Colorimetric data for system lines ORS18 −> ORS18, TLS00, NRS18, SRS18

For input ***LCH*a0*** (ORS18) and output ***olv*3m*** for 4 systems (***m*** = 0 to 4)
Six CIELAB hue angles of device ORS18: (37.7 96.4 150.9 236.0 305.0 353.7);
Six CIELAB hue angles of device TLS00: (40.0 102.8 136.0 196.4 306.3 328.2);
Six CIELAB hue angles of device NRS18: (25.5 92.3 162.2 217.0 271.7 328.6);
Six CIELAB hue angles of device SRS18: (30.0 90.0 150.0 210.0 270.0 330.0);

no.	Colour	−>ORS18 LCH*a0			−>ORS18 n*, c*, H*ai0			ORS18 olv*31			TLS00 olv*32			NRS18 olv*33			SRS18 olv*34		
01	O=o00y	48.6	41.2	38	0.3	0.5	38	0.7	0.2	0.2	0.7	0.2	0.21	0.7	0.29	0.2	0.7	0.27	0.2
02	o10y	50.7	39.1	44	0.3	0.5	44	0.7	0.25	0.2	0.7	0.23	0.2	0.7	0.34	0.2	0.7	0.32	0.2
03	o20y	52.5	37.9	49	0.3	0.5	49	0.7	0.3	0.2	0.7	0.27	0.2	0.7	0.38	0.2	0.7	0.36	0.2
04	o30y	54.7	36.8	55	0.3	0.5	55	0.7	0.35	0.2	0.7	0.32	0.2	0.7	0.42	0.2	0.7	0.41	0.2
05	o40y	56.9	36.2	61	0.3	0.5	61	0.7	0.4	0.2	0.7	0.37	0.2	0.7	0.47	0.2	0.7	0.46	0.2
06	o50y	59.0	36.0	67	0.3	0.5	67	0.7	0.45	0.2	0.7	0.41	0.2	0.7	0.51	0.2	0.7	0.51	0.2
07	o60y	61.2	36.2	73	0.3	0.5	73	0.7	0.5	0.2	0.7	0.46	0.2	0.7	0.56	0.2	0.7	0.56	0.2
08	o070y	63.4	36.8	79	0.3	0.5	79	0.7	0.55	0.2	0.7	0.51	0.2	0.7	0.6	0.2	0.7	0.61	0.2
09	o80y	65.6	37.9	85	0.3	0.5	85	0.7	0.6	0.2	0.7	0.56	0.2	0.7	0.65	0.2	0.7	0.66	0.2
10	o90y	67.7	39.4	91	0.3	0.5	91	0.7	0.65	0.2	0.7	0.61	0.2	0.7	0.69	0.2	0.69	0.7	0.2
11	Y=y00l	69.5	41.2	96	0.3	0.5	96	0.7	0.7	0.2	0.7	0.65	0.2	0.67	0.7	0.2	0.65	0.7	0.2

Goal: Transfer coordinates ***LCH*a0*** (system m=0) to ***rgbm = olv*3m*** (system m=1 to 4)

The given data ***LCH*a0*** include the device hue ***H*a0***
Integer (i) device hue: ***H*ai0 = round (H*a0)*** (1)

Fetch device data ***LCH*a,Mm*** from table with 361 entries for ***H*ai0*** from 0 to 360 degrees
Lightness, chroma, hue: ***LCH*a,M0 = LCH*a,M0 [H*ai0]*** (2)

Calculate ***lcnw**** data from ***LC*a0*** and ***LC*a,M0***:
Relative lightness: ***l* = [L*0 − L*N0] / [L*W0 − L*N0]*** (3)
Relative chroma: ***c* = C*a0 / C*a,M0*** (4)
Relative Blackness: ***n* = 1 − l* + c* [L*M0 − L*N0] / [L*W0 − L*N0]*** (5)

Fetch device data ***olv*3,Mm*** from table with 361 entries for ***H*ai0*** from 0 to 360 degrees
"red, green, blue" ***rgbMm*** data: ***olv*3,Mm = olv*3,Mm [H*ai0]*** (6)

For any input or output device (m=0 to 4) it is valid for constant ***n*, c*, l*, H*a***:
"red, green, blue" ***rgbm*** data: ***olv*3m = 1 − n* − c* + c* olv*3,Mm*** (7)

Result: device dependent relative CIELAB data of 4 systems m=1 to 4:
"red, green, blue" ***rgbm*** data: ***rgbm = olv*3m*** (8)

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Colorimetric data for system lines ORS18 −> ORS18, TLS00, NRS18, SRS18

For input ***olv*30*** (ORS18) and output ***olv*3m*** for 4 systems (***m*** = 0 to 4)
Six CIELAB hue angles of device ORS18: (37.7 96.4 150.9 236.0 305.0 353.7);
Six CIELAB hue angles of device TLS00: (40.0 102.8 136.0 196.4 306.3 328.2);
Six CIELAB hue angles of device NRS18: (25.5 92.3 162.2 217.0 271.7 328.6);
Six CIELAB hue angles of device SRS18: (30.0 90.0 150.0 210.0 270.0 330.0);

no.	Colour	−>ORS18 olv*30			−>ORS18 n*, c*, H*si0			ORS18 olv*31			TLS00 olv*32			NRS18 olv*33			SRS18 olv*34		
01	O=o00y	0.7	0.2	0.2	0.3	0.5	30	0.7	0.2	0.2	0.7	0.2	0.21	0.7	0.29	0.2	0.7	0.27	0.2
02	o10y	0.7	0.25	0.2	0.3	0.5	36	0.7	0.25	0.2	0.7	0.23	0.2	0.7	0.34	0.2	0.7	0.32	0.2
03	o20y	0.7	0.3	0.2	0.3	0.5	40	0.7	0.3	0.2	0.7	0.27	0.2	0.7	0.38	0.2	0.7	0.36	0.2
04	o30y	0.7	0.35	0.2	0.3	0.5	47	0.7	0.35	0.2	0.7	0.32	0.2	0.7	0.42	0.2	0.7	0.41	0.2
05	o40y	0.7	0.4	0.2	0.3	0.5	53	0.7	0.4	0.2	0.7	0.37	0.2	0.7	0.47	0.2	0.7	0.46	0.2
06	o50y	0.7	0.45	0.2	0.3	0.5	60	0.7	0.45	0.2	0.7	0.41	0.2	0.7	0.51	0.2	0.7	0.51	0.2
07	o60y	0.7	0.5	0.2	0.3	0.5	67	0.7	0.5	0.2	0.7	0.46	0.2	0.7	0.56	0.2	0.7	0.56	0.2
08	o070y	0.7	0.55	0.2	0.3	0.5	73	0.7	0.55	0.2	0.7	0.51	0.2	0.7	0.6	0.2	0.7	0.61	0.2
09	o80y	0.7	0.6	0.2	0.3	0.5	79	0.7	0.6	0.2	0.7	0.56	0.2	0.7	0.65	0.2	0.7	0.66	0.2
10	o90y	0.7	0.65	0.2	0.3	0.5	85	0.7	0.65	0.2	0.7	0.61	0.2	0.7	0.69	0.2	0.69	0.7	0.2
11	Y=y00l	0.7	0.7	0.2	0.3	0.5	90	0.7	0.7	0.2	0.7	0.65	0.2	0.67	0.7	0.2	0.65	0.7	0.2

Goal: Transfer coordinates ***olv*30*** (system m=0) to ***olv*3m*** (system m=1 to 4)
The following equations for relative blackness and chroma are valid for any device:
n* = 1 − max (o*30, l*30, v*30) (1)
c* = max (o*30, l*30, v*30) − min (o*30, l*30, v*30) (2)

For the calculation of the missing relative device hue asume
as a starting point that the three values ***olv*30*** belong to the standard (s) device SRS18:
relative red-green chroma: ***a*r0 = o*30 cos(30) + l*30 cos(150)*** (3)
relative yellow-blue chroma: ***b*r0 = o*30 sin(30) + l*30 sin(150) − v*30 sin(270)*** (4)
Standard integer hue: ***H*si0 = round [atan (b*r0 / a*r0)]*** (5)
Fetch device integer hue: ***H*ai0 = H*si_ai [H*si0]*** (6)

Fetch device data ***olv*3,Mm*** from table with 361 entries for ***H*ai0*** from 0 to 360 degrees
"red, green, blue" ***rgbm*** data: ***olv*3,Mm = olv*3,Mm [H*ai0]*** (7)

For any input or output device (m=0 to 4) it is valid for constant ***n*, c*, l*, H*a***:
"red, green, blue" ***rgbm*** data: ***olv*3m = 1 − n* − c* + c* olv*3,Mm*** (8)

Result: device dependent relative CIELAB data of 4 systems m=1 to 4:
"red, green, blue" ***rgbm*** data: ***rgbm = olv*3m*** (9)

