

## A429 NOTES ON PHOTOMETRY

KRISTI WEBB

### 1. CB68

CB68 has curve of growths which are close to the fitted curves.

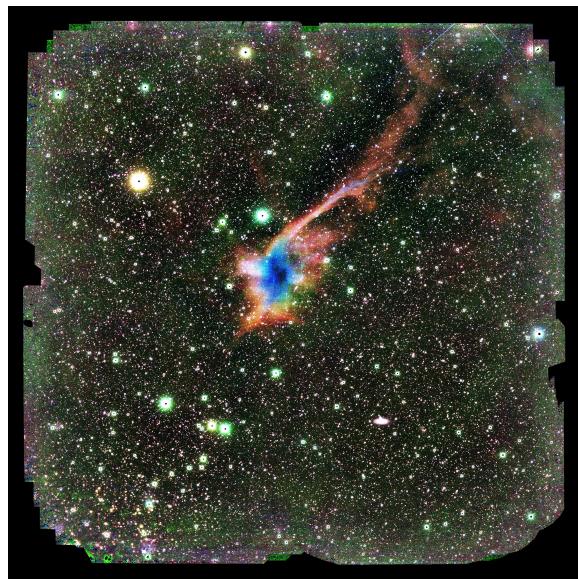


FIGURE 1. CB68 JHK

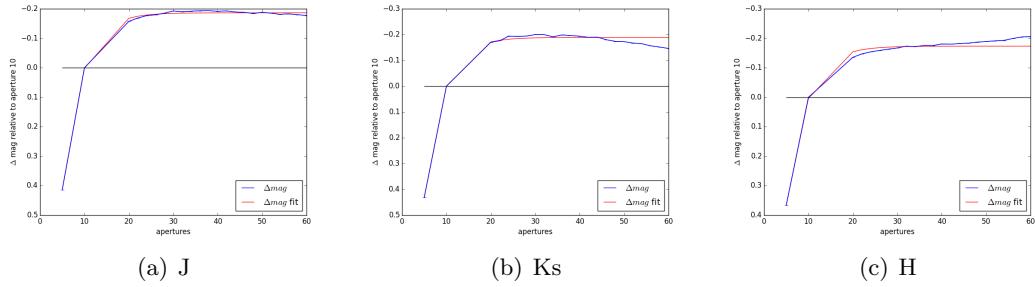


FIGURE 2. CB68 threshold 20

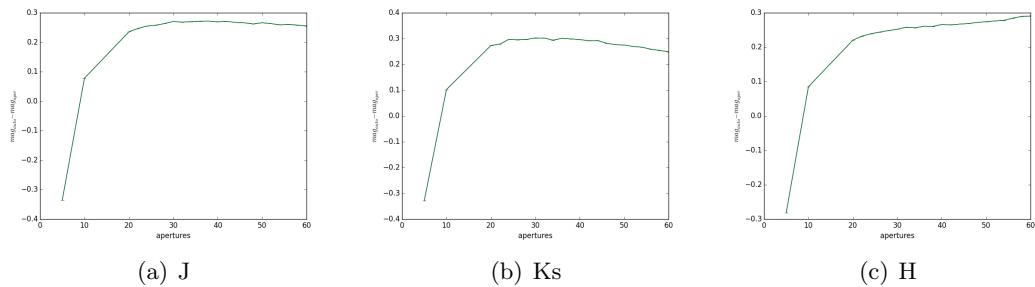


FIGURE 3. CB68 threshold 20 diff

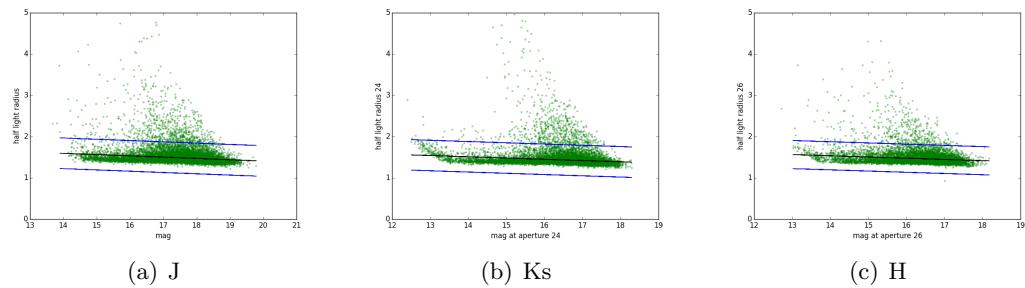


FIGURE 4. CB68 threshold 20 halflight

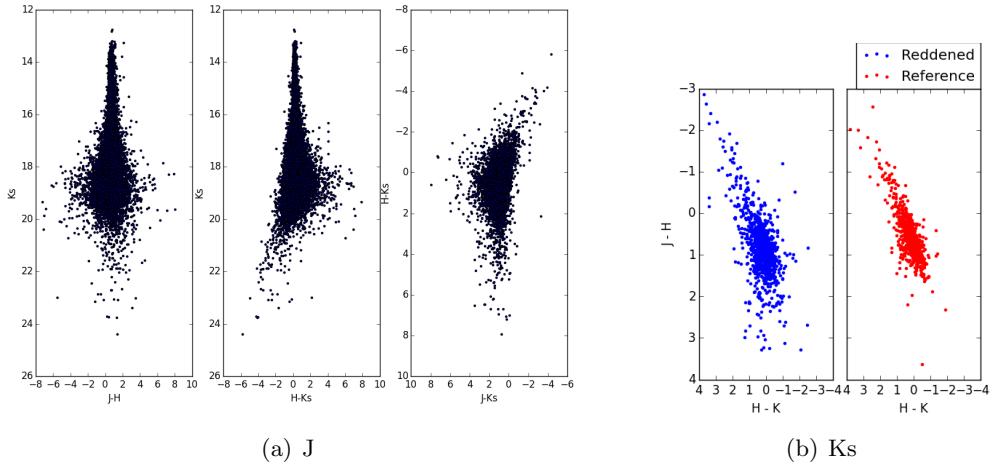


FIGURE 5. CB68 colours

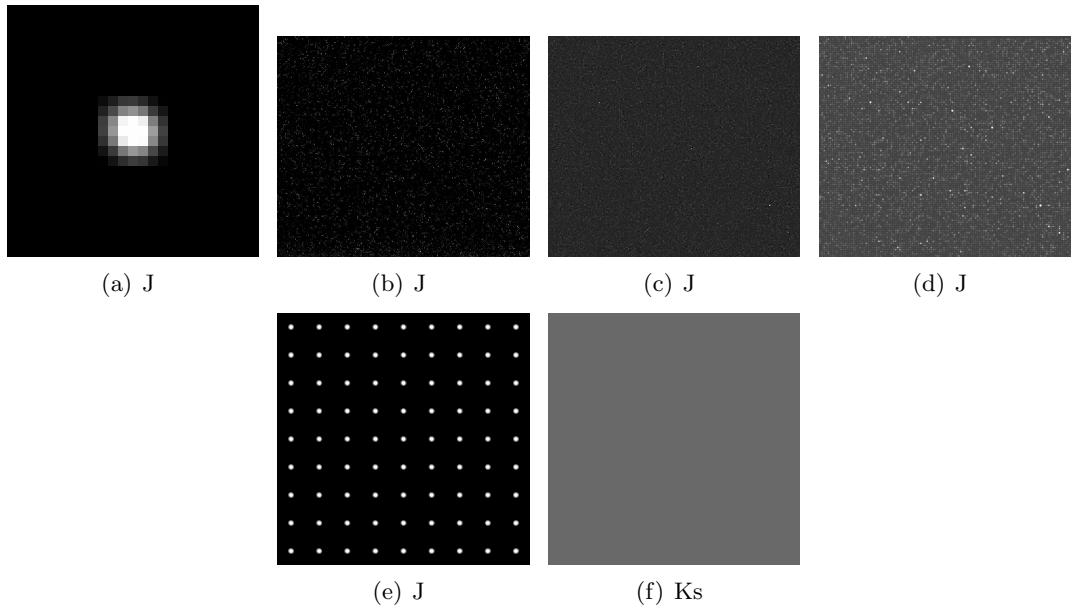


FIGURE 6. CB68 psfs

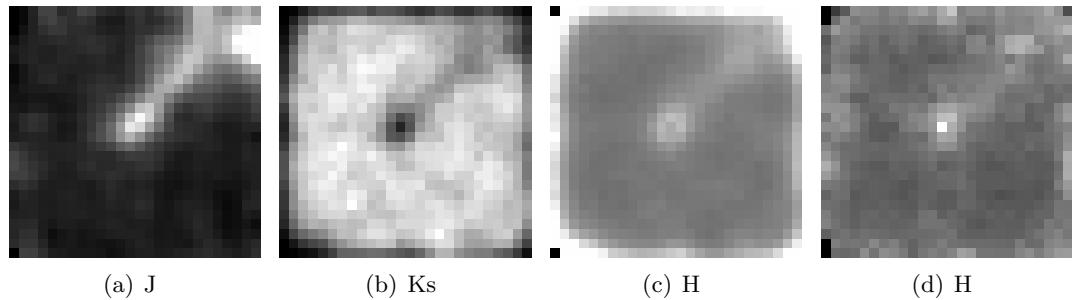


FIGURE 7. CB68 NICER maps

Cloud	Band	Aperture [pix]	zeropoint offset	var in avg.	$\sigma$	mean mag	var
CB68	J	30	-0.192943311392	6.13393426724	16086.5132299	15.1635439385	4.90802430486
	Ks	24	0.605746118244	1.90640523923	22116.0095994	13.5808838706	1.16574005804
	H	30	0.466909777698	1.49380793481	9566.75153621	14.1377027819	0.883338849058
