Dec 15, 2017

CGI BASELINE CONFIGURATION

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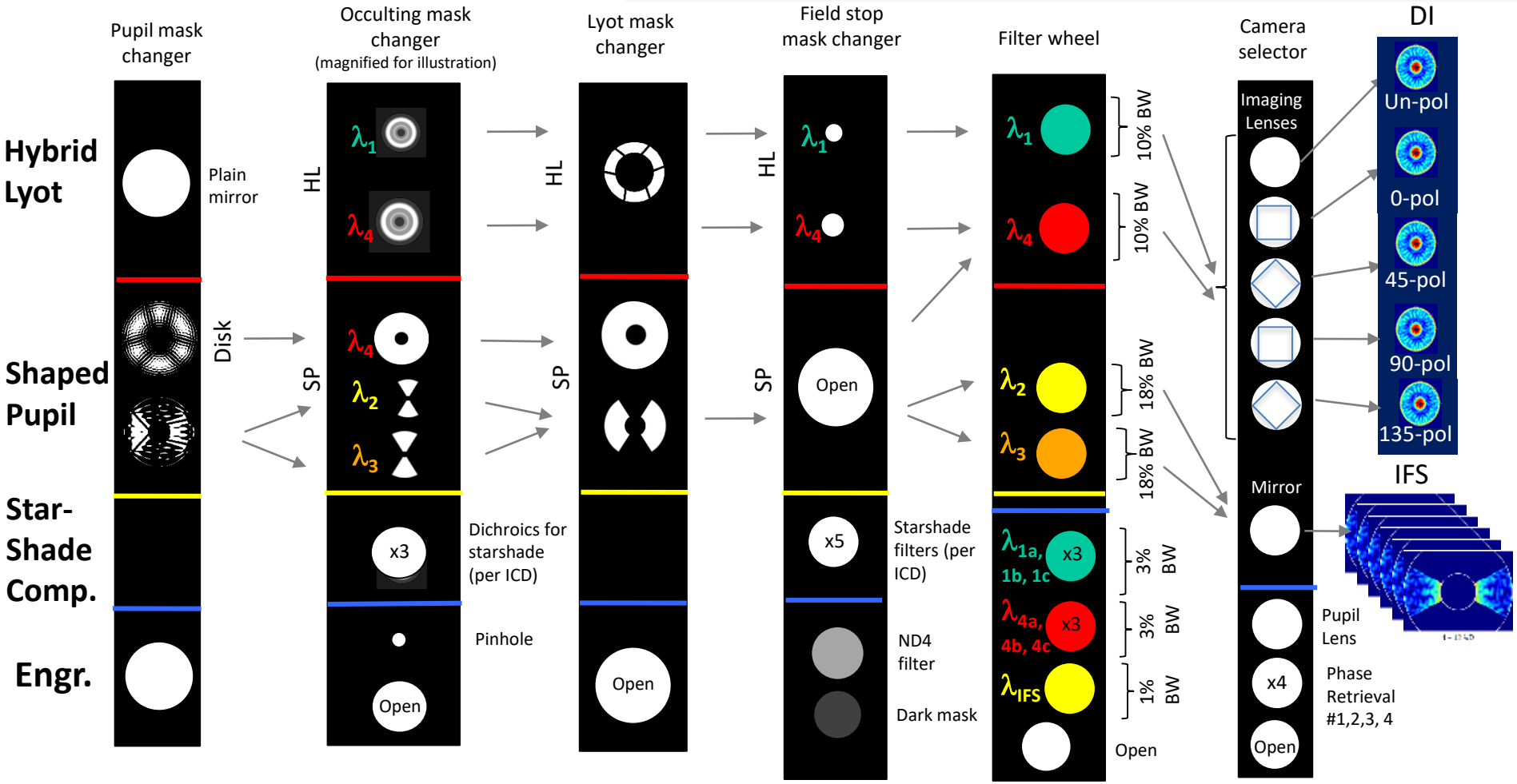
Pre-Decisional Information -- For Planning and Discussion Purposes Only

CGI Baseline

Dec 15, 2017



λ_1=575 nm, 10% (annular, 3-9 λ/D)

λ_2=660 nm, 18% (bow-tie / IFS, 3-9 λ/D)

λ_3=760 nm, 18% (bow-tie / IFS, 3-9 λ/D)

λ_4=825 nm, 10% (annular, 3-19 λ/D)

CGI Modes Table

Dec 15, 2017

CGI Filters	λ_{center} (nm)	BW	Channel	Masks	Working Angle	Can use w/ linear polarizers	Starlight Suppression Region	Tested before launch?
1	575	10%	Imager	HLC	3-9 λ/D	Y	360°	Y
2	660	18%	IFS	SPC	3-9 λ/D		130°	
2	660	18%	Imager	SPC	3-9 λ/D	Y	130°	
3	760	18%	IFS	SPC	3-9 λ/D		130°	Y
3	760	18%	Imager	SPC	3-9 λ/D	Y	130°	
4	825	10%	Imager	HLC	3-9 λ/D	Y	360°	
4	825	10%	IFS	HLC	3-9 λ/D		360°	
4	825	10%	Imager	SPC disk	6.5-20 λ/D	Y	360°	Y