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Colorimetric data for system lines TLS00 −> ORS18, TLS00, NRS18, SRS18

For input ***LCH*a0*** (TLS00) and output ***olv*3m*** for 4 systems (***m*** = 0 to 4)
Six CIELAB hue angles of device ORS18: (37.7 96.4 150.9 236.0 305.0 353.7);
Six CIELAB hue angles of device TLS00: (40.0 102.8 136.0 196.4 306.3 328.2);
Six CIELAB hue angles of device NRS18: (25.5 92.3 162.2 217.0 271.7 328.6);
Six CIELAB hue angles of device SRS18: (30.0 90.0 150.0 210.0 270.0 330.0);

no.	Colour	->TLS00 LCH*a0			−>TLS00 n*, c*, H*ai0			ORS18 olv*31			TLS00 olv*32			NRS18 olv*33			SRS18 olv*34		
01	O=o00y	44.3	55.5	40	0.3	0.5	40	0.7	0.22	0.2	0.7	0.2	0.2	0.7	0.31	0.2	0.7	0.28	0.2
02	o10y	46.3	47.4	46	0.3	0.5	46	0.7	0.27	0.2	0.7	0.25	0.2	0.7	0.35	0.2	0.7	0.33	0.2
03	o20y	48.7	45.2	53	0.3	0.5	53	0.7	0.33	0.2	0.7	0.3	0.2	0.7	0.41	0.2	0.7	0.39	0.2
04	o30y	50.7	43.9	59	0.3	0.5	59	0.7	0.38	0.2	0.7	0.35	0.2	0.7	0.45	0.2	0.7	0.44	0.2
05	o40y	52.7	43.1	65	0.3	0.5	65	0.7	0.43	0.2	0.7	0.4	0.2	0.7	0.5	0.2	0.7	0.49	0.2
06	o50y	54.7	42.8	71	0.3	0.5	71	0.7	0.48	0.2	0.7	0.45	0.2	0.7	0.54	0.2	0.7	0.54	0.2
07	o60y	57.1	43.1	78	0.3	0.5	78	0.7	0.54	0.2	0.7	0.5	0.2	0.7	0.59	0.2	0.7	0.6	0.2
08	o070y	59.1	43.9	84	0.3	0.5	84	0.7	0.59	0.2	0.7	0.55	0.2	0.7	0.64	0.2	0.7	0.65	0.2
09	o80y	61.1	45.2	90	0.3	0.5	90	0.7	0.65	0.2	0.7	0.6	0.2	0.7	0.68	0.2	0.7	0.7	0.2
10	o90y	63.5	47.5	97	0.3	0.5	97	0.69	0.7	0.2	0.7	0.65	0.2	0.67	0.7	0.2	0.64	0.7	0.2
11	Y=y00l	65.4	46.5	103	0.3	0.5	103	0.64	0.7	0.2	0.7	0.7	0.2	0.62	0.7	0.2	0.59	0.7	0.2

Goal: Transfer coordinates ***LCH*a0*** (system m=0) to ***rgb*m = *olv*3m*** (system m=1 to 4)

The given data ***LCH*a0*** include the device hue ***H*a0***
Integer (i) device hue: ***H*ai0 = round (H*a0)*** (1)

Fetch device data ***LCH*a,Mm*** from table with 361 entries for ***H*ai0*** from 0 to 360 degrees
Lightness, chroma, hue: ***LCH*a,M0 = LCH*a,M0 [H*ai0]*** (2)

Calculate ***lcnw**** data from ***LC*a0*** and ***LC*a,M0*** :
Relative lightness: ***l* = [L*0 − L*N0] / [L*W0 − L*N0]*** (3)
Relative chroma: ***c* = C*a0 / C*a,M0*** (4)
Relative Blackness: ***n* = 1 − l* + c* [L*M0 − L*N0] / [L*W0 − L*N0]*** (5)

Fetch device data ***olv*3,Mm*** from table with 361 entries for ***H*ai0*** from 0 to 360 degrees
"red, green, blue" ***rgb*Mm** data: ***olv*3,Mm = olv*3,Mm [H*ai0]*** (6)

For any input or output device (m=0 to 4) it is valid for constant ***n*, c*, l*, H*a*** :
"red, green, blue" ***rgb*m** data: ***olv*3m = 1 − n* − c* + c* olv*3,Mm*** (7)

Result: device dependent relative CIELAB data of 4 systems m=1 to 4:
"red, green, blue" ***rgb*m** data: ***rgb*m = olv*3m*** (8)

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Colorimetric data for system lines TLS00 −> ORS18, TLS00, NRS18, SRS18

For input ***olv*30*** (TLS00) and output ***olv*3m*** for 4 systems (***m*** = 0 to 4)
Six CIELAB hue angles of device ORS18: (37.7 96.4 150.9 236.0 305.0 353.7);
Six CIELAB hue angles of device TLS00: (40.0 102.8 136.0 196.4 306.3 328.2);
Six CIELAB hue angles of device NRS18: (25.5 92.3 162.2 217.0 271.7 328.6);
Six CIELAB hue angles of device SRS18: (30.0 90.0 150.0 210.0 270.0 330.0);

no.	Colour	->TLS00 olv*30			−>TLS00 n*, c*, H*si0			ORS18 olv*31			TLS00 olv*32			NRS18 olv*33			SRS18 olv*34		
01	O=o00y	0.7	0.2	0.2	0.3	0.5	30	0.7	0.22	0.2	0.7	0.2	0.2	0.7	0.31	0.2	0.7	0.28	0.2
02	o10y	0.7	0.25	0.2	0.3	0.5	35	0.7	0.27	0.2	0.7	0.25	0.2	0.7	0.35	0.2	0.7	0.33	0.2
03	o20y	0.7	0.3	0.2	0.3	0.5	41	0.7	0.33	0.2	0.7	0.3	0.2	0.7	0.41	0.2	0.7	0.39	0.2
04	o30y	0.7	0.35	0.2	0.3	0.5	47	0.7	0.38	0.2	0.7	0.35	0.2	0.7	0.45	0.2	0.7	0.44	0.2
05	o40y	0.7	0.4	0.2	0.3	0.5	53	0.7	0.43	0.2	0.7	0.4	0.2	0.7	0.5	0.2	0.7	0.49	0.2
06	o50y	0.7	0.45	0.2	0.3	0.5	60	0.7	0.48	0.2	0.7	0.45	0.2	0.7	0.54	0.2	0.7	0.54	0.2
07	o60y	0.7	0.5	0.2	0.3	0.5	67	0.7	0.54	0.2	0.7	0.5	0.2	0.7	0.59	0.2	0.7	0.6	0.2
08	o070y	0.7	0.55	0.2	0.3	0.5	73	0.7	0.59	0.2	0.7	0.55	0.2	0.7	0.64	0.2	0.7	0.65	0.2
09	o80y	0.7	0.6	0.2	0.3	0.5	79	0.7	0.65	0.2	0.7	0.6	0.2	0.7	0.68	0.2	0.7	0.7	0.2
10	o90y	0.7	0.65	0.2	0.3	0.5	85	0.69	0.7	0.2	0.7	0.65	0.2	0.67	0.7	0.2	0.64	0.7	0.2
11	Y=y00l	0.7	0.7	0.2	0.3	0.5	90	0.64	0.7	0.2	0.7	0.7	0.2	0.62	0.7	0.2	0.59	0.7	0.2

Goal: Transfer coordinates ***olv*30*** (system m=0) to ***olv*3m*** (system m=1 to 4)
The following equations for relative blackness and chroma are valid for any device:
n* = 1 − max (o*30, l*30, v*30) (1)
c* = max (o*30, l*30, v*30) − min (o*30, l*30, v*30) (2)

For the calculation of the missing relative device hue asume
as a starting point that the three values ***olv*30*** belong to the standard (s) device SRS18:
relative red-green chroma: ***a*r0 = o*30 cos(30) + l*30 cos(150)*** (3)
relative yellow-blue chroma: ***b*r0 = o*30 sin(30) + l*30 sin(150) − v*30 sin(270)*** (4)
Standard integer hue: ***H*si0 = round [atan (b*r0 / a*r0)]*** (5)
Fetch device integer hue: ***H*ai0 = H*si_ai [H*si0]*** (6)

Fetch device data ***olv*3,Mm*** from table with 361 entries for ***H*ai0*** from 0 to 360 degrees
"red, green, blue" ***rgb*m** data: ***olv*3,Mm = olv*3,Mm [H*ai0]*** (7)

For any input or output device (m=0 to 4) it is valid for constant ***n*, c*, l*, H*a*** :
"red, green, blue" ***rgb*m** data: ***olv*3m = 1 − n* − c* + c* olv*3,Mm*** (8)

Result: device dependent relative CIELAB data of 4 systems m=1 to 4:
"red, green, blue" ***rgb*m** data: ***rgb*m = olv*3m*** (9)