L429	J	24	-0.249078133049	1.63238655692	27507.0924395	14.7796468897	0.56577188598
	Ks	24	1.07900318805	1.46283220915	30714.2749171	13.0774920873	0.664526117128
	H	20	0.776624355589	1.56106179115	34775.1609024	13.5552217814	0.715756342235
L1521E	J	30	-0.0278771275042	2.58988542969	11674.9831876	15.051293725	1.50420505291
	Ks	28	0.859804630004	2.33347178314	11117.9529157	13.6670134824	1.3977733851
	H	26	0.552873836659	2.5183847737	19117.9691642	13.7629840478	1.75020217077
L1544	J	28	-0.681144001009	2.64749373062	24266.5462997	14.3828430087	1.77969534665
	Ks	28	0.208893637398	2.38969384571	17646.4793838	13.0871255108	1.49471055537
	H	28	-1.14661744067	2.4222342994	30024.7940586	12.9260401679	1.77163709322
L1552	J						
	Ks						
	H						

TABLE 1. Calculated quantities for zeropoint offset.

Cloud	Band	Aperture [pix]	zeropoint offset	var in avg.	$\sigma$	mean mag	var
CB68	J	30	-0.142660259834	2.12893316154	15169.05055	15.2335969086	1.04463850145
	Ks	24	0.629816742858	1.8369344815	21715.5110472	13.5899431891	1.19250436737
	H	30	0.534452637414	1.43559956772	9067.22745806	14.1704300433	0.889299169153
L429	J	24	-0.148116347913	1.5279025396	26273.3010702	14.8044721623	0.581049126694
	Ks	24	1.23335705858	1.33881890797	29809.2897966	13.0852588693	0.687783248991
	H	20	0.833582952946	1.41935673344	33818.1063534	13.5384347237	0.739552194445
L1521E	J	30	-0.0268871840732	2.523779933	11265.3134936	15.0885747108	1.53047604179
	Ks	28	0.807856200714	2.18833299729	10728.0074115	13.6974277432	1.42501669289
	H	26	0.569301811427	2.37963346459	18621.0235389	13.7691620608	1.77918377739
L1544	J	28	-0.0808325201467	2.50315679082	21067.254703	14.7548068749	1.77813007481
	Ks	28	0.936430900912	2.23983011552	14673.9614792	13.6539434176	1.48158886304
	H	28	0.593620482514	2.38221248304	22462.7800286	13.7398680744	1.76322267262
L1552	J						
	Ks						
	H						

TABLE 2. Calculated quantities for zeropoint offset removing objects with extended PSF.

