

HDR : HIGH DYNAMIC RANGE

EN COURS D'ÉCRITURE
(peut-être)

DRAFT

- <https://documents.dcimovies.com/HDR-Addendum/54a2b12fba306370323b0ec7de542ade91581047/>
- <https://docs.dcimovies.com/hdr-addendum/f18141e7bf5acfd5ecb90da80261fec3e762bcf7/>
- https://static.skyassets.com/contentstack/assets/bltdc2476c7b6b194dd/blt109e419dd7c40d1d/640b382d42ee69354723919b/TechnicalSpecificationforDeliveryofContentto_Sky.pdf
- <https://partnerhelp.netflixstudios.com/hc/en-us/articles/4417542010387-Digital-Cinema-Package-DCP-Specifications-Requirements>
- SMPTE 2094
- Prévision cd/m2 : ~300 cd/m2
- <https://documents.dcimovies.com/HDR-Addendum/ac8697ecddbce5137bcdc19b635e2ec701ba098b/High%20Dynamic%20Range%20D-Cinema%20Addendum.pdf>
- <https://dcpomatic.com/forum/viewtopic.php?t=1795>
- <https://macgy-blog-ss--blog-jp.translate.goog/2022-05-15?xtrsl=ja&xtrtl=fr&xtrhl=fr&xtrpto=wapp>
- <https://www.son-video.com/guide/tout-savoir-sur-le-hdr-et-le-dolby-vision>
- Informative reference implementation for ST 268-2 (HDR extensions to DPX) : <https://github.com/SMPTE/rp268-3-a>
- <https://www.yedlin.net/DebunkingHDR/>

HDR/Dolby Vision/HFR = 500Mb/s

- Technologies :
 - Dolby EDR
 - EclairColor

DolbyCinema = salle de cinéma spécifique utilisant la technologie Dolby Vision et Dolby Atmos .

108 N (31FL) in 2D 14FL in 3D Not XYZ colour but custom color grading... CUSTOM (Not DCI) DCP

Dolby EDR (EDR = Extended Dynamic Range) : - Gamme de couleurs : P3 - EOTF : SMPTE ST 2084 (PQ) - White Point : D65 (Xw 0,3127, Yw 0,3290) - Luminosité maximale : 108 cd/m2 DCI P3 : - Gamme de couleurs : P3 - EOTF : Gamma 2.6 - White Point : DCI (Xw 0,3140, Yw 0,3510) - Luminosité maximale : 48 cd/m2

Limitation EditRate: 24, 48, 60, 96, 120 (cf High Dynamic Range D-Cinema Addendum Version 1.1)

General	
Format	MXF
Format Profile	OP-1a
Format Setting	Closed / Complete
HDR Format	Dolby Vision Metadata
UHD Image Track	
Image Frame Width	3840
Image Frame Height	2160
Colour Encoding	RGB / 4:4:4 / Full Range
Frame Rates	23.976 / 24 / 25 / 29.97 / 30 / 50 / 59.94 / 60
Frame Structure	Progressive
Stereoscopy	Monoscopic
JPEG 2000 Profile	Frame rates up to 30 fps use: <ul style="list-style-type: none"> ● 4k IMF Single Tile Lossy Profile Mainlevel 6 Sublevel 3 (max 800 Mbit/s) Frame rates above 30 fps use: <ul style="list-style-type: none"> ● 4k IMF Single Tile Lossy Profile Mainlevel 7 Sublevel 4 (max 1600 Mbit/s)
Dolby Vision HDR Dynamic Range	
Colorimetry	P3 D65 / SMPTE ST 2084 (PQ)
Pixel Bit Depth	12bits
Mastering Display Colour Volume Metadata	SMPTE ST-2086
Dynamic Metadata for colour Volume Transformation	Dolby Vision CM 2.9 or CM 4.0 mastering metadata.

"on voit aussi que le gamma gaspille des valeurs a plus haute luminance, d'ou les courbes HLG et PQ utilisees en HDR... Incluant le Dolby Cinema" -- remia

TABLE DCI HDR COLOR VOLUME (SMPTE ST 2113)

Source: <https://ymagisgroup-my.sharepoint.com/:p/p/clejeune/IQDCFYxJUFwsQLTEI7f8pP7aAVTgeZ8Vyf4lv2gVDQJRomM?rttime=cKoSRXcx3kg>

primaries	values
R primary	(x, y) = (0.6800, 0.3200)
G primary	(x, y) = (0.2650, 0.6900)
B primary	(x, y) = (0.1500, 0.0600)
White Point	(x, y, z) = (300, 0.3127, 0.3290)

The (x, y) coordinates of the white point of DCI HDR Color Volume correspond to D65 White.

HDR Reference Projector: - Review Room Tolerance : +/- 18 cd/m2 - Exhibition Theater Tolerance: +/- 30.0 cd/m2

HDR Direct View Display: - Review Room Tolerance: +/- 9.0 cd/m2 - Exhibition Theater Tolerance: +/- 9.0 cd/m2

Source: DCI HDR D-Cinema Addendum v1.2.1