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Colorimetric data for system lines FRS06 −> ORS18, TLS00, NRS18, SRS18

For input ***LCH*a0*** (FRS06) and output ***olv*3m*** for 4 systems (***m*** = 0 to 4)
Six CIELAB hue angles of device ORS18: (37.7 96.4 150.9 236.0 305.0 353.7);
Six CIELAB hue angles of device TLS00: (40.0 102.8 136.0 196.4 306.3 328.2);
Six CIELAB hue angles of device NRS18: (25.5 92.3 162.2 217.0 271.7 328.6);
Six CIELAB hue angles of device SRS18: (30.0 90.0 150.0 210.0 270.0 330.0);

no.	Colour	->FRS06 LCH*a0			->FRS06 n*, c*, H*ai0			ORS18 olv*31			TLS00 olv*32			NRS18 olv*33			SRS18 olv*34		
01	O=o00y	36.7	38.8	37	0.3	0.5	37	0.7	0.2	0.21	0.7	0.2	0.22	0.7	0.29	0.2	0.7	0.26	0.2
02	o10y	39.0	37.3	42	0.3	0.5	42	0.7	0.24	0.2	0.7	0.22	0.2	0.7	0.32	0.2	0.7	0.3	0.2
03	o20y	41.7	35.9	48	0.3	0.5	48	0.7	0.29	0.2	0.7	0.26	0.2	0.7	0.37	0.2	0.7	0.35	0.2
04	o30y	44.0	35.2	53	0.3	0.5	53	0.7	0.33	0.2	0.7	0.3	0.2	0.7	0.41	0.2	0.7	0.39	0.2
05	o40y	46.7	34.6	59	0.3	0.5	59	0.7	0.38	0.2	0.7	0.35	0.2	0.7	0.45	0.2	0.7	0.44	0.2
06	o50y	49.0	34.5	64	0.3	0.5	64	0.7	0.42	0.2	0.7	0.39	0.2	0.7	0.49	0.2	0.7	0.48	0.2
07	o60y	51.8	34.7	70	0.3	0.5	70	0.7	0.48	0.2	0.7	0.44	0.2	0.7	0.53	0.2	0.7	0.53	0.2
08	o070y	54.0	35.1	75	0.3	0.5	75	0.7	0.52	0.2	0.7	0.48	0.2	0.7	0.57	0.2	0.7	0.57	0.2
09	o80y	56.8	36.0	81	0.3	0.5	81	0.7	0.57	0.2	0.7	0.53	0.2	0.7	0.62	0.2	0.7	0.62	0.2
10	o90y	59.1	37.2	86	0.3	0.5	86	0.7	0.61	0.2	0.7	0.57	0.2	0.7	0.65	0.2	0.7	0.67	0.2
11	Y=y00l	61.5	56.8	92	0.3	0.5	92	0.7	0.66	0.2	0.7	0.61	0.2	0.7	0.7	0.2	0.68	0.7	0.2

Goal: Transfer coordinates ***LCH*a0*** (system m=0) to ***rgbm = olv*3m*** (system m=1 to 4)

The given data ***LCH*a0*** include the device hue ***H*a0***
Integer (i) device hue: ***H*ai0 = round (H*a0)*** (1)

Fetch device data ***LCH*a,Mm*** from table with 361 entries for ***H*ai0*** from 0 to 360 degrees
Lightness, chroma, hue: ***LCH*a,M0 = LCH*a,M0 [H*ai0]*** (2)

Calculate ***lcnw**** data from ***LC*a0*** and ***LC*a,M0***:
Relative lightness: ***l* = [L*0 − L*N0] / [L*W0 − L*N0]*** (3)
Relative chroma: ***c* = C*a0 / C*a,M0*** (4)
Relative Blackness: ***n* = 1 − l* + c* [L*M0 − L*N0] / [L*W0 − L*N0]*** (5)

Fetch device data ***olv*3,Mm*** from table with 361 entries for ***H*ai0*** from 0 to 360 degrees
"red, green, blue" ***rgbMm*** data: ***olv*3,Mm = olv*3,Mm [H*ai0]*** (6)

For any input or output device (m=0 to 4) it is valid for constant ***n*, c*, l*, H*a***:
"red, green, blue" ***rgbm*** data: ***olv*3m = 1 − n* − c* + c* olv*3,Mm*** (7)

Result: device dependent relative CIELAB data of 4 systems m=1 to 4:
"red, green, blue" ***rgbm*** data: ***rgbm = olv*3m*** (8)

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Colorimetric data for system lines FRS06 −> ORS18, TLS00, NRS18, SRS18

For input ***olv*30*** (FRS06) and output ***olv*3m*** for 4 systems (***m*** = 0 to 4)
Six CIELAB hue angles of device ORS18: (37.7 96.4 150.9 236.0 305.0 353.7);
Six CIELAB hue angles of device TLS00: (40.0 102.8 136.0 196.4 306.3 328.2);
Six CIELAB hue angles of device NRS18: (25.5 92.3 162.2 217.0 271.7 328.6);
Six CIELAB hue angles of device SRS18: (30.0 90.0 150.0 210.0 270.0 330.0);

no.	Colour	->FRS06 olv*30			->FRS06 n*, c*, H*si0			ORS18 olv*31			TLS00 olv*32			NRS18 olv*33			SRS18 olv*34		
01	O=o00y	0.7	0.2	0.2	0.3	0.5	30	0.7	0.2	0.21	0.7	0.2	0.22	0.7	0.29	0.2	0.7	0.26	0.2
02	o10y	0.7	0.25	0.2	0.3	0.5	35	0.7	0.24	0.2	0.7	0.22	0.2	0.7	0.32	0.2	0.7	0.3	0.2
03	o20y	0.7	0.3	0.2	0.3	0.5	41	0.7	0.29	0.2	0.7	0.26	0.2	0.7	0.37	0.2	0.7	0.35	0.2
04	o30y	0.7	0.35	0.2	0.3	0.5	47	0.7	0.33	0.2	0.7	0.3	0.2	0.7	0.41	0.2	0.7	0.39	0.2
05	o40y	0.7	0.4	0.2	0.3	0.5	54	0.7	0.38	0.2	0.7	0.35	0.2	0.7	0.45	0.2	0.7	0.44	0.2
06	o50y	0.7	0.45	0.2	0.3	0.5	60	0.7	0.42	0.2	0.7	0.39	0.2	0.7	0.49	0.2	0.7	0.48	0.2
07	o60y	0.7	0.5	0.2	0.3	0.5	67	0.7	0.48	0.2	0.7	0.44	0.2	0.7	0.53	0.2	0.7	0.53	0.2
08	o070y	0.7	0.55	0.2	0.3	0.5	73	0.7	0.52	0.2	0.7	0.48	0.2	0.7	0.57	0.2	0.7	0.57	0.2
09	o80y	0.7	0.6	0.2	0.3	0.5	80	0.7	0.57	0.2	0.7	0.53	0.2	0.7	0.62	0.2	0.7	0.62	0.2
10	o90y	0.7	0.65	0.2	0.3	0.5	85	0.7	0.61	0.2	0.7	0.57	0.2	0.7	0.65	0.2	0.7	0.67	0.2
11	Y=y00l	0.7	0.7	0.2	0.3	0.5	90	0.7	0.66	0.2	0.7	0.61	0.2	0.7	0.7	0.2	0.68	0.7	0.2

Goal: Transfer coordinates ***olv*30*** (system m=0) to ***olv*3m*** (system m=1 to 4)
The following equations for relative blackness and chroma are valid for any device:
n* = 1 − max (o*30, l*30, v*30) (1)
c* = max (o*30, l*30, v*30) − min (o*30, l*30, v*30) (2)

For the calculation of the missing relative device hue asume
as a starting point that the three values ***olv*30*** belong to the standard (s) device SRS18:
relative red-green chroma: ***a*r0 = o*30 cos(30) + l*30 cos(150)*** (3)
relative yellow-blue chroma: ***b*r0 = o*30 sin(30) + l*30 sin(150) − v*30 sin(270)*** (4)
Standard integer hue: ***H*si0 = round [atan (b*r0 / a*r0)]*** (5)
Fetch device integer hue: ***H*ai0 = H*si_ai [H*si0]*** (6)

Fetch device data ***olv*3,Mm*** from table with 361 entries for ***H*ai0*** from 0 to 360 degrees
"red, green, blue" ***rgbm*** data: ***olv*3,Mm = olv*3,Mm [H*ai0]*** (7)

For any input or output device (m=0 to 4) it is valid for constant ***n*, c*, l*, H*a***:
"red, green, blue" ***rgbm*** data: ***olv*3m = 1 − n* − c* + c* olv*3,Mm*** (8)

Result: device dependent relative CIELAB data of 4 systems m=1 to 4:
"red, green, blue" ***rgbm*** data: ***rgbm = olv*3m*** (9)