## 2. L429

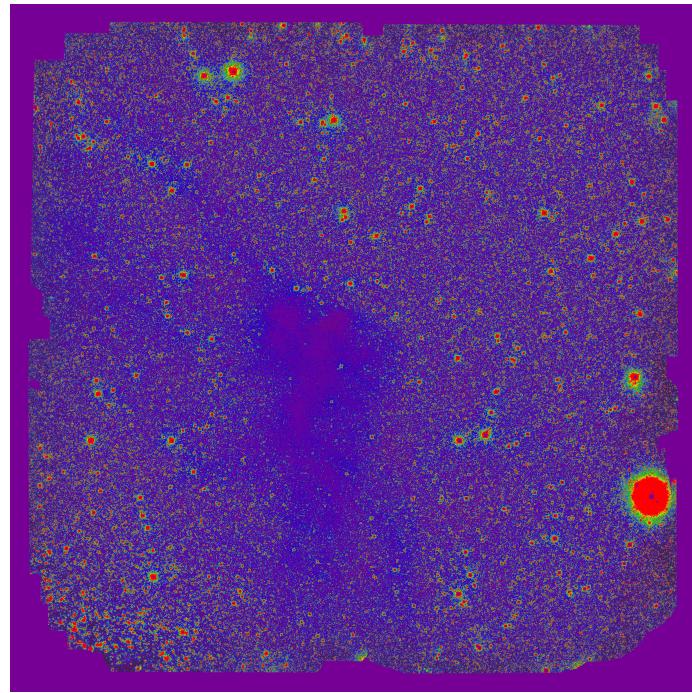


FIGURE 8. L429 J aips0

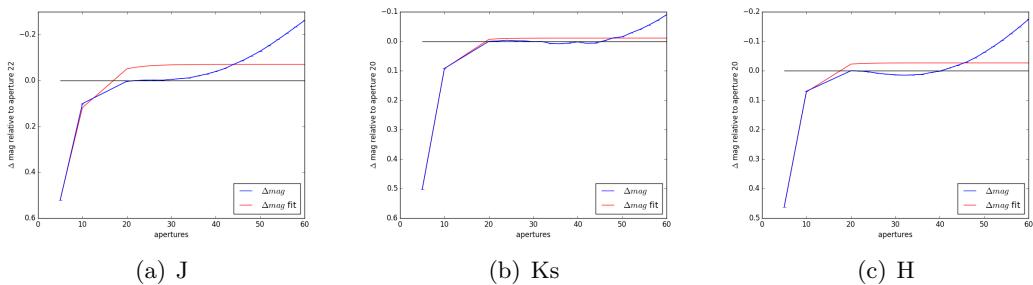


FIGURE 9. L429 threshold 20

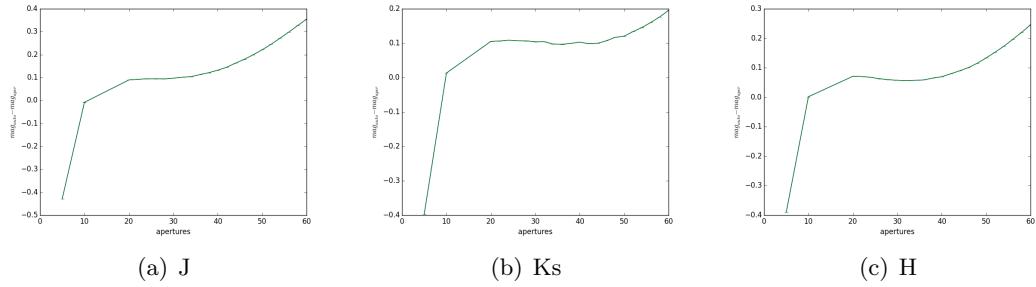


FIGURE 10. L429 threshold 20 diff

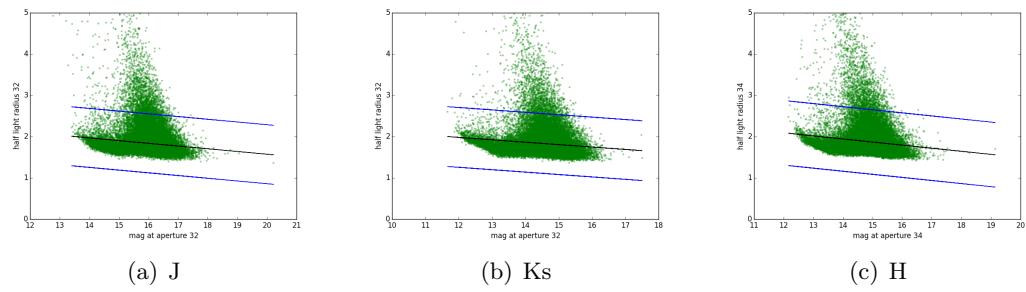


FIGURE 11. L429 threshold 20 halflight

### 3. L1521E

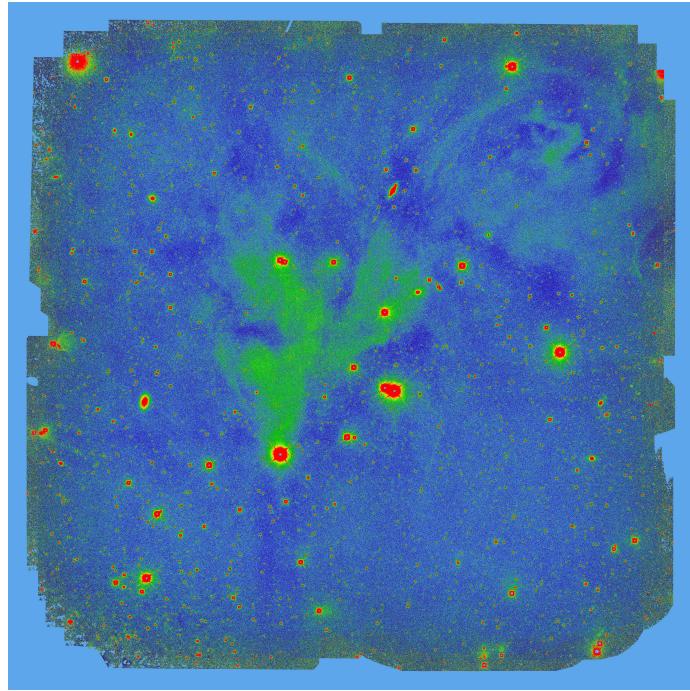


FIGURE 12. L1521E J aips0

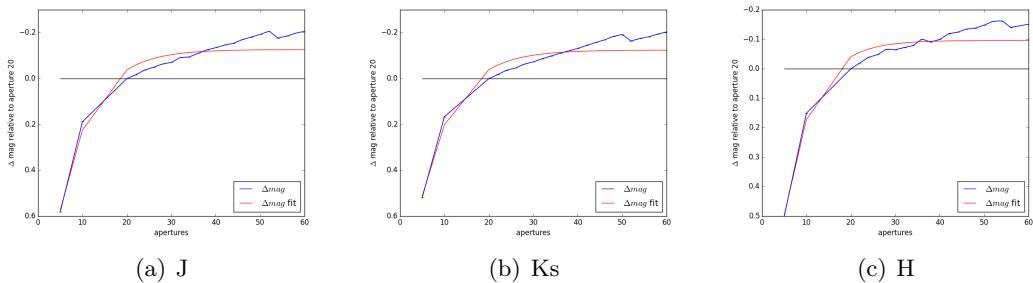