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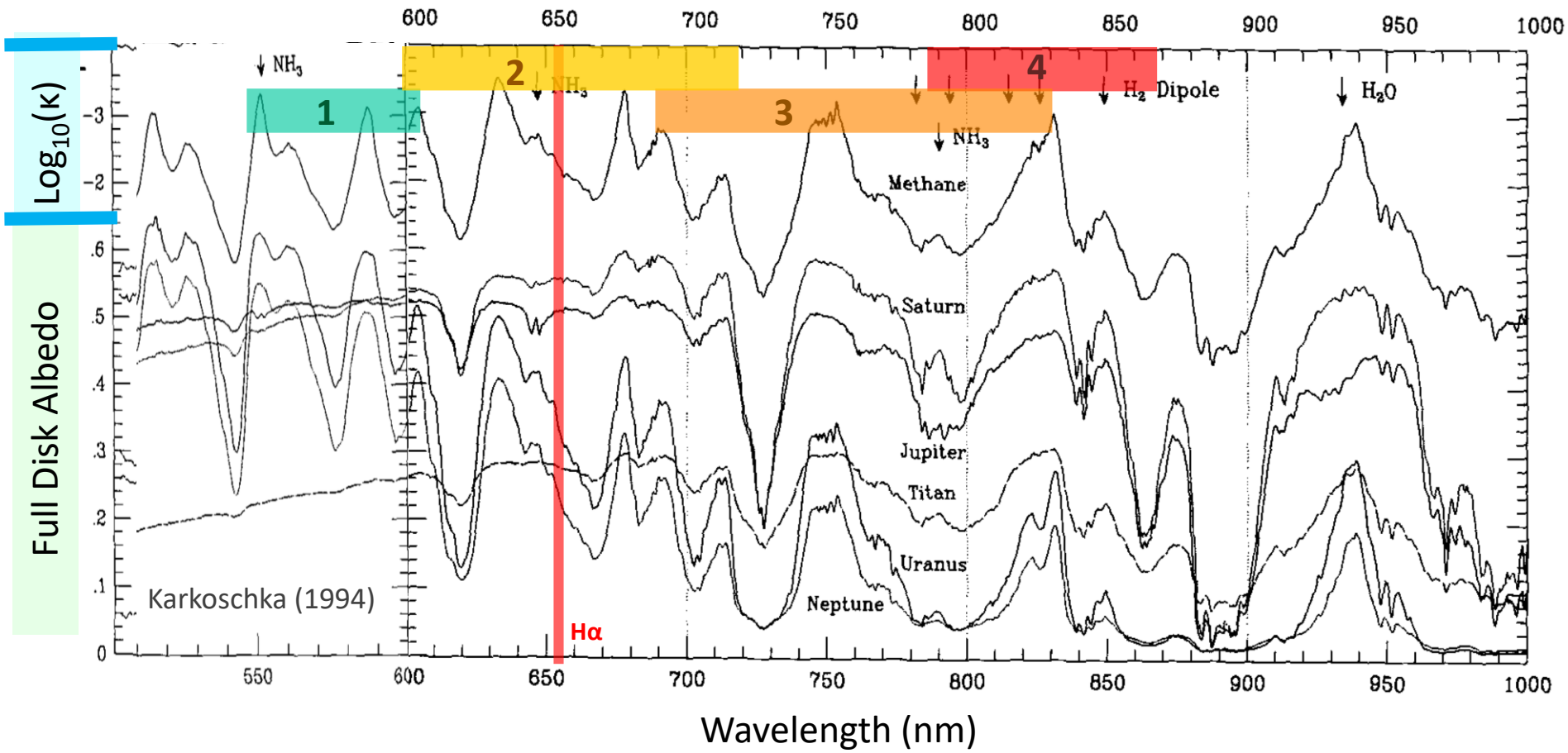
CGI Science Filters

Dec 15, 2017



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CGI Full Filter List

Dec 15, 2017

	Band #	λ (nm)	BW	Δλ	λ_{min} (nm)	λ_{max} (nm)
CGI Science Bands	1	575	10.1%	58	546	604
	2	660	18.2%	120	600	720
	3	760	18.4%	140	690	830
	4	825	9.9%	82	784	866
CGI Engineering Bands	1a	555.7	3.5%	19.3	546	565.3
	1b	575.0	3.4%	19.3	565.3	584.7
	1c	594.3	3.3%	19.3	584.7	604.0
	4a	797.7	3.4%	27.3	784.0	811.3
	4b	825.0	3.3%	27.3	811.3	838.7
	4c	852.3	3.2%	27.3	838.7	866.0
	2a	645.0	0.9%	6	642.0	648.0

Starshade Filter List

Dec 15, 2017

	λ (nm)	BW	Δλ	λ_{min} (nm)	λ_{max} (nm)
Starshade Science Bands	488.5	26.0%	127	425	552
	707.5	26.1%	185	615	800
	728	19.8%	144	656	800
	884.5	26.1%	231	769	1000
	910	19.8%	180	820	1000