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Colorimetric data for system lines TLS18 −> ORS18, TLS00, NRS18, SRS18

For input ***LCH*a0*** (TLS18) and output ***olv*3m*** for 4 systems (***m*** = 0 to 4)
Six CIELAB hue angles of device ORS18: (37.7 96.4 150.9 236.0 305.0 353.7);
Six CIELAB hue angles of device TLS00: (40.0 102.8 136.0 196.4 306.3 328.2);
Six CIELAB hue angles of device NRS18: (25.5 92.3 162.2 217.0 271.7 328.6);
Six CIELAB hue angles of device SRS18: (30.0 90.0 150.0 210.0 270.0 330.0);

no.	Colour	->TLS18 LCH*a0			->TLS18 n*, c*, H*ai0			ORS18 olv*31			TLS00 olv*32			NRS18 olv*33			SRS18 olv*34		
01	O=o00y	50.9	43.6	35	0.3	0.5	35	0.7	0.2	0.23	0.7	0.2	0.23	0.7	0.27	0.2	0.7	0.24	0.2
02	o10y	53.0	40.5	42	0.3	0.5	42	0.7	0.24	0.2	0.7	0.22	0.2	0.7	0.32	0.2	0.7	0.3	0.2
03	o20y	55.0	38.4	49	0.3	0.5	49	0.7	0.3	0.2	0.7	0.27	0.2	0.7	0.38	0.2	0.7	0.36	0.2
04	o30y	56.8	37.2	55	0.3	0.5	55	0.7	0.35	0.2	0.7	0.32	0.2	0.7	0.42	0.2	0.7	0.41	0.2
05	o40y	58.8	36.4	62	0.3	0.5	62	0.7	0.41	0.2	0.7	0.38	0.2	0.7	0.47	0.2	0.7	0.47	0.2
06	o50y	60.8	36.1	69	0.3	0.5	69	0.7	0.47	0.2	0.7	0.43	0.2	0.7	0.53	0.2	0.7	0.52	0.2
07	o60y	62.9	36.4	76	0.3	0.5	76	0.7	0.53	0.2	0.7	0.49	0.2	0.7	0.58	0.2	0.7	0.58	0.2
08	o070y	64.9	37.2	83	0.3	0.5	83	0.7	0.59	0.2	0.7	0.54	0.2	0.7	0.63	0.2	0.7	0.64	0.2
09	o80y	67.0	38.6	90	0.3	0.5	90	0.7	0.65	0.2	0.7	0.6	0.2	0.7	0.68	0.2	0.7	0.7	0.2
10	o90y	68.7	40.5	96	0.3	0.5	96	0.7	0.7	0.2	0.7	0.65	0.2	0.67	0.7	0.2	0.65	0.7	0.2
11	Y=y00l	70.8	43.5	103	0.3	0.5	103	0.64	0.7	0.2	0.7	0.7	0.2	0.62	0.7	0.2	0.59	0.7	0.2

Goal: Transfer coordinates ***LCH*a0*** (system m=0) to ***rgbm = olv*3m*** (system m=1 to 4)

The given data ***LCH*a0*** include the device hue ***H*a0***
Integer (i) device hue: ***H*ai0 = round (H*a0)*** (1)

Fetch device data ***LCH*a,Mm*** from table with 361 entries for ***H*ai0*** from 0 to 360 degrees
Lightness, chroma, hue: ***LCH*a,M0 = LCH*a,M0 [H*ai0]*** (2)

Calculate ***lcnw**** data from ***LC*a0*** and ***LC*a,M0***:
Relative lightness: ***l* = [L*0 − L*N0] / [L*W0 − L*N0]*** (3)
Relative chroma: ***c* = C*a0 / C*a,M0*** (4)
Relative Blackness: ***n* = 1 − l* + c* [L*M0 − L*N0] / [L*W0 − L*N0]*** (5)

Fetch device data ***olv*3,Mm*** from table with 361 entries for ***H*ai0*** from 0 to 360 degrees
"red, green, blue" ***rgbMm*** data: ***olv*3,Mm = olv*3,Mm [H*ai0]*** (6)

For any input or output device (m=0 to 4) it is valid for constant ***n*, c*, l*, H*a***:
"red, green, blue" ***rgbm*** data: ***olv*3m = 1 − n* − c* + c* olv*3,Mm*** (7)

Result: device dependent relative CIELAB data of 4 systems m=1 to 4:
"red, green, blue" ***rgbm*** data: ***rgbm = olv*3m*** (8)

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Colorimetric data for system lines TLS18 −> ORS18, TLS00, NRS18, SRS18

For input ***olv*30*** (TLS18) and output ***olv*3m*** for 4 systems (***m*** = 0 to 4)
Six CIELAB hue angles of device ORS18: (37.7 96.4 150.9 236.0 305.0 353.7);
Six CIELAB hue angles of device TLS00: (40.0 102.8 136.0 196.4 306.3 328.2);
Six CIELAB hue angles of device NRS18: (25.5 92.3 162.2 217.0 271.7 328.6);
Six CIELAB hue angles of device SRS18: (30.0 90.0 150.0 210.0 270.0 330.0);

no.	Colour	->TLS18 olv*30			->TLS18 n*, c*, H*si0			ORS18 olv*31			TLS00 olv*32			NRS18 olv*33			SRS18 olv*34		
01	O=o00y	0.7	0.2	0.2	0.3	0.5	30	0.7	0.2	0.23	0.7	0.2	0.23	0.7	0.27	0.2	0.7	0.24	0.2
02	o10y	0.7	0.25	0.2	0.3	0.5	35	0.7	0.24	0.2	0.7	0.22	0.2	0.7	0.32	0.2	0.7	0.3	0.2
03	o20y	0.7	0.3	0.2	0.3	0.5	41	0.7	0.3	0.2	0.7	0.27	0.2	0.7	0.38	0.2	0.7	0.36	0.2
04	o30y	0.7	0.35	0.2	0.3	0.5	47	0.7	0.35	0.2	0.7	0.32	0.2	0.7	0.42	0.2	0.7	0.41	0.2
05	o40y	0.7	0.4	0.2	0.3	0.5	53	0.7	0.41	0.2	0.7	0.38	0.2	0.7	0.47	0.2	0.7	0.47	0.2
06	o50y	0.7	0.45	0.2	0.3	0.5	60	0.7	0.47	0.2	0.7	0.43	0.2	0.7	0.53	0.2	0.7	0.52	0.2
07	o60y	0.7	0.5	0.2	0.3	0.5	67	0.7	0.53	0.2	0.7	0.49	0.2	0.7	0.58	0.2	0.7	0.58	0.2
08	o070y	0.7	0.55	0.2	0.3	0.5	73	0.7	0.59	0.2	0.7	0.54	0.2	0.7	0.63	0.2	0.7	0.64	0.2
09	o80y	0.7	0.6	0.2	0.3	0.5	79	0.7	0.65	0.2	0.7	0.6	0.2	0.7	0.68	0.2	0.7	0.7	0.2
10	o90y	0.7	0.65	0.2	0.3	0.5	84	0.7	0.7	0.2	0.7	0.65	0.2	0.67	0.7	0.2	0.65	0.7	0.2
11	Y=y00l	0.7	0.7	0.2	0.3	0.5	90	0.64	0.7	0.2	0.7	0.7	0.2	0.62	0.7	0.2	0.59	0.7	0.2

Goal: Transfer coordinates ***olv*30*** (system m=0) to ***olv*3m*** (system m=1 to 4)
The following equations for relative blackness and chroma are valid for any device:
n* = 1 − max (o*30, l*30, v*30) (1)
c* = max (o*30, l*30, v*30) − min (o*30, l*30, v*30) (2)

For the calculation of the missing relative device hue asume
as a starting point that the three values ***olv*30*** belong to the standard (s) device SRS18:
relative red-green chroma: ***a*r0 = o*30 cos(30) + l*30 cos(150)*** (3)
relative yellow-blue chroma: ***b*r0 = o*30 sin(30) + l*30 sin(150) − v*30 sin(270)*** (4)
Standard integer hue: ***H*si0 = round [atan (b*r0 / a*r0)]*** (5)
Fetch device integer hue: ***H*ai0 = H*si_ai [H*si0]*** (6)

Fetch device data ***olv*3,Mm*** from table with 361 entries for ***H*ai0*** from 0 to 360 degrees
"red, green, blue" ***rgbm*** data: ***olv*3,Mm = olv*3,Mm [H*ai0]*** (7)

For any input or output device (m=0 to 4) it is valid for constant ***n*, c*, l*, H*a***:
"red, green, blue" ***rgbm*** data: ***olv*3m = 1 − n* − c* + c* olv*3,Mm*** (8)

Result: device dependent relative CIELAB data of 4 systems m=1 to 4:
"red, green, blue" ***rgbm*** data: ***rgbm = olv*3m*** (9)