FIGURE 13. L1521E threshold 20

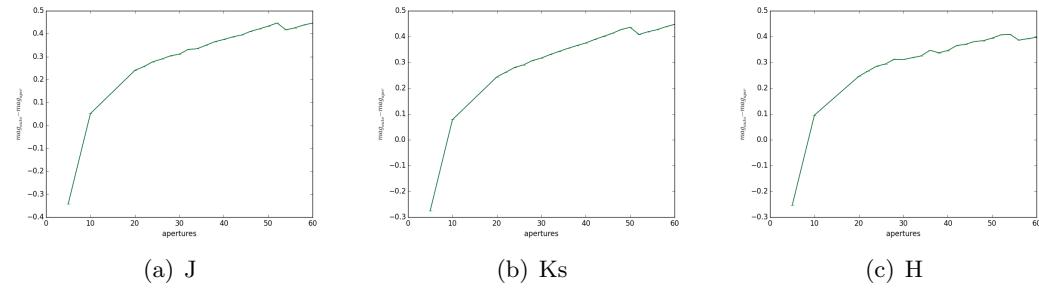


FIGURE 14. L1521E threshold 20 diff

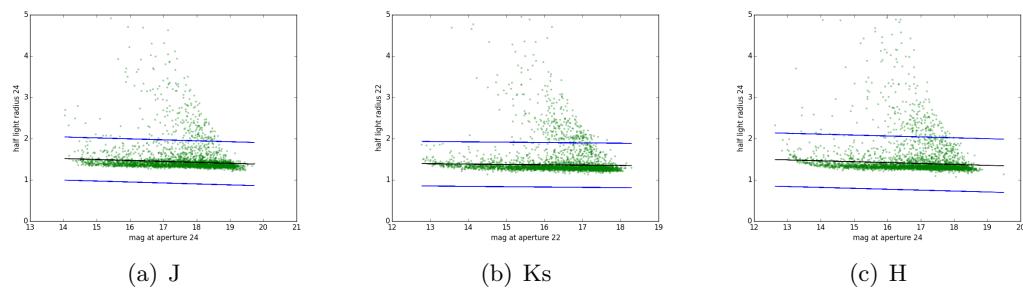


FIGURE 15. L1521E threshold 20 halflight

## 4. L1544

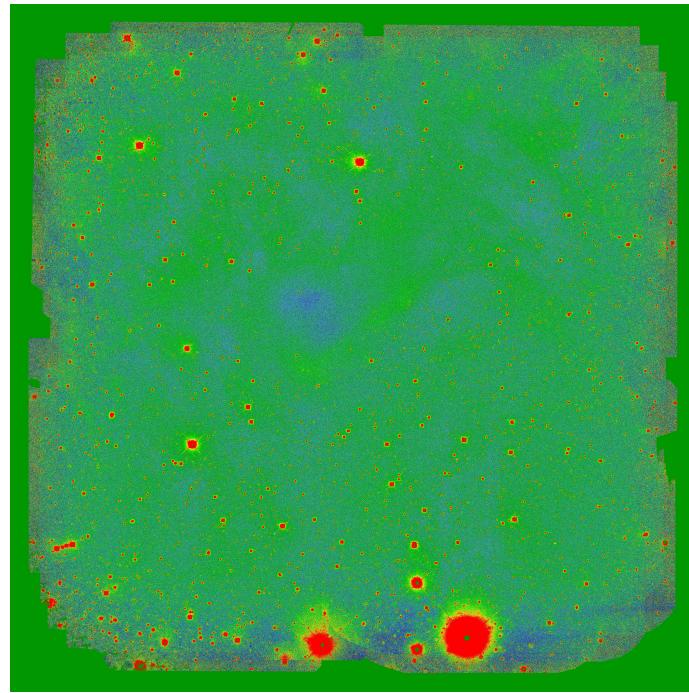


FIGURE 16. L1544 J aips0

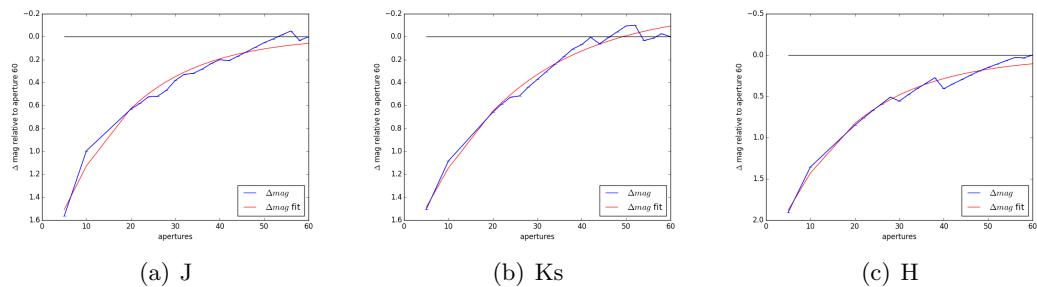


FIGURE 17. L1544 threshold 20

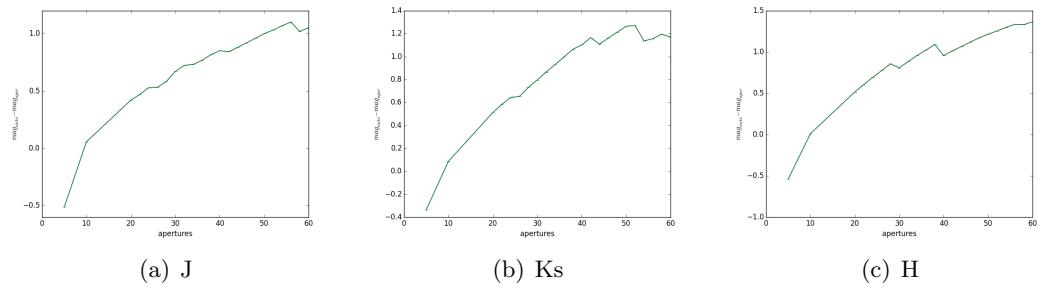


FIGURE 18. L1544 threshold 20 diff

