound of the thunder's voice,
Pounding and crackling before the face of heaven,
The eyes of the lightning flashes as it rushes by,
Dimming and flashing among the clouds,
Pouring forth as if to reveal the source of heaven.
Born is the chiefess, Kaumakaamano,
Here she is.

The thunder peals, reverberating in heaven,
For Keawe-i-kekahi-alii-o-ka-moku,
A chieff who had shut out the sky,
Vari-colored is the sky for a chief.
It was he who rapped against the dark clouds,
And all the bitterness of the kapu of chiefs were seen,
I know there is love, for here she is.
(No author given).

(This one is in M. 59, page 8, but the last ten lines were omitted there).
Beautiful are the mountains, lovely to the view,
The streaming water of Namolokama, giving life to Mamalahoa,
Making friends that Kupakolii may become a companion.
The icy cold water of Maunahina,
Chill the ti plants, leaving them like the stem of the hala fruit,
Hardly moving as a kite in the calm.
True; perhaps it is so.

inches 3 2 1 0 centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

D50 Illuminant, 2 degree observer

Density ⟶ 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.60	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	-49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

0.75 0.98 1.24 1.64 1.96 2.38 All values are batch averages

M000528

inches centimeters
D50 Illuminant, 2 degree observer
Density 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38
Don Williams
All values are batch averages
M000528

100.

There is the mist of Alakai, moving in columns toward Hauailiki,
Hurrying with dampness before the Lupua wind,
Clustering together at Kaianana.
The open lehua flowers, food of the birds,
Dwell in affection in the woods at Kipapa-a-Ola,
They tremble in the rain of the forest,
Lono-koiuiu lies and stretches himself.
True; perhaps it is so.

Looking over at Kalaau Point,
Where the plain is burnt by the heat of the sun,
The tiny, spreading kohekohe grasses,
The fog spreading out among the trees.
Waialeale stands firm, unshaken by the wind,
It is a steep ladder to reach Kahelekua,
Tied fast to the top of Kawaikini,
Where it lies yellow in the sun like the feathers of the mamo bird,
Kemamo sews the clouds into a cap for Haupu
To wear down over its brow
And the shoulders, covered with moving clouds.
True; perhaps it is so.
Let me sip water and let us eat heartily.
(Composed by Hikoni, Queen Emma's aunt).

inches 3 2 1 0 centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.66	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

D50 Illuminant, 2 degree observer

Density ⟶ 0.05 0.09 0.16 0.22 0.36 0.52 0.75 0.98 1.24 1.64 1.96 2.38

Don Williams

All values are batch averages

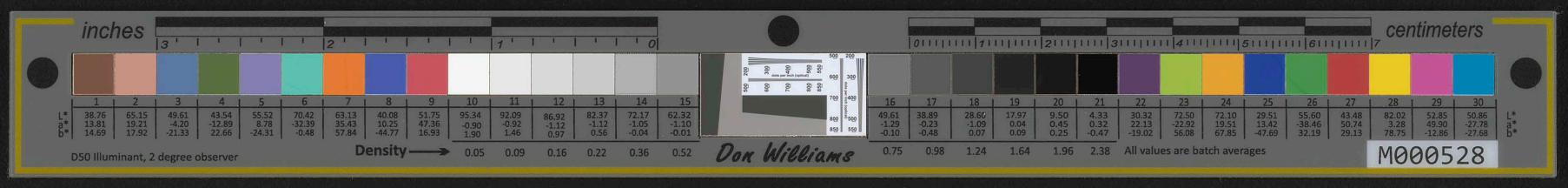
M000528

inches
centimeters
D50 Illuminant, 2 degree observer
Density
Don Williams
All values are batch averages
M000528

101.

A Name Chant for Queen Emma.

When one sees Waialeale, there is the cold of Alakai,
The green, mist-laden forest of Maunahina,
Beautiful is the pelting rain of Puu-kolu,
Going yonder to Hauailiki.
Perhaps the he-i blossoms has come, perhaps,
The lehua blossoms of Luluupali uncertainly questions me.
She replies to the spot where Kawaikini is, saying,
"What business is it of yours?
For mine is heaven and earth,
Not every one's that they may questinn me".



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01
Density										0.05	0.09	0.16	0.22	0.36	0.52

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.66	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.78
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68
Density	0.75	0.98	1.24	1.64	1.96	2.38									

END

inches 3 2 1 0 centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

D50 Illuminant, 2 degree observer

Density → 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
L*	49.61	38.89	28.66	17.97	9.50	4.33	30.32	72.50	72.10	29.51	55.60	43.48	82.02	52.85	50.86
a*	-1.29	-0.23	-1.09	0.04	0.45	0.32	22.13	-22.92	19.51	13.42	-38.46	50.74	3.28	49.90	-27.76
b*	-0.10	-0.48	0.07	0.09	0.25	-0.47	-19.02	56.08	67.85	-47.69	32.19	29.13	78.75	-12.86	-27.68

0.75 0.98 1.24 1.64 1.96 2.38 All values are batch averages

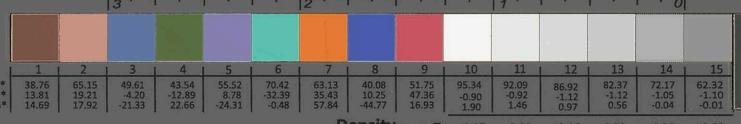
M000528

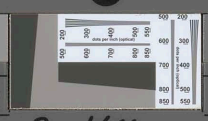
Song for Queen Emma

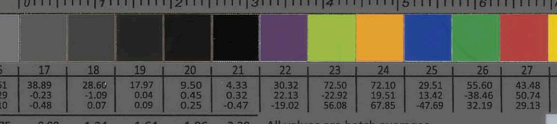
1.	1.
Welo ana e ka hae Hawaii	The Hawaiian flag is fluttering
Halii lua i ka ili kai	Waving over the surface of the sea
E hai mai ana i ka lono	It is telling us the news that
Kaleleonalani ko luna.	Kaleleonalani is on board.
Chorus.	
Kaleleonalani kou inoa	Kaleleonalani is your name,
Ahe hiwahiwa oe na ka lahui	The beloved of your race
Ahe lani oiala na oukou	She is ruler over you all
Ahe milimili hoi na makou.	And a darling to us.
2.	
A waho o na nalu o Kolea	Out at the surf of Kolea,
Ike i ka nani o Kahului	She saw the beauty of Kahului
Aohe mea nani ole olaila	There is nothing there that lacks beauty,
Ua nua ka lehua au i ke kai.	For the wreaths of lehua drift out to sea.

START

inches 3 2 1 0







centimeters 0 1 2 3 4 5 6 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
L*	38.76	65.15	49.61	43.54	55.52	70.42	63.13	40.08	51.75	95.34	92.09	86.92	82.37	72.17	62.32
a*	13.81	19.21	-4.20	-12.89	8.78	-32.39	35.43	10.25	47.36	-0.90	-0.92	-1.12	-1.12	-1.05	-1.10
b*	14.69	17.92	-21.33	22.66	-24.31	-0.48	57.84	-44.77	16.93	1.90	1.46	0.97	0.56	-0.04	-0.01

D50 Illuminant, 2 degree observer

Density ⟶ 0.05 0.09 0.16 0.22 0.36 0.52

Don Williams

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0.75 0.98 1.24 1.64 1.96 2.38

All values are batch averages

M000528

END