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Colorimetric data for system lines NLS00 −> ORS18, TLS00, NRS18, SRS18

For input ***LCH*a0*** (NLS00) and output ***olv*3m*** for 4 systems (***m*** = 0 to 4)
Six CIELAB hue angles of device ORS18: (37.7 96.4 150.9 236.0 305.0 353.7);
Six CIELAB hue angles of device TLS00: (40.0 102.8 136.0 196.4 306.3 328.2);
Six CIELAB hue angles of device NRS18: (25.5 92.3 162.2 217.0 271.7 328.6);
Six CIELAB hue angles of device SRS18: (30.0 90.0 150.0 210.0 270.0 330.0);

no.	Colour	->NLS00 LCH*a0			->NLS00 n*, c*, H*ai0			ORS18 olv*31			TLS00 olv*32			NRS18 olv*33			SRS18 olv*34		
01	O=o00y	35.0	47.7	30	0.3	0.5	30	0.7	0.2	0.29	0.7	0.2	0.27	0.7	0.23	0.2	0.7	0.2	0.2
02	o10y	36.6	45.2	36	0.3	0.5	36	0.7	0.2	0.22	0.7	0.2	0.23	0.7	0.28	0.2	0.7	0.25	0.2
03	o20y	38.2	43.4	42	0.3	0.5	42	0.7	0.24	0.2	0.7	0.22	0.2	0.7	0.32	0.2	0.7	0.3	0.2
04	o30y	39.8	42.2	48	0.3	0.5	48	0.7	0.29	0.2	0.7	0.26	0.2	0.7	0.37	0.2	0.7	0.35	0.2
05	o40y	41.4	41.5	54	0.3	0.5	54	0.7	0.34	0.2	0.7	0.31	0.2	0.7	0.41	0.2	0.7	0.4	0.2
06	o50y	42.9	41.3	60	0.3	0.5	60	0.7	0.39	0.2	0.7	0.36	0.2	0.7	0.46	0.2	0.7	0.45	0.2
07	o60y	44.5	41.5	66	0.3	0.5	66	0.7	0.44	0.2	0.7	0.41	0.2	0.7	0.5	0.2	0.7	0.5	0.2
08	o070y	46.1	42.2	72	0.3	0.5	72	0.7	0.49	0.2	0.7	0.45	0.2	0.7	0.55	0.2	0.7	0.55	0.2
09	o80y	47.7	43.4	78	0.3	0.5	78	0.7	0.54	0.2	0.7	0.5	0.2	0.7	0.59	0.2	0.7	0.6	0.2
10	o90y	49.3	45.2	84	0.3	0.5	84	0.7	0.59	0.2	0.7	0.55	0.2	0.7	0.64	0.2	0.7	0.65	0.2
11	Y=y00l	50.9	47.7	90	0.3	0.5	90	0.7	0.65	0.2	0.7	0.6	0.2	0.7	0.68	0.2	0.7	0.7	0.2

Goal: Transfer coordinates ***LCH*a0*** (system m=0) to ***rgbm = olv*3m*** (system m=1 to 4)

The given data ***LCH*a0*** include the device hue ***H*a0***
Integer (i) device hue: ***H*ai0 = round (H*a0)*** (1)

Fetch device data ***LCH*a,Mm*** from table with 361 entries for ***H*ai0*** from 0 to 360 degrees
Lightness, chroma, hue: ***LCH*a,M0 = LCH*a,M0 [H*ai0]*** (2)

Calculate ***lcnw**** data from ***LC*a0*** and ***LC*a,M0***:
Relative lightness: ***l* = [L*0 − L*N0] / [L*W0 − L*N0]*** (3)
Relative chroma: ***c* = C*a0 / C*a,M0*** (4)
Relative Blackness: ***n* = 1 − l* + c* [L*M0 − L*N0] / [L*W0 − L*N0]*** (5)

Fetch device data ***olv*3,Mm*** from table with 361 entries for ***H*ai0*** from 0 to 360 degrees
"red, green, blue" ***rgbMm*** data: ***olv*3,Mm = olv*3,Mm [H*ai0]*** (6)

For any input or output device (m=0 to 4) it is valid for constant ***n*, c*, l*, H*a***:
"red, green, blue" ***rgbm*** data: ***olv*3m = 1 − n* − c* + c* olv*3,Mm*** (7)

Result: device dependent relative CIELAB data of 4 systems m=1 to 4:
"red, green, blue" ***rgbm*** data: ***rgbm = olv*3m*** (8)

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Colorimetric data for system lines NLS00 −> ORS18, TLS00, NRS18, SRS18

For input ***olv*30*** (NLS00) and output ***olv*3m*** for 4 systems (***m*** = 0 to 4)
Six CIELAB hue angles of device ORS18: (37.7 96.4 150.9 236.0 305.0 353.7);
Six CIELAB hue angles of device TLS00: (40.0 102.8 136.0 196.4 306.3 328.2);
Six CIELAB hue angles of device NRS18: (25.5 92.3 162.2 217.0 271.7 328.6);
Six CIELAB hue angles of device SRS18: (30.0 90.0 150.0 210.0 270.0 330.0);

no.	Colour	->NLS00 olv*30			->NLS00 n*, c*, H*si0			ORS18 olv*31			TLS00 olv*32			NRS18 olv*33			SRS18 olv*34		
01	O=o00y	0.7	0.2	0.2	0.3	0.5	30	0.7	0.2	0.29	0.7	0.2	0.27	0.7	0.23	0.2	0.7	0.2	0.2
02	o10y	0.7	0.25	0.2	0.3	0.5	35	0.7	0.2	0.22	0.7	0.2	0.23	0.7	0.28	0.2	0.7	0.25	0.2
03	o20y	0.7	0.3	0.2	0.3	0.5	41	0.7	0.24	0.2	0.7	0.22	0.2	0.7	0.32	0.2	0.7	0.3	0.2
04	o30y	0.7	0.35	0.2	0.3	0.5	47	0.7	0.29	0.2	0.7	0.26	0.2	0.7	0.37	0.2	0.7	0.35	0.2
05	o40y	0.7	0.4	0.2	0.3	0.5	53	0.7	0.34	0.2	0.7	0.31	0.2	0.7	0.41	0.2	0.7	0.4	0.2
06	o50y	0.7	0.45	0.2	0.3	0.5	60	0.7	0.39	0.2	0.7	0.36	0.2	0.7	0.46	0.2	0.7	0.45	0.2
07	o60y	0.7	0.5	0.2	0.3	0.5	67	0.7	0.44	0.2	0.7	0.41	0.2	0.7	0.5	0.2	0.7	0.5	0.2
08	o070y	0.7	0.55	0.2	0.3	0.5	73	0.7	0.49	0.2	0.7	0.45	0.2	0.7	0.55	0.2	0.7	0.55	0.2
09	o80y	0.7	0.6	0.2	0.3	0.5	79	0.7	0.54	0.2	0.7	0.5	0.2	0.7	0.59	0.2	0.7	0.6	0.2
10	o90y	0.7	0.65	0.2	0.3	0.5	85	0.7	0.59	0.2	0.7	0.55	0.2	0.7	0.64	0.2	0.7	0.65	0.2
11	Y=y00l	0.7	0.7	0.2	0.3	0.5	90	0.7	0.65	0.2	0.7	0.6	0.2	0.7	0.68	0.2	0.7	0.7	0.2

Goal: Transfer coordinates ***olv*30*** (system m=0) to ***olv*3m*** (system m=1 to 4)
The following equations for relative blackness and chroma are valid for any device:
n* = 1 − max (o*30, l*30, v*30) (1)
c* = max (o*30, l*30, v*30) − min (o*30, l*30, v*30) (2)

For the calculation of the missing relative device hue asume
as a starting point that the three values ***olv*30*** belong to the standard (s) device SRS18:
relative red-green chroma: ***a*r0 = o*30 cos(30) + l*30 cos(150)*** (3)
relative yellow-blue chroma: ***b*r0 = o*30 sin(30) + l*30 sin(150) − v*30 sin(270)*** (4)
Standard integer hue: ***H*si0 = round [atan (b*r0 / a*r0)]*** (5)
Fetch device integer hue: ***H*ai0 = H*si_ai [H*si0]*** (6)

Fetch device data ***olv*3,Mm*** from table with 361 entries for ***H*ai0*** from 0 to 360 degrees
"red, green, blue" ***rgbm*** data: ***olv*3,Mm = olv*3,Mm [H*ai0]*** (7)

For any input or output device (m=0 to 4) it is valid for constant ***n*, c*, l*, H*a***:
"red, green, blue" ***rgbm*** data: ***olv*3m = 1 − n* − c* + c* olv*3,Mm*** (8)

Result: device dependent relative CIELAB data of 4 systems m=1 to 4:
"red, green, blue" ***rgbm*** data: ***rgbm = olv*3m*** (9)