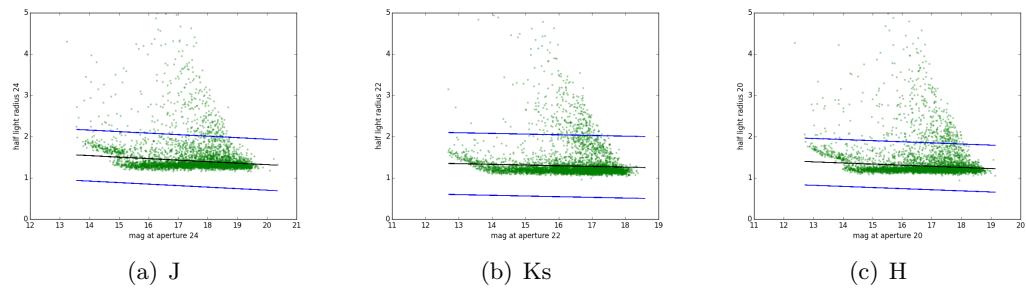


FIGURE 19. L1544 threshold 20 halflight

## 5. L1552

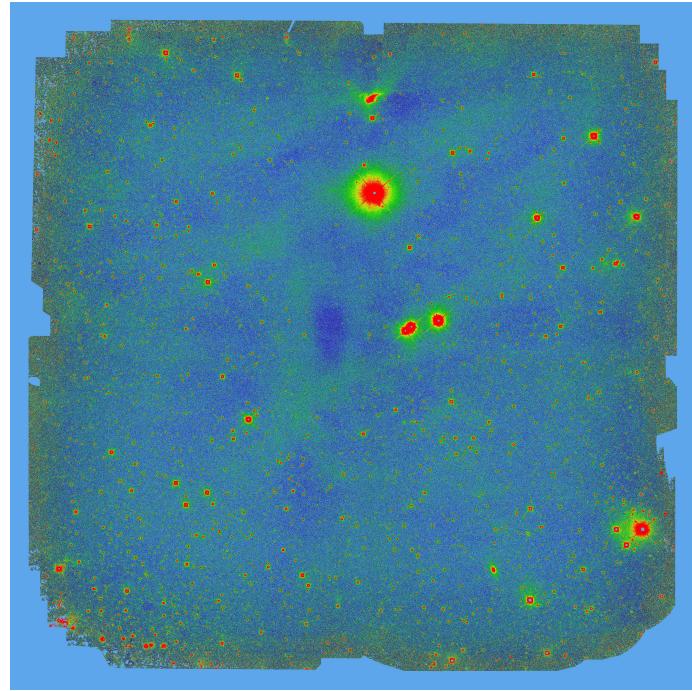


FIGURE 20. L1552 J aips0

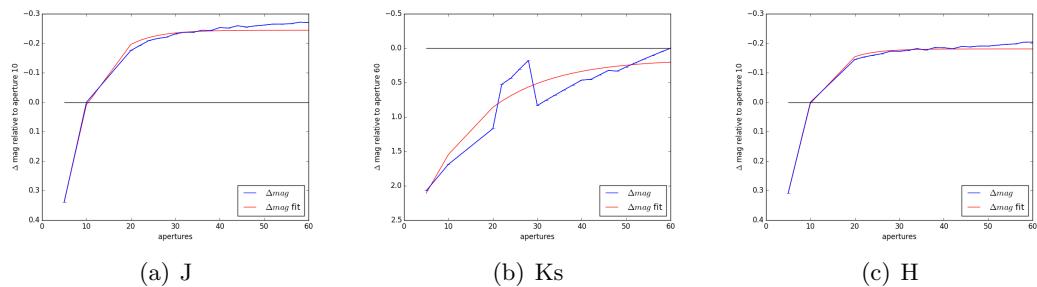


FIGURE 21. L1552 threshold 20

**5.1. CMDs.** Regions not considered in the calculation of the zeropoint offset due to reddening effects.

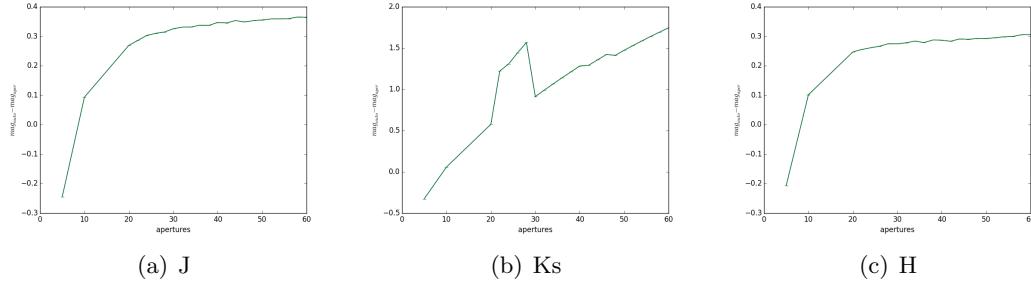


FIGURE 22. L1552 threshold 20 diff

