

BASIS SAVING FROM SIMPLE SHIFT TO LED TUBES		Old Fluorescent Tubes		New LED tubes	
Total No. of light tubes	Number of lamps	148	656	148	656
Tube dimensions	length in (m)	1.20	0.6	1.20	0.60
Number of tubes in accomodation	tubes / ship	60.00	260.00	60.00	260.00
Rated power	W	36.00	18.00	20.00	10.00
Actual power consumed with magnetic ballast	W	42.00	23.00	20.25	10.25
Average hours of running per day	hrs/day	24.00	24.00	24.00	24.00
Units of power consumed /year /tube	kWh/Yr/tube	367.92	201.48	177.39	89.79
Number of tubes in engine room	tubes / ship	60.00	260.00	60.00	260.00
Rated power	W	36.00	18.00	20.00	10.00
Actual power consumed with magnetic ballast	W	42.00	23.00	20.25	10.25
Average hours of running per day	hrs/day	24.00	24.00	24.00	24.00
Units of power consumed /year /tube	kWh/Yr/tube	367.92	201.48	177.39	89.79
Number of tubes on deck and other areas	tubes / ship	28.00	136.00	28.00	136.00
Rated power	W	36.00	18.00	20.00	10.00
Actual power consumed with magnetic ballast	W	42.00	23.00	20.25	10.25
Average hours of running per day	hrs/day	12.00	12.00	12.00	12.00
Units of power consumed /year /tube	kWh/Yr/tube	183.95	100.74	88.70	44.90
Units of power consumed /year /group		49.301	118.470	23.770	52.797
Total power consumed in one year			167.772		76.567
Saving in the kWh power units using LED tubes		kWh/yr/ship		91.205	
Total no. of Light bulbs	Number of lamps	-	295	-	295
Tube dimensions	Power	100W	60W	12W	8W
Number of bulbs in accomodation	tubes / ship		90.00	-	90.00
Rated power	W	100.00	60.00	12.00	7.00
Actual power consumed	W	100.00	60.00	12.00	7.00
Average hours of running per day	hrs/day		24.00	-	24.00
Units of power consumed /year /bulb	kWh/Yr/tube	-	525.60	-	61.32
Number of bulbs in engine room	tubes / ship		90.00	-	90.00
Rated power	W	100.00	60.00	12.00	7.00
Actual power consumed	W	100.00	60.00	12.00	7.00
Average hours of running per day	hrs/day		24.00	-	24.00
Units of power consumed /year /bulb	kWh/Yr/tube	-	525.60	-	61.32
Number of bulbs on deck and other areas	tubes / ship		115.00	-	115.00
Rated power	W	100.00	60.00	12.00	7.00
Actual power consumed	W	100.00	60.00	12.00	7.00
Average hours of running per day	hrs/day		12.00	-	12.00
Units of power consumed /year /bulb	kWh/Yr/tube	-	262.80	-	30.66
Units of power consumed /year /group		-	124.830	-	14.564
Total power consumed in one year			124.830		14.564
Saving in the kWh power units using LED bulbs		kWh/yr/ship		110.267	
Saving in the fuel costs by using LED tubes & bulbs	EUR/year				37.561.97€
Cost for replacement of old fluorescent tubes & bulbs	EUR/unit	3.00	2.00		
Saving from biannual replacing fluorescent tubes	EUR/year	222	656		878.00€
		GRAND TOTAL SAVING EUR/YEAR			38.439.97€