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Colorimetric data for system lines NRS18 −> ORS18, TLS00, NRS18, SRS18

For input ***LCH*a0*** (NRS18) and output ***olv*3m*** for 4 systems (***m*** = 0 to 4)
Six CIELAB hue angles of device ORS18: (37.7 96.4 150.9 236.0 305.0 353.7);
Six CIELAB hue angles of device TLS00: (40.0 102.8 136.0 196.4 306.3 328.2);
Six CIELAB hue angles of device NRS18: (25.5 92.3 162.2 217.0 271.7 328.6);
Six CIELAB hue angles of device SRS18: (30.0 90.0 150.0 210.0 270.0 330.0);

no.	Colour	->NRS18 LCH*a0			->NRS18 n*, c*, H*ai0			ORS18 olv*31			TLS00 olv*32			NRS18 olv*33			SRS18 olv*34		
01	R=r00j	52.8	38.5	25	0.3	0.5	25	0.7	0.2	0.34	0.7	0.2	0.3	0.7	0.2	0.2	0.7	0.2	0.24
02	r10j	52.8	36.2	32	0.3	0.5	32	0.7	0.2	0.26	0.7	0.2	0.26	0.7	0.25	0.2	0.7	0.22	0.2
03	r20j	52.8	34.4	39	0.3	0.5	39	0.7	0.21	0.2	0.7	0.2	0.21	0.7	0.3	0.2	0.7	0.27	0.2
04	r30j	52.8	33.1	46	0.3	0.5	46	0.7	0.27	0.2	0.7	0.25	0.2	0.7	0.35	0.2	0.7	0.33	0.2
05	r40j	52.8	32.5	52	0.3	0.5	52	0.7	0.32	0.2	0.7	0.3	0.2	0.7	0.4	0.2	0.7	0.38	0.2
06	r50j	52.8	32.3	59	0.3	0.5	59	0.7	0.38	0.2	0.7	0.35	0.2	0.7	0.45	0.2	0.7	0.44	0.2
07	r60j	52.8	32.6	66	0.3	0.5	66	0.7	0.44	0.2	0.7	0.41	0.2	0.7	0.5	0.2	0.7	0.5	0.2
08	r070j	52.8	33.2	72	0.3	0.5	72	0.7	0.49	0.2	0.7	0.45	0.2	0.7	0.55	0.2	0.7	0.55	0.2
09	r80j	52.8	34.4	79	0.3	0.5	79	0.7	0.55	0.2	0.7	0.51	0.2	0.7	0.6	0.2	0.7	0.61	0.2
10	r90j	52.8	36.3	86	0.3	0.5	86	0.7	0.61	0.2	0.7	0.57	0.2	0.7	0.65	0.2	0.7	0.67	0.2
11	J=j00g	52.8	38.6	92	0.3	0.5	92	0.7	0.66	0.2	0.7	0.61	0.2	0.7	0.7	0.2	0.68	0.7	0.2

Goal: Transfer coordinates ***LCH*a0*** (system m=0) to ***rgbm = olv*3m*** (system m=1 to 4)

The given data ***LCH*a0*** include the device hue ***H*a0***
Integer (i) device hue: ***H*ai0 = round (H*a0)*** (1)

Fetch device data ***LCH*a,Mm*** from table with 361 entries for ***H*ai0*** from 0 to 360 degrees
Lightness, chroma, hue: ***LCH*a,M0 = LCH*a,M0 [H*ai0]*** (2)

Calculate ***lcnw**** data from ***LC*a0*** and ***LC*a,M0***:
Relative lightness: ***l* = [L*0 − L*N0] / [L*W0 − L*N0]*** (3)
Relative chroma: ***c* = C*a0 / C*a,M0*** (4)
Relative Blackness: ***n* = 1 − l* + c* [L*M0 − L*N0] / [L*W0 − L*N0]*** (5)

Fetch device data ***olv*3,Mm*** from table with 361 entries for ***H*ai0*** from 0 to 360 degrees
"red, green, blue" ***rgbMm*** data: ***olv*3,Mm = olv*3,Mm [H*ai0]*** (6)

For any input or output device (m=0 to 4) it is valid for constant ***n*, c*, l*, H*a***:
"red, green, blue" ***rgbm*** data: ***olv*3m = 1 − n* − c* + c* olv*3,Mm*** (7)

Result: device dependent relative CIELAB data of 4 systems m=1 to 4:
"red, green, blue" ***rgbm*** data: ***rgbm = olv*3m*** (8)

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Colorimetric data for system lines NRS18 −> ORS18, TLS00, NRS18, SRS18

For input ***olv*30*** (NRS18) and output ***olv*3m*** for 4 systems (***m*** = 0 to 4)
Six CIELAB hue angles of device ORS18: (37.7 96.4 150.9 236.0 305.0 353.7);
Six CIELAB hue angles of device TLS00: (40.0 102.8 136.0 196.4 306.3 328.2);
Six CIELAB hue angles of device NRS18: (25.5 92.3 162.2 217.0 271.7 328.6);
Six CIELAB hue angles of device SRS18: (30.0 90.0 150.0 210.0 270.0 330.0);

no.	Colour	->NRS18 olv*30=rgb*30			->NRS18 n*, c*, H*si0			ORS18 olv*31			TLS00 olv*32			NRS18 olv*33			SRS18 olv*34		
01	R=r00j	0.7	0.2	0.2	0.3	0.5	30	0.7	0.2	0.34	0.7	0.2	0.3	0.7	0.2	0.2	0.7	0.2	0.24
02	r10j	0.7	0.25	0.2	0.3	0.5	35	0.7	0.2	0.26	0.7	0.2	0.26	0.7	0.25	0.2	0.7	0.22	0.2
03	r20j	0.7	0.3	0.2	0.3	0.5	41	0.7	0.21	0.2	0.7	0.2	0.21	0.7	0.3	0.2	0.7	0.27	0.2
04	r30j	0.7	0.35	0.2	0.3	0.5	47	0.7	0.27	0.2	0.7	0.25	0.2	0.7	0.35	0.2	0.7	0.33	0.2
05	r40j	0.7	0.4	0.2	0.3	0.5	53	0.7	0.32	0.2	0.7	0.3	0.2	0.7	0.4	0.2	0.7	0.38	0.2
06	r50j	0.7	0.45	0.2	0.3	0.5	60	0.7	0.38	0.2	0.7	0.35	0.2	0.7	0.45	0.2	0.7	0.44	0.2
07	r60j	0.7	0.5	0.2	0.3	0.5	67	0.7	0.44	0.2	0.7	0.41	0.2	0.7	0.5	0.2	0.7	0.5	0.2
08	r070j	0.7	0.55	0.2	0.3	0.5	73	0.7	0.49	0.2	0.7	0.45	0.2	0.7	0.55	0.2	0.7	0.55	0.2
09	r80j	0.7	0.6	0.2	0.3	0.5	79	0.7	0.55	0.2	0.7	0.51	0.2	0.7	0.6	0.2	0.7	0.61	0.2
10	r90j	0.7	0.65	0.2	0.3	0.5	85	0.7	0.61	0.2	0.7	0.57	0.2	0.7	0.65	0.2	0.7	0.67	0.2
11	J=j00g	0.7	0.7	0.2	0.3	0.5	90	0.7	0.66	0.2	0.7	0.61	0.2	0.7	0.7	0.2	0.68	0.7	0.2

Goal: Transfer coordinates ***olv*30*** (system m=0) to ***olv*3m*** (system m=1 to 4)
The following equations for relative blackness and chroma are valid for any device:
n* = 1 − max (o*30, l*30, v*30) (1)
c* = max (o*30, l*30, v*30) − min (o*30, l*30, v*30) (2)

For the calculation of the missing relative device hue asume
as a starting point that the three values ***olv*30*** belong to the standard (s) device SRS18:
relative red-green chroma: ***a*r0 = o*30 cos(30) + l*30 cos(150)*** (3)
relative yellow-blue chroma: ***b*r0 = o*30 sin(30) + l*30 sin(150) − v*30 sin(270)*** (4)
Standard integer hue: ***H*si0 = round [atan (b*r0 / a*r0)]*** (5)
Fetch device integer hue: ***H*ai0 = H*si_ai [H*si0]*** (6)

Fetch device data ***olv*3,Mm*** from table with 361 entries for ***H*ai0*** from 0 to 360 degrees
"red, green, blue" ***rgbm*** data: ***olv*3,Mm = olv*3,Mm [H*ai0]*** (7)

For any input or output device (m=0 to 4) it is valid for constant ***n*, c*, l*, H*a***:
"red, green, blue" ***rgbm*** data: ***olv*3m = 1 − n* − c* + c* olv*3,Mm*** (8)

Result: device dependent relative CIELAB data of 4 systems m=1 to 4:
"red, green, blue" ***rgbm*** data: ***rgbm = olv*3m*** (9)