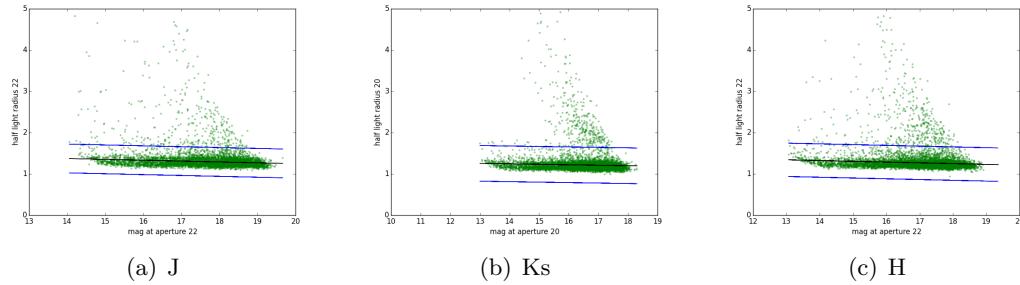


FIGURE 23. L1552 threshold 20 halflight

Cloud	Center [pix] (x,y)	Size [pix] (x,y)
CB68	2610.6899,2868.1778	1382.2207,1227.3661
L429	2496.3232,2158.1909	1869.7259,2345.7605
L1521E	2532.6025,2753.7333	1880.5105,1777.3177
L1544	2345.069,2855.932	1788.7782,1570.9142
L1552	2710.337,2593.2019	1639.7134,177.3117

TABLE 3. Regions removed from calculation of zeropoint offset.