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Colorimetric data for system lines SRS18 −> ORS18, TLS00, NRS18, SRS18

For input ***LCH*a0*** (SRS18) and output ***olv*3m*** for 4 systems (***m*** = 0 to 4)
Six CIELAB hue angles of device ORS18: (37.7 96.4 150.9 236.0 305.0 353.7);
Six CIELAB hue angles of device TLS00: (40.0 102.8 136.0 196.4 306.3 328.2);
Six CIELAB hue angles of device NRS18: (25.5 92.3 162.2 217.0 271.7 328.6);
Six CIELAB hue angles of device SRS18: (30.0 90.0 150.0 210.0 270.0 330.0);

no.	Colour	->SRS18 LCH*a0			->SRS18 n*, c*, H*ai0			ORS18 olv*31			TLS00 olv*32			NRS18 olv*33			SRS18 olv*34		
01	O=o00y	52.8	38.7	30	0.3	0.5	30	0.7	0.2	0.29	0.7	0.2	0.27	0.7	0.23	0.2	0.7	0.2	0.2
02	o10y	52.8	36.7	36	0.3	0.5	36	0.7	0.2	0.22	0.7	0.2	0.23	0.7	0.28	0.2	0.7	0.25	0.2
03	o20y	52.8	35.2	42	0.3	0.5	42	0.7	0.24	0.2	0.7	0.22	0.2	0.7	0.32	0.2	0.7	0.3	0.2
04	o30y	52.8	34.3	48	0.3	0.5	48	0.7	0.29	0.2	0.7	0.26	0.2	0.7	0.37	0.2	0.7	0.35	0.2
05	o40y	52.8	33.7	54	0.3	0.5	54	0.7	0.34	0.2	0.7	0.31	0.2	0.7	0.41	0.2	0.7	0.4	0.2
06	o50y	52.8	33.5	60	0.3	0.5	60	0.7	0.39	0.2	0.7	0.36	0.2	0.7	0.46	0.2	0.7	0.45	0.2
07	o60y	52.8	33.7	66	0.3	0.5	66	0.7	0.44	0.2	0.7	0.41	0.2	0.7	0.5	0.2	0.7	0.5	0.2
08	o070y	52.8	34.3	72	0.3	0.5	72	0.7	0.49	0.2	0.7	0.45	0.2	0.7	0.55	0.2	0.7	0.55	0.2
09	o80y	52.8	35.2	78	0.3	0.5	78	0.7	0.54	0.2	0.7	0.5	0.2	0.7	0.59	0.2	0.7	0.6	0.2
10	o90y	52.8	36.7	84	0.3	0.5	84	0.7	0.59	0.2	0.7	0.55	0.2	0.7	0.64	0.2	0.7	0.65	0.2
11	Y=y00l	52.8	38.7	90	0.3	0.5	90	0.7	0.65	0.2	0.7	0.6	0.2	0.7	0.68	0.2	0.7	0.7	0.2

Goal: Transfer coordinates ***LCH*a0*** (system m=0) to ***rgbm = olv*3m*** (system m=1 to 4)

The given data ***LCH*a0*** include the device hue ***H*a0***
Integer (i) device hue: ***H*ai0 = round (H*a0)*** (1)

Fetch device data ***LCH*a,Mm*** from table with 361 entries for ***H*ai0*** from 0 to 360 degrees
Lightness, chroma, hue: ***LCH*a,M0 = LCH*a,M0 [H*ai0]*** (2)

Calculate ***lcnw**** data from ***LC*a0*** and ***LC*a,M0***:
Relative lightness: ***l* = [L*0 − L*N0] / [L*W0 − L*N0]*** (3)
Relative chroma: ***c* = C*a0 / C*a,M0*** (4)
Relative Blackness: ***n* = 1 − l* + c* [L*M0 − L*N0] / [L*W0 − L*N0]*** (5)

Fetch device data ***olv*3,Mm*** from table with 361 entries for ***H*ai0*** from 0 to 360 degrees
"red, green, blue" ***rgbMm*** data: ***olv*3,Mm = olv*3,Mm [H*ai0]*** (6)

For any input or output device (m=0 to 4) it is valid for constant ***n*, c*, l*, H*a***:
"red, green, blue" ***rgbm*** data: ***olv*3m = 1 − n* − c* + c* olv*3,Mm*** (7)

Result: device dependent relative CIELAB data of 4 systems m=1 to 4:
"red, green, blue" ***rgbm*** data: ***rgbm = olv*3m*** (8)

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Colorimetric data for system lines SRS18 −> ORS18, TLS00, NRS18, SRS18

For input ***olv*30*** (SRS18) and output ***olv*3m*** for 4 systems (***m*** = 0 to 4)
Six CIELAB hue angles of device ORS18: (37.7 96.4 150.9 236.0 305.0 353.7);
Six CIELAB hue angles of device TLS00: (40.0 102.8 136.0 196.4 306.3 328.2);
Six CIELAB hue angles of device NRS18: (25.5 92.3 162.2 217.0 271.7 328.6);
Six CIELAB hue angles of device SRS18: (30.0 90.0 150.0 210.0 270.0 330.0);

no.	Colour	->SRS18 olv*30			->SRS18 n*, c*, H*si0			ORS18 olv*31			TLS00 olv*32			NRS18 olv*33			SRS18 olv*34		
01	O=o00y	0.7	0.2	0.2	0.3	0.5	30	0.7	0.2	0.29	0.7	0.2	0.27	0.7	0.23	0.2	0.7	0.2	0.2
02	o10y	0.7	0.25	0.2	0.3	0.5	35	0.7	0.2	0.22	0.7	0.2	0.23	0.7	0.28	0.2	0.7	0.25	0.2
03	o20y	0.7	0.3	0.2	0.3	0.5	41	0.7	0.24	0.2	0.7	0.22	0.2	0.7	0.32	0.2	0.7	0.3	0.2
04	o30y	0.7	0.35	0.2	0.3	0.5	47	0.7	0.29	0.2	0.7	0.26	0.2	0.7	0.37	0.2	0.7	0.35	0.2
05	o40y	0.7	0.4	0.2	0.3	0.5	53	0.7	0.34	0.2	0.7	0.31	0.2	0.7	0.41	0.2	0.7	0.4	0.2
06	o50y	0.7	0.45	0.2	0.3	0.5	60	0.7	0.39	0.2	0.7	0.36	0.2	0.7	0.46	0.2	0.7	0.45	0.2
07	o60y	0.7	0.5	0.2	0.3	0.5	67	0.7	0.44	0.2	0.7	0.41	0.2	0.7	0.5	0.2	0.7	0.5	0.2
08	o070y	0.7	0.55	0.2	0.3	0.5	73	0.7	0.49	0.2	0.7	0.45	0.2	0.7	0.55	0.2	0.7	0.55	0.2
09	o80y	0.7	0.6	0.2	0.3	0.5	79	0.7	0.54	0.2	0.7	0.5	0.2	0.7	0.59	0.2	0.7	0.6	0.2
10	o90y	0.7	0.65	0.2	0.3	0.5	85	0.7	0.59	0.2	0.7	0.55	0.2	0.7	0.64	0.2	0.7	0.65	0.2
11	Y=y00l	0.7	0.7	0.2	0.3	0.5	90	0.7	0.65	0.2	0.7	0.6	0.2	0.7	0.68	0.2	0.7	0.7	0.2

Goal: Transfer coordinates ***olv*30*** (system m=0) to ***olv*3m*** (system m=1 to 4)
The following equations for relative blackness and chroma are valid for any device:
n* = 1 − max (o*30, l*30, v*30) (1)
c* = max (o*30, l*30, v*30) − min (o*30, l*30, v*30) (2)

For the calculation of the missing relative device hue asume
as a starting point that the three values ***olv*30*** belong to the standard (s) device SRS18:
relative red-green chroma: ***a*r0 = o*30 cos(30) + l*30 cos(150)*** (3)
relative yellow-blue chroma: ***b*r0 = o*30 sin(30) + l*30 sin(150) − v*30 sin(270)*** (4)
Standard integer hue: ***H*si0 = round [atan (b*r0 / a*r0)]*** (5)
Fetch device integer hue: ***H*ai0 = H*si_ai [H*si0]*** (6)

Fetch device data ***olv*3,Mm*** from table with 361 entries for ***H*ai0*** from 0 to 360 degrees
"red, green, blue" ***rgbm*** data: ***olv*3,Mm = olv*3,Mm [H*ai0]*** (7)

For any input or output device (m=0 to 4) it is valid for constant ***n*, c*, l*, H*a***:
"red, green, blue" ***rgbm*** data: ***olv*3m = 1 − n* − c* + c* olv*3,Mm*** (8)

Result: device dependent relative CIELAB data of 4 systems m=1 to 4:
"red, green, blue" ***rgbm*** data: ***rgbm = olv*3m*** (9)