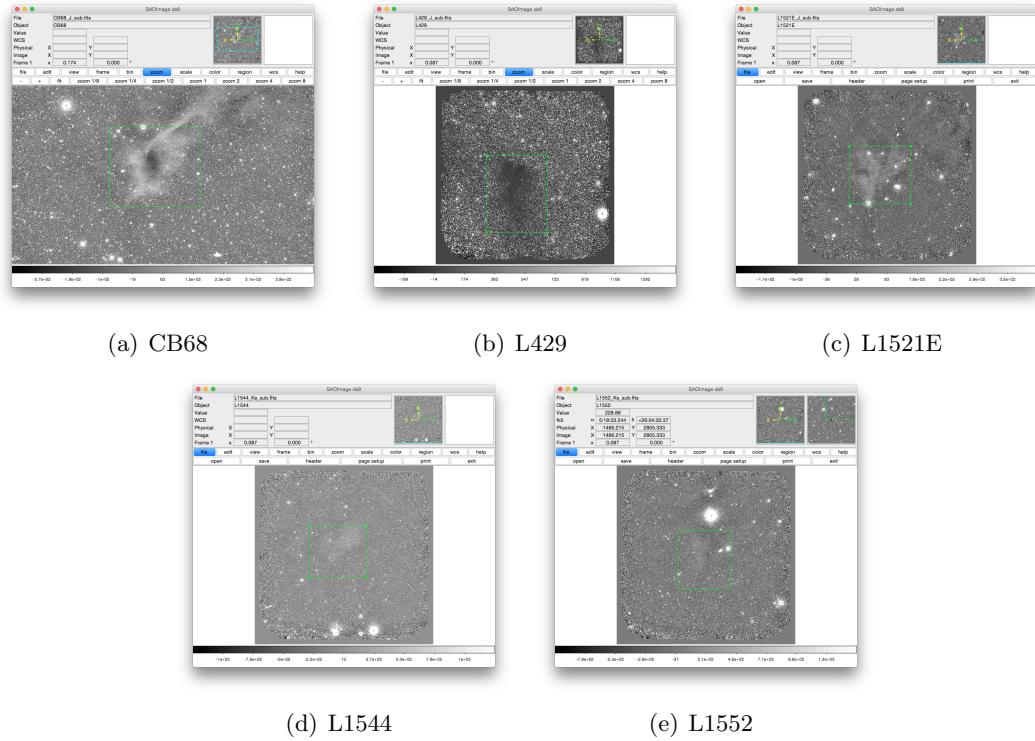


FIGURE 24. Regions removed from calculation of zeropoint

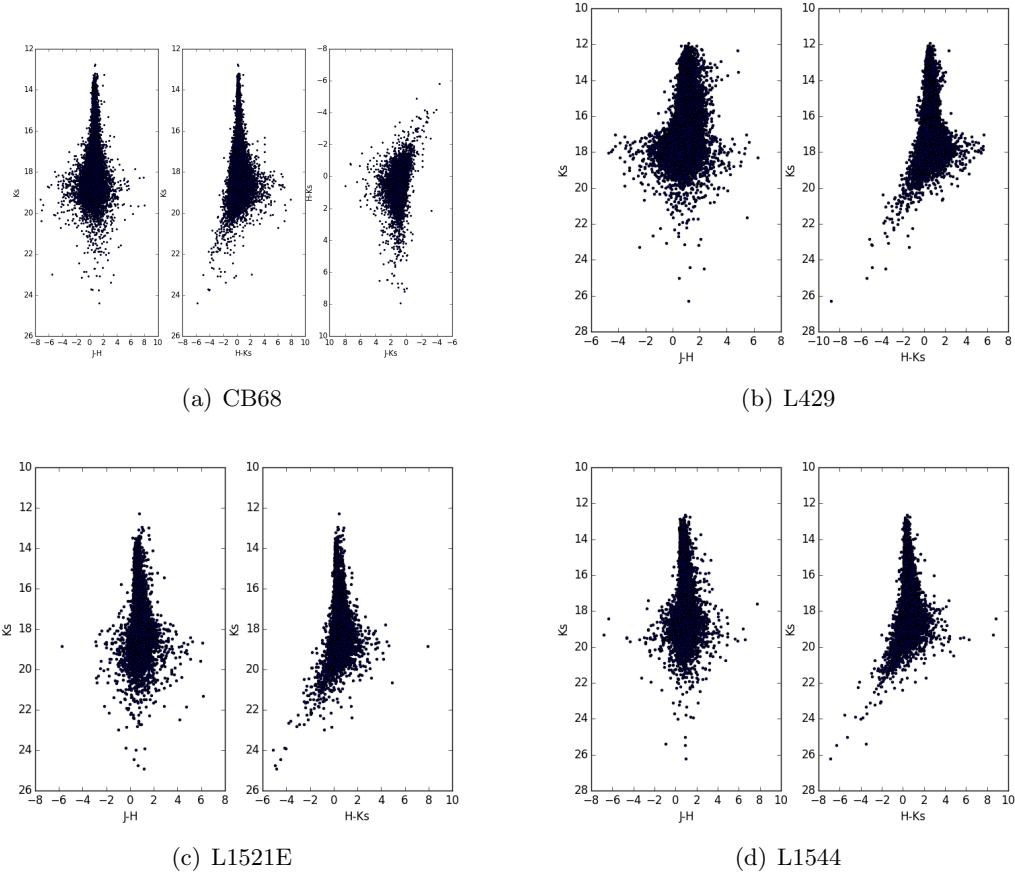


FIGURE 25. Colour magnitude diagrams