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Colorimetric data for system lines TLS70 −> ORS18, TLS00, NRS18, SRS18

For input ***LCH*a0*** (TLS70) and output ***olv*3m*** for 4 systems (***m*** = 0 to 4)
Six CIELAB hue angles of device ORS18: (37.7 96.4 150.9 236.0 305.0 353.7);
Six CIELAB hue angles of device TLS00: (40.0 102.8 136.0 196.4 306.3 328.2);
Six CIELAB hue angles of device NRS18: (25.5 92.3 162.2 217.0 271.7 328.6);
Six CIELAB hue angles of device SRS18: (30.0 90.0 150.0 210.0 270.0 330.0);

no.	Colour	->TLS70 LCH*a0			->TLS70 n*, c*, H*ai0			ORS18 olv*31			TLS00 olv*32			NRS18 olv*33			SRS18 olv*34		
01	O=o00y	78.2	14.1	22	0.3	0.5	22	0.7	0.2	0.38	0.7	0.2	0.33	0.7	0.2	0.23	0.7	0.2	0.27
02	o10y	79.0	12.6	30	0.3	0.5	30	0.7	0.2	0.29	0.7	0.2	0.27	0.7	0.23	0.2	0.7	0.2	0.2
03	o20y	80.0	11.5	39	0.3	0.5	39	0.7	0.21	0.2	0.7	0.2	0.21	0.7	0.3	0.2	0.7	0.27	0.2
04	o30y	80.9	10.9	48	0.3	0.5	48	0.7	0.29	0.2	0.7	0.26	0.2	0.7	0.37	0.2	0.7	0.35	0.2
05	o40y	81.7	10.5	56	0.3	0.5	56	0.7	0.36	0.2	0.7	0.33	0.2	0.7	0.43	0.2	0.7	0.42	0.2
06	o50y	82.6	10.4	65	0.3	0.5	65	0.7	0.43	0.2	0.7	0.4	0.2	0.7	0.5	0.2	0.7	0.49	0.2
07	o60y	83.4	10.5	73	0.3	0.5	73	0.7	0.5	0.2	0.7	0.46	0.2	0.7	0.56	0.2	0.7	0.56	0.2
08	o070y	84.4	10.9	82	0.3	0.5	82	0.7	0.58	0.2	0.7	0.53	0.2	0.7	0.62	0.2	0.7	0.63	0.2
09	o80y	85.2	11.5	90	0.3	0.5	90	0.7	0.65	0.2	0.7	0.6	0.2	0.7	0.68	0.2	0.7	0.7	0.2
10	o90y	86.1	12.6	99	0.3	0.5	99	0.68	0.7	0.2	0.7	0.67	0.2	0.65	0.7	0.2	0.62	0.7	0.2
11	Y=y00l	86.9	14.1	107	0.3	0.5	107	0.6	0.7	0.2	0.64	0.7	0.2	0.59	0.7	0.2	0.56	0.7	0.2

Goal: Transfer coordinates ***LCH*a0*** (system m=0) to ***rgbm = olv*3m*** (system m=1 to 4)

The given data ***LCH*a0*** include the device hue ***H*a0***
Integer (i) device hue: ***H*ai0 = round (H*a0)*** (1)

Fetch device data ***LCH*a,Mm*** from table with 361 entries for ***H*ai0*** from 0 to 360 degrees
Lightness, chroma, hue: ***LCH*a,M0 = LCH*a,M0 [H*ai0]*** (2)

Calculate ***lcnw**** data from ***LC*a0*** and ***LC*a,M0***:
Relative lightness: ***l* = [L*0 − L*N0] / [L*W0 − L*N0]*** (3)
Relative chroma: ***c* = C*a0 / C*a,M0*** (4)
Relative Blackness: ***n* = 1 − l* + c* [L*M0 − L*N0] / [L*W0 − L*N0]*** (5)

Fetch device data ***olv*3,Mm*** from table with 361 entries for ***H*ai0*** from 0 to 360 degrees
"red, green, blue" ***rgbMm*** data: ***olv*3,Mm = olv*3,Mm [H*ai0]*** (6)

For any input or output device (m=0 to 4) it is valid for constant ***n*, c*, l*, H*a***:
"red, green, blue" ***rgbm*** data: ***olv*3m = 1 − n* − c* + c* olv*3,Mm*** (7)

Result: device dependent relative CIELAB data of 4 systems m=1 to 4:
"red, green, blue" ***rgbm*** data: ***rgbm = olv*3m*** (8)

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Colorimetric data for system lines TLS70 −> ORS18, TLS00, NRS18, SRS18

For input ***olv*30*** (TLS70) and output ***olv*3m*** for 4 systems (***m*** = 0 to 4)
Six CIELAB hue angles of device ORS18: (37.7 96.4 150.9 236.0 305.0 353.7);
Six CIELAB hue angles of device TLS00: (40.0 102.8 136.0 196.4 306.3 328.2);
Six CIELAB hue angles of device NRS18: (25.5 92.3 162.2 217.0 271.7 328.6);
Six CIELAB hue angles of device SRS18: (30.0 90.0 150.0 210.0 270.0 330.0);

no.	Colour	->TLS70 olv*30			->TLS70 n*, c*, H*si0			ORS18 olv*31			TLS00 olv*32			NRS18 olv*33			SRS18 olv*34		
01	O=o00y	0.7	0.2	0.2	0.3	0.5	30	0.7	0.2	0.38	0.7	0.2	0.33	0.7	0.2	0.23	0.7	0.2	0.27
02	o10y	0.7	0.25	0.2	0.3	0.5	35	0.7	0.2	0.29	0.7	0.2	0.27	0.7	0.23	0.2	0.7	0.2	0.2
03	o20y	0.7	0.3	0.2	0.3	0.5	41	0.7	0.21	0.2	0.7	0.2	0.21	0.7	0.3	0.2	0.7	0.27	0.2
04	o30y	0.7	0.35	0.2	0.3	0.5	47	0.7	0.29	0.2	0.7	0.26	0.2	0.7	0.37	0.2	0.7	0.35	0.2
05	o40y	0.7	0.4	0.2	0.3	0.5	53	0.7	0.36	0.2	0.7	0.33	0.2	0.7	0.43	0.2	0.7	0.42	0.2
06	o50y	0.7	0.45	0.2	0.3	0.5	60	0.7	0.43	0.2	0.7	0.4	0.2	0.7	0.5	0.2	0.7	0.49	0.2
07	o60y	0.7	0.5	0.2	0.3	0.5	66	0.7	0.5	0.2	0.7	0.46	0.2	0.7	0.56	0.2	0.7	0.56	0.2
08	o070y	0.7	0.55	0.2	0.3	0.5	73	0.7	0.58	0.2	0.7	0.53	0.2	0.7	0.62	0.2	0.7	0.63	0.2
09	o80y	0.7	0.6	0.2	0.3	0.5	79	0.7	0.65	0.2	0.7	0.6	0.2	0.7	0.68	0.2	0.7	0.7	0.2
10	o90y	0.7	0.65	0.2	0.3	0.5	85	0.68	0.7	0.2	0.7	0.67	0.2	0.65	0.7	0.2	0.62	0.7	0.2
11	Y=y00l	0.7	0.7	0.2	0.3	0.5	90	0.6	0.7	0.2	0.64	0.7	0.2	0.59	0.7	0.2	0.56	0.7	0.2

Goal: Transfer coordinates ***olv*30*** (system m=0) to ***olv*3m*** (system m=1 to 4)
The following equations for relative blackness and chroma are valid for any device:
n* = 1 − max (o*30, l*30, v*30) (1)
c* = max (o*30, l*30, v*30) − min (o*30, l*30, v*30) (2)

For the calculation of the missing relative device hue asume
as a starting point that the three values ***olv*30*** belong to the standard (s) device SRS18:
relative red-green chroma: ***a*r0 = o*30 cos(30) + l*30 cos(150)*** (3)
relative yellow-blue chroma: ***b*r0 = o*30 sin(30) + l*30 sin(150) − v*30 sin(270)*** (4)
Standard integer hue: ***H*si0 = round [atan (b*r0 / a*r0)]*** (5)
Fetch device integer hue: ***H*ai0 = H*si_ai [H*si0]*** (6)

Fetch device data ***olv*3,Mm*** from table with 361 entries for ***H*ai0*** from 0 to 360 degrees
"red, green, blue" ***rgbm*** data: ***olv*3,Mm = olv*3,Mm [H*ai0]*** (7)

For any input or output device (m=0 to 4) it is valid for constant ***n*, c*, l*, H*a***:
"red, green, blue" ***rgbm*** data: ***olv*3m = 1 − n* − c* + c* olv*3,Mm*** (8)

Result: device dependent relative CIELAB data of 4 systems m=1 to 4:
"red, green, blue" ***rgbm*** data: ***rgbm = olv*3m*** (